# OAK ORCHARD WASTEWATER TREATMENT PLANT LAGOON CLEANING AND REHABILITATION PROJECT

**CONTRACT No. 1 - GENERAL** 

**PROJECT No. XXXXXX** 

**BID REFERENCE No. xxxx** 

95% SUBMITTAL - FEBRUARY 2015

COUNTY OF ONONDAGA, NEW YORK DEPARTMENT OF WATER ENVIRONMENT PROTECTION

> JOANNE M. MAHONEY, COUNTY EXECUTIVE TOM RHOADS, P.E., COMMISSIONER

CRA Infrastructure & Engineering, Inc. Project Manager Reference No. 630965 (2) State Tower Building, Suite 220, 109 South Warren Street, Syracuse, NY 13202

# ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION

This document contains General Conditions and Specifications for projects administered through the Onondaga County Department of Water Environment Protection (OCDWEP). As such, provisions and language of this document are unique and solely applicable for administered projects.

Sections have been arranged in the following general order:

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#### OAK ORCHARD WASTEWATER TREATMENT PLANT LAGOON CLEANING AND REHABILITATION PROJECT (95% Submittal)

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#### ADVERTISEMENT

#### NOTICE TO CONTRACTORS FOR THE CONSTRUCTION OF

#### CONTRACT NO. 1 - GENERAL

#### OAK ORCHARD WASTEWATER TREATMENT PLANT LAGOON CLEANING AND REHABILITATION PROJECT

#### PROJECT NO. XXXXXX BID REFERENCE NO. XXXX

Sealed bids for the construction of Contract No. 1 – General will be received by the Director, Onondaga County Division of Purchase, 13th Floor Civic Center, 421 Montgomery Street, Syracuse, New York 13202, until XXX P.M. Local Time, on XXXXX, 2015, and there at said office, at said time, publicly opened and read aloud.

The project consists of the cleaning and rehabilitation of the lagoons at the Oak Orchard Wastewater Treatment Plant Site. Improvements will include lagoon cleaning, lagoon piping modifications, access roadway and site modifications.

The Contract Documents, including Information for Bidders and Bid Forms may be viewed and ordered through the following website: <u>www.avalonplanroom.com</u> in the Public Bid section. If you do not have internet access or have questions on ordering from the site, please contact Avalon Document Services at (315) 471-3333. Contract Documents can be picked up at Avalon Document printing at 901 North State Street, Syracuse, NY 13208 upon deposit of \$75.00 per set (checks only, **made payable to Onondaga County**). Bidders wishing sets of plans and specifications mailed to them shall include, in addition to the Bidding Document deposit, a FED-EX or UPS shipper number. Bidders who do not have a shipper number need to provide payment to cover handling and postage. Bidders requesting shipping services must provide request and payment a minimum of 7 days before the bid date. Shipping costs are the responsibility of the bidder and are non-refundable. Checks for the shipment of the Bidding Documents shall be **made payable to Avalon Document Services**. The full amount of the deposit for sets of Contract Documents will be refunded to all holders of the Contract Documents who return their Contract documents complete and in good conditions within thirty days following award of the Contract or rejection of the bids to Avalon Document Services.

Copies of the above described Contract Documents may be examined at no expense at the Division of Purchase, 13<sup>th</sup> Floor Civic Center, 421 Montgomery Street, Syracuse, New York 13202; at the office of the County of Onondaga, Department of Water Environment Protection, 3rd Floor, Administration Building, 650 Hiawatha Boulevard West, Syracuse, New York 13204. A copy of the above described Contract Documents also will be available for examination at the Syracuse Builders Exchange, Inc., 6563 Ridings Road, Syracuse, New York, 13206, and through McGraw-Hill Construction Dodge (www.dodge.contruction.com/Reports).

A pre-bid meeting/site visit will be held on XXXXX, 2015 at 10:00 A.M. at the offices of the Oak Orchard Wastewater Treatment Plant, 4300 Oak Orchard Road, Clay, New York 13041.

Each bid must be accompanied by cash, certified check, or bid bond in an amount not less than five percent (5%) of the amount of the bid in the form and subject to the conditions provided in the Information For Bidders. In addition, the Contractor shall be required to provide a "Statement of Surety's Intent" with his bid.

The Bidders should not include in their bid the Sales and Compensating Use Taxes on the cost of the materials which are to be incorporated into the Project and which are to be separately sold by the Bidder to the municipality prior to incorporation into the Project.

The right is reserved to waive any informalities in the Bid and to reject any or all bids.

# ONONDAGA COUNTY, NEW YORK

BY: \_\_\_\_

SEAN CARROLL, DIRECTOR DIVISION OF PURCHASE

DATE: \_\_\_\_\_, 2015

#### **DEFINITION OF TERMS**

Wherever used in the Contract Documents the following terms have the meanings indicated, which are applicable to both the singular and plural thereof:

*Addenda* - Written or graphic instruments issued by the Division of Purchase prior to the opening of Bids which clarify, correct or change the Bidding Requirements or the Contract Documents.

Agreement - The written contract between the Owner and the Contractor covering the work to be performed; other documents are referenced by the Agreement as being integral parts of the Contract Documents.

*Application for Payment* - The form acceptable to the Owner which is to be used by the Contractor in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

*Asbestos* - Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

*As Shown* - Whenever, in the description of any part of the work, the expressions "As Shown", "Shown on the Plans", or other similar expressions are used, it shall be understood to mean as shown on the Contract Drawings, unless another meaning is plainly indicated.

*Beneficial Occupancy* – Use or occupancy of the work, or designated parts thereof, by the Owner, even though all of the Contract work, or designated parts thereof, may not be substantially complete.

*Bid* - The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

*Bidding Documents* - The advertisement, Information for Bidders, the Bid form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

Bidding Requirements – As identified in the Advertisement, Information for Bidders, and the Bid form.

Bonds - Performance and Payment bonds and other instruments of security.

*Certification of Subcontractor Payment Status* - Form GP-001 which certifies the status of the Contractor's disbursement to subcontractors of monies received under periodic applications for payment. This form must be submitted with each payment application by the Contractor in order for the Contractor's application to be considered by the Owner.

*Change Order* - A document which is signed by the Contractor and the Owner and authorizes an addition, deletion or revision in the work, or an adjustment in the Contract Price or the Contract Times, issued on or after the effective date of the Agreement.

Consent Judgment – Shall refer to the January 20, 1998 Federal Court Amended Consent Judgment (ACJ) No. 88-CV-0066.

*Construction Project Manager* - The person, firm or corporation retained by the Owner for the purpose of administering the construction phase of the ACJ Lake Improvement Project.

*Contract Documents* - The Agreement, Addenda (which pertain to the Contract Documents), and all those documents identified in the Agreement as constituting the Contract Documents, together with all bonds, Modification Orders, and Change Orders. Shop Drawing submittals approved pursuant to General Specification S-013 are not Contract Documents.

*Contract Price* - The moneys payable by the Owner to the Contractor for completion of the work in accordance with the Contract Documents as stated in the Agreement.

*Contract Times* - The numbers of days or the dates stated in the Contract Documents to achieve completion of the work.

*Contractor* - The person, firm or corporation with whom the Owner has entered into the Agreement.

Day – When identified in the Contract Documents, days shall be measured in calendar days.

*Defective* - An adjective which when modifying the word Work refers to work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to the Owner's Representative's recommendation of final payment.

*Drawings* - The drawings which show the scope, extent and character of the work to be furnished and performed by the Contractor and which have been prepared or approved by the Engineer and are referred to in the Contract Documents. Shop drawings are not Drawings as so defined.

*Effective Date of the Agreement* - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

*Engineer (or Owner's Engineer)* - The person, firm or corporation named as such in the Information for Bidders.

*Field Order* – A directive by the Owner's Representative which orders minor changes in work which do not alter the character, quantity, or cost of the work as a whole. The Contractor shall carry out such Field Orders promptly and without any adjustment of the Contract price or Contract time.

General Conditions - Consist of the General Provisions and General Specifications of the Contract Documents.

*Hazardous Waste* - The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

*Laws and Regulations; Laws or Regulations* - Any and all applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

*Letter of Intent* - The written notice by the Owner to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, the Owner will sign and deliver the Agreement.

Liens - Liens, charges, security interests or encumbrances upon real property or personal property.

*Milestone* - A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the work.

*Modification Order* - A written directive to the Contractor, issued by the Owner's Representative on or after the effective date of the Agreement, ordering an addition, deletion or revision in the work, or responding to differing or unforeseen physical conditions under which the work is to be performed. A Modification Order will not change the Contract Price or the Contract Times, but is evidence that the parties expect that the change directed or documented by Modification Order will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

*Notice to Proceed* - A written notice given by the Owner to the Contractor fixing the date on which the Contract Times will commence to run and on which the Contractor shall start to perform his obligations under the Contract Documents.

Owner - County of Onondaga, New York.

Owner's Representative - The person, firm or corporation named as such.

*PCBs* - Polychlorinated biphenyls.

*Petroleum* - Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60° F and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-hazardous wastes and crude oils.

*Post-bid Meeting* - Meeting conducted by Owner's representative and Engineer, after receipt of bids and prior to formal award of contracts for a given project, in which the applicable contractor's bid will be reviewed and discussed in regards to conforming with project intent. Conceptual MBE/WBE work plans may also be discussed at said meeting.

*Pre-bid Meeting* - Meeting conducted by Owner's representative and Engineer, prior to a given project's scheduled bid opening date, for the purpose of providing a project overview and allow contractors and other interested parties an opportunity to submit questions and review project details.

*Pre-construction Meeting* - Meeting conducted by Owner's representative and Engineer, after formal ratification of applicable construction contracts and prior to actual physical construction of a given project, in which project logistics, expectations, and responsibilities will be reviewed and adopted.

*Project* - The total construction of which the work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

*Project Specific Safety Plan* – A site safety plan unique to each project site, prepared by the Contractor, that outlines the Contractor's methods and procedures for maintaining the site in a safe, neat and orderly condition.

*Radioactive Material* - Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

*Request for Information (RFI)* - A written request made by the contractor during the project where the contractor cannot clearly identify or interpret project specifications, drawings, product requirements, or other contractual obligations. A written response shall be provided to the RFI

that shall not necessarily result in a change to the scope of work, contract amount or an extension to the construction schedule.

*Samples* - Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

*Shop Drawings* - All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the Work. Shop Drawings include the following: Preprinted material such as illustrations, standard schedules, performance charts, instructions, brochures, diagrams, manufacturer's descriptive literature, catalog data and other data to illustrate a portion of the Work, but not prepared exclusively for this Contract. Drawings, schedules, diagrams, and other data prepared specifically for this Contract, by the Contractor or through the Contractor by way of a subcontractor, manufacturer, supplier, distributor, or other lower tier contractor, to illustrate a portion of the work.

*Site* - The lands upon which the work is to be performed. The limits of such lands may be indicated elsewhere in the Contract Documents.

*Special Project Conditions* - The part of the Contract Documents which amends or supplements the General Provisions or General Specifications.

*Specifications* - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the work and certain administrative details applicable thereto.

*Subcontractor* - An individual, firm or corporation having a direct contract with the Contractor or with any other subcontractor for the performance of a part of the work.

*Substantial Completion* - Completion by the Contractor of all the work of the Contract, or designated part thereof, except for minor or incidental items, the existence of which will not affect or impede the Owner's full use of the work, as determined by the Owner's Representative.

*Substitution* - A piece of equipment proposed by a Prime Contractor for use as a specific project component which is substantially different than that described in the Contract Documents' Technical Specifications. The determination of such a classification shall be made by the Engineer.

*Supplier* - A manufacturer, fabricator, supplier, distributor, materialman or vendor having a direct contract with the Contractor or with any subcontractor to furnish materials or equipment to be incorporated in the work by the Contractor or any subcontractor.

*Underground Facilities* - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

*Unit Price Work* - Work to be paid for on the basis of unit prices.

*Work* - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

*Work Terminology* - The following definitions shall supplement the provisions of the Contract Documents:

- 1. <u>Furnish</u>: To supply required materials and equipment at the project site.
- 2. <u>Install</u>: To place and/or assemble furnished materials and equipment in secured position for the use intended.
- 3. <u>Provide</u>: The act of both furnishing and installing.
- 4. <u>Products</u>: New material, machinery, components, equipment, fixtures, and systems forming the work. It does not include machinery and equipment used for preparation, fabrication, conveying, and erection of the work. Products may also include existing materials or components, if specifically identified for reuse in the Contract Documents.

*Written Amendment* - A written amendment of the Contract Documents, signed by the Owner and the Contractor on or after the effective date of the Agreement and normally dealing with the non-engineering or non-technical rather than strictly construction-related aspects of the Contract Documents.

#### **INFORMATION FOR BIDDERS**

#### SECTION 1 – PROJECT INFORMATION

#### I-1.01. Commencement and Completion.

Upon execution and delivery of the Contract, and the delivery of the required submittals by the Contractor to the Owner and the approval thereof by the Owner's attorney, the Contractor will be notified to proceed with the work of the Contract. Such notification will be in the form of the delivery of an executed Notice to Proceed to the Contractor. The Notice to Proceed will only be issued when the Contract is fully executed and all insurance, bond and M/WBE Utilization submittals are approved. Notification shall be presumed to have taken place one (1) day after the date of the Notice to Proceed, addressed to the Contractor at the address specified in his Bid. The work of the Contract shall be commenced within ten (10) days following such notification.

The Contractor shall notify the Owner, in writing, of his intention to enter upon the site(s) of the work at least five (5) days in advance of such entrance.

All work of the Contract shall be completed within the time frame specified in these Contract Documents' Special Project Conditions. Charges for failure to complete the Contract within the time specified are set forth in Section 4 of the General Provisions and the Special Project Conditions as applicable.

#### I-1.02. Existing Conditions and Subsurface Conditions

It shall be the Contractor's obligation to satisfy himself to the nature, character, quality and quantity of subsurface conditions likely to be encountered. Any reliance upon the subsurface information made available by the Owner or the Engineer shall be at the Contractor's risk.

Certain subsurface information may be shown on separate sheets or otherwise made available by the Owner or Engineer to Bidders, Contractors, and other interested parties. Neither such information nor the documents on which it may be shown shall be considered a part of the Contract Documents or Contract Drawings, it being understood that such information is made available only as a convenience, without express or implied representation, assurance, or guarantee that the information is adequate, complete, or correct, or that it represents a true picture of the subsurface conditions to be encountered, or that all pertinent subsurface information in the possession of the Owner or Engineer has been furnished. The Contractor must interpret such information according to his own judgement. Subsurface information in the possession of the Engineer may be examined by making an appointment with the Engineer.

It shall be the obligation of the Contractor to inquire of the Owner and Engineer whether pertinent subsurface information has been obtained by the Owner with respect to the Work.

The Contractor agrees that he shall not have nor assert against the Owner or Engineer any claim for damages for extra work or otherwise or for relief from any obligation of this Contract based upon the failure by the Owner or Engineer to obtain or to furnish additional drawings or information or to furnish all drawings and information in the Owner's or Engineer's possession or based upon any inadequacy or inaccuracy of the drawings or information furnished, other than the Contract Documents. Any holder of Contract Documents will be permitted to inspect the site of the work; verify existing architectural, structural and mechanical systems and finishes; make test borings, test pits, soundings, etc.; on the site of the Work if he so desires subject to his first obtaining approval from the Owner and any necessary permits from applicable agencies. It is understood that the party or parties receiving such approval must assume all risks and liabilities contingent thereto and shall restore the area to the satisfaction of the Owner.

In the event existing conditions are found to be materially different from those represented in the Contract Documents the Contractor shall proceed in accordance with Section 5 - Changes, of the General Provisions.

#### I-1.03. Index of Drawings.

A list of Contract Drawings is given in the Table of Contents, whether bound herein or bound separately.

#### I-1.04. Contract Drawings Furnished to Bidders.

During the period between Advertisement for Bids and Opening of Bids, each prospective Bidder will be furnished, upon payment of the amount specified in the Advertisement, with a set or sets of Contract Documents.

Where Contract Drawings have been reduced from the full size tracings, the sets furnished to prospective Bidders will be reduced sets. <u>The Bidders are cautioned against scaling distances</u> from such drawings, except through the use of graphic scales shown thereon.

#### I-1.05. Contract Drawings Furnished to Contractors.

Each Prime Contractor will be furnished, free of charge, three (3) sets of full size Contract Drawings.

#### I-1.06 Taxes

The County of Onondaga is exempt from the payment of Federal, State and local taxes and Sales and Compensating Use Taxes of the State of New York and of cities and counties on all materials, equipment and supplies to be incorporated in the work or to be furnished to the Owner pursuant to this Contract, whether purchased by the Contractor or his subcontractors or vendors. These taxes are not to be included in the Bid.

This exemption does not, however, apply to tools, machinery, equipment, temporary structures, materials, fuel and lubricants, supplies or any other items or services purchased, rented or leased by the Contractor or his subcontractors and used by him for the performance of the work and/or which will not become the property of the Owner upon completion of the Contract. The cost of any taxes on these items, and all other taxes for which the Contractor is liable, shall be borne by the Contractor and shall be included in the Bid and no separate payment will be made therefor.

#### **INFORMATION FOR BIDDERS**

#### <u>SECTION 2 – INSTRUCTIONS TO BIDDERS</u>

#### I-2.01. Qualifications of Bidders.

The Owner may make such investigation as he deems necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by or investigation of such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Contract, and to complete the work contemplated therein. Conditional bids will not be accepted.

#### I-2.02. Bidder's Responsibility.

At the time of the opening of bids, each Bidder will be presumed to have inspected the site of the proposed work and adjacent areas and to have read and to be thoroughly familiar with the Contract Documents. The failure or omission of any Bidder to receive or examine any form, instrument or document shall in no way relieve any Bidder from any obligation in respect to his Bid.

#### I-2.03. Addenda and Interpretation.

No interpretation of the meaning of the Plans, Specifications or other portion of the Contract Documents will be made orally. Every request for such interpretation must be addressed to the Engineer identified in the Special Project Conditions, and to be given consideration must be received by him at least nine (9) business days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be made in the form of written addenda, which, if issued, will be sent by certified mail, with return receipt requested to all holders of Contract Documents at the respective addresses furnished for such purposes not later than seven (7) days prior to the date fixed for the opening of bids. Addenda may also be sent by FAX, with a follow-up copy sent by mail. Failure of any Bidder to receive any such addenda or interpretation shall not relieve said Bidder from any obligation under his Bid as submitted. All addenda so issued shall become part of the Contract Documents.

#### I-2.04. Bid Instructions.

All blank spaces in the Bid Forms must be appropriately filled in with ink and with both words and figures, except as provided below and the Bid must be properly and completely executed.

<u>Do not remove</u> the Bid Forms from this Book. All Contract Documents, except the separately bound Contract Drawings, must be submitted with the Bid. Contract Documents are defined in the Agreement.

A statement of Surety's Intent is required to be submitted by all bidders regardless of the type of bid security that is furnished.

#### I-2.05. Bid Security.

Each bid must be accompanied by cash or by the certified check of the bidder or by a bid bond acceptable to the County, and such check or bid bond shall be made payable to the County in an amount not less than five percent (5%) of the amount of the bid.

Where alternate items are included in the Bid, the amount of bid security shall be not less than five percent (5%) of the alternate, or combination of alternates, that results in the highest bid.

The bid security will be returned after the Contract is executed or, if no award is made, after all bids are rejected.

#### I-2.06. Discrepancy in Bids.

In the event there is a discrepancy or arithmetical error in any Bid between the unit prices and the extended totals, the unit prices shall govern. In the event there is a discrepancy in any Bid between the unit or lump sum prices written in figures and the unit or lump sum prices written in words, the unit or lump sum prices written in words shall govern. In the event there is a discrepancy between the arithmetically correct sum of the payment items, comprising the total Bid, and the amount entered as the total Bid by the Bidder, the arithmetically correct sum shall govern. Consistency between the Total Bid Prices written in words and figures will not relieve the bidder from the correction procedures outlined herein.

Discrepancies shall be corrected by entries made on the Tabulation of Bids received by the Owner and only the corrected Bid will be considered in determining the lowest Bidder. Discrepancies will be corrected in the following order:

- 1) Unit and lump sum prices bid will be checked. If the unit or lump sum price written in words is not consistent with the price written in figures, the price in figures will be corrected to match the price written in words.
- 2) Arithmetical errors in the extended totals will be corrected based upon the unit price.
- 3) Arithmetical errors in calculating the Total Bid Price will be corrected.

Bids which do not contain a price for every numbered item on the Bid form will not be accepted, except that where the Bid form specifically provides for alternate Bids, Bidders are not required to bid on every alternate.

#### I-2.07. Lowest Bidder.

Bids will be compared on the basis of the correct total Bid, after corrections are made in accordance with I-2.06 Discrepancies in Bids. The lowest Bid will be that correct Bid which is for the lowest number of dollars. Where the Bid form specifically provides for alternate Bids, the lowest Bid will be the alternate selected by the Owner, or combination of alternates selected by the Owner, which is for the lowest number of dollars.

#### I-2.08. Award of Contract.

The award of the Contract will be made to the low, responsive, responsible Bidder who, in the opinion of the Owner, is qualified to perform the work required and is responsible and reliable.

The Owner may conduct such investigations as the Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders to perform and furnish the work in accordance with the Contract Documents, to Owner's satisfaction. The Owner may require the lowest Bidder to submit references or other information which will assist in the investigation and evaluation.

It is the intention of the Owner that the work will be awarded within forty-five (45) calendar days after the opening of bids to the lowest responsible Bidder or combination of lowest responsible Bidders whose bids conform to the requirements of the Bidding Contract Documents.

The right is reserved to reject any bid or all bids and to waive any informality in any bid received.

#### I-2.09. Liquidated Damages for Failure to Execute Contract.

The successful Bidder, upon his failure or refusal to execute and deliver the Contract and required bond, together with all policies, certificates of insurance within fourteen (14) days after he has received notice of acceptance of his bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with the bid.

The contract will not be executed by the County until the M/WBE Utilization Plan is approved by the County. If the successful bidder fails or refuses to provide an approvable M/WBE Utilization Plan, such bidder shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with the bid.

#### I-2.10. Prior Approval of Equipment, Methods or Materials

There will be no consideration or approval given by the Owner of Engineer for any methods, materials, equipment or system prior to the award of the contract.

The Owner reserves the right to declare informal and to reject any Bid which is conditioned or qualified as to the use of a particular method, material, equipment or system, or otherwise.

#### I-2.11. Estimated Quantities

If the Bid includes unit price items based on estimated quantities, it is understood that the quantities shown are included for the purpose of comparing bids only and may not be an accurate representation of the actual quantities which may be used during the course of the work. The Bidder, by submitting his Bid, agrees that he is satisfied with and will at no time dispute the estimated quantities stated in the Bid as a proper means of comparing bids.

#### I-2.12. Unbalanced Bids

A bidder shall not submit unbalanced bids. Unbalanced pricing may increase performance risk and/or result in payment of unreasonably high prices and/or advanced payments. A bid is unbalanced if, in the County's opinion, the bid prices are materially unbalanced between line items or sub-line items. A bid will be deemed to be materially unbalanced when a bid is based on prices that are significantly less than the cost for that work, with other prices that are significantly overstated in relation to the cost for other work, and if there exists, or there may arise, a reasonable doubt that the bid would result in the lowest overall cost to the County, even though the bid may be the apparent low bid. A bid will also be deemed materially unbalanced when a bid is so structured as to be tantamount to allowing advanced payment(s).

If in the County's opinion an offer is materially unbalanced, the County will (i) consider any risks to the County associated with the unbalanced pricing; and (ii) consider whether award of the contract would result in payment of unreasonably high prices for contract performance or in advanced payment(s).

### **INFORMATION FOR BIDDERS**

#### SECTION 3 – ONONDAGA COUNTY MBE/WBE AND MINORITY WORKFORCE REQUIREMENTS

#### I-3.01 Minority/Women Business Enterprise and Workforce Requirements

It is the policy of Onondaga County to foster the opportunity for utilization of firms certified as Minority Business Enterprises (MBE) and Women Business Enterprises (WBE) in the performance of all construction contracts funded by Onondaga County or eligible for aid from New York State or the federal government. It is the further policy of Onondaga County that the workforce employed by all contractors and subcontractors provide further opportunities for minority and women workforce participation.

The following MBE/WBE and workforce participation goals have been established for this project:

MBE/WBE Goal (as a minimum % of total \$ value of work): 12% MBE 8% WBE 20% Combined MBE/WBE

Minority/Women Workforce Participation Goal (as a % of total Workforce) 12% Minority 8% Women 20% Combined Minority/Women Workforce

To promote successful Contractor compliance with these goals, each bidder shall submit with his bid a "Conceptual M/WBE Work Plan" in a format as included in the Bid Section of these Contract Documents. The Conceptual M/WBE Work Plan shall indicate the Contract Name and Number, include a description of the scope of work and provide an estimated value of each portion of the contract work the bidder plans to subcontract to MBE or WBE firms. The total value of the work should be greater than or equal to the combined M/WBE Goal indicated above. Failure to provide the "Conceptual M/WBE Work Plan" with the bid may result in the bid being considered non-responsive.

The successful bidder will be required, upon notification by letter of the County's intent to award a contract (Letter of Intent), to document the bidder's good faith intent to achieve the goals established by the County and the Contractor. Documentation will include:

- 1. A written utilization plan to provide for the employment of qualified MBE/WBE firms (Form A).
- 2. A written utilization plan to provide for the employment of minorities and women (Form B).

Onondaga County will not enter into a contract with the successful bidder until satisfied appropriate efforts are planned or in place that will result in the bidder having a program aimed at meeting the percentage goals. Questions or concerns related to qualified MBE/WBE firms or plans to employ these firms or representatives should be directed to:

Contract Compliance Officer Syracuse & Onondaga County Human Rights Commission 421 Montgomery Street 11th Floor Civic Center Syracuse, New York 13202 (315) 435-8462 FAX# (315) 435-2439

The Letter of Intent to award a contract to the successful bidder will require submittal, to the Human Rights Commission (HRC), of the bidder's plan or program to comply with the County MBE/WBE and workforce participation policies. All of this documentation, as identified in I-3.02B below, is required **not later than seven days from the date of the Letter of Intent** (copy the OCDWEP Construction Supervisor with the transmittal to HRC). The HRC will approve or disapprove the bidder's plan in writing to the OCDWEP Construction Supervisor who will forward the approved plan, along with other required documents, to the County Law Department for contract execution.

The plan will be implemented in accordance with the Rules and Regulations of the Human Rights Commission.

The approved plan will become part of the final contract. Failure to comply with the plan and/or the Rules and Regulations of the Human Rights Commission will be grounds for default under the contract and termination or other remedy available to the County.

In addition, lack of compliance with the plan and/or the Rules and Regulations will be criteria for determining responsibility of bidders on future contracts with the County.

Upon contract signing, the contractor will be required to submit copies of executed contracts and purchase orders with MBE/WBE firms within 30 days of contract execution. The MBE/WBE Monthly Utilization Report (Form G), the Monthly Employment Utilization Report (Form I), certified payroll (every two weeks) and copies of canceled checks issued to MBE/WBE subcontractors and suppliers must be submitted with the monthly applications for payment. Failure to submit the required forms could result in delays in processing payments.

The Human Rights Commission maintains a listing of MBE/WBE firms and also provides advice and assistance to bidders and potential bidders seeking construction contracts with Onondaga County. Refer to "Special Provisions Concerning Utilization of M/WBE and Minority and Female Workforce Requirements" for program rules and regulations.

The Human Rights Commission is available for consultation to prime contractors and their M/WBE officers regarding the requirements for the development of their M/WBE-EEO participation program.

I-3.02 Summary of Forms (Included in Appendix A, except as otherwise noted)

A. Each bidder must submit the following information at the time of bid submittal:

Conceptual M/WBE Work Plan - Included in Bid Section of Documents

B. The successful bidder must submit the following information to the Contract Compliance Officer with copies to the Construction Project Manager no later than seven days from the date of the Letter of Intent to award the contract. The Contract will not be executed by the County until the following documents are received and approved by the Human Rights Commission:

Form A - Contractor's detailed MBE/WBE Utilization Plan

Form B - Contractor's Workforce Utilization Plan (including Workforce Listing, Form B1)

Form D - Minority/Women Contractors Participation Letter of Intent

Form H - HRC-l Form

C. Upon signing of contract, the contractor must submit the following to the Contract Compliance Officer with copies to the Construction Project Manager on a monthly basis (unless otherwise noted):

Form G - MBE/WBE Monthly Utilization Report - due monthly with each payment request

Form I - Monthly Employment Utilization Report - due monthly with each payment request

Certified Payroll - due every two weeks

MBE/WBE Canceled checks (previous month) - due monthly with each payment request

Signed Contracts/Purchase Orders with MBE/WBE Firms – <u>30</u> days after contract signing.

D. The contractor should utilize the forms or format below to demonstrate good faith effort:

Form C – Contractor's Solicitation Letter (should be sent to M/WBE's a minimum of 20 days prior to bid)

Form E - MBE/WBE Contractor Participation Bid Proposal <u>(should be returned by M/WBE a minimum of five (5) days in advance of the receipt of bid).</u>

Form F - Minority/Women Contractor Unavailability Certificate (submit w/Form A).

#### I-3.03 Special Provisions Concerning Utilization of M/WBE and Minority and Female Workforce Requirements

The County of Onondaga has developed a program to foster the opportunity for Minority Business Enterprise (MBEs) and Women Business Enterprises (WBEs) to participate in the performance of construction contracts.

The County of Onondaga is committed to a policy of promoting MBE/WBE participation in its contracts and fully intends to enforce the requirements for MBE/WBE utilization.

The general requirements for MBE/WBE utilization are contained in this document and in the New York

State Minority/Women Business Enterprise Requirements and Minority and Female Workforce documents. Contractors are to familiarize themselves with the details of these requirements as set forth in this document.

#### A. MINORITY/WOMEN BUSINESS ENTERPRISE GOAL

<u>MBE/WBE Goal</u>: The successful bidder on each prime contract will be expected to attain a goal of utilization of MBEs/WBEs to provide services and/or products, the total amount of which shall be equal to at least ten percent (10%) for MBEs and five percent (5%) for WBEs of the total amount bid for this contract. In any event, at least a fifteen- percent (15%) combined Minority and Women Business Enterprise goal should be achieved.

In administering this goal, the County will require each Minority/Women Business Enterprise to be certified as a bona fide MBE/WBE under the Statewide Certification Program. Firms currently seeking certification (having a pending application on file with Empire State Development Corporation), may be considered pending a satisfactory desk review of such application. Lists of MBE/WBE firms shall be made available at the County's offices. Bidders should be aware that the County of Onondaga does not have its own program or procedure for "certifying" MBEs/WBEs, and that the State certification program is used as the basis of the local program. Certification by other agencies or governments will not be acceptable for compliance with the County of Onondaga's MBE/WBE program.

The goals established for this project can be achieved by MBE/WBE participation as subcontractors, lower tier subcontractors, or suppliers subject to the conditions as noted below; provided the MBE/WBE firm provides a commercially useful purpose as defined herein.

<u>Supply Policy</u>: Suppliers shall receive 25 percent credit if they only provide supplies, and do not manufacture or fabricate them. Suppliers shall receive 100 percent credit for items they supply that they also manufacture or fabricate. A "supplier" is a business that distributes materials or equipment and which provides a commercially useful function when such activity is traditional in the industry producing the material or equipment that is supplied. "Commercially useful functions" of suppliers normally include:

- 1) Providing technical assistance to a purchaser prior to a purchase, during installation, and after the supplies or equipment are placed in service;
- 2) Manufacturing or being the first tier below the manufacturer of supplies or equipment; or
- 3) Providing functions other than just accepting and referring requests for supplies or equipment to another party for direct shipment to a contractor.

<u>Notification of MBEs/WBEs by County of Onondaga</u>: Prospective bidders are advised that the County Contract Compliance Officer has provided potentially interested local MBEs/WBEs with a copy of the notice to contractors published for this contract, together with a supplementary information form which describes the project and its major components in more detail. Therefore, local potentially interested MBE's/WBE's are aware that bids for this contract are being solicited.

Prospective bidders are advised that notification of potentially interested MBE's/WBE's by the County of Onondaga does not constitute verification of the respective certification status of such firms. While the County of Onondaga endeavors to maintain updated lists, it is the responsibility

of prospective bidders to ascertain, on a case by case basis, whether or not potentially interested MBE's/WBE's are currently certified under the Statewide Certification Program. Contact Empire State Development, Division of Minority and Women business Development at (800) 782-8369 to confirm current State Certification status.

<u>Pre-Bid Meeting</u>: A meeting will be scheduled prior to the bid opening to discuss the project and review contract requirements with all prospective bidders. This review will describe the County of Onondaga's bid procedures including requirements pertaining to the MBE/WBE program and minority and women workforce participation. If not already stated in the special provisions, all registered holders of bidding documents will be advised of the time, date and place of the Pre-Bid meeting by Addendum.

<u>Bidder's Responsibilities/Good Faith Effort</u>: It is the responsibility of the prospective bidder to follow and abide by the procedures and requirements contained in this section of the "Information for Bidders". The bidder is responsible for segmenting portions of the contract for award to qualified bona fide MBE/WBE contractors and vendors as necessary in order to achieve the MBE/WBE utilization goal.

In soliciting proposals from MBE's/WBE's for participation on this contract, the bidder is responsible, as part of its good faith effort toward achieving the MBE/WBE utilization goal, to insure that MBE/WBE firms have been given every opportunity to submit timely and competitive proposals. The aforementioned can be achieved by the following actions.

- 1) Making plans and specifications available to prospective MBE's/WBE's in sufficient time to allow appropriate review for the purpose of submitting a responsible proposal.
- 2) Utilizing the qualified MBE's and WBE's on the list of certified firms maintained by the County Human Rights Commission and/or the NYS Department of Economic Development for the purpose of soliciting bids for sub contracts.
- 3) Maintaining records, including detailed telephone logs, detailing the efforts made to involve MBE's and WBE's, including the names and addresses of MBE's and WBE's that were contacted and, if not selected, reasons for such decisions.
- 4) Making contact with Minority and Women subcontractors through newspapers ads in minority owned and traditional newspapers, letters to minority and women contracting associations, and letters to minority and women subcontractors (certified, return receipt requested).

In the event the prospective bidder is unable to achieve the MBE/WBE utilization goals because proposals submitted by MBE's/WBE's were not competitive, the County may, at its discretion, proceed to award a contract upon demonstration of the bidder's good faith effort. Demonstration of good faith effort shall include submission of a copy of the bidder's original worksheet for subcontractor bids received prior to the bid date for the contract which stipulates company, date, proposed bid amount, work to be performed, and submitting officer for subcontracting company. In instances where the bidder has failed to meet the MBE/WBE goal under its usual company procedures, bidders should modify solicitation and price negotiation procedures and/or implement negotiating procedures recommended by the County's Contract Compliance Office. In the event the goal will not be achieved, as part of the bidder's documentation of good faith effort, the bidder

must be able to document its attempts to solicit proposals from all MBE's/WBE's in the Central New York area available to do the work in question, and that the MBE's/WBE's were quoting on the same Work and under the same conditions as non MBE's/WBE's. Bidders should utilize negotiation to achieve an acceptable price. Non-competitive pricing without negotiation shall not constitute a basis for not achieving said MBE/WBE goals.

It is the bidder's responsibility to insure the MBE/WBE firms to be utilized on this contract are capable of satisfactorily performing the work subcontracted to them and of complying with all applicable provisions of the contract documents. The bidder, if successful, will be expected to provide all support, assistance and supervision necessary to assure satisfactory performance of MBE's/WBE's work and completion of the project in accordance with the contract documents. In the event the bidder intends to utilize an MBE/WBE inexperienced in the type of work to be subcontracted to it, the bidder shall notify the County Contract Compliance Officer in order to secure his prior approval. Successful bidder shall not knowingly enter into a subcontract with Minority/Women business firms that said contractor has knowledge that the price submitted is deficient when compared to the cost of material, cost of labor, insurance and minimum margin of profit on this project. It is the bidder's further responsibility to propose and utilize MBE/WBE firms for a commercially useful purpose on the project.

<u>Commercially Useful Purpose</u>: The intent of the MBE/WBE program is to increase the utilization of MBE's/WBE's on construction projects and to provide an opportunity for new MBE's/WBE's as well as existing MBE's/WBE's to develop experience and business acumen. In order to accomplish this intent and prevent "sham" or "brokering" operations, MBE/WBE firms utilized in compliance with this program must provide a commercially useful purpose on the project. A commercially useful purpose is defined as providing goods and/or services which make a tangible contribution to the completion of the project in a manner consistent with the standard business and construction industry practices and which involves or requires substantial responsibility on the part of the provider of the goods or services. No credit will be given for an MBE or WBE acting merely as a passive conduit of funds to a non-MBE/WBE.

The County Contract Compliance Officer will evaluate the performance of the conditions under which MBE's/WBE's are providing a commercially useful purpose. This evaluation will be based upon on-site observations and documentation which shall be submitted by the MBE/WBE and/or the contractor, as requested by the Contract Compliance Officer.

Among the factors to be evaluated are that the MBE/WBE made the necessary administrative and technical preparations to provide the indicated goods or services, and possesses the technical, administrative, managerial and supervisory capability and the resources to provide the indicated goods or services, including necessary labor, material and equipment, or the means of obtaining same in accordance with standard industry practices. The determination of commercially useful purpose will also include an evaluation of the MBE's/WBE's independence and responsibility for satisfactorily and successfully providing the indicated goods or services and whether or not the MBE/WBE will gain meaningful experience in the course of providing the indicated goods and services.

<u>Post Bid Meeting</u>: A post bid meeting may be scheduled by the Construction Supervisor, a few days after the bid opening date to review bid and contract requirements with the apparent low bidder. The bidder should be prepared to discuss the conceptual M/WBE work plan submitted with the bid at this meeting. After this meeting, upon documentation of the Contractor's acceptability by the Construction Supervisor the County will issue a Letter of Intent to award the

# contract. <u>The bidder will have seven days from the date of the Letter of Intent to submit a</u> responsive MBE/WBE Utilization Plan (Form A).

<u>MBE/WBE Utilization Form</u>: Appendix A to the Information for Bidders contains a Minority Business Enterprise/Women Business Enterprise Utilization Form which must be completed, signed by the authorized representative of the bidder, notarized and submitted no later than the date indicated herein. If the MBE/WBE Utilization Form submitted by the apparent low bidder reflects MBE/WBE utilization less than the goal oriented percentages specified herein, the bidder will be required to demonstrate that it has met the good faith effort requirements, and must produce respective documentation for review by the County Contract Compliance Office.

If the determination is made by the County of Onondaga that the bidder's efforts do not constitute a good faith effort, the County may reject the bid and offer the contract to the next lowest responsible bidder, or may reject all bids and re-advertise the contract.

The County may, at its discretion, as provided for under Bidder's Responsibilities, determine that a good faith effort was made by the low bidder to achieve said goal and accept the bid although it contains less than the percentage goals.

The MBE/WBE utilization plan submitted by the selected contractor will be reviewed by the County Contract Compliance Officer. Each of the MBE/WBE firms listed on the MBE/WBE utilization form will be contacted by the MBE Officer to verify that the MBE's/WBE's are aware of their intended utilization on the contract, for the indicated work, and for the indicated amount, and to ascertain that the MBE/WBE will be performing a commercially useful purpose on the project.

The completed and approved MBE/WBE Utilization Plan will become part of the contract and the contractor will be expected to utilize the minority/women owned businesses listed on the Form to a minimum of the amount indicated thereon. Any proposed changes must have the prior approval of the County Contract Compliance Officer. An amended Utilization Plan shall be prepared by the Contractor and submitted to the County Contract Compliance Officer upon County approval of any proposed changes.

<u>Contract Compliance</u>: The contractor shall appoint an Officer of the Corporation or principal of the firm whose responsibility it will be to keep the company informed of all County and State requirements pertaining to the MBE/WBE program and to compile, maintain, and submit all required documentation. As soon as possible after contract execution, the contractor shall submit to the County Contract Compliance Officer one (1) fully executed copy of each subcontract and/or purchase order involving an MBE/WBE. These documents shall clearly indicate the nature and scope of work to be performed by the MBE/WBE, designate the responsibility of the contractor and MBE/WBE for providing labor, equipment and materials, establish the amounts to be paid and retained, the schedule or method of payments, establish actual or projected starting and completion dates for the MBE's/WBE's work and clearly state any and all other forms and conditions agreed to by the contractor and MBE/WBE necessary for the proper conduct of business.

The subcontract information, submitted to the County of Onondaga to demonstrate compliance with the Minority/Women Business Enterprise program requirements, shall contain all agreements, both verbal and written, between the contractor and the minority/women owned firm and no other agreement shall exist, either expressed or implied, between the parties. The County

of Onondaga's Contract Compliance Officer shall be informed in writing, with the appropriate supporting documentation, of any changes, additions and/or deletions to the executed MBE/WBE subcontracts.

The contractor will be required to submit, on a monthly basis, the minority and women business enterprise utilization report (Form G) supplying all the information requested thereon. This report shall be submitted to the Human Rights Commission, attention: Contract Compliance Officer.

The County of Onondaga reserves the right to re-evaluate MBE's/WBE's during the course of the project to ascertain that the MBE's/WBE's status and conditions of utilization on the contract remain as originally presented.

<u>Non-compliance</u>: If there is reason to believe that the contractor has failed to comply with the MBE/WBE requirements of this contract, or if the contractor fails to submit copies of MBE/WBE subcontracts and/or purchase orders, or if the contractor fails to respond to requests for additional information or documentation made by the County Contract Compliance Officer to ascertain compliance, the County of Onondaga may withhold the entire amount of payments for work completed and/or materials otherwise due to the contractor, until such time as the contractor has demonstrated to the satisfaction of the County Contract Compliance Officer that it is in compliance with the MBE/WBE Provision of this contract. If in the opinion of the County Contract Compliance Officer, the contractor is failing to make timely and satisfactory progress toward resolving MBE/WBE noncompliance, the County of Onondaga may direct that work on the contract be stopped so that opportunities for additional MBE/WBE utilization will not be exhausted.

If the contractor fails to utilize all the minority/women owned firms listed on the MBE/WBE Utilization Form, or fails to utilize such firms in the manner and to the extent indicated on the form, or if the status of the MBE/WBE firm utilized changed or is found to be different from the status presented or determined prior to the contract award, or if the contractor otherwise fails to comply with the intent of the MBE/WBE requirements, the contractor shall be in default of its contract and the County of Onondaga may pursue the remedies available to it under the applicable provisions of the contract documents, unless the contractor can successfully demonstrate that its failure to comply is due to a failure on the part of the minority/women-owned business to participate as originally agreed. At the sole discretion of the County of Onondaga, a condition of MBE/WBE non-compliance may be remedied in any manner acceptable to the County of Onondaga and agreed to in writing by the contractor, in lieu of declaring the contractor to be in default and terminating the contract.

<u>Waiver of Claims:</u> Upon submitting a bid for this contract and, if successful, upon executing this contract, the contractor waives any and all claims for damages or extra costs or unrealized or lost revenue or profit or interest on monies withheld arising out of the County of Onondaga's MBE/WBE program.

### B. MINORITY AND FEMALE WORKFORCE UTILIZATION REQUIREMENTS

<u>Minority and Women Workforce Goal</u>: All contractors and their subcontractors shall achieve a workforce participation of ten percent (10%) minority and five percent (5%) female, respectively and in any event fifteen percent (15%) overall. "Minority/Female workforce participation" shall mean the aggregate number of person hours worked by minorities/females (including supervisory personnel) with respect to any work in connection with this agreement.

For purposes of this goal, "Minority" shall mean:

- 1. Black persons having origins in any of the Black African racial groups not of Hispanic Origin;
- 2. Hispanic persons of Mexican, Puerto Rican, Dominican, Cuban, Central or South American of either Indian or Hispanic origin, regardless of race;
- 3. Asian and Pacific Islander persons having origins in any of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands; and
- 4. American Indian or Alaskan Native persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.

The minority/female workforce participation percentages shall be determined by dividing the minority/female workforce participation by the total workforce participation.

For the purposes of this subparagraph, "Total workforce participation" shall mean the aggregate number of person hours worked (including training) by all workers in the building trades (including supervisory personnel) performing work pursuant to this contract. The specific goal for each skilled and unskilled building trade shall be no less than ten percent (10%) minority and no less than five percent (5%) female, and in any event, no less than fifteen percent (15%).

<u>Bidder Responsibilities</u>: Prospective bidders should review the workforce requirements of this project and be prepared to demonstrate their intent to comply with this requirement. The County of Onondaga's Contract Compliance Office shall review the anticipated workforce requirement with the bidder and determine whether its bid is responsive to all Affirmative Action Requirements of this project. The bidder shall complete the HRC-1 Form (Form H) and the contractor's Workforce Utilization Plan (Form B). The Workforce Utilization Plan shall indicate what positions will be allocated to minorities and females in compliance with the percentage goals of this contract. This Form shall be submitted prior to or no later than the date indicated on the Letter of Intent. The County of Onondaga may, at its discretion, waive this requirement in whole or in part if after evaluation of the contract, it is found to be not conducive to providing employment opportunities to the extent required. Contractors may seek consideration of a reduction in the goal after all reporting requirements have been satisfied.

#### C. SANCTIONS FOR NON-COMPLIANCE

In the event the contractor fails to comply with these provisions (for MBE/WBE and workforce participation) the County may:

- 1. Require the contractor to attend a meeting with the Contract Compliance Officer, a representative of the State Agency, a project officer, a representative of the legal department, or any combination of the above as appropriate; and
- 2. Withhold payments of any amounts due pending resolution of non-compliance; and

3. After said meeting and a determination that the contractor has failed to comply with the appropriate provision, the Contract Compliance Officer of the County of Onondaga, the OCDWEP Commissioner, and the Department of Law may assess damages against a contractor who has failed to provide for minority/female employment or minority/women business participation as required and had failed to demonstrate a Good Faith effort to provide the same, in an amount equal to the dollar value that would have been realized by minority/female employees or minority/women businesses had the contractor so complied.

If such damages are assessed against a contractor, such assessment shall be withheld from any monies due the contractor, including retention funds; such determination in these matters shall be final.

Further, upon determination that the contractor has failed to comply with these provisions, at the direction of the County or State Agency, the Owner may suspend, cancel or terminate the contract without incurring any penalty or damage on account of such action and without any further liability, except that the contractor shall be entitled to be paid for the earned until the time that such action was taken.

#### D. NON-DISCRIMINATION REQUIREMENTS

The Contractor shall include all of the following paragraphs (1) through (5) with respect to the performance of its agreement with the County, in every subcontract it enters into for labor, services, supplies or equipment in such a manner that such provisions shall be binding upon all parties with whom such agreements are entered into:

- 1. Contractor shall not discriminate against an employee; or applicants for employment because of race, creed, color, national origin, ancestry, sex, age, disability or marital status and shall undertake programs of affirmative action to ensure that such employees and applicants are afforded equal employment opportunities without discrimination. Such action shall be taken with reference to, but not limited to, recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, lay-off or termination, rates of pay or other form of compensation, and selection for training or retraining, including apprenticeship and on-the-job training.
- 2. If contractor is directed by the Owner or State Agency, contractor shall request each employment agency, labor union and authorized representation of workers with which it has a collective bargaining or other agreement or understanding, to furnish it with a written statement that such employment agency, labor union or representative shall not discriminate because of race, creed, color, national origin, ancestry, sex, age, disability or marital status and that such union or representatives shall affirmatively cooperate in the implementation of contractor's obligation hereunder.
- 3. Contractor shall state in all solicitations or advertisements for employees placed by or on behalf of the contractor that all qualified applicants shall be afforded equal opportunity without discrimination because of race, creed, color, national origin, ancestry, sex, age, disability or marital status.
- 4. Contractor shall comply with the provisions of the Civil Rights Law of the State, as outlined in Article 15A and Section 291-299 of the Executive Law of the State, Chapter 198, Laws of

New York State, Executive Order was 11246, 11375, 11114, 11925 and Chapter I, of Title 4OCFR part 8; shall furnish all information and reports deemed necessary by the Owner and New York State Agency; and shall permit access to its books, records, and accounts by the Owner and New York State Agency; and shall permit access to its books, records, and accounts by the Owner and New York State Agency; and shall permit access to its books, records, and accounts by the Owner and New York State Agency having jurisdiction on this project for the purpose of monitoring compliance with these nondiscrimination clauses, Civil Rights Law and such sections of the Executive Law.

5. Contractor shall take such action in enforcing the foregoing provisions as the Owner and/or State Agency may direct, including sanctions and remedies for non-compliance. If contractor becomes involved in or is threatened with litigation with any party as a result of such direction, contractor shall promptly notify the Owner and New York State Agency which has jurisdiction of such fact and, thereafter, such parties may interface in such action.

### I-3.04 Contractor Obligations

This project may be funded through the NYSDEC Clean Water/Clean Air Bond Act (or other sources); USEPA State, Tribal and Government (STAG) grant; and/or U.S Army Corps of Engineers. Further, the County will arrange financing through the NYSEFC State Revolving Loan Fund. As such, all prime contractors shall be responsible for compliance will all applicable Onondaga County, New York State and federal government requirements regarding utilization of minority and women business enterprises and equal employment opportunities. Refer to the Special Project Conditions for identification of specific funding agencies, and Section I-6.04 for federal requirements and contract provisions as may be applicable to this project.

Contractors are herein advised that if you are the prime contractor and are either a Minority Business Enterprise (MBE) or a Women Business Enterprise (WBE), you are still required to comply with the above-stated MBE and WBE goals through the use of subcontractors.

Contractors are herein advised that they are solely responsible for compliance with the Minority and Women Workforce Goals. In the event that a local Union either fails, or is unable, to refer qualified minority or female applicants in percentages equaling Project affirmative action goals as set forth herein, the Contractor may employ qualified minority or female applicants from any other available source. The Contractor shall fully document all attempts to satisfy the workforce labor goals.

### <u>SECTION 4 – INSURANCE AND BONDS AND HOLD HARMLESS, DEFENSE AND</u> <u>INDEMNIFICATION</u>

### I-4.01. Contractor's Insurance.

A. The Contractor at his expense shall procure and maintain the insurance required in this section and elsewhere in the Contract to be provided by the Contractor. The Contractor shall require each subcontractor to procure and maintain the insurance required by this Contract.

The County of Onondaga will not execute the Contract nor permit work under the contract to commence or proceed until the successful Bidder has delivered to the County of Onondaga five (5) copies of the Certificate of Insurance form contained herein, fully completed, signed and dated by an authorized representative of the insurance company or companies providing the insurance. In addition the successful Bidder shall deliver one (1) certified copy of the endorsements to the Comprehensive General Liability, Automobile Liability and Umbrella policies showing that the County of Onondaga and the Engineer have been named as additional insureds and the required coverages have been provided. See supplemental "additional insured" requirements in the Special Project Conditions of these Contract Documents. Only the Certificate of Insurance form specifically contained herein will be accepted as meeting the requirements of this section. (Sufficient copies of this form will be furnished by the County of Onondaga to the successful bidder.) Notwithstanding issuance of a Letter of Intent to award the Contract, failure by the successful Bidder to furnish the insurance documentation required herein, in form and content acceptable to the Onondaga County Attorney, within forty-five (45) days of the receipt of Bids will be grounds for rejection of the Bid and forfeiture of the bid deposit, unless such time is extended by the County, at its sole discretion. The receipt by the County of the insurance documents offered by the successful Bidder, and execution of the Contract on the basis of the documents offered, shall not relieve the Contractor of the responsibility for furnishing and maintaining throughout the course of the Contract and the guarantee period all the kinds and amounts of coverages specified herein.

Before being permitted to commence work under this Contract, each subcontractor shall deliver to the County of Onondaga one (1) certificate of insurance, satisfactory in form to the County of Onondaga, showing that the subcontractor has insurance in force in the kinds and amounts required herein to be provided by the subcontractors. The Contractor shall be wholly responsible for the adequacy of the insurance furnished by its subcontractors.

The Contractor and each subcontractor shall from time to time upon the demand of the County of Onondaga promptly deliver to the County of Onondaga such proof of insurance as the County may require, including certified copies of the complete, original policies for each of the kinds of insurance required to be procured by the Contractor and/or subcontractors, if requested.

Each policy of insurance required under the Contract shall be issued by an A-Rated - Class X (according to Bests' General Ratings) insurance company authorized by the State

of New York to issue such policy in this State, shall be in form and content satisfactory to the County of Onondaga and shall provide that the coverages afforded under the policies will not expire and/or nonrenew, be reduced or restricted in coverage, or canceled for any reason until at least thirty (30) days' prior written notice has been given by Certified Mail to Onondaga County Department of Water Environment Protection by the issuing insurance company. In the event the Contractor's or any subcontractor's insurance coverages expire or are changed or canceled during the course of the work of this Contract, the County of Onondaga may elect to bar the Contractor or subcontractor from the site of work until such time as the Contractor or subcontractor has demonstrated compliance with these insurance requirements and reinstatement of the required coverages.

Should the Contractor fail to demonstrate compliance with these insurance requirements within thirty (30) days after the effective date of any expiration, noncomplying change or cancellation, the County of Onondaga may elect to terminate the Contract in accordance with the termination and default provisions of the Contract.

All liability insurance required by this Contract shall be maintained in force during the term of this Contract, and until the later of one year after the date of final acceptance or one year after the Contractor or any subcontractor performs any work under the Contract.

Failure of the Contractor to procure or maintain any of the insurance coverages required herein shall not relieve the Contractor from any liability under the Contract, nor shall the insurance requirements be construed to conflict with or otherwise limit the obligations or indemnification responsibilities of the Contractor as may be stated elsewhere in this Contract.

- B. The kinds of insurance required to be procured and maintained by the Contractor (in addition to any coverage required by other sections of this Contract) shall be as follows:
  - 1. <u>Comprehensive General Liability Insurance</u> containing the following kinds of coverage and naming the Contractor as the insured; and the County of Onondaga and other parties as identified in the Special Project Conditions, as additional insureds.
    - A) <u>Premises Operations Insurance</u> providing coverage for legal liability and expenses for bodily injury and property damage arising out of or resulting from the operations in connection with this Contract.
    - B) <u>Independent Contractors Liability Insurance</u> providing coverage for legal liability and expenses for bodily injury and property damage arising out of or resulting from the operations or conduct of subcontractors employed by the Contractor in connection with this Contract.
    - C) <u>Completed Operations and Products Liability Insurance</u> providing coverage for legal liability for bodily injury and property damage arising out of or occurring during the time between the date of the certificate of completion of the work and the date of the expiration of the guarantee period, or occurring after the work has been abandoned; or arising out of the products, materials, or equipment furnished by the Contractor under

this Contract after physical possession of the products, materials or equipment has been relinquished.

- D) <u>Blanket Broad Form Contractual Liability Insurance</u> providing coverage for legal liability and expenses for bodily injury and property damage imposed by contract upon the Contractor with respect to all operations under this Contract by the Contractor or by his subcontractors. The policy shall not contain an exclusion for actions on a contract by a third party beneficiary arising out of a project for a public authority. (The Contractor is advised to refer to the Hold Harmless, Defense and Indemnification provisions of this Contract, which appear following the end of this section.)
- 2. A) <u>Owner's Protective Liability Insurance providing coverage for the</u> County of Onondaga as the named insured, for legal liability and expenses for bodily injury and property damage arising out of the operations under this Contract performed for the County of Onondaga by the Contractor or any of his subcontractors, or out of acts or omissions of the County of Onondaga in connection with the County of Onondaga's general supervision of such operations.
  - B) <u>Owner's Contractual Liability Insurance</u> providing coverage for the County of Onondaga as the named insured for legal liability and expenses for bodily injury and property damage assumed by the County of Onondaga by Contract or Easement or Right-of-Way Agreement for work performed on private land in connection with this Contract. The policy shall not contain an exclusion for actions on a contract by a third party beneficiary arising out of a project for a public authority. (This coverage shall be provided separately and independently from the Contractor's Contractual Liability Insurance.)

Separate Owner's Protective and Contractual Policies shall be issued for each separate Contract being performed for the County of Onondaga. Endorsements to existing policies will not be accepted.

- 3. <u>Comprehensive Automobile Liability Insurance</u>, naming the Contractor as the named insured; and the County of Onondaga and other parties as identified in the Special Project Conditions, as additional insureds. The policy shall provide coverage for legal liability and expenses for bodily injury and property damage arising out of the ownership, maintenance, operation, use, loading or unloading of owned, nonowned, and hired automobiles. The policy shall include the MCS-90 Sudden and Accidental Pollution endorsement.
- 4. <u>Worker's Compensation, Employer's Liability and Disability Insurance</u> as required by the laws of the State of New York.

The Contractor further agrees to comply with the requirements of the New York State Workers' Compensation Board regarding proof of compliance with the New York State Workers' Compensation Law. The New York State Workers' Compensation Board requires the County to obtain from Contractors proof of Workers' Compensation insurance coverage, self-insurance or exemption from the requirement of obtaining Workers' Compensation insurance coverage. Proof must be submitted to the County on forms specified by the Workers' Compensation Board and that are stamped as received by the Workers' Compensation Board (see Appendix B for sample forms, actual forms should be obtained from the applicable insurance company).

All Bodily Injury Liability Insurance, except automobile, shall specifically include Personal Injury Liability coverage for damages which are sustained by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or by any other person.

All Property Damage Liability Insurance, except automobile, shall specifically include coverage for explosion, collapse and underground operations (XCU hazards) and Broad Form Property Damage.

It is understood by the parties that it is the intent of this contract to make the Contractor's insurance policies on which the County of Onondaga is an additional insured primary with regard to any claim arising under this contract.

A cross liability endorsement or a Separation of Insured Clause, as per the Standard ISO General Liability form shall be incorporated in the General Liability Policy and Automobile Liability Policy.

The insurance provided by the Contractor, or any applicable subcontractor, shall provide coverage for all operations which are necessary or incidental to the performance of the contract or applicable subcontract. If the work of this contract involves asbestos abatement or other hazardous waste or pollution abatement operations, the Certificate of Insurance provided by the Contractor, or applicable subcontractor, shall specifically state that coverage for that operation is included.

If applicable to the work of this Contract, any exclusions referring to operations within any specified distance of railroad property and/or facilities shall be deleted.

- C. Unless otherwise specifically required, the limits of all liability insurance to be procured by the Contractor shall not be less than the following:
  - 1. For the Contractor's Comprehensive General Liability and Automobile Liability:
    - CGL: A combined single limit of at least \$1,000,000 per Occurrence/\$1,000,000 Aggregate in the primary policy.
    - AUTO: A combined single limit of at least \$1,000,000 per Occurrence in the primary policy.

### PLUS

An Umbrella in the amount of at least \$5,000,000 that follows the coverage forms of the underlying liability policies or is broader.

The County of Onondaga and other parties as identified in the Special Project Conditions, shall be added to the Umbrella as additional insureds (as respects this project) and a certified copy of the Umbrella Policy (complete with the endorsements adding the additional insureds and providing 30 days' notice to the County of change, cancellation or nonrenewal) must be submitted along with the other insurance documents required herein.

2. For the Owner's Protective Liability and the Owner's Contractual Liability:

A combined single limit of \$2,000,000 per Occurrence in the primary policy.

(An Umbrella will not be acceptable for providing the specified limits for The Owner's Protective and Owner's Contractual Liability)

D. Subcontractors' Insurance

The kinds of insurance and amounts required to be procured and maintained by subcontractors (in addition to any coverage required by other sections of this Contract) shall be as follows:

- 1. <u>Comprehensive General Liability Insurance</u> providing coverage for the subcontractor, as the named insured in the form herein above required of the Contractor. (Owner's Protective and Owner's Contractual Liability Insurance is not required of subcontractors.)
- 2. <u>Comprehensive Automobile Liability Insurance</u> providing coverage for the subcontractor, as the named insured, as herein above required of the Contractor.
- 3. <u>Worker's Compensation, Employer's Liability and Disability Insurance</u> as required by the laws of the State of New York.
- 4. Unless otherwise specifically required, the limits of liability insurance to be procured by subcontractors shall not be less than the amounts required herein above to be furnished by the Prime Contractor.
- 5. If the work of the subcontract involves asbestos abatement or other hazardous waste or pollution abatement operations, the Certificate of Insurance provided by the subcontractor involved in such operations shall specifically state that coverage for that operation is included.
- E. Alternative or Additional Insurance

If required by the County of Onondaga, the Contractor and any subcontractor shall provide any other alternative or additional insurance coverage, with appropriate additions or deductions from the Contract price to be made pursuant to the provisions applicable to change orders.

### I-4.02. Construction (Property) Insurance.

- A. Unless otherwise provided in the Special Project Conditions, the County of Onondaga agrees to include the interest of the Contractor(s), subcontractors, and sub-subcontractors in an insurance policy covering all loss to the work, material, and equipment by perils covered under the all risk Property form, including malicious mischief and vandalism. The policy will be written by an insurance company licensed to issue such policies in the State of New York. Each of the Prime Contractors on this project will be named insureds on this policy with the County of Onondaga. Each Prime Contractor will be furnished a copy of the certificate of insurance after the Contract is executed. The County of Onondaga will purchase, pay for and maintain this insurance throughout the life of this Contract and, therefore, the cost of Construction Insurance shall not be included in the Contractor's bid.
- B. The amount of the insurance provided hereunder shall be at all times at least equal to the full value of the work, material and equipment complete and in place and the value of material and equipment delivered to the site or approved off-site storage locations.
- C. The insurance to be furnished by the County of Onondaga will cover only material and equipment which will become a permanent part of the completed project and scaffolding, construction forms and temporary structures, if their values are chargeable to the project.
- D The insurance to be provided hereunder shall include coverage for materials and equipment accepted for incorporation into the completed project and stored on the site of the work, stored in an off-site location which has been approved by the County of Onondaga or in transit between approved off-site storage locations and the project site.
- E. The insurance to be furnished by the County of Onondaga will include a deductible of \$2,500 on all perils of loss. The deductible shall be paid by the Contractor, or Contractors in proportion to their respective portions of loss if the loss affects more than one Prime Contractor.
- F. Following any loss which the Contractor believes may be covered by the insurance to be provided hereunder, the Contractor shall immediately notify the County of Onondaga. The County will report losses on behalf of the Contractor. The Contractor shall cooperate with the County and the insurer, or its authorized representatives, in their efforts to investigate and settle the claim, including providing any and all requested information, documentation and reports and providing safe access to the site for inspection. Contractors' failure to provide timely notification of loss to the County, or Contractors' failure to provide requested and adequate information or documentation, shall not prejudice the County in any manner whatsoever.

The Contractor is responsible for notifying law enforcement or other applicable authorities in the event of a loss and for compiling all pertinent and required information in a timely manner.

Following a loss, the Contractor shall immediately take all necessary and reasonable steps to protect the property from further damage or loss.

All costs incurred by the Contractor associated with the loss not covered by the loss settlement shall be borne by the Contractor.

- G. Any loss insured under the policy to be provided hereunder shall be adjusted with the County of Onondaga and made payable to the County of Onondaga as trustee for the insureds, as their interests may appear. The proceeds of any insured loss shall be credited to the capital project account out of which the Contract is funded and shall be distributed in accordance with such agreement as the parties in interest may reach. Actual disbursement of insurance proceeds in the agreed upon amounts shall be made by the County of Onondaga to the Contractor(s) in accordance with the prevailing standard procedures of the Onondaga County Comptroller.
- H. The County of Onondaga reserves the right to choose and determine the manner by which any damaged work covered by the insurance provided hereunder shall be replaced or repaired and the extent to which replacement or repair shall be accomplished. In the event the County of Onondaga chooses not to replace or repair damaged work, or chooses to have repairs or replacement accomplished by others, the Contractor(s) shall be paid in full by the County of Onondaga for the actual value of all work accomplished on the affected portion of the damaged facility prior to the time of the loss. The Contractor(s) shall not have any claim or be entitled to any payment, including loss of profit, for the value of lost or uncompleted work. Nor shall this provision in any way release the Contractor or the Contractor's surety from obligations under the Contract to fully complete the undamaged portions of the project. In the event the County of Onondaga chooses to have the repair or replacement of the damaged work performed under this Contract, said work shall be paid for and accomplished in accordance with the Change Order provisions of this contract.
- I. The County of Onondaga and the Prime Contractor(s) waive all rights against each other and the subcontractors, sub-subcontractors, officers, agents and employees of each other for damages caused by insured against perils to the extent covered by the insurance provided hereunder, except such rights as they may have to the proceeds of such insurance held by the County of Onondaga as trustee.
- J. If the County of Onondaga chooses to occupy or use a portion or portions of the work prior to substantial completion thereof, such occupancy shall not commence prior to a time mutually agreed to by the County of Onondaga and Contractor(s) and to which the insurance company or companies providing the property insurance have consented by endorsement to the policy or policies. The insurance provided hereunder shall not be cancelled or lapsed on account of such partial occupancy. Consent of the Contractor(s) and of the insurance company or companies to such occupancy or use shall not be unreasonably withheld.
- K. The County of Onondaga makes no guarantee, expressed or implied, in providing the hereunder described Property Insurance, that said insurance will cover any and all losses to the complete satisfaction of the Contractor(s), nor shall the County of Onondaga be under any obligation whatsoever to make good any loss or portion of loss not covered by said insurance.

The County of Onondaga assumes no liability, and the Contractor shall have no claim against the County of Onondaga, for the amount of a loss claimed by the Contractor which exceeds the actual proceeds received from the insurance provided hereunder. The Contractor shall have no claim against the County of Onondaga for any loss caused by perils not covered by the insurance provided by the County of Onondaga hereunder, nor shall the Contractor have any claim against the County of Onondaga for any loss to material, equipment or personal property not covered by the said insurance.

### I-4.03. Performance and Payment Bonds

- A. The Contractor, at his sole cost and expense, shall furnish a Performance Bond as security for faithful performance of this Contract, and a separate Labor and Material Payment Bond for the payment of all persons performing labor or furnishing materials in connection with this Contract. Each bond is to be furnished in five (5) copies.
- B. Unless otherwise required in the Special Project Conditions, each bond shall be in an amount at least equal to one hundred (100) percent of the accepted bid.
- C. The form of the bonds and the surety company(s) on each bond shall be acceptable to the County of Onondaga. The surety company(s) on each bond shall be authorized to conduct business in the State of New York.
- D. Unless otherwise required in the Special Project Conditions, each bond shall remain in force during the guarantee period provided in this Contract.
- E. The County of Onondaga reserves the right to make any additions to, omissions from, or changes in the work or material called for in the Contract Documents, without notice to the surety(s) on the bonds.
- F. The Performance Bond and Labor and Material Payment Bond shall each identify this Contract by Project Name, Contract Number and/or Name and Date of Contract. The Date of Contract shall be the date that the agreement is executed by the Onondaga County Executive. The Contractor will be advised of the Date of Contract after the Contract is executed and the date is known, and shall thereupon promptly submit the required bond. The Notice to Proceed with the work of the Contract will not be issued to the Contractor until the required bonds have been reviewed and approved by the Onondaga County Attorney.
- G. The bonds shall clearly identify the name, address and telephone number of the Surety's office and the name of the individual to whom correspondence concerning the Contract may be sent. The County reserves the right to correspond with the Contractor's surety in the event that non-performance or non-payment on the part of the Contractor appears, in the sole judgement of the County, to be jeopardizing successful or timely completion of the Contract. However, the County shall have no obligation to initiate or maintain such correspondence or to otherwise notify or apprise the Contractor's surety of the progress or status of the Contract, and failure by the County to make such notifications shall not relieve the Contractor or the Contractor's surety from any obligation it may otherwise have.

### I-4.04. Other Bonds.

In addition to the Performance and Payment Bonds required herein above, the Contractor shall provide at his expense such other specific bonds or special guarantees as may be called for in other sections of this Contract. Examples of special bonds which may be required include, but are not limited to, roof bonds, maintenance bonds and bonds posted in lieu of required experience.

### I-4.05. Additional Security.

If at any time the County of Onondaga shall be or become dissatisfied with any surety or sureties then upon the surety bonds, or if for any other reason such bonds shall cease to be adequate security to the County of Onondaga, the Contractor shall within five (5) days after notice from the County to do so, substitute another bond or bonds and surety(s), both of which shall be acceptable to the County. No payments on current estimates shall be deemed due nor shall be made until the new sureties shall have qualified and been accepted by the County of Onondaga.

### I-4.06. Hold Harmless, Defense and Indemnification.

The Contractor covenants and agrees to indemnify, defend and hold harmless the Owner and the Engineer, their officers, members, agents, and employees, from and against any and all damage, claim, cause of action, loss, or expense that may arise by reason of damage, injury or death, or for invasion of personal or property rights, of every name and nature, and whether casual or continuing trespass or nuisance, and any other claim for damages arising at law or in equity alleged to have been caused by, to arise from or be sustained by the Owner and the Engineer in whole or in part by or because of misfeasance, omission of duty, negligence or wrongful act on the part of the Contractor, its subcontractors, and their employees or agents, or because of any joint omission of duty, negligence or wrongful act on the part of the Contractor or Owner and the Engineer their officers, agents or employees in connection with this Agreement. The Contractor further covenants and agrees to obtain the necessary insurance as required by the General Obligations Law of the State of New York to effectuate this Hold Harmless' requirements.

### **CERTIFICATE OF INSURANCE**

### <u>**THIS CERTIFIES</u>** to the Onondaga County Department of Water Environment Protection 650 Hiawatha Boulevard, West Syracuse, New York 13204</u>

that the following described policies have been issued to:

NAME & ADDRESS\_\_\_\_\_

OF INSURED\_\_\_\_\_

COVERING (PROJECT)

	Company & Policy No.	Expiration Date	Limits of Liability
Kind of Insurance			
Workers Compensation & Employers Liability			Statutory
Disability Benefits Law			Statutory
Comprehensive General Liability			CSL of \$1,000,000 Occ/\$1,000,000 Agg in the Primary Policy
Comprehensive Auto Liability			CSL of \$1,000,000 Per Occurrence in the Primary Policy
Umbrella			\$5,000,000
Owner's Protective & Contractual Liability			A CSL of \$2,000,000 per Occurrence in the Primary Policy

The above-described policies specifically provide the following features or contain the following provisions, by endorsement specifically for this project if necessary;

- 1. The above policies will not expire and/or nonrenew, be cancelled for any reason or restricted in coverage until at least thirty (30) days prior written notice has been given, by Certified Mail, to the Onondaga County Department of Water Environment Protection.
- 2. The Comprehensive General Liability Policy specifically includes Premises Operations; Independent Contractors; Completed Operations; Blanket Broad Form Contractual Liability; Broad Form Property Damage; Explosion, Collapse and Underground Hazards; and Personal Injury Liability coverages.
- 3. There is no exclusion for actions on a Contract by a third party beneficiary arising out of a project for a public authority in the Owner's or the Contractor's Contractual Liability policies.
- 4. The above-described policies have been endorsed as necessary to provide the limits of liability indicated.

- 5. Automobile Liability coverage applies to owned, nonowned and hired automobiles and includes the MCS-90 endorsement.
- 6. The CGL, Auto and Umbrella policies have been endorsed to include the County of Onondaga, and other parties as identified in the Special Project Conditions, as additional insureds.
- 7. The CGL and Auto policies contain a Cross Liability or Separation of Insured clause.
- 8. All operations of the Contractor under this contract are covered by the insurance provided.
- 9. Coverage for \_\_\_\_\_

operation(s) is provided.

(Name of Insurance Agency)

(Signature of Authorized Representative)

(Address of Insurance Agency)

(Phone No.)

(Date)

### <u>SECTION 5 – CONFLICT OF INTEREST</u>

### I-5.01. Conflict of Interest.

- A. <u>Affidavit:</u> At the time the Contract is executed and, prior to performing any services, the Contractor shall serve upon the County Attorney the attached Affidavit certifying that the Contractor has no interest and will not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance of services to the County. The Affidavit shall further state that the Contractor agrees that in the rendering of services to the County no persons having any such interest shall be employed by the Contractor. The Contractor assumes full responsibility for knowing whether its employees or agents have any such interest and in certifying the absence of such conflict to the County.
- B. <u>Duty to Disclose</u>: During the course of performing services for the County, the Contractor agrees to disclose immediately to the County, by Affidavit, every known or apparent conflict of interest and every ostensible or potential conflict of interest of the Contractor, its employees and agents. The duty to disclose is a continuing duty. The Contractor agrees that disclosure is a material obligation of the contract and that failure to comply with these provisions affords the County the right to pursue any and all remedies for breach of contract. In the event of an apparent or actual conflict of interest during the course of performance, the Contractor agrees that all work, services and payments shall be suspended pending final approval by the County or the County may terminate the contract by written notice. Nothing herein shall be construed as limiting or waiving the County's right to pursue damages or other remedies.

A conflict of interest includes any circumstance which might influence or appear to influence the judgment of the Contractor, and the Contractor shall disclose the same. The Contractor shall disclose further the acceptance of compensation, monetary or otherwise, from more than one (1) payor or party for services on the same project or related project. The Contractor shall disclose further the direct or indirect solicitation or acceptance of financial or other consideration parties other than the County for such work on the project to which this contract pertains. If applicable, the Contractor shall disclose further the direct or indirect solicitation is the subject of the project, or in the immediate vicinity thereof. A conflict of interest on the part of the Contractor's employees or agents shall be deemed a conflict of interest on the part of the Contractor, giving rise to the same duty to disclose.

C. <u>Duty to Maintain Confidentiality:</u> The Contractor agrees not to disclose any data, facts or information concerning services performed for the County or obtained while performing such services, except as authorized by the County in writing or as may be required by law, funding or financing agreements.

### SECTION 6 - COUNTY and NEW YORK STATE PROVISIONS

### I-6.01 County Provisions

It is the public policy of the County of Onondaga that prevailing wages and supplements in accordance with the New York State Labor Law be paid to all workers engaged to perform work under public works contracts with the County of Onondaga. The County of Onondaga reserves the right to consider evidence of a violation of the New York State Labor Law in connection with the award of contracts for public work or the approval of subcontractors in connection with such work. At the discretion of the County of Onondaga, a finding by the New York State Department of Labor of one willful violation of a provision of the New York State Labor Law shall constitute evidence and sufficient grounds for the denial of the award of such contracts. All departments are directed to report to the Department of Law any evidence of a violation of the labor laws by the apparent low bidder seeking award of a public contract.

In the event that the contractor shall fail to pay the prevailing wages and supplements in accordance with Article 8 of the New York State Labor Law, Section 220 et. seq., and as described in this contract, it shall be considered a material breach of contract.

For the breach or violation of this provision, without limiting any other rights, remedies or recovery to which the County or any individual may be entitled or any civil or criminal penalty for which any violator may be liable, the County shall have the rights, in its discretion to terminate this agreement immediately upon notice. In such event, the contractor shall be liable to the County for any additional costs or expenses incurred by the County in the completion of the project, and for any other recovery, costs and expenses to which the County may be entitled.

### I-6.02 New York State Provisions

The Contractor and every subcontractor shall comply with all applicable provisions of Article 8, Sections 220-223 of the New York State Labor Law, as amended, in accordance with the New York State Department of Labor Contract Requirements and Wage Rate Schedule, which is included herein and made a part hereof (Appendix C), including the submission of Certified Payrolls, as described therein, whenever work is in progress, and prior to processing of progress payments to the Contractor. Certified Payrolls shall be submitted bi-weekly regardless of whether progress payment applications are being made.

In the event the Wage Rates are redetermined by the Department of Labor, the new Prevailing Wage Rate Schedule shall become a part of the Contract at no additional cost to the County. It is the responsibility of the Contractor to determine appropriate wage rates in compliance with Article 8 of the New York State Labor Law.

The Contractor and every subcontractor shall comply with the provisions of the following New York State clauses: "Standard Clauses for all New York State Contracts," and "Standard Clauses for all New York State Department of Environmental Conservation Contracts." The current published standard clauses at the time of the bid are included in Appendix D and E, respectively.

### SECTION 7 - AMERICAN IRON AND STEEL PROVISIONS

### I-7.01 American Iron and Steel Provisions

The Contractor acknowledges to and for the benefit of the County of Onondaga ("Purchaser") and New York (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

A sample letter of certification for AIS compliance has been included on the following page. All products provided under this contract, constructed of iron and/or steel, shall comply with this provision. The letter of certification shall be submitted to the Engineer during shop drawing review.

The following information is provided as a sample letter of certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name

Company Address City,

State Zip

Subject: American Iron and Steel Certification for Project (XXXXXXXXX)

I, (company representative), certify that the following products and/or materials shipped/provided to the subject project are in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

- 1. Xxxx
- 2. Xxxx
- 3. Xxxx

Such process took place at the following location:

Signed by company representative

If any of the above compliance statements change while providing material to this project, we will immediately notify the prime contractor and the Engineer.

# APPENDICES TO INFORMATION FOR BIDDERS

Appendix A

Onondaga County MBE/WBE Forms

Appendix B

Worker's Compensation Sample Forms

Appendix C

New York State Department of Labor Contract Requirements and Wage Rate Schedule (Complete)

Appendix D

"Standard Clauses for all New York State Contracts"

Appendix E

"Standard Clauses for all New York State Department of Environmental Conservation Contracts"

# APPENDICES TO INFORMATION FOR BIDDERS

Appendix F

NY State Revolving Fund MWBE / EEO / DBRA / AIS Bid Package for Construction Contracts

Appendix G

Davis-Bacon Wage Rates

# APPENDICES TO INFORMATION FOR BIDDERS

# <u>APPENDIX A</u> Onondaga County MBE/WBE Forms

## FORM A CONSULTANT/CONTRACTOR DETAILED MBE/WBE AND EEO UTILIZATION PLAN (DUE WITHIN 7 DAYS OF THE DATE OF THE LETTER OF INTENT)

Consultant/Co	entractor Name:						Constract Aurord	
Contract Type/	/Number:						Contract Award Date:	
Address:				City:			State:	
							Zip Code:	
Project Owner	Name:						Project No.:	
Address:				City:			State:	
							Zip Code:	
Authorized Re	presentative:						Title:	
Authorized Sig	gnature:							
Contract Desc	ription:							
		PRC	JECTED M/W	BE AND EEO CONTRAC	SUMMAR	Y		
		%	Amount			%	No. Employees	Work Hours
1. Total Dollar				5. Total No. Employees/Worl	k Hours			
Prime Conti	ract			6 Total Coal for Minority Em				
2. MBE Goal A	Applied to the Contract			6. Total Goal for Minority Em	ipioyees			
				7. Total Goal for Female Em	ployees			
3. WBE Goal A	Applied to the Contract							
	Combined Totals			8. EEO Combined Totals				
	EFC A		TRATIVE SE	RVICES UNIT'S M/WBE PF	ROGRAMS	USE ON	İLY	
Pro	posed Goals	Dat	e Approved	Date Disapproved			Initials	
MBE (%)	EEO-Minorities (%)							
WBE (%)	EEO-Minorities (%)							

### FORM A CONTINUED

### **SECTION I - MBE INFORMATION:**

In order to achieve the MBE Goals, New York State certified MINORITY-OWNED firms are expected to participate in the following manner.

MBE Firm	Description of Work (MBE)	Project MBE Contract Amount and Award Date	Contract Schedule Start Date	Contract Payment Schedule	Project Completion Date
Name: Address: City: State/Zip Code: Telephone No.:		\$ Date:			
Name: Address: City: State/Zip Code: Telephone No.:		\$ Date:			
Name: Address: City: State/Zip Code: Telephone No.:		\$ Date:			

### FORM A CONTINUED

#### SECTION II - WBE INFORMATION

#### In order to achieve the WBE Goals, New York State certified WOMEN-OWNED firms are expected to participate in the following manner.

WBE Firm	Description of Work (WBE)	Project WBE Contract Amount and Award Date	Contract Schedule Start Date	Contract Payment Schedule	Project Completion Date
Name: Address: City: State/Zip Code: Telephone No.:		\$ Date:			
Name: Address: City: State/Zip Code: Telephone No.:		\$ Date:			
Name: Address: City: State/Zip Code: Telephone No.:		\$ Date:			

### FORM A CONTINUED

#### SECTION III - EEO INFORMATION:

In order to achieve the EEO Goals, Minorities and Females are expected to be employed in the following job categories for the specified amount of work hours.

		All Employees		Minority Employees			
Job Categories	Total Work Hours of Contract	Males	Females	Black	Asian	Native American	Hispanic
Officials/ Managers							
Professionals							
Technicians							
Sales Workers							
Office/Clerical							
Craftsmen							
Laborers							
Service/ Workers							
TOTALS							

# FORM B CONTRACTOR'S MINORITY & WOMEN WORKFORCE UTILIZATION PLAN

(DUE WITHIN 7 DAYS OF THE DATE OF THE LETTER OF INTENT)

Address: Project Name:		C.	ontract #:	
Duration of Project:		to:		
Minority Workforce Goal:		Women Workforce Goal:	5%	
CONTRACTOR'S WORKFO	ORCE ON PROJECT:			
Positions		<u>#</u>	<u>Employees</u>	
Superintendents				
Foremen				
Journeymen				
Apprentices				
Laborers				
Other Positions (specify)				
Total Workforce				
Minorities Utilized	l in Workforce	<u>Women U</u>	Itilized in Wo	<u>rkforce</u>
<b>Positions</b>	<u># Employees</u>	Positions		<u># Employees</u>
1 2 3 4				
Minority Percent	tage	Women Percentage		
				_

This form to be submitted to Onondaga County, Human Rights Commission, prior to Contract Award. Submit with Form B1 attached.

# FORM B1 MINORITY AND WOMEN WORKFORCE UTILIZATION PLAN DETAILED WORKFORCE LISTING

Company Name:	Contract:	
Street:	Date Filed:	
City/State:		

Employee Name Street City Telephone	Payroll No.	Social Security Number	Position	Hourly Rate	Starting Date	Date Work Ends	Minority/ Female	Position Filled/ Unfilled

### <u>CONTRACTOR BID SOLICITATION LETTER</u> (SHOULD BE SENT A MINIMUM OF 20 BUSINESS DAYS PRIOR TO BID DATE)

Dear MBE/WBE:

Re:

We plan to submit a bid for OCDWEP Contract # \_\_\_\_\_\_ which involves (\_\_\_\_\_\_\_) for the (\_\_\_\_\_\_\_) for the (\_\_\_\_\_\_\_), New York. We are currently soliciting bid quotations or proposals from qualified MBE/WBE firms for any portions of the work contained in this contract. Specialty items contained in this Contract that may be subcontracted to M/WBE firms include the following:

ITEM	DESCRIPTION	QUALITY	PROJECTED START DATE

Workplans and specifications are currently available at our office for your review. If you are interested in participation on this project, please complete and submit a copy of the MBE/WBE Contractor Participation Bid/Proposal Form E (Attachment 8 – NYSDEC Handbook of Procedures – OAA/WBE #26) by no later than five (5) business days in advance of the receipt of bids.

If you need additional information and assistance, or need to review the workplans and specifications, please contact ( ) of our office at ( ).

In the event that you cannot bid on this contract, please complete the attached Minority/Women Contractor Unavailability Certification Form F (Attachment 9 NYSDEC Handbook of Procedures – OAA/MBE #27) and return within five (5) days in advance of the receipt of bids.

Thank you for your interest as we look forward to a successful project.

Sincerely,

Attachment

## MINORITY/WOMEN CONTRACTOR PARTICIPATION LETTER OF INTENT DUE WITHIN 7 DAYS OF THE DATE OF THE LETTER OF INTENT

Grantee:			
Address:			
Dear Grantee:			
I. I,	_, located at	, intend to perform	rm work for
	, in connectio	n with the above pr	oject.
Minority/Women Business Enterprise (MBE/WI	BE) status as _	MBE ( ) AND	/OR WBE( ).
Is certified as of			
II	is pr	epared to perform t	he following:
Describe work to be performed on the above j	project	Unit Price	Total Amount
You have projected			
will sign a form approval of your executed contract with a grante		the above work co	nditioned upon the
MBE or WBE (circle one)	Cons	ultant or Contractor	r (circle one)
Address	Addr	ess	
Telephone Number	Telep	hone Number	
Signature of MBE/WBE	Signa	atures of Prime Con	tractor/Consultant
Name	Name	2	
Title Date	Title		Date

### **MBE/WBE CONTRACTOR BID PROPOSAL**

SHOULD BE RETURNED TO THE PRIME A MINIMUM OF 5 DAYS IN ADVANCE OF THE BID

То: \_\_\_

# NAME OF PRIME BIDDER/CONTRACTOR

Proposes to perform work as follows:

NAME OF FIRM

(Specify in detail the particular work items or parts to be performed thereof and associated dollar amounts):

TYPE OF WORK	UNIT PRICE	QUANTITY	DOLLAR AMOUNT

NAME OF MBE/WBE CONTRACTOR

BY:

### **MINORITY/WOMEN CONTRACTOR UNAVAILABILITY CERTIFICATION** DUE WITHIN 7 DAYS OF THE DATE OF THE LETTER OF INTENT

1.	CONSULTANT/CONTRACTOR COMPLETES:	: Re:
I,	(principal of prime consultant/contractor)	
of	(principal of prime consultant/contractor)	(title)
<u> </u>	(name of consultant's/contractor's firm)	(address)
		(telephone number)
BIDS	TFY THAT ON ORITY/WOMEN BUSINESS ENTERPRISE CONTRAC FOR WORK ITEMS TO BE PERFORMED ON THE ECT CONTRACT # AREA O (Attach the names of MBE/WBE's, Ty	OF WORK MBE/WBE ASKED TO BID FOR:
то т	HE BEST OF MY KNOWLEDGE AND BELIEF. SAID	D MINORITY/WOMEN BUSINESS ENTERPRISE

TO THE BEST OF MY KNOWLEDGE AND BELIEF, SAID MINORITY/WOMEN BUSINESS ENTERPRISE CONTRACTOR(S) WAS UNAVAILABLE FOR WORK ON THIS PROJECT, OR UNABLE TO PREPARE A BID, FOR THE FOLLOWING REASONS: <u>PLEASE PLACE A LETTER CODE CORRESPONDING TO THE CODE GIVEN TO EACH MBE/WBE FIRM CONTACTED ABOVE.</u>

- \_\_\_\_\_ Did not have the capability of performing the work sought
- \_\_\_\_\_ Contract too small
- \_\_\_\_\_ Location too remote
- \_\_\_\_\_ Received solicitation notice too late
- \_\_\_\_\_ Did not want to work for this contractor
- \_\_\_\_\_ Other (give reason)

SIGNATURE OF PRIME CONSULTANT/CONTRACTOR

# FORM G (DUE WITH EACH MONTHLY PAYMENT REQUEST)

Project Name						County FAMI	S Project #		
			MONTHLY R	<b>EPORT</b>		SRF Project #			
			County of On	ondaga		Bond Act Con	tract #		
	Mon	th of		Year		EPA Grant #			
ENGIN	EER/CONTRACTO	R'S MINORIT	Y AND WOM	ENS BUSINF	SS (M/WBE)	MONTHLY R	EPORT		
The following information indicates the p contractor on this project. The payments								from the	
ENGINEER/CONTRACTOR		CONTRACT N	NO		_				
ORIG. CONTRACT AMOUNT		AMOUNT PA	ID TO ENGINE	ER/CONTRAC	TOR THIS MON	VTH			
MBE Goal / Amount % =		WBE Goal / An	mount %	=					
Subcontractor/Description of Services	Work Status This Report		contractor t Amount	Payments	This Month	Previous	Payments		ayments to Date
		MBE	WBE	MBE	WBE	MBE	WBE	MBE	WBE
	Active								
	Inactive								
	Complete								
	Active								
	Inactive								
	Complete								
	Active								
	Inactive								
	Complete								
	Active								
	Inactive								
	Complete								
	Active								
	Inactive								
	Complete								
TOTAL									
% of TOTAL CONTRACT									

Date

# FORM H EMPLOYMENT INFORMATION REPORT HRC-1

(DUE WITHIN 7 DAYS OF THE DATE OF THE LETTER OF INTENT)

### EQUAL EMPLOYMENT OPPORTUNITY

Human Rights Commission of Syracuse and Onondaga County John H. Mulroy Civic Center 421 Montgomery Street, 11th Floor Syracuse, New York 13202 315-435-3567

TELEPHONE

ZIP CODE

#### **SECTION A - COMPANY IDENTIFICATION**

(To be answered by all respondents)

1 Report unit for which this report is filed. (If a combined report covering two or more units, please so indicate and identify the area covered by this report)

A NAME OF REPORTING UNIT

ADDRESS (NUMBER & STREET)

STATE

# **SECTION B - REPORTING UNIT INFORMATION**

CITY

	ALL	EMPLO	(EES						MI	NOR	ITY (	GRO	UP E	EMPL	OYEES	6					
							М	ALE								FEI	MAL	E			
JOB CATEGORIES	TOTAL COLS 2,3	Male	Female	A F I C A N	A M E R I C A N	L A T I N O	N A T I V E	A M E R I C A N	A S I A N O R	P A C I S L A D E R	M U L T I	R A C I A L	A F R I C A N	A M E R I C A N	L A T I N O	N A T I V E	A M E R I C A N	A S I A N O R	P A C I S L A D E R	M U L T I	R A C I A L
	(1)	(2)	(3)		(4)	(5)	(	6)	(	7)	(	8)	(	9)	(10)	(*	11)	(	12)	(1	13)
Officials & Mgrs																					
Professionals																					
Technicians																					
Sales Workers																					
Office & Clerical																					
Craftsman Skilled																					
Operatives Semi-Skilled																					
Laborer Un- skilled																					
Service Worker																					
TOTALS																					
TOTAL EMPS from previous																					

### **SECTION C - REMARKS**

Use this item to give any identification data appearing on last report which differs from that given above, explain major changes in employment, changes in composition of reporting units and other pertinent information.

SECTIO	ON D - SIGNATURE AND IDENTI	FICATION	
	(To be answered by all respondent	:s)	
NAME (SIGNATURE)	ADDRESS (NUMBER AND STREET)		DATE OF REPORT
NAME (TYPE or PRINT)	СІТҮ		TELEPHONE AREA CODE EXT. NUMBER
TITLE	STATE	ZIP CODE	

#### WILLFULLY FALSE STATEMENTS ON THIS REPORT ARE PUNISHABLE BY LAW

### INSTRUCTIONS FOR FILING MONTHLY EMPLOYMENT UTILIZATION REPORT - FORM I

The Monthly Employment Utilization Report is to be completed by each subject contractor (both Prime and Sub) and signed by a responsible official of the company. The reports are to be filed by the 5<sup>th</sup> day of each month during the term of the contract, and they shall include the total work-hours for each employee classification in each trade in the covered area for the monthly reporting period. The prime contractor is responsible for submitting its subcontractors report, along with its own.

Minority	Includes Black, Hispanics, American Indians, Alaskan Natives and Asian and Pacific Islanders, both men and women.
1. Current Goals	As stated Bid Conditions.
2. Reporting Period	From the first to the end of the month. Due on the 5th day of the following month.
3. Estimated Completion Date	Best possible estimation.
4. Percent of job completed	% project work contractor of sub-contractor has completed.
5. Work-Hours of Employment	a. The total number of male hours and the total (a-e) number of female hours worked by employees in each classification. be. The total number of male hours and and the total number of female hours worked by each specified group of minority employees in each classification.
6. Minority Percentage	The percentage of total minority work-hours of all work- hours (the sum of columns 5b, 5c, 5d, and 5e divided by column 5a; just one figure for each construction trade).
7. Female Percentage	For each trade the number reported in 5a. (F) divided by the sum of the numbers reported in 5a. M and F.
8. Total Number of Employees.	Total number of male and total number of female employees working in each classification of each trade in the contractor's aggregate workforce during reporting period.
9. Total Number of Minority Employees	Total number of male minority employees and total number of female minority employees working in each classification in each trade in the contractor's aggregate workforce during reporting period.
10. Construction Trade	Only those construction crafts which contractor employs in the covered area.
11. and 12.	These items must be completed.

#### FORM I <u>MONTHLY EMPLOYMENT UTILIZATION REPOR</u>T (See Reverse Side for Instructions) (DUE WITH EACH MONTHLY PAYMENT REQUEST)

Project:					1. Currer	Current Goals: Minority Fema				le 2. Reporting Period Mo Yr				Date:		pletion Date:	
Return To:									Name &	Location of	of Contractor:						4. Percent of Job Completed
5. Work Hours of Employment															loyee		
5a.	All Emplo	yees	5b. Black	s !	5c. Hispan		ōd. Asian o acific Islar		merican l Iaskan Na		6. Minority	7. Female	8.	Total	9. Mi	nority	10. Construction
Classification	м	F	м	F	м	F	M	F	Maskan Na	F	Percentage	Percentage	м	F	м	F	Trades
Supervisory																	
Journey Worker																	
Apprentice																	
Trainee																	
Sub Total																	
Journey Worker																	
Apprentice																	
Trainee																	
Sub Total																	
Journey Worker																	
Apprentice																	
Trainee																	
Sub Total																	
TOTAL SUPERVISORS																	
TOTAL JOURNEY WORKERS																	
TOTAL APPRENTICES																	
TOTAL TRAINEES																	
GRAND TOTAL																	
11. Company Officials' Signature	e & Title:								12. Telep	hone Nur	nber (Include A	rea Code)				Date Sig	ned

# **APPENDICES TO INFORMATION FOR BIDDERS**

<u>APPENDIX B</u> Workers' Compensation Sample Forms

NCS 100101 100 Broadway Alexands ALBANY 12241 (866) 750- 5157 Facd (518) 473-9166	WCIDB100191 State Office Building 44 Hawiny Street BINGHAMTON 13901 (866) 802-3504 Faad (607) 721-8324	WCIGB100101 111 Livingston SL 22nd Floor BROOKLYN 11201 (800) 877-1373 Faad (718) 802-8842	107 Delaware Ave. BUFFALO (865) 211- 0545 Face (716) 642-2132	WC/08100101 220 Rabro Drive Suite 100 HAUPPAUGE 11785 (866) 681-5354 Fault (631) 952-7966	NYS WC8 WC001000101 175 Fulton Aws. HEMPSTEAD 11550 (860) 805-3630 Fatal (516) 560-7607	WC/DB182/101 215 W, 125th SL 3rd Floor NEW YORK 10027 (800) 677-1373 Fault (212) 316-9163	WC08100101 41 North Division St. PEEKSR0L1 105805 (868) 746- 0552 Face (914) 788-5783	168-40 9181 Ave. 3rd Floor QUEENS 11432 (800) 677- 1373 Faad (718) 291-7248	NYS WC8 WC/DB160/161 130 Main St ROCHESTER 14614 (865) 211- 0844 Face (565) 238-8351	NYS WCB WCC0100101 935 James St SYRACUSE 13203 (866) 802-3730 Faof (315) 423- 2938
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Affidavit For New York Entities And Any Out Of State Entities With No Employees, That New York State Workers' Compensation And/Or Disability Benefits Insurance Coverage Is Not Required (Incomplete forms will be returned – Please contact an attorney if you have any questions regarding this form.)

\*\*This form cannot be used to waive the workers' compensation rights or obligations of any party including a subcontractor\*\*

The applicant may use this Affidavit <u>ONLY</u> to show a government entity that New York State specific worker compensation and/or disability benefits insurance is not required. The applicant may <u>NOT</u> use this form to show either other businesses or those business' insurance carriers that such insurance is not required.

Applicant must either fax or mail this completed form to the closest New York State Workers' Compensation Board office at the fax number or address listed on the top of this form. Incomplete forms will be returned.

Please note: This statement must be notarized and also have been stamped by the New York State Workers' Compensation Board. This affidam will not be accepted by government officials one year from the date received by the Workers' Compensation Board.

Upon receipt of a fully completed WC/DB 100 form, the Workers' Compensation Board will stamp this form as received and return it to you by eith mail or fax. Please provide a copy (or the original, if required by the government entity) of this stamped form to the government entity from which ye are requesting a permit, license or contract.

In the Application of (Business Name and Address)

			11					
for a	permit/lic	ense/contract	11	``				
State of	- 2. 1		$) \setminus$					
County of	) ss.: )	/ /						
1 1 + /		name being d		oses and say	s: /b	usiness	or trade	name).
1. I am the	(type of busine	ss). The teleph		of the busines				The Feder
Employer Identification Number	er of the business	s (or the Social	Security Nun	aber of the bu	usiness owner)	is		
The New York State Unemplo	vment Insurance	Employek Reg	istration Nun	nber (if any)	of the busines	s is		I affin
that due to my position with the	above-named b	usiness I have th	he knowledge	, information	and authority	to make th	is affidavit	
2. My personal address is					and n	ny home	telephone	number
()	. 1							
3. That the above named by	isiness is apply	ing for a		en lassilges	100000000000000000000000000000000000000	(type of	permit/ lic	ense/contra
applying for) from	· · · ·		(go	vernmental e	ntity issuing the	e permit/ l	icense/cont	ract).
3a) (Optional -	Location	of where	work v	will be	performed	in 1	New Y	ork Sta
					from	to	(da	tes necessar

to complete work associated with permit/license/contract). The estimated dollar amount of project is \_\_\_\_\_

4. That the above named business is certifying that it is exempt from obtaining New York State specific workers' compensation insurance coverage for the following reason (to be eligible for exemption, applicant must be able to truthfully check ONE of the boxe from 4a. through 4h.):

4a.) the business is owned by one individual and is not a corporation. Other than the owner, there are no employees, leased employees, borrowed employees, part-time employees, subcontractors or unpaid volunteers (including family members).

4b.) the business is a partnership under the laws of New York State and is not a corporation. Other than the partners, there are memory employees, leased employees, borrowed employees, part-time employees, subcontractors or unpaid volunteers (including family members). (Must attach separate sheet with a list of all the partners names and also with the signatures of all the partners.)

4c.) the business is a one person owned corporation, with that individual owning all of the stock and holding all offices of the corporation. Other than the corporate owner, there are no employees, leased employees, borrowed employees, part-time employees subcontractors or unpaid volunteers (including family members).

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.WC/DB 100 (12/03) {Replaces C-105.21 Form}

	4d.) the business is a two person owned corporation, with those individuals owning all of the stock and holding all offices of the corporation (each individual must own at least one share of stock). Other than the corporate owners, there are no employees, lease employees, borrowed employees, part-time employees, subcontractors or unpaid volunteers (including family members). (Must attached separate sheet with a list of the names of both owners, and also with both owners' signatures.)
	4e.) the applicant is a nonprofit entity (under IRS rules). With the exception of clergy or teachers, the nonprofit has no compensate individuals or subcontractors providing any services.
	4f.) the business is a farm with less than \$1,200 in payroll the preceding calendar year.
	4g.) the applicant is a homeowner serving as the general contractor for his/her primary/secondary personal residence. On uncompensated friends/family are helping to build this structure.
	4h.) other than the business owner(s) and individuals obtained from a registered temporary service agency, there are no employees leased employees, borrowed employees, part-time employees, subcontractors or unpaid volunteers (including family members). Oth than the business owner(s), all individuals providing services to the business are obtained from a registered temporary service agence and that agency has covered these individuals for New York State workers' compensation insurance. In addition, the business owned by one individual or is a partnership under the laws of New York State and is not a corporation; or is a one or two persco owned corporation, with those individuals owning all of the stock and holding all offices of the corporation
5. T the i	hat the above named business is certifying that it is exempt from obtaining New York State disability benefits insurance coverage f following reason (to be eligible for exemption, applicant must be able to truthfully check ONE of the boxes from 5a, through 5f.):
	5a.) the business is owned by one individual or is a partnership under the laws of New York State and is not a corporation; or is a or or two person owned corporation, with those individuals owning all of the stock and holding all offices of the corporation. In addition the business does not require disability benefits coverage at this time since it has not employed one or more individuals on at least days in any calendar year in New York State. (Independent contractors are not considered to be employees under the Disabili- Benefits Law.)
	5b.) the applicant is a political subdivision that is legally exempt from providing statutory disability benefits coverage.
	5c.) the applicant is a nonprofit religious, charitable or educational institution. With the exception of executive officers, clerg- sextons, teachers or professionals, the nonprofit has no compensated individuals providing services.
	5d.) the business is a farm and all employees are farm laborers.
	Se.) the applicant is a homeowner serving as the general contractor for his/her primary/secondary personal residence. On uncompensated friends/family are helping to build this structure.
6. The formation of the	5f.) other than the business owner(s) and individuals obtained from the temporary service agency, there are no other employees. Other than the business owner(s), all individuals providing services to the business are obtained from a registered temporary service agence and that agency has covered these individuals for New York State disability benefits insurance. In addition, the business is owned be one individual or is a partnership under the laws of New York State and is not a corporation; or is a one or two person owner corporation, with those individuals owning all of the stock and holding all offices of the corporation. hat if circumstances change so that workers' compensation insurance and/or disability benefits coverage is required, such as the hirin mployees, the above-named business will immediately acquire appropriate New York State specific workers' compensation insurance or disability benefits coverage and also immediately furnish proof of that coverage on forms approved by the Chair of the Workers' pensation Board to the government entity listed in item 3 on the front of this form. That based on the facts presented, I certify that the above-named business does not require (check box 7a. and/or 7b.):
	7a.) workers' compensation insurance. (applicant must have checked ONE of the boxes from 4a. through 4h.)
8. By state repre	7b.) disability benefits insurance. (applicant must have checked ONE of the boxes from 5a. through 5f.) y signing my name below, I hereby affirm that the statements made herein are true, that I have not made any materially false ements and I make this affidavit under the penalties of perjury. I further affirm that I understand that any false statement esentation or concealment will subject me to felony criminal prosecution, including jail and civil liability in accordance with the kers' Compensation Law and all other New York State laws.
	(Applicant's Signature - first and last name)
	Sworn to before me this Day of, 20
	Notary Public

NYS Workers' Compensation Board Received Stamp

Because this is a sworn affidavit, employees of the Workers' Compensation Board cannot assist applicants in answering questions about this form.

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z:WC/DB 100 (12/03) {Replaces C-105.21 Form}

(Over)



(Incomplete forms will be returned - Please contact an attorney if you have any questions regarding this form.)

\*\*This form cannot be used to waive the workers' compensation rights or obligations of any party including a subcontractor\*\*

The applicant may use this Affidavit ONLY to show a government entity that New York, State specific workers" compensation and/or disability benefits insurance is not required. The applicant may NOT use this form to show either other businesses or those business' insurance carriers that such insurance is not required.

Applicant must either fax or mail this completed form to the closest New York State Workers' Compensation Board office at the fax number or address listed on the top of this form. Incomplete forms will be returned.

Please note: This statement must be notarized and also have been stamped by the New York State Workers' Compensation. Board. This affidavit will not be accepted by government officials one year from the date received by the Workers' Compensation Board.

Upon receipt of a fully completed WC/DB-101 form, the Workers' Compensation Board will stamp this form as received and return it to you by either mail or fax. Please provide a copy (or the original, if required by the government entity) of this stamped form to the government entity from which you are requesting a permit/license or contract.

In the Application of (Business Name and Address)
for a permit/tipense/contract
State of
County of) ss.:
(applicant's name) being duly sworn, deposes and says:
1. I am the (position) with (business or trade name), a
(type of business). The telephone number of the business is () The Federal Employer Identification Number of the business (or the Social Security
Number of the business owner) is The New York State Unemployment Insurance
Employer Registration Number (if any) of the business is I affirm that due to my position with the above-named business I have the knowledge, information and authority to make this affidavit.
2. My personal address is and my home telephone
number is (
3. That the above named business is applying for a (type of permit/ license/contract
applying for) from (governmental entity issuing the permit/ license/contract). 3a) (Optional - Location of where work will be performed in New York State
3a) {Optional - Location of where work will be performed in New York State from to (dates
necessary to complete work associated with permit/license/contract). The estimated dollar amount of project is
4. That the above named business is certifying that it is exempt from obtaining New York State specific workers' compensations insurance coverage for the following reason (to be eligible for exemption, applicant must be able to truthfully check either box 4a or 4b

(Over) WC/DB-101 (12/03) {Replaces C-105.21 Form} -54a) the business is from outside of New York State, and wishes to use its foreign or other state's workers' compensation insurant policy to cover its employees while they are working in New York State. To check this bax, the applicant <u>MIIST</u> have New York (NY) specifically listed on Item 3C on the Information Page of its workers' compensation insurance policy (Exception-3C coverage not required for contracts where ALL work is done outside of New York State), and <u>MUST</u> attach a certificate of insurance from foreign or other State's workers' compensation insurance policy to this Affidavit (and listed the governmental entity issuing to permit/ license/contract as the Certificate Holder). Further, by checking box "4a" on this form, the applicant <u>CERTIFIES</u> that for the period covered by this exemption form the above business DOES NOT or WILL NOT meet any of the following four criter (4aa, -4ad.).

4aa. has a physical location within New York State, nor

4ab. has more than \$50,000 in labor costs in a calendar year for employees and subcontractors working in New York State, nor

4ac. has one or more employees (including subcontractors) with a primary work location or hired within New York State, nor

4ad. has an employee or employees (including subcontractors) working in New York State more than 90 days in a calendar year.

Applicants that meet any of the above four criteria (4aa. – 4ad.), CANNOT check "box 4a" on this form and CANNOT file the form for a workers' compensation exemption. PLEASE NOTE: Applicants that meet any of the above four criteria (4aa. – 4ad.), ar REQUIRED to have a full New York State workers' compensation policy (NY listed under <u>Item 3A</u> on the Information Page of the insurance policy) and must file either a C-105.2 – Certificate of Workers' Compensation Insurance OR a U-26.3, the State Insuran-Fund's version of this form (the business' insurance carrier will send these forms to the government entity issuing the permit, licenor contract upon the business' request) as proof of this coverage. [Applicants that DO NOT meet any of the above four criteria (4az. – 4ad.) are NOT required to have NY listed under <u>Item 3A</u> on the Information Page of the insurance policy. Instead, the out-of-star employer's employees will be covered when working in New York by having NY listed in <u>Item 3C</u> on the Information Page of the workers' compensation insurance policy (the other-states section).]

4b) All employees from the entity applying for the permit, license or contract are direct employees of a government entity outside = New York State and such employees are outside the jurisdiction of New York State workers' compensation coverage. (Application MUST attach a certificate of insurance from its foreign or other State's workers' compensation insurance policy to this Affidavit)

5. That the above named business is certifying that it is exempt from obtaining New York State disability benefits insurance coverage for the following reason (to be eligible for exemption, applicant must be able to truthfully check ONE of the boxes from Sa. through 5b.):

5a.) the business does not require disability benefits coverage at this time since it has not employed one or more individuals on least 30 days in any calendar year in New York State. (Independent contractors are not considered to be employees under t Disability Benefits Law.)

5b.) All employees from the entity applying for the permit, license or contract are direct employees of a government entity outside e New York State and such employees are outside the jurisdiction of New York disability benefits coverage.

6. That if circumstances change so that workers' compensation insurance and/or disability benefits coverage is required, the above named business will immediately acquire appropriate New York State specific workers' compensation insurance and/or disability benefits coverage and also immediately furnish proof of that coverage on forms approved by the Chair of the Workers' Compensation Board to the government entity listed in item 3 on the front of this form.

7. That based on the facts presented, I certify that the above-named business does not require (check box 7a. and/or 7b.):

7a.) workers' compensation insurance. (applicant must have checked box 4a or 4b and attached a certificate of insurance from inforeign or other State's workers' compensation insurance policy to this Affidavit)

7b.) disability benefits insurance. (applicant must have checked either box 5a.or 5b.)

8. By signing my name below, I hereby affirm that the statements made herein are true, that I have not made any materially falstatements and I make this affidavit under the penalties of perjury. I further affirm that I understand that any false statement representation or concealment will subject me to felony criminal prosecution, including jail and civil liability in accordance with the Workers' Compensation Law and all other New York State laws.

	(Applicant's S	Signature – firsi	t and last name)	
Sworn to before me this Day of, 20				
Notary Public				
		Markers' /	omenation Heard D	Second Sterror

Because this is a sworn affidavit, employees of the Workers' Compensation Board cannot assist applicants in answering questions about this form.

WC/DB-101 (12/03) {Replaces C-105.21 Form}

(Over)

#### STATE OF NEW YORK WORKERS' COMPENSATION BOARD

### CERTIFICATE OF NYS WORKERS' COMPENSATION INSURANCE COVERAGE

1a. Legal Name and address of Insured (Use street address only)	1b. Business Telephone Number of Insured
• •;	Ic. NYS Unemployment Insurance Employer Registration Number of Insured
Work Location of Insured (Only required if coverage is specifically limited to certain locations in New York State, i.e. a Wrap-Up Policy)	Id. Federal Employer Identification Number of Insured or Social Security Number
2. Name and Address of the Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder)	<ul> <li>3a. Name of Insurance Carrier</li> <li>3b. Policy Number of entity listed in port 1a":</li> <li>3c. Policy effective period:</li> <li>4. The Proprietor, Palatners or Executive Officers are:</li> <li>1. Included. (Only check box if all partners/officers included)</li> <li>3. Oli excluded or certain partners/officers excluded.</li> <li>3e. Demolition is: (Definition of Demolition on Reverse)</li> </ul>
	☐ included.

This certifies that the insurance carrier indicated above in size of "insures the business referenced above in box "1a" for workers' compensation under the New York State Workers' Compensation Law. (To use this form, New York (NY) must be listed under <u>Item 3A</u> on the INFORMATION PAGE of the workers' compensation insurance policy). The Insurance Carrier or its licensed agent will send this Compensation will super to the party listed above as the certificate holder in box "2".

The Insurance Carrier will also patify the above sertificate holder within 10 days IF a policy is canceled due to nonpayment of premiums or within 30 days IF there are reasons other thomas payment of premiums that cancel the policy or eliminate the insured from the coverage indicated on this Certificate (These notices may be sent by regular mail.) Otherwise, this Certificate is valid for a maximum of one year given this form is approved by the insurance carrier or its licensed agent.

Please Not: Upon the cancellation of the workers' compensation policy indicated on this form, if the business continues to be named on a permit, license of contract study for certificate holder, the business must provide that certificate holder with a new Certificate of Workers' Compensation of the other attact the business is complying with the mandatory coverage requirements of the New York State Workers' Compensation Los

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the maned insured has the coverage as depicted on this form.

	(Print name of authorized representa	tive or licensed agent of insurance carrier)
Approved by:		
	(Signature)	(Datc)
Title:	and the fight set of a set of the first set of the set	1.22 Physics excelling Weik By B.

Telephone Number of authorized representative or licensed agent of insurance carrier:

Please Note: Only insurance carriers and their licensed agents are authorized to issue the C-105.2 form. Insurance brokers are NOT authorized to issue it. C-105.2 (12-03)
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#### Section 57. Restriction on issue of permits and the entering into contracts unless compensation is secured.

1. The head of a state or municipal department, board, commission or office authorized or required by law to issue any permit for or in connection with any work involving the employment of employees in a hazardous employment defined by this chapter, and notwithstanding any general or special statute requiring or authorizing the issue of such permits, shall not issue such permit unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that compensation for all employees has been secured as provided by this chapter. Nothing herein, however, shall be construed as creating any liability on the part of such state for municipal department, board\_commission or office to pay any compensation to any such employee if so employed.

2. The head of a state or municipal department, board, commission or office authorized or required by law to enterinto any contract for orin connection with any work involving the employment of employees in a hazardous employment defined by this chapter, not withstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract inless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that compensation for all employees has been secured as provided bythis chapter.

#### Definition of Demolition (Box "3e." on the reverse side of this form)

A building wrecking or demolition is one where a building, chimney or steeple stazed, or where a floor, exterior wall or roof is removed. If the contract involves only the removal of interior walls, partitions or the facing only of any exterior wall, it is not considered demolition.

Out-of-State Companies Working in NYS - NYS Workers' Compensation and Disability Benefits Requirements for Permits, Licenses or Contracts issued by NYS Government Entere

Generally, employers must have a workers' compensation policy or a combination of policies that cover each state in which they employ permanent employees to cover on-the-job accidents and disabilities. As you are probably aware, certain insurance carriers write policies that cover multiple states. "Riders" found to the sections 3A and 3C on the information Page of the policy specify the states of coverage. In addition, the operations covered in each state are utentified in auchments to the policy.

In addition to any other state's workers' compensation coverages an out-of-state employer needs to be specifically covered for NYS workers' compensation insurance when there are "sufficient contacts" between that employer and the state. While there is no single determinative factor, any of the blowing criteria could be the basis for finding "sufficient contacts" requiring New York coverage:

- a physical location white the York State;
- \$50,000 in payroll during a cale and wear in New York State;
- one or more employees (including set contactors) with a primary work location or hired within New York State; or
- employees (including succouractors) working in New York State for more than 90 days during a calendar year.

If an out of-state employer meets any of the above criteria, it is required to carry a New York State workers' compensation policy. When New York is listed in Item 3A on the information Page of an employer's workers' compensation insurance policy, the employer is fully covered united to NYS Worker's Compensation Law. If insured through a private insurance carrier, the out-of-state employer must file a C-105.2 - Certificate of Worker's Compensation Insurance (the business' insurance carrier will send this form to the government entity upon request) PLEASE NOTE. The New York State Insurance Fund provides its own version of this form, the U-26.3. If the out-of-state employer is legally, fully self insured in New York State, the out-of-state employer must file a SI-12 - Certificate of Workers' Compensation Self-Informer's (the business calls the Board's Self-Insurance Office at 518-402-0247). If the out-of-state employer is participating in group self-insurance, the out-of-state employer must file a GSI-105.2 - Certificate of Participation in Worker's Compensation Group Self-Insurance (the business' Group Self-Insurance Administrator will send this form to the government entity upon request).

If an out-of-state employer does not meet any of the above criteria and has New York (NY) listed in <u>Item 3C</u> on the Information Page of its workers' compensation insurance policy (the Other States Insurance section), NYS specific coverage is not required and the employer may be able to use its own state's workers' compensation coverage by filing a WC/DB-101 form. [The out-of-state employer's employees will be covered under NY benefits when working in New York by having NY listed in <u>Item 3C</u> on the Information Page of the workers' compensation insurance policy (the Other States Insurance section).]

199 CHURCH STREET, NEW YORK, N.Y. 10007-1100 Phone: (212) 587-3976

# CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

CERTIFICATE HOLD POLICYHOLDER PERIOD CON DATE CERTIFICATE NUMBER POLICY NUMBER D BY THIS CERTIF

THIS IS TO CERTIFY THAT THE POLICYHOLDER NAMED ADOVE SUBJURED WITH THE NEW YORK STATE INSURANCE FUND UNDER POLICY NO. 1 195 111-8 UNTIL 04/16/2004, SVERING THE ENTIRE OF LIGATION OF THIS POLICYHOLDER FOR WORKERS' COMPENSATION UNDER THE NEW YORK HOPKERS' COMPLEXATION LAW WITH RESPECT TO ALL OPERATIONS IN THE STATE OF NEW YORK, EXCLUT AS INDICATED BELOW.

IF SAID POLICY IS CANCELLED, OR CHANGED PARE TO IN SUCH MANNER AS TO AFFECT THIS CERTIFICATE, 10 DAYS WRITTEN NOTICE OF SUCH CAN FILLATION WILL BE GIVEN TO THE CERTIFICATE HOLDER ABOVE. NOTICE BY REGULAR MAIN COOPRESSED SHALL BE SUFFICIENT COMPLIANCE WITH THIS PROVISION. THE NEW YORK STATE INSURANCE A UNDER EACH OF ASSUME ANY LIABILITY IN THE EVENT OF FAILURE TO GIVE SUCH NOTICE.

THIS CERTIFICATE DOES N PPLY TO BUILD IG DEMOLITION.

THIS CERTIFICATE IS ISSUED AS A COTER OPINFORMATION ONLY AND CONFERS NO RIGHTS NOR INSURANCE COVERAGE UPON THE CERTIFICATE HOUSER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE OFFORDED BY THE POLICY.

THIS POLIC

NEW YORK STATE INSURANCE FUNI

DIRECTOR, INSURANCE FUND UNDERWRITING This certificate can be validated on our web site at https://www.nysif.com/cert/certval.asp

VALIDATION NUMBER: 37185081-

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STATE OF NEW YORK WORKERS' COMPENSATION BOARD 20 PARK STREET ALBANY, NY 12207

THIS AGENCY EMPLOYS AND SERVES PEOPLE WITH DISABILITIES WITHOUT DISCRIMINATION.

JEFFREY R. SWEET ACTING CHAIRMAN

# Office of the Secretary

I, , Secretary to the Workers' Compensation Board of the	State of New York
DO HEREBY CERTIFY, that	ured compensation
to its employees as a self-insurer in the following manner:	
Pursuant to Section 50, subdivision 3 of the Workers compensation,	Law.
Pursuant to Section 50, subdivisions 3, d 4 of u. Workey, Compen (County, city, village, town, school distr. of the durict or other politic	
Pursuant to Article 5 of the Work and Compensation Law. (County Se	elf-Insurance Plan)
The status of self-insurer was en so. s of and such status still re	emains in full force.
IN WITNESS WHEREOF, I ha	
my hand and affixed the seal of the Work	ters' Compensation
Board thisday of	20
STATUS CONFIRMED	
by	

Secretary to the Board

#### STATE OF NEW YORK WORKERS' COMPENSATION BOARD

# CERTIFICATE OF PARTICIPATION IN WORKERS' COMPENSATION GROUP SELF-INSURANCE

ia. Legal Name and Address of Business Participating in Group Self-Insurance (Use Street Address Only)	1d. Business Telephone Number of Business referenced in box "1a"
and a second state of the	1e. NYS Unemployment Insurance Employer Registration Number of Business referenced in box "1a"
1b. Effective Date of Membership in the Group	
1c. The Proprietor, Partners or Executive Officers are Included (only check box if all partners/officers included) all excluded or certain partners/officers excluded	If. Federal Employer Identification Number of Buliness referenced in Box "la"
2. Name and Address of the Entity Requesting Proof of Coverage (Ent Being Listed as Certificate Holder)	ity Mame surfit ddress still Sroup Set Insurer

This certifies that the business referenced aboves the "la" is complying with the mandatory coverage requirements of the New York State Workers' Compensation Law as a participation of the Group Self-Insurer listed above in box "3" and participation in such group self-insurance is still a force. The Group Self-Insurer's Administrator will send this Certificate of Participation to the entity listed above as the certificate holder in box "2".

The Group Self-Insurer's Administrates will in the above certificate holder within 10 days IF the membership of the participant listed in box "in" is terminated (These is does may be sent by regular mail.) Otherwise, this Certificate is valid for a maximum of one y or from the date certified by the group self-insurer.

If this certificate is not and the second g to the above guidelines and the business referenced in box "1a" continues to be named on a permit, license or contractissued by the certificate holder, the business must provide the certificate holder either with a new certificate or other author ed proof the business is complying with the mandatory coverage requirements of the New York State Workers' Compensation Law.

Under penalty of perjury, I certify that I am an authorized representative of the Group Self-Insurer referenced above and that the business referenced in box "1a" has the coverage as depicted on this form.

Certified by:	(Print name of authorized representative of the Group Self-Insurer)			
Certified by:	(Signature)		(Date)	
Title:				
Telephone Number: GSI-105.2 (2-02)		11-		

# LIABILITY AND PENALTIES FOR VIOLATIONS OF MANDATORY WORKERS' COMPENSATION INSURANCE COVERAGE REQUIREMENTS

## Ascertaining Violations of the Law

The Workers' Compensation Board may require an employer to furnish proof that the employer:

- -- has a valid workers' compensation insurance policy;
- is self-insured for workers' compensation; or
- is legally exempt from having to obtain workers' compensation coverage.

If an employer fails to provide this information within 10 days following the Board's request, the Board assumes that the employer is violating the Workers' Compensation Law (WCL).

## Personal Accountability

The sole proprietor or the partners of a business, or the President, Secretary and Treasurer of a corporation are personally liable for the business' failure to secure workers' compensation insurance.

# Liability for Claims Incurred by an Uninsured Employer - Section 26-a of the WCL

The employer is liable for paying an assessment of \$250 for each claim incurred while uninsured plus 15% of the amount awarded (minimum of \$1,500-maximum of \$5,000) plus the actual award (including both compensation and medical costs) plus any penalties the Board assesses for noncompliance. In cases involving severely injured employees, the medical costs alone could be in the hundreds of thousands of dollars per injury!!!

## **Penalties for Noncompliance**

- Section 52-5 of the WCL -- The Board may impose upon an employ r, in addition to all other penalties, a fine of \$250 for each 10-day period of noncompliance or 2 percent of the employer's payroll during the period of noncompliance. The fine of \$250 for each 10-day period of noncompliance is the most commonly imposed penalty for noncompliance.
- 2) Section 52-1 of the WCL -- Not securing workers' compensation insurance is a misdemeanor -- punishable by a fine of not less than \$500 nor more than \$2,500 or imprisonment for up to one year. A second violation of the Law within five years may result in a fine of not less than \$1,000 nor more than \$5,000. A third or subsequent violation of the Law within five years may result in a fine of up to \$7,500. The Board enforces these penalties against employers for blatant cases of abuse and levies them in addition to penalties contained in paragraph "1", and liabilities and penalties incurred for claims incurred while uninsured.

### Additional Liability for Uninsured Employers

- An uninsured employer is responsible for obtaining and paying for any legal representation required to defend against a workers' compensation claim. (An insured employer's workers' compensation insurance carrier provides such representation as part of the workers' compensation insurance policy's coverage.)
- 2) An uninsured employer can be directly sued by an injured employee. (In most cases, an employer's workers' compensation insurance is the sole recourse for the employer's injured employees.)

#### STATE OF NEW YORK WORKERS' COMPENSATION BOARD

THIS AGENCY EMPLOYS AND SERVES PEOPLE WITH DISABILITIES WITHOUT DISCRIMINATION.

## EMPLOYER'S APPLICATION FOR CERTIFICATE OF COMPLIANCE WITH DISABILITY BENEFITS LAW

INSTRUCTIONS TO EMPLOYER: Complete PART 1 ONLY and have your Disability Benefits Insurance Carrier complete Part 2.

PART 1.	TO BE COMPLETED BY	EMPLOWER
EMPLOYER'S NAME AND ADDRES	SS (Home or Main Office)	LOCATION OF OPERATIONS
		OPERATIONS TO BEGIN ON OR ABOUT:
NAME UNDER WRICH BUSINESS I	S CONDUCTED, IF DIFFERENT FROM ABOVE	OPERATIONS TO BEGIN ON OR ABOUT:
DISABILITY BENEFITS CARRIER (H	f more than one, list all)	NYS UNEMPLOYENT & GURANCE EMPLOYER'S REG. NO
Application is hereby made to the 0	CARRIER for a Certificate of Compliance with the Disabil	ity Bennits Law.
Date Signed	By Speakura of c	wher, parts authorized officer
Tal No. /	A PARTICULAR DESCRIPTION OF A PARTICULAR DESCRIPTION	
Tel. No:. (	Title	
All States		
PART 2.	TO BE COMPLETED DISABILITY	EFITS CARRIER
This is to certify that the above emp and that the policy covers: *a.	ployer is insured with	York Disability Benefits Law.
This is to certify that the above emp and that the policy covers: * a. * b. *	ployer is insured with ALL of the EMPLOT An average eligible under a	York Disability Benefits Law.
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DB-120.1 (4-99)

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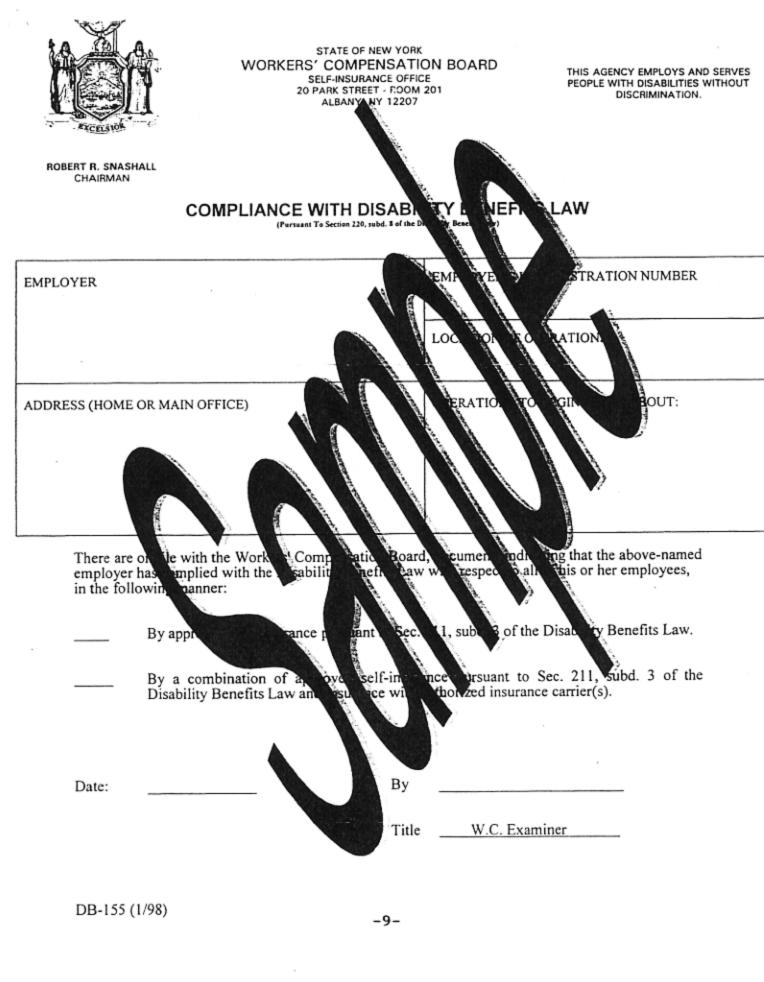
STATE OF NEW	YORK WORKERS' COMPENSATION BOAR	D
	DISABILITY BENEFITS LAW	

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CERTIFICATE/CANCELLATION OF INSURANCE

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P		CURRENT - EMPLO	OYER INFORMATION		
3. 7. WCB EMPLOYER NUMB	ER	8. NYS UIER NUMBER		9. EMPLOYER FEIN	
				113.11	EGAL STATUS (SEE BACK OF FORM)
10. EMPLOYER'S LEGAL	NAME, INCLUDING (DBA/AKA	VTA)			
					OF EMPLOYEES
11. ADDRESS				<b>&amp;</b>   <b>)</b>	OF EMPEOTEES
					ELEPHOLE NO.
12. CITY	STATE	ZIP CODE		13. 1	
С.		PO	LICY		
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19. WCB PLAN NUMBER (C	Only for Assoc., Union or Trustee	with Form DB-801 on file.)		20. PRE TUM AMO	UNT
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	o Eligible Employees I ss		CANCE ANON OR	Date:	
	ss		TERMIN, HON SENT TO EMPLOYER		
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		Jac Han Many Varia Cinto	Disability Benefits Law.		
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c	Only the following class of	or classes of employee	s:		
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and strategy and					
2. The employe	e contributions require	ed and benefits insur	ed are:		
a T	he same in all respects a	as under Section 204 a	nd not in excess of those	authorized under	Section 209.
	s described in the attach	Anniication for Acces	stance of a Plan. Form D	B8CO, filed with a	nd accepted by the Chair.
<ul> <li>As described in the addition supplication for Acceptance of a Plan, Form DB800, filed with and accepted by the Chair.</li> <li>As described in Certificate of Insurance, Form DB820.3, filed on behalf of the Association, Union or Trustees</li> </ul>					
()	policyholders) on	OF a	mended Form DB820.3 f	iled thereafter.	
To be filed by	Insurance Carrier on be	half of Employer to prov	vide, through insurance, o	exactly statutory b	enefits, (Section 204)
	OR	benefits under a plan a	accepted by the the Chair	man.	
DB 820/829 (4-03)	THE WORKERS' COMPENSA	TION BOARD EMPLOYS AND	SERVES PEOPLE WITH DISAL		

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# APPENDICES TO INFORMATION FOR BIDDERS

**APPENDIX C** 

New York State Department of Labor Contract Requirements and Wage Rate Schedule (Complete)

# APPENDICES TO INFORMATION FOR BIDDERS

# APPENDIX D

"Standard Clauses for all New York State Contracts"

#### APPENDIX D STANDARD CLAUSES FOR ALL NEW YORK STATE CONTRACTS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the State, whether a contractor, licenser, licensee, lessor, lessee or any other party):

EXECUTORY CLAUSE. In accordance with Section 41 of the State Finance Law, the State shall have no liability under this contract to the Contractor or to anyone else beyond funds appropriated and available for this contract.

2. <u>NON-ASSIGNMENT CLAUSE</u>. In accordance with Section 138 of the State Finance Law, this contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred, conveyed, sublet or otherwise disposed of without the previous consent, in writing, of the State and any attempts to assign the contract without the State's written consent are null and void. The Contractor may, however, assign its right to receive payment without the State's prior written consent unless this contract concerns Certificates of Participation pursuant to Article 5-A of the State Finance Law.

3. <u>COMPTROLLER'S APPROVAL</u>. In accordance with Section 112 of the State Finance Law (or, if this contract is with the State University or City University of New York, Section 355 or Section 6218 of the Education Law), if this contract exceeds \$10,000 (or the minimum thresholds agreed to by the Office of the State Comptroller for certain S.U.N.Y. and C.U.N.Y contracts), or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give something other than money when the value or reasonably estimated value of such consideration exceeds \$10,000, it shall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed in his office.

4. <u>WORKERS' COMPENSATION BENEFITS</u>. In accordance with Section 142 of the State Finance Law, this contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers' Compensation Law.

5. NON-DISCRIMINATION REQUIREMENTS. In accordance with Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, age, disability or marital status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason or race, creed, color, disability,

sex, or national origin: (a) discriminate in hiring against any New York State citizen who is gualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.

6. <u>WAGE AND HOURS PROVISIONS</u>. If this is a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law.

7. <u>NON-COLLUSIVE BIDDING REQUIREMENT</u>. In accordance with Section 139-d of the State Finance Law, if this contract was awarded based upon the submission of bids, Contractor warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further warrants that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the State a non-collusive bidding certification on Contractor's behalf.

INTERNATIONAL BOYCOTT PROHIBITION. 8 In accordance with Section 220-f of the Labor Law and Section 139-h of the State Finance Law, if this contract exceeds \$5,000, the Contractor agrees, as a material condition of the contract, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contract's execution, such contract, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify the State Comptroller within five (5) business days of such conviction, determination or disposition of appeal (2NYCRR 105.4).

9. <u>SET-OFF RIGHTS</u>. The State shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the State with

regard to this contract, any other contract with any State department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the State for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The State shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the State agency, its representatives, or the State Comptroller.

10. RECORDS. The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contact (hereinafter, collectively, "the Records"). The Records must be kept for the balance of the calendar year in which they were made and for six (6) additional years thereafter. The State Comptroller, the Attorney General and any other person or entity authorized to conduct an examination, as well as the agency or agencies involved in this contract, shall have access to the Records during normal business hours at an office of the Contractor within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. The State shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law (the "Statute") provided that: (i) the Contractor shall timely inform an appropriate State official, in writing, that said records should not be disclosed; and (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the State's right to discovery in any pending or future litigation.

IDENTIFYING INFORMATION AND PRIVACY 11. NOTIFICATION. (a) FEDERAL EMPLOYER **IDENTIFICATION NUMBER and/or FEDERAL SOCIAL** SECURITY NUMBER. All invoices or New York State standard vouchers submitted for payment for the sale of goods or services or the lease of real or personal property to a New York State agency must include the payee's identification number, i.e., the seller's or lessor's identification number. The number is either the payee's Federal employer identification number or Federal social security number, or both such numbers when the payee has both such numbers. Failure to include this number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on its invoice or New York State standard voucher, must give the reason or reasons why the payee does not have such number or numbers.

(b) PRIVACY NOTIFICATION. (1) The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by the seller or lessor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law. (2) The personal information is requested by the purchasing unit of the agency contracting to purchase the goods or services or lease the real or personal property covered by this contract or lease. The information is maintained in New York State's Central Accounting System by the Director of State Accounts, Office of the State Comptroller, AESOB, Albany, New York 12236.

EQUAL EMPLOYMENT OPPORTUNITIES FOR 12 MINORITIES AND WOMEN. In accordance with Section 312 of the Executive Law, if this contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of \$25,000.00, whereby a contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of \$100,000.00 whereby a contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; or (iii) a written agreement in excess of \$100,000.00 whereby the owner of a State assisted housing project is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon for such project, then:

(a) The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgradings, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;

(b) at the request of the contracting agency, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the contractor's obligations herein; and

(c) the Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the State contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

Contractor will include the provisions of "a", "b", and "c" above, in every subcontract over \$25,000.00 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract; or (ii) employment outside New York State; or (iii) banking services, insurance policies or the sale of securities. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment opportunity which effectuates the purpose of this section. The contracting agency shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, the contracting agency shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Governor's Office of Minority and Women's Business Development pertaining hereto.

13. <u>CONFLICTING TERMS</u>. In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix D, the terms of this Appendix D shall control.

14. <u>GOVERNING LAW</u>. This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

15. <u>LATE PAYMENT</u>. Timeliness of payment and any interest to be paid to Contractor for late payment shall be governed by Article XI-A of the State Finance Law to the extent required by law.

16. <u>NO ARBITRATION</u>. Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized), but must, instead, be heard in a court of competent jurisdiction of the State of New York.

17. <u>SERVICE OF PROCESS</u>. In addition to the methods of service allowed by the State Civil Practice Law & Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon the State's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify the State, in writing, of each and every change of address to which service of process can be made. Service by the State to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

18. <u>PROHIBITION ON PURCHASE OF TROPICAL</u> <u>HARDWOODS</u>. The Contractor certifies and warrants that all wood products to be used under this contract award will be in accordance with, but not limited to, the specifications and provisions of State Finance Law Section 165. (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State or any governmental agency or political subdivision or public benefit corporation. Qualification for an exemption under this law will be the responsibility of the contractor to establish to meet with the approval of the State.

In addition, when any portion of this contract involving the use of woods, whether supply or installation, is to be performed by any subcontractor, the prime Contractor will indicate and certify in the submitted bid proposal that the subcontractor has been informed and is in compliance with specifications and provisions regarding use of tropical hardwoods as detailed in Section 165 of the State Finance Law. Any such use must meet with the approval of the State; otherwise, the bid may not be considered responsive. Under bidder certifications, proof of qualification for exemption will be the responsibility of the Contractor to meet with the approval of the State. 19. <u>MACBRIDE FAIR EMPLOYMENT PRINCIPLES</u>. In accordance with the MacBride Fair Employment Principles (Chapter 807 of the Laws of 1992), the Contractor hereby stipulates that the Contractor either (a) has no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in Section 165 of the New York State Finance Law), and shall permit independent monitoring of compliance with such principles.

20. <u>OMNIBUS PROCUREMENT ACT OF 1992</u>. It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

Empire State Development Corp. Division of Small Business One Commerce Plaza Albany, New York 12245 Phone: (518) 473-0499 Fax: (518) 474-1512

A directory of minority and women-owned business enterprises is available from:

Empire State Development Corp. Minority & Women's Business Development Div. One Commerce Plaza Albany, New York 12245 Phone: (518) 473-0582 Fax: (518) 473-0665 and Empire State Development Corp. 633 Third Avenue New York, NY 10017 Phone: (212) 803-2414 Fax: (212) 803-3223 Internet: http://www.empire.state.ny.us/

The Omnibus Procurement Act of 1992 requires that by signing this bid proposal or contract, as applicable, Contractors certify that whenever the total bid amount is greater than \$1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the State in these efforts.

#### 21. <u>RECIPROCITY AND SANCTIONS PROVISIONS.</u>

Bidders are hereby notified that if their principal place of business is located in a state that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 amendments (Chapter 684, Laws of 1994) require that they be denied contracts which they would otherwise obtain. NOTE: New Mexico, S. Carolina, Alaska, W. Virginia, Oklahoma, Montana, Wyoming, Louisiana and Hawaii are the states currently subject to this provision.

Revised January 1996

# APPENDICES TO INFORMATION FOR BIDDERS

# **APPENDIX E**

"Standard Clauses for all New York State Department of Environmental Conservation Contracts"

#### APPENDIX E STANDARD CLAUSES FOR ALL NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION CONTRACTS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract. The word "Contractor" herein refers to any party to the contract, other than the New York State Department of Environmental Conservation (hereinafter "Department").

I. The Department shall have the right to postpone, suspend, abandon or terminate this contract, and such actions shall in no event be deemed a breach of contract. In the event of any termination, postponement, delay, suspension or abandonment, the Contractor shall deliver to the Department all data, reports, plans, or other documentation related to the performance of this contract, including but not limited to guarantees, warranties, as-built plans and shop drawings. In any of these events, the Department shall make settlement with the Contractor upon an equitable basis as determined by the Department which shall fix the value of the work which was performed by the Contractor prior to the postponement, suspension, abandonment or termination of this contract. This clause shall not apply to this contract if the contract contains other provisions applicable to postponement, suspension or termination of the contract.

II. The Contractor agrees that it will indemnify and save harmless the Department and the State of New York from and against all losses from claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against it by reason of any omission or act of the Contractor, its agents, employees, or subcontractors in the performance of this contract. The Department and the State of New York may retain such monies from the amount due Contractor as may be necessary to satisfy any claim for damages, costs and the like, which is asserted against the Department and/or the State of New York.

III. (a) Conflict of Interest. To the best of the Contractor's knowledge and belief, the Contractor warrants that there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as herein defined, or that the Contractor has disclosed all such relevant information to the Department.

(b) An organizational conflict of interest exists when the nature of the work to be performed under this contract may, without some restriction on future activities, either result in an unfair competitive advantage to the Contractor or impair or appear to impair the Contractor's objectivity in performing the work for the Department.

(c) The Contractor agrees that if an actual, apparent, or potential organizational conflict of interest is discovered at any time after award, whether before or during performance, the Contractor will immediately make a full disclosure in writing to the Department. This disclosure shall include a description of actions which the Contractor has taken or proposes to take, after consultation with the Department, to avoid, mitigate, or minimize the actual or potential conflict.

(d) Remedies - The Department may terminate this contract in whole or in part, if it deems such termination necessary to avoid an organizational or personal conflict of interest, or an unauthorized disclosure or information. If the Contractor was aware of a potential conflict of interest prior to award, or discovered an actual or potential conflict after award and did not disclose or misrepresented relevant information to the Department, the Department may terminate the contract, or pursue such other remedies as may be permitted by the terms of Clause I of this Appendix or other applicable provisions of this contract regarding termination.

(e) In addition to the requirements of the above clauses with respect to "Organizational Conflicts of Interest," the following provision with regard to employee personnel performing under this contract shall apply until the earlier of the termination date of the affected employee(s) or the duration of the contract.

The Contractor agrees to notify the Department immediately of any actual, apparent or potential personal conflict of interest with regard to any employee, subcontractor employee, or consultant working on or having access to information regarding this contract, as soon as Contractor becomes aware of such conflict. A personal conflict of interest is defined as a relationship of an employee, subcontractor employee, or consultant with an entity that may impair or appear to impair the objectivity of the employee, subcontractor employee, or consultant in performing the contract work. The Department will notify the Contractor of the appropriate action to be taken.

(f) To the extent that the work under this contract requires access to proprietary or confidential business or financial data of other companies, and as long as such data remains proprietary or confidential, the Contractor shall protect such data from unauthorized use and disclosure and agrees not to use it to compete with such companies.

(g) The Contractor shall certify annually that, to the best of the Contractor's knowledge and belief, all actual, apparent or potential conflicts of interest, both personal and organizational, have been reported to the Department. Such certification must be signed by a senior executive of the Contractor and submitted in accordance with instructions provided by the Department. Along with the annual certification, the Contractor shall also submit an update of any changes in the conflict of interest plan submitted with its proposal for this contract. The initial certification shall cover the one-year period from the date of contract award, and all subsequent certifications shall cover successive annual periods thereafter. The certification is to be submitted no later than 45 days after the close of the previous certification period covered.

(h) The Contractor recognizes that employees in performing this contract may have access to data, either provided by the Department or first generated during contract performance, of a sensitive nature which should not be released without Department approval. Therefore, the Contractor agrees to obtain confidentiality agreements from

all employees working on requirements under this contract including subcontractors and consultants. Such agreements shall contain provisions which stipulate that each employee agrees that the employee will not disclose, either in whole or in part, to any entity external to the Department, Department of Health or the New York State Department of Law, any information or data provided by the Department or first generated by the Contractor under this contract, any sitespecific cost information, or any enforcement strategy without first obtaining the written permission of the Department. If a contractor, through an employee or otherwise, is subpoenaed to testify or produce documents, which could result in such disclosure, the contractor must provide immediate advance notification to the Department so that the Department can authorize such disclosure or have the opportunity to take action to prevent such disclosure. Such agreements shall be effective for the life of the contract and for a period of five (5) years after completion of the contract.

(i) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder (except for subcontracts or consultant agreements for well drilling, fence erecting, plumbing, utility hookups, security guard services, or electrical services) provisions which shall conform substantially to the language of this clause, including this paragraph (i), unless otherwise authorized by the Department.

If this is a contract for work related to action at an inactive hazardous waste site, the following paragraph shall apply:

(j) Due to the scope and nature of this contract, the Contractor shall observe the following restrictions on future hazardous waste site contracting for the duration of the contract.

(1) The Contractor will be ineligible to enter into a contract for remedial action projects for which the Contractor has developed the statement of work or the solicitation package.

(2) The Contractor, during the life of the work assignment and for a period of five (5) years after the completion of the work assignment, agrees not to enter into a contract with or to represent any party with respect to any work relating to remedial activities or work pertaining to a site where the Contractor previously performed work for the Department under this contract without the prior written approval of the Department.

(3) The Contractor agrees in advance that if any bids/proposals are submitted for any work for a third party that would require written approval of the Department prior to entering into a contract because of the restrictions of this clause, then the bids/proposals are submitted at the Contractor's own risk, and no claim shall be made against the Department to recover bid/proposal costs as a direct cost whether the request for authorization to enter into the contract is denied or approved.

IV. All requests for payment by the Contractor must be submitted on forms supplied and approved by the Department. Each payment request must contain such items of information and supporting documentation as are required by the Department, and shall be all-inclusive for the period of time covered by the payment request.

V. To the extent that federal funds are provided to the Contractor or used in paying the Contractor under this contract, the Contractor agrees that it will comply with all applicable federal laws and regulations, including but not limited to those laws and regulations under which the Federal funds were authorized. The Contractor further agrees to insert in any subcontract hereunder, provisions which shall conform substantially to the language of this clause, including this paragraph.

VI. The Contractor shall have the status of an independent contractor. Accordingly, the Contractor agrees that it will conduct itself in a manner consistent with such status, and that it will neither hold itself out as, nor claim to be, an officer or employee of the Department by reason of this contract. It further agrees that it will not make any claim, demand or application to the Department for any right or privilege applicable to an officer or employee of the Department, including but not limited to worker's compensation coverage, unemployment insurance benefits, social security coverage, or retirement membership or credit.

VII. The terms contained in this clause shall have the definitions as given in, and shall be construed according to the intent of Article 15-A of the Executive Law, 9 NYCRR Part 540, et. seq., Article 52 of the Environmental Conservation Law and 6 NYCRR Part 615, et. seq., as applicable, and any goals established by this clause are subject to the intent of such laws and regulations.

(a) If the maximum contract price herein equals or exceeds \$25,000, and this contract is for labor, services, supplies, equipment, or materials; or

If the maximum contract price herein equals or exceeds \$100,000 and this contract is for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon;

The affirmative action provisions and equal employment opportunity provisions contained in this paragraph and paragraphs b-f of this clause shall be applicable within the limitations established by Executive Law §§312 and 313 and the applicable regulations.

(1) The Contractor is requested to make good faith efforts to subcontract at least \_\_\_% of the dollar value of this contract to Minority Owned Business Enterprises (MBEs) and at least \_\_\_% of such value to Women Owned Business Enterprises (WBEs).

(2) The Contractor is requested to make good faith efforts to employ or contractually require any subcontractor with whom it contracts to make good faith efforts to employ minority group members for at least 10% of, and women for at least 10% of, the workforce hours required to perform the work under this contract.

(3) The Contractor is requested to make good faith efforts to solicit the meaningful participation by enterprises identified in the NYS Directory of Certified Businesses provided by the Governor's Office of Minority and Women's Business Development.

(b) The Contractor agrees to include the provisions set forth in paragraph (a) above and paragraphs (a), (b), and (c) of clause 12 of Appendix D in every subcontract in such a manner that the provisions will be binding upon each subcontractor as to work under such subcontract. For the purpose of this paragraph, a "subcontract" shall mean an agreement providing for a total expenditure in excess of \$25,000 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon in which a portion of the Contractor's obligation under a State contract is undertaken or assumed.

(c) The Contractor is requested to make good faith efforts to utilize the MBE/WBEs identified in the utilization plan to the extent indicated in such plan, and otherwise to implement it according to its terms. The Contractor is requested to report on such implementation periodically as provided by the contract, or annually, whichever is more frequent. The Contractor also agrees to incorporate into any contract with subcontractors, provisions applicable to recordkeeping, reporting, notice requirements and actions suggested by the Department to implement the utilization plan, and the intent of the Executive Law Article 15-A, the regulations promulgated thereunder, and other applicable law and regulations.

(d) The Contractor hereby agrees to comply with the intent of the applicable provisions of Executive Law Article 15-A and the regulations promulgated thereunder. Executive Law §§312 and 316 are hereby incorporated by reference.

VIII. Prior to the commencement of any work under this contract, the Contractor is required to meet all legal requirements necessary in the performance of the contract. This includes but is not limited to compliance with all applicable federal, state and local laws and regulations promulgated thereunder. It is the Contractor's responsibility to obtain any necessary permits, or other authorizations. By signing this contract, the Contractor affirmatively represents that it has complied with said laws, unless it advises the Department otherwise, in writing. The Department signs this contract in reliance upon this representation.

During the term of this contract, and any extensions thereof, the Contractor must remain in compliance with said laws. A failure to notify the Department of noncompliance of which the Contractor was or should have been aware, may be considered a material breach of this contract.

IX. The following steps, or as many as are necessary to resolve the dispute between the Department and the Contractor, are prescribed.

The Contractor specifically agrees to submit, in the first instance, any dispute relating to this contract to the designated individual, who shall render a written decision and furnish a copy thereof to the Contractor and the Department. The Contractor must request such decision in writing no more than fifteen days after it knew or should have known of the facts which are the basis of the dispute. The decision of the designated individual shall be final and conclusive unless the Contractor files a written appeal of that decision with the designated appeal individual within twenty days of receipt of that decision.

The designated appeal individual shall review the record and the decision and confirm or reverse the initial decision in writing, in accordance with the Divisional contract resolution procedures in effect at that time.

The decision of the designated appeal individual shall be final and conclusive unless the Contractor files a written appeal of that decision with the Chair of the Contract Review Committee within twenty days of receipt of that decision.

The designated individual to hear disputes is:

(Name and Title)

(Address)

(Telephone)

The designated appeal individual to review decisions made regarding disputes is:

(Name and Title)

(Address)

(Telephone)

The Chair of the Contract Review Committee is:

Department of Environmental Conservation Richard K. Randles, Chair Contract Review Committee 50 Wolf Road, Room 674 Albany, NY 12233-5010 Telephone: (518) 457-1141

The Chair of the Contract Review Committee shall convene a fact-finding proceeding in accordance with the Committee's established contract dispute resolution guidelines. The proceeding will provide the Contractor with an opportunity to be heard and to submit additional written support of its position. The Committee shall make a recommendation to the Division Director who shall render the agency determination, subject to the final approval of the Deputy Commissioner for Administration.

This decision shall be subject to review only pursuant to Article 78 of the Civil Practice Law and Rules. Pending final determination of a dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract in accordance with the decision of the designated individual. Nothing in this Contract shall be construed as making final the decision of any administrative officer upon a question of law. Notwithstanding the foregoing, the following shall be subject to review by the Contract Review Committee, at the option of the Contractor: Disputes arising under Article 15-A of the Executive Law (Minority and Women Owned Business participation), the Department's determination with respect to the adequacy of the Contractor's Utilization Plan, or the Contractor's showing of good faith efforts to comply therewith. A request for a hearing before the Committee should be made, in writing, within twenty days of receipt of the Department's determination.

The Committee will promptly convene a hearing in accordance with Article 15-A of the Executive Law and the regulations promulgated thereunder.

The decision of the Deputy Commissioner for Administration shall be a final agency determination, reviewable in accordance with said Article 78 of the Civil Practice Law and Rules.

Х. (a) When appropriate, the Contractor shall post, in a location designated by the Department, a copy of the New York State Department of Labor schedules of prevailing wages and supplements for this project, a copy of all redeterminations of such schedules for the project, the Workers' Compensation Law Section 51 notice, all other notices required by law to be posted at the site, the Department of Labor notice that this project is a public work project on which each worker is entitled to receive the prevailing wages and supplements for their occupation, and all other notices which the Department directs the Contractor to post. The Contractor shall provide a surface for such notices which is satisfactory to the Department. The Contractor shall maintain such notices in a legible manner and shall replace any notice or schedule which is damaged, defaced, illegible or removed for any reason. Contractor shall post such notices before commencing any work on the site and shall maintain such notices until all work on the site is complete.

(b) When appropriate, contractor shall distribute to each worker for this Contract a notice, in a form provided by the Department, that this project is a public work project on which each worker is entitled to receive the prevailing wage and supplements for the occupation at which he or she is working. Worker includes employees of Contractor and all Subcontractors and all employees of suppliers entering the site. Such notice shall be distributed to each worker before they start performing any work of this contract. At the time of distribution, Contractor shall have each worker sign a statement, in a form provided by the Department, certifying that the worker has received the notice required by this section, which signed statement shall be maintained with the payroll records required by the following paragraph (c).

(c) Contractor shall maintain on the site the original certified payrolls or certified transcripts thereof which Contractor and all of its Subcontractors are required to maintain pursuant to the New York Labor Law Section 220. Contractor shall maintain with the payrolls or transcripts thereof, the statements signed by each worker pursuant to paragraph (b).

XI. In accordance with State Law (Chapter 55 of the Laws of 1992), the Department has the authority to

administratively offset any monies due it from the Contractor, from payments due to the Contractor under this contract.

XII. The contractor agrees that if selected as the lowest bidder, the contractor will stipulate concerning adherence to the MacBride Fair Employment Principles, as prescribed by Chapter 807, of the Laws of 1992. Section 174-B of the State Finance Law requires that before entering into certain State contracts, persons or entities stipulate that they either (1) have no business operations in Northern Ireland or (2), if so engaged, will conduct such operations in accordance with the MacBride Fair Employment Principles.

For contracts competitively bid, if the lowest responsible bidder fails to stipulate as required by Section 174-B, and another bidder, whose bid price for goods, services or construction of comparable quality is within five percent of the lowest bid, has so stipulated, the contracting entity shall refer such bids to the Office of General Services. The purpose of such referral is a determination by the Commissioner of General Services whether it is in the best interests of the State to reject the low bid and to award the contract to another qualifying bidder.

XIII. Pursuant to Section 167-B of the State Finance Law, unless otherwise exempted, any bid, proposal or other response to a solicitation for bid or proposal which proposes or calls for the use of any tropical hardwood or other tropical wood product in performance of the contract shall be deemed non-responsive.

XIV. In the event of a conflict between the terms of this Appendix E and the terms of the Contract (including any and all attachments thereto and amendments thereof, but not including Appendix D), the terms of this Appendix E shall control. In the event of a conflict between the terms of this Appendix E and Appendix D, the terms of Appendix D shall control.

#### RIDER TO APPENDIX E STANDARD CLAUSES FOR ALL NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION CONTRACTS

The parties to this contract hereby agree that clause II of this Appendix E is hereby revised to read as follows:

II. The Contractor agrees that it will indemnify and save harmless the Department and the State of New York from and against all losses from claims, demands, payments, suits, actions, recoveries and judgments, of every nature and, description brought or recovered against it by reason of any acts or omissions of the Contractor, its agents, employees, or subcontractors in the performance of this contract which are shown to have been the result of negligence, gross negligence or reckless, wanton or intentional misconduct.

Revised January 1996

# APPENDICES TO INFORMATION FOR BIDDERS

## **APPENDIX F**

NY State Revolving Fund MWBE / EEO / DBRA / AIS Bid Package for Construction Contracts



NY State Revolving Fund **MWBE / EEO / DBRA / AIS** Bid Packet for

# **Construction Contracts**

# Effective October 1, 2014

New York State Environmental Facilities Corporation 625 Broadway, Albany, NY 12207-2997 (800) 882 9721 P: (518) 402-7396 F: (518) 402-7456 www.efc.ny.gov Text Left Blank

### **BID PACKET FOR CONSTRUCTION CONTRACTS**

#### NEW YORK CLEAN WATER and DRINKING WATER STATE REVOLVING FUNDS

Administered by the New York State Environmental Facilities Corporation (EFC)

### **Contents of Bid Packet**

#### 

The required contract language to be inserted into all construction contracts to satisfy Davis Bacon, Equal Employment Opportunity (EEO), Disadvantaged Business Enterprise (DBE), Minority & Women Owned Business Enterprise (MWBE), American Iron and Steel (AIS) and some other Clean/Drinking Water State Revolving Fund (SRF) Program requirements.

Part 2: GUIDANCE MATERIALS	20
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A description of the program requirements as they relate to construction contracts funded in whole or in part by the New York State Revolving Funds – all contracts and subcontracts.

Checklists summarizing important required forms or steps to be completed by the Contractor are included at the end of this section.

Part 3:	REQUIRED FORMS	40	0
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Copies of required forms are included at the end of this packet for the Contractor's use. All forms can be found on the EFC website (www.efc.gov).

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# PART 1:

# **REQUIRED CONTRACT LANGUAGE**

This Part 1 is to be inserted in its entirety for ALL construction contracts and subcontracts being funded in whole or in part with SRF funds.

Check EFC's website (<u>www.efc.ny.gov/</u>) for updates.

\*\*Please note that the contractual language in its entirety is not necessarily applicable to all projects. Information is provided in parentheses below each program section within to identify circumstances when certain language is not applicable.\*\*

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#### REQUIRED TERMS FOR PROJECT CONTRACTS AND SUBCONTRACTS

\*\*(This section applies to all contracts)\*\*

In accordance with the terms and conditions set forth in Section 5.1 of the Project Finance Agreement, Recipient agrees that the following language <u>will be included in all contracts and subcontracts</u> regarding the Project including but not limited to those relating to construction, engineering, architectural, legal and fiscal services, as required by federal and state laws, regulations, and executive orders applicable to this Project:

#### Defined Terms:

The term "Bid Packets" means the New York State Revolving Fund (SRF) Bid Packet for Construction Contracts and Bid Packet for Non-Construction Contracts and Service Providers, available at www.efc.ny.gov/.

The term "contractor", as used in this contract or subcontract, means, and applies to, all prime contractors, consultants and service providers as hereinafter defined, unless specifically referred to otherwise.

The term "subcontractor", as used in this contract or subcontract, means, and applies to, any individual or business enterprise that has an agreement, purchase order, or any other contractual arrangement with a contractor.

The term "EEO policy statement" means a statement of the contractor and subcontractor setting forth at least the following:

- (i) A statement that the contractor will provide for and promote equal employment opportunity free of discrimination and harassment against any person on the basis of race, color, national origin, age, disability, sex, gender, sexual orientation, religion, genetic characteristics or information, status as a victim of domestic violence, veteran or military status, marital or family status, or any other discrimination prohibited by law, and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination and will make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on contracts relating to the Project.
- (ii) An agreement that all of contractor's solicitations or advertisements for employees will state that, in the performance of the contract relating to this Project, all qualified applicants will be provided with equal employment opportunity free of discrimination and harassment against any person on the basis of race, color, national origin, age, disability, sex, gender, sexual orientation, religion, genetic characteristics or information, status as a victim of domestic violence, veteran or military status, marital or family status, or any other discrimination prohibited by law.
- (iii) An agreement to request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union, or representative will not discriminate or harass on the basis of race, color, national origin, age, disability, sex, gender, sexual orientation, religion, genetic characteristics or information, status as a victim of domestic violence, veteran or military status, marital or family status, or any other discrimination prohibited by law and that such union or representative will affirmatively cooperate in the implementation of the contractor's obligations herein.
- (iv) An agreement to comply with the provisions of the Human Rights Law (Article 15 of the Executive Law), including those relating to non-discrimination on the basis of prior criminal conviction and prior arrest, and with all other State and federal statutory constitutional nondiscrimination provisions.

The term "EFC" means the New York State Environmental Facilities Corporation.

The term "EPA" means the United States Environmental Protection Agency.

The term "ESD" means the Empire State Development Corporation - Division of Minority and Women's Business Development.

The term "Recipient" means the party, other than EFC, to a grant agreement or a project finance agreement with EFC through which funds for the payment of amounts due hereunder are being paid in whole or in part.

The term "Service Providers" means professional services, such as legal, engineering, financial advisory or other professional services, supplies, commodities, equipment, materials, and travel.

The term "State" means the State of New York.

The term "Treatment Works Project" means a Clean Water Act (CWA) Section 212 project. Examples include new, expanded or rehabilitated wastewater; sludge treatment and disposal facilities including biosolids reuse; collector, trunk and interceptor sewers; sewer rehabilitation and infiltration/inflow correction; municipally-owned sewers and treatment capacity for industrial wastewater; combined sewer overflow (CSO) abatement; stormwater resiliency and pollution abatement; energy initiatives, including energy efficiency and on-site power generation for treatment plants and sewer systems; water treatment plant filter backwash and sludge treatment; water efficiency projects, including conservation and reuse of water; septage hauling and marine vessel pump out/treatment facilities; publically-owned water conservation/reuse devices or systems; and security measures for wastewater treatment plants and sewer systems.

The terms "Nonpoint Source Projects" and "Green Infrastructure Project" mean a CWA Section 319 Project. Examples include green infrastructure projects that manage stormwater, such as constructed wetlands, biofilters, porous pavement and green roofs; waterbody restoration including stream bank stabilization and drainage erosion and sediment control; restoration of riparian vegetation, wetlands and other water bodies; land acquisition or conservation easements for water quality protection; stormwater management facilities, such as street sweepers and catch basin vacuum vehicles, sediment traps and basins; and capping and closure of municipal solid waste landfills, landfill reclamation, landfill leachate collection, storage and treatment of landfill gas collection and control systems.

The term "Estuary Management Program Project" means a CWA Section 320 Project. Examples include projects necessary to implement the EPA-approved Estuary Conservation and Management Plans for the New York-New Jersey Harbor; Peconic Bay; and Long Island Sound Estuaries.

#### EEO AND MWBE LANGAUGE, GOALS AND OTHER PROGRAM REQUIREMENTS

#### Interpretation:

This contract is subject to Article 15-A of the Executive Law (Article 15-A) and 5 NYCRR 140-145 (the Regulations) and shall be considered a State Contract as defined therein. If any of the terms herein conflict with Article 15-A or the Regulations, such law and regulations shall supersede these requirements.

#### Representations and Acknowledgements of Contractor and Subcontractor:

The contractor acknowledges that funds for the payment of amounts due under this contract are being provided in whole or in part subject to the terms and conditions of a grant agreement or a project finance agreement with EFC.

The contractor represents that it has submitted an EEO policy statement and an MWBE Utilization Plan (prime contractors only) to the Recipient, **prior to the execution of this contract**.

<u>Suspension/Debarment</u> - The contractor is not a debarred or suspended party under 2 CFR Part 180, 2 CFR Part 1532 and 40 CFR Part 32. Further, neither the contractor nor any of its subcontractors have contracted with, or will contract with, any debarred or suspended party under the foregoing regulations or with any party that has been determined to be ineligible to bid under Section 316 of the Executive Law.

#### Equal Employment Opportunity (EEO), Affirmative Action, MWBE and Other Covenants:

Contractor and subcontractor shall comply with all federal and state laws, regulations, and executive orders applicable to this Project, and shall provide such documentation, including periodic reports, as may be requested from time to time and as set forth in guidance documentation available at <u>www.efc.ny.gov/</u>, including but not limited to the Bid Packets.

With respect to this contract, the contractor and subcontractor shall undertake or continue existing programs of affirmative action and equal employment opportunity to ensure that minority group members and women are afforded equal employment opportunities without discrimination because of race, color, national origin (including limited English proficiency), age, disability, sex, gender, sexual orientation, religion, genetic characteristics or information, status as a victim of domestic violence, veteran or military status, marital or family status, or any other discrimination prohibited by law. For these purposes, affirmative action shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation.

#### MWBE PROGRAM

\*\*(Applies to all: (1) Construction Contracts greater than \$100,000

- (2) Contracts that are initially under this thresholds but subsequent change orders or contract amendments increased the contract value above \$100,000
- (3) Change orders greater than \$25,000)\*\*

**MWBE Goals** - The contractor agrees to pursue MWBE goals in effect at the time of execution of this contract. The MWBE goals shall be applied to the total amount being funded pursuant to the grant agreement or project finance agreement with EFC.

10/1/2012 - Present	MWBE Combined Goal*		
All counties	20%		

\*May be any combination of MBE and/or WBE participation

Contractors shall solicit participation of MWBE contractors (including subcontractors, consultants and service providers) for SRF-funded projects in accordance with the aforementioned goals. The contractor must submit sufficient documentation to demonstrate good faith efforts to provide opportunities for MWBE participation for work related to the SRF-funded project in the event respective goals are not achieved. Guidance pertaining to documentation of good faith efforts is set forth in the Bid Packet.

The contractor agrees that for purposes of providing meaningful participation by MWBEs on the contract and achieving the goals, contractor will reference the directory of New York State Certified MWBEs found at the following internet address: ny.newnycontracts.com.

Subcontractors who in turn subcontract work shall also comply with MWBE requirements for that contract.

**MWBE Utilization Plan** (MWBE Utilization Plan requirements apply to contractors. MWBE Utilization Plans are submitted to the SRF Recipient's minority business officer (MBO) prior to execution of a contract.) Each contractor shall prepare an MWBE Utilization Plan, and any subsequent revisions or amendments thereto, that provides information describing MBEs and WBEs to be utilized at various times during the performance of this contract. The MWBE Utilization Plan shall identify the contractor's proposed MBE and WBE utilization for this contract and the MWBE participation goals established for this contract by EFC. The MBEs and WBEs identified in the MWBE Utilization Plan must be certified by, or have applied for, certification from ESD.

In the event that the contractor's approved MWBE Utilization Plan does not propose achievement of the MWBE participation goals for this contract, the contractor shall complete a waiver request as hereinafter referenced.

**Submission** – Within 30 days of execution of this contract, the contractor shall submit to the Recipient copies of all signed subcontracts, agreements, and/or purchase orders referred to in the MWBE Utilization Plan.

Compliance - The contractor agrees to adhere to its approved MWBE Utilization Plan for the participation of

**Waivers** – If the contractor's application of good faith efforts does not result in the utilization of MBE and/or WBE firms to achieve the aforementioned goals then, prior to execution of a contract, the contractor shall complete the waiver request portion of the MWBE Utilization Plan and submit it to the Recipient. The contractor is entitled to receive a written notice of acceptance or denial within 20 days of receipt. Upon receipt of a notice of deficiency from the Recipient, the contractor shall respond with a written remedy to such notice within 7 days. Such response may include a request for a total or partial waiver of the aforementioned goals.

The contractor shall comply with the requirements set forth in the Bid Packets regarding waivers.

**Required Reports** – **MWBE Monthly Report** – The contractor agrees to submit a report to the Recipient by the 3<sup>rd</sup> business day following the end of each month over the term of this contract documenting the payments made and the progress towards achievement of the MWBE goals of this contract.

#### EEO PROGRAM

\*\*(Applies to all Construction Contracts and Subcontracts)\*\*

#### Required Reports - EEO Workforce Utilization Reports

During the term of this contract, the contractor and subcontractor shall submit to the Recipient EEO Workforce Utilization Reports. Contractor and subcontractor shall submit this information on a monthly basis to report the actual labor hours utilized in the performance of this contract by the specified categories listed including ethnic background, gender, and Federal occupational categories. The EEO Workforce Utilization Report must be submitted to report this information.

All EEO Workforce Utilization Reports submitted by the contractor and subcontractor shall reflect a separation of the workforce utilized in the performance of this contract from contractor or subcontractor's total workforce. The contractor shall submit the EEO Workforce Utilization Report and indicate that the information provided relates to the actual workforce utilized on this contract. If the contractor or subcontractor fails to separate the workforce to be utilized on this contract from the total workforce, as determined by Recipient, the contractor shall submit the EEO Workforce Utilization Report and indicate that the information provided is the contractor or subcontractor's total workforce Utilization Report and indicate that the information provided is the contractor or subcontractor's total workforce during the subject time frame, not limited to work specifically under this contract.

#### DISADVANTAGED BUSINESS ENTERPRISES

#### \*\*(Applies to all contracts)\*\*

The contractor and subcontractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor and subcontractor shall carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor and subcontractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies. Contractors and subcontractors shall comply with the requirements set forth in the Bid Packets regarding Disadvantaged Business Enterprises.

#### REMEDIES

#### \*\*(Applies to all contracts)\*\*

Upon a determination by the Recipient of the contractor's non-responsiveness, non-responsibility or breach as a result of a failure to comply with the requirements of Article 15-A and the Regulations, the Recipient may withhold funds under this contract or take such other actions, impose liquidated damages or commence enforcement proceedings as set forth herein or as otherwise allowed by law or in equity.

If the contractor or subcontractor fails to submit to Recipient an EEO policy statement consistent with the provisions set forth in clauses (i), (ii), (iii) and (iv) of the definition thereof and within the timeframe required therefor, Recipient may declare this contract to be null and void.

Contractor and subcontractor agree that a failure to submit and/or adhere to its EEO policy statement, EEO Workforce Staffing Plan for Service Provider (Non-construction) Contracts (if applicable), and an MWBE Utilization Plan (contractors only), and any other required periodic reports, shall constitute a material breach of the terms of this contract, entitling Recipient to any remedy provided herein, including but not limited to, a finding of contractor non-responsiveness.

**Liquidated or Other Damages** - If it has been determined by the Recipient or NYSEFC that the contractor is not in compliance with the requirements herein or refuses to comply with such requirements, or if the contractor is found to have willfully and intentionally failed to comply with the MWBE participation goals, the contractor shall be obligated to pay to Recipient liquidated damages or other appropriate damages, as determined by the Recipient or EFC, , in accordance with Section 316-a of Article 15-A and 5 NYCRR §142.13.

Liquidated damages shall be calculated as an amount not to exceed the difference between:

- 1. All sums identified for payment to MWBEs had the contractor achieved the contractual MWBE goals; and
- 2. All sums actually paid to MWBEs for work performed or materials supplied under this contract.

In the event a determination has been made by the Recipient or EFC which requires the payment of liquidated damages and such identified sums have not been withheld, contractor shall pay such liquidated damages to the Recipient within sixty (60) days after they are assessed unless prior to the expiration of such sixtieth day, the contractor has filed a complaint with ESD pursuant to Subdivision 8 of Section 313 of the Executive Law in which event the liquidated damages shall be payable if the Director of ESD renders a decision in favor of the Recipient.

#### **RESTRICTIONS ON LOBBYING**

\*\*(Applies to all contracts greater than \$100,000)\*\*

The contractor and subcontractor executing a contract in excess of \$100,000 agree to provide to the Recipient an executed Certification For Contracts, Grants, Loans, and Cooperative Agreements 40 CFR 34, in the form attached hereto, consistent with the requirements of 40 CFR Part 34.

#### DAVIS-BACON (DB) PREVAILING WAGE REQUIREMENTS

\*\*(Applies to all: (1) Construction Contracts greater than \$2,000
 (2) CWSRF Treatment Works Projects only – see Defined Terms
 (3) DWSRF projects)\*\*

The Recipient acknowledges and hereby agrees to comply with the Wage Rate Requirements under the Davis-Bacon Act, which are hereby restated in pertinent part as follows:

#### Preamble

The Clean Water Act (CWA) and Safe Drinking Water Act (SDWA) require that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to the SRF shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code.

Pursuant to Reorganization Plan No. 14 and the Copeland Act, 40 U.S.C. 3145, the Department of Labor

has issued regulations at 29 CFR Parts 1, 3, and 5 to implement the Davis-Bacon (DB) and related Acts. Regulations in 29 CFR 5.5 instruct agencies concerning application of the standard DB contract clauses set forth in that section. Federal agencies providing grants, cooperative agreements, and loans under the SRF shall ensure that the standard DB contract clauses found in 29 CFR 5.5(a) are incorporated in any resultant covered contracts that are in excess of \$2,000 for construction, alteration or repair (including painting and decorating).

With respect to the Clean Water and Safe Drinking Water State revolving Funds, EPA provides capitalization grants to the State which in turn, through EFC, provides subgrants or loans to eligible entities within the State (Recipient(s)). Typically, the Recipients are municipal or other local governmental entities. For these types of Recipients, the provisions set forth under Roman Numeral I, below, shall apply. Although EPA and the State remain responsible for ensuring Recipients' compliance with the wage rate requirements set forth herein, those Recipients shall have the primary responsibility to maintain payroll records as described in Section 3(ii)(A), below and for compliance as described in Section I-5.

#### **Requirements under the Davis-Bacon Act for Recipients**

The following terms and conditions specify how the New York State Environmental Facilities Corporation (EFC) and governmental Recipients will meet the DB requirements. If a Recipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact EFC. EFC or Recipient may also obtain additional guidance from the web site of the Department of Labor (DOL) at http://www.dol.gov/whd/programs/dbra/.

#### 1. Applicability of the Davis-Bacon (DB) prevailing wage requirements.

Davis-Bacon prevailing wage requirements apply to the construction, alteration, and repair activity of infrastructure, including all construction, alteration and repair activity involving waste water or drinking water treatment plants as subject to DB. If a Recipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the Recipient must discuss the situation with EFC before authorizing work on that site.

#### 2. Obtaining Wage Determinations.

- (a) Recipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.
  - (i) While the solicitation remains open, the Recipient shall monitor <u>www.wdol.gov</u> on a weekly basis to ensure that the wage determination contained in the solicitation remains current. The Recipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the Recipients may request a finding from EFCthat there is not a reasonable time to notify interested contractors of the modification of the wage determination. EFCwill provide a report of its findings to the Recipient.
  - (ii) If the Recipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless EFC, at the request of the Recipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The Recipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.
- (b) If the Recipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the Recipient shall insert the appropriate DOL wage determination from <u>www.wdol.gov</u> into the ordering instrument.

- (c) Recipient shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.
- (d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a Recipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the Recipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the Recipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The Recipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

#### 3. Contract and Subcontract provisions.

(a) The Recipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1, the following clauses:

#### (1) Minimum wages

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3) ), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv)of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Recipients may obtain wage determinations from the U.S. Department of Labor's web site, <u>www.wdol.gov</u>.

(ii)(A) The Recipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be

employed under the contract shall be classified in conformance with the wage determination. The EPA award official shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Recipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Recipient(s) to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.
- (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the Recipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the questions, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

#### (2) Withholding

The Recipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed

by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

#### (3) Payrolls and basic records

- Payrolls and basic records relating thereto shall be maintained by the contractor during the (i) course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the Recipient, that is, the entity that receives the subgrant or loan from EFC. Such documentation shall be available on request of EFC or EPA. As to each payroll copy received, the Recipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Recipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the Recipient(s).
  - (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
    - (1) That the payroll for the payroll period contains the information required to be provided

under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

- (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
- (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.
- (D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- (iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### (4) Apprentices and trainees

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at (ii) less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (iii) **Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
- (5) <u>Compliance with Copeland Act requirements.</u> The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- (6) <u>Subcontracts.</u> The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may by appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- (7) <u>Contract termination: debarment.</u> A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- (8) <u>Compliance with Davis-Bacon and Related Act requirements</u>. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) <u>Disputes concerning labor standards</u>. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Recipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

- (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

#### 4. Contract Provision for Contracts in Excess of \$100,000.

- (a)Contract Work Hours and Safety Standards Act. The Recipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.
  - (1) <u>Overtime requirements</u>. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
  - (2) <u>Violation; liability for unpaid wages; liquidated damages</u>. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.
  - (3) <u>Withholding for unpaid wages and liquidated damages</u>. The Recipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
  - (4) <u>Subcontracts</u>. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors

to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Recipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Recipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

#### 5. Compliance Verification

- (a) The Recipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The Recipient must use Standard Form 1445 or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.
- (b) The Recipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Recipients must increase the frequency of the interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Recipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.
- (c) The Recipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The Recipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the Recipient must spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Recipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the Recipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.
- (d) The Recipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.
- (e) Recipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <a href="http://www.wdol.gov/">http://www.wdol.gov/</a>.

#### AMERICAN IRON AND STEEL (AIS) REQUIREMENT

# \*\*(Applies to all: (1) CWSRF Treatment Works Projects only – see Defined Terms (2)DWSRF projects)\*\*

The Contractor acknowledges to and for the benefit of the Recipient of the Clean Water State Revolving Fund (CWSRF) or the Drinking Water State Revolving Fund (DWSRF) financial assistance that the Contractor understands the goods and services under this Agreement are being funded with monies made available by the New York State Environmental Facilities Corporation (EFC) through the CWSRF or the DWSRF and that such funding is subject to certain statutory restrictions requiring that certain iron and steel products used in the project be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contractor pursuant to this Agreement.

The Contractor hereby represents and warrants that:

- (a) the Contractor has reviewed and understands the American Iron and Steel Requirement,
- (b) all of the iron and steel products covered by the American Iron and Steel Requirement used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and
- (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Recipient.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Recipient to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Recipient resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the EFC or any damages owed to the EFC by the Recipient). While the Contractor has no direct contractual privity with the EFC, as a lender to the Recipient for the funding of this project, the Recipient and the Contractor agree that the EFC is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the EFC.

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# PART 2:

# **GUIDANCE MATERIALS**

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A description of requirements as they relate to construction contracts funded in whole or in part by the New York State Revolving Funds:

#### **Applicability:**

This guidance applies to construction contracts entered into between an SRF recipient (Recipient) and a contractor (or subcontractor) when SRF funds are expended for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereof.

#### **Purpose of Documents:**

This guidance is designed to complement the required contract language as set forth in Part 1, by providing additional information intended to assist SRF Recipients and bidders in complying with EEO, MWBE, DBRA, AIS and other requirements of the SRF programs, including:

- New York State Executive Law, Article 15-A and New York Code of Rules and Regulations, Title 5 (5 NYCRR) Parts 140-145 (Regulations of the Commissioner of Economic Development)
- 40 Code of Federal Regulations (CFR) Part 33 "Participation by Disadvantaged Business Enterprises in US EPA Programs"
- Davis Bacon Related Acts (DBRA) consisting of the following: The Davis Bacon Act; Copeland Act 40 U.S.C. 3145; Reorganization Plan No. 14; Department of Labor 29 CFR Parts 1, 3, and 5; Contract Work Hours and Safety Standards Act
- P.L. 113-76, Consolidated Appropriates Act, 2014; WRRDA Section 608 of the Federal Water Pollution Control Act, as revised "American Iron and Steel" (AIS)
- Restrictions on Lobbying

Contractors are required to engage in procurement practices that will provide opportunities for meaningful participation of minority and women-owned business enterprises (MWBE) in providing construction, labor, travel, equipment, materials, supplies, services (including legal, financial, engineering or other professional services), or any combination of the above, and practices to encourage the employment of minorities and women in the workforce.

Contractors are required to engage in oversight practices that ensure that the wages paid to employees and subcontractors are consistent with DBRA requirements including payment of the higher of the state or federal wages.

Failure to report on EEO participation or to meet all the requirements of MWBE, DBE, DBRA and AIS regulations in a timely manner may result in withholding of disbursements of SRF funds or other remedies as reflected in the SRF financial assistance agreement. This may affect the contractor's payments.

Contractors are required to use iron and steel products made in the United States for the construction, alteration, maintenance, or repair of a public water system or treatment works.

Reference the EFC website to ensure the most recent forms and language. (www.efc.ny.gov)

Revision Date: 10/1/2014

### SECTION 1 EQUAL EMPLOYMENT OPPORTUNITY

\*\*(Applies to all contracts)\*\*

#### A. WORKFORCE DIVERSITY

Contractors are required to document their efforts to meet EEO goals for the employment of minorities and women on all SRF funded projects on the EEO Workforce Utilization Report. The United States Department of Labor (DOL) has established EEO goals for employment of minority and women. The goals are available on EFC's website in the Prime Contractor folder.

#### B. EEO POLICY STATEMENT

The EEO Policy Statement is documentation of a contractor's policy of non-discrimination in accordance with federal and state laws. The EEO Policy Statement must: be submitted to the Recipient's minority business officer (MBO) as part of any bid proposal; include language as defined above (see Required Terms for Project Contracts and Subcontracts – EEO Policy Statement definition); and be signed by each potential bidder.

The EEO Policy Statement can be found in the required forms section of this document and on EFC's website in both the Prime Contractor and MWBE Subcontractor.

#### C. EEO WORKFORCE UTILIZATION REPORTS

Upon the execution of the contract and monthly thereafter, the contractor shall submit to the Recipient's MBO an EEO Workforce Utilization Report that documents the actual labor hours worked by ALL contractor AND subcontractor employees during the prior month period, on activities related to the contract, broken down by specific ethnic background, gender, and Federal occupational categories or other appropriate categories specified by the Recipient.

The *EEO Workforce Utilization Report* is part of the MWBE Monthly Report form. Both the EEO Workforce Utilization Report and MWBE Monthly Report are found on the EFC website in the Prime Contractor folder.

All EEO Workforce Utilization Reports submitted by the contractor and subcontractor must reflect a separation of the workforce utilized in the performance of this contract from contractor or subcontractor's total workforce. The EEO Workforce Utilization Report must indicate that the information provided relates to the actual workforce utilized. If the contractor or subcontractor fails to separate the workforce to be utilized on this contract from the total workforce as determined by Recipient, contractor shall submit the EEO Workforce Utilization Report and indicate that the information provided is contractor or subcontractor's total workforce during the subject time frame, not limited to work specifically under a particular contract.

#### D. OTHER CONSTRUCTION CONTRACTOR RESPONSIBILTIES

- 1. Display the EEO poster at the project site in a visible location. The EEO poster is found at <a href="http://www.dol.gov/oasam/programs/osdbu/sbrefa/poster/matrix.htm">http://www.dol.gov/oasam/programs/osdbu/sbrefa/poster/matrix.htm</a>.
- 2. Make all EEO documents and records available upon request to EFC staff, MBO, or their authorized representatives.
- 3. Provide programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination on the basis of race, color, national origin (including limited English provision), age, disability, sex, gender, sexual orientation, religion, genetic characteristics or information, status as a victim of domestic violence, veteran or military status, marital or family status, or any other discrimination prohibited by law.

### SECTION 2 MINORITY & WOMEN-OWNED BUSINESS ENTERPRISE and DISADVANTAGED BUSINESS ENTERPRISE

\*\*(DBE Applies to all contracts

MWBE Applies to all: (1) Construction Contracts greater than \$100,000

(2) Projects that are initially under these thresholds but subsequent change orders increase the contract value above \$100,000

(3) Change orders greater than \$25,000)\*\*

#### A. MWBE REQUIREMENTS

Recipients, contractors and subcontractors must comply with New York State Executive Law, Article 15-A and New York Code of Rules and Regulations, Title 5 (5 NYCRR) Parts 140-145 (Regulations of the Commissioner of Economic Development).

Construction contracts, for the purposes of SRF MWBE compliance, are written agreements between an SRF Recipient and a contractor (or subcontractor) whereby the SRF Recipient commits to expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereof in support of an SRF financed project.

Amendments or change orders for such construction contracts with a value greater than \$25,000 may be subject to MWBE requirements as well. The Prime contractor is to seek additional MWBE participation for the additional value of the contract unless EFC determines otherwise.

If contracts with a value of \$100,000 or less have subsequent change orders or amendments that bring the total contract value to greater than \$100,000, the <u>full value</u> of the contract will then be subject to MWBE requirements.

#### B. MWBE PARTICIPATION GOALS (FAIR SHARE OBJECTIVES)

Based on the report, "The State of Minority and Women-Owned Business Enterprise: Evidence of New York, April 29, 2010" (NYS Disparity Study), there is a demonstrated availability of MWBEs throughout New York State. Contractors are required to solicit participation of MWBE contractors (including subcontractors, consultants, and service providers) for SRF funded projects.

MWBE participation goals will be based on the execution date of each respective contract, unless MWBE participation goals have been otherwise specified in an executed SRF grant agreement or project finance agreement.

10/1/2012 - Present	MWBE Combined Goal*						
All counties	20%						

*N	lay be	any	combination	of MBE	and/or WBE	participation
----	--------	-----	-------------	--------	------------	---------------

10/1/2011 - 9/30	/2012	MBE Goals	WBE Goals			
New York City (E		17%	8%			
-	ns, Staten Islar	,				
Dutchess	Putnam	Suffolk				
Nassau	Rockland	Ulster	10%	6%		
Orange	Sullivan					
All coun	ties not listed a	9% 5%				
10/2009 - 9/30/2	011	MBE Goals	WBE Goals			
New York City an	d Long Island I	21.5%	13.7%			
(Bronx, Brooklyn,	Manhattan, Qu					
İsland, Nassau, S						
All Counties not li	sted above	6%	6%			
1994 – 9/2009		MBE Goals*	WBE Goals*			

\* Speak with EFC representative for specific MWBE participation goals

#### C. RECEIVING CREDIT UNDER THE EFC MWBE PROGRAM

To receive MWBE participation credit, contractors performing work that have been identified in an approved MWBE Utilization Plan (See Subsection D1 below for more information) <u>must</u> be certified as an MBE or WBE by the Division of Minority and Women's Business Development, Empire State Development Corporation (ESDC). Conditional credit will be given for firms that have applications pending with ESDC.

Prime contractors that are certified MWBE will receive credit for MWBE participation.

A list of firms certified in New York State can be found on the ESD website at <u>https://ny.newnycontracts.com</u>. Searches can be performed by the business name, commodity code or business description.

#### D. CONSTRUCTION CONTRACTOR'S MWBE RESPONSIBILITIES

#### At the Time of Bid:

# The completed forms listed below shall be part of the official bid submission by each competing contractor:

#### • EPA Form 6100-3 "DBE Subcontractor Performance Form"

Each potential bidder shall complete this form and submit it to the MBO for each MWBE firm contacted during the bid or proposal preparation process, and make reasonable efforts to obtain signatures from the MBEs and WBEs contacted. This form shall be completed by each potential subcontractor and submitted to the MBO as part of the bid submission.

#### • EPA Form 6100-4 "DBE Subcontractor Utilization Form"

This form shall be completed by each potential bidder and submitted to the MBO as part of the bid submission. On this form, each bidder offers their estimated plan for MBE and WBE utilization for their contract.

NOTE: The EEO Policy Statement should be completed and submitted at this time.

#### Prior to Award of the Contract:

#### • EPA Form 6100-2 "DBE Subcontractor Participation Form"

Distribute the form to MWBE Subcontractors who are listed on the 6100-4 form. Submit documented proof (e.g. email, letter, certified mail receipt) to the MBO that the 6100-2 form was sent to the MWBE Subcontractors. (See Part 3: Required Forms)

#### After Award of the Contract:

Each prime contractor is obligated to seek MWBE participation and document their good faith efforts to meet MWBE goals.

#### 1. MWBE Utilization Plan (UP)

- **a. Due Date:** MWBE UPs are required to be submitted to the MBO <u>no later than the</u> <u>date of execution of the contract</u>.
- **b. Preparation:** Each contractor shall prepare an MWBE UP that provides information describing MBEs and WBEs to be utilized during the term of the contract. The MWBE UP will reflect the EFC MWBE goals that apply to the contract as well as the contractor's anticipated MWBE participation. The contractor will transmit the completed MWBE UP form, with all pages filled out, to the MBO. Blank MWBE UP forms are available on EFC's MWBE website.

MWBE UP revisions should be submitted to the MBO, with the next monthly report. When an MWBE UP is revised due to execution of a change order, the change order should be submitted to the MBO with the revised MWBE UP.

**c. NYS Certified:** The MBEs and WBEs identified in the MWBE UP must be certified by, or have applied for certification from:

Empire State Development Corporation Division of Minority and Women's Business Development 625 Broadway Albany, New York 12245 Phone: 1-800-782-8639 https://www.ny.newnycontracts.com

**d. Supplier Credit:** Credit for MBE/WBE participation shall be granted for MWBE firms performing a <u>commercially useful</u> business function according to custom and practice in the industry.

"Commercially useful functions" normally include:

- i. Providing technical assistance to a purchaser prior to a purchase, during installation, and after the supplies or equipment are placed in service;
- ii. Manufacturing or being the first tier below the manufacturer of supplies or equipment; or
- iii. Providing functions other than merely accepting and referring requests for supplies or equipment to another party for direct shipment to a contractor.
- iv. Being responsible for ordering, negotiating price, and determining quality and quantity of materials and supplies.

#### MBE/WBE goal crediting:

- i. For MWBE suppliers who are manufacturers, fabricators, or official manufacturer's representatives who are warehousing such goods, up to 100% of the MBE/WBE objective may be credited.
- ii. No credit will be granted for MBEs and/or WBEs that do not provide a commercially useful function.
- e. Waiver Request: If the contractor's application of good faith efforts does not result in the utilization of MBE and/or WBE firms to achieve the aforementioned goals or a specialty equipment/service waiver is requested, the contractor shall complete the waiver request portion of the MWBE UP, attach appropriate documentation, and submit it to the MBO. See Section F for more information.
- f. MWBE Utilization Plan Acceptance vs. Notice of Deficiency: The MBO will evaluate a completed MWBE UP. Upon review and application of the requirements set forth in this guidance, if the MBO finds the UP acceptable, they will forward to EFC for review. If the MBO finds the UP insufficient, they will work with the contractor to address deficiencies before submitting to EFC for review. A written notice of acceptance or denial will be issued by EFC within 20 business days of receipt of the UP. Upon notice of deficiency to the contractor from either the MBO or EFC, the contractor shall respond with a written remedy to such notice within seven (7) business days.

In coordination with the MBO, EFC will accept an MWBE UP upon consideration of many factors, including the following:

i. The MWBE UP indicates that the proposed goals for the project will be achieved;

- ii. A prime contractor, who is a certified MBE or WBE, will be credited for up to 100% of the category of their certification. However, good faith efforts to seek participation in the other category are required; and
- iii. Adequate documentation to demonstrate good faith effort and/or support a specialty equipment/services waiver as described in Section D2.
- **g. UP Acceptance:** Within 10 days of the final acceptance of a MWBE UP or Waiver Request, EFC will post the approved MWBE UP or Waiver Request on the EFC website.
- **h.** Conditional Utilization Plan: In coordination with the MBO, EFC may issue conditional acceptance of UPs pending submission of additional documentation that demonstrates there will be an increase in MWBE participation.
- i. Revisions of the MWBE Utilization Plans: If project conditions change such that the information submitted in the approved MWBE UP is no longer valid, the contractor shall indicate the changes to the MBO in the next monthly report. At EFC's discretion, a completely revised MWBE UP form and good faith effort documentation may be required to be submitted.
- **j. Projects Co-Funded with other state/federal agencies**: In the event EFC is providing financial assistance to a project that is also financially supported by other state/federal agencies, EFC may defer to the MBE and WBE participation goals and program established by those agencies.

#### 2. Good Faith Effort Documentation

Prime contractors shall maintain documentation of their efforts to solicit participation of MWBE firms for SRF-funded projects in an effort to meet the appropriate goals. In the event respective goals are not achieved, the contractor must submit sufficient documentation to demonstrate good faith efforts have been made to provide opportunities to certified MWBE firms to participate in SRF-funded projects.

Examples of documentation of good faith efforts are set forth below:

- Information on the scope of work related to the contract and specific steps taken to reasonably structure the scope of work to break out tasks or equipment needs for the purpose of providing opportunities for subcontracting with, or obtaining supplies or services from, MBEs or WBEs.
- Printed screenshots of the directory of Certified Minority and Women Owned Businesses (MWBE directory) on ESD's website on a statewide basis, if appropriate, for both MBEs and WBEs that provide the services or equipment necessary for the contract. Contact the MBO for assistance in performing a proper search including identifying a sufficient number of solicitations to show that good faith effort was made.
- Copies of timely solicitations and documentation that the contractor offered relevant plans, specifications, or other related materials to MBE and WBE firms on ESD's MWBE directory to participate in the work, with the responses.

The contractor is to offer sufficient advance notice proportional to the size and complexity of the contract to enable MBEs and WBEs to prepare an informed response to the solicitations for participation as a subcontractor or supplier. The solicitations and responses are required to be documented in a log to be submitted in the case where the goal is not met. The log should consist of the list of MBE and WBE firms solicited, their contact information, the type of work they were solicited to perform (or equipment to provide), how the solicitation was made (fax, phone, email) and the contact information, the contacts name and the outcome. If a bid was received, the bid price should also be included in the log. See a sample log entry below:

Date	M/WBE Type	Company	Scope of work	Contact Name	Phone/ Email	Solicitation Format	MWBE Response	Negotiation Required?	Selected? If not, Explain

If no response was received to an initial solicitation, at least one follow-up solicitation should be made in a different format than the first, e.g. fax followed by phone call. Any bids received from non-MWBE firms should also be tracked on the log.

Submit the EPA 6100-3 and 6100-4 forms that are required as part of all bids or proposals. A properly completed EPA 6100-3 form is good indication of a contact to an MWBE and their response to the contact. If solicitations do not result in obtaining sufficient participation of MWBE firms due to non-responsiveness, please contact the MBO or EFC MWBE representative for support.

- Copies of any advertisements of sufficient duration to effectively seek participation of certified MBE and WBEs timely published in appropriate general circulation, trade and MWBE oriented publications, together with listing and dates of publication of such advertisements. EFC recommends the use of the Contract Reporter that is free to all Contractors - <u>https://www.nyscr.ny.gov/</u>. A log should be kept of the responses to the ads, similar to the log for MWBE firm solicitation and should include the non-MWBE firms that responded and the bid prices. Any negotiations should be documented in the log.
- Documents demonstrating that insufficient MBEs or WBEs are reasonably available to perform the work. Based on the NYS Disparity Study, there is a presumption of MBE and WBE statewide availability, unless information is submitted indicating otherwise.
- A written demonstration that the contractor offered to make up any inability to meet the project MWBE participation goals in other contracts and/or agreements performed by the contractor on another SRF funded project.
- The date of pre-bid, pre-award, or other meetings scheduled by the Recipient, if any, and the contact information of any MBEs and WBEs who attended and are capable of performing work on the project.
- Any other information or documentation that demonstrates the contractor conducted good faith efforts to provide opportunities for MWBE participation in their work. For instance, prime contractors and MBOs should develop a list of MWBE firms that have expressed interest in working on SRF funded projects
- The use of certified Disadvantaged Business Enterprises (DBE), Small Business Administration (SBA), and Veteran-Owned Small Businesses (VOSB) may be considered as a demonstration of Good Faith Efforts.

#### 3. Subcontract Agreements

The contractor shall submit copies of all legally signed subcontracts, agreements, and purchase orders that are referred to in the MWBE Utilization Plan to the MBO within 30 days of their execution. These subcontracts and/or purchase orders must include the following information:

- a. Actual dollar amount of the subcontract;
- b. A job description of the work to be performed by the subcontractor;
- c. Signatures of both parties;
- d. Date of execution;
- e. MWBE language (included in this bid packet); and
- f. A signed EEO Policy Statement Agreement (See Required Forms).

NOTE: Purchase orders must be sent with copies of both sides of cancelled checks.

#### 4. Monthly Reports

The contractor must submit monthly MWBE payment reports supplemented with proof of payment to the MBO. Blank monthly report forms are available on EFC's website or from the MBO. Monthly reports should be submitted to the MBO within 3 business days after the end of each month being reported.

As part of the Monthly Report, the contractor must provide documentation to the MBO that subcontractors have been paid within 30 days of receipt of payment from the Recipient.

The final monthly payment report must reflect all Utilization Plan revisions and all change orders.

#### 5. Other Construction Contractor Responsibilities

- a. Continue good faith efforts to seek opportunities for MBE and WBE participation even if proposed goals have been achieved. In addition, any revisions to an MWBE Utilization Plan must be documented in the next monthly report to the MBO for approval.
- b. Provide written notification to the MBO and EFC of any termination of an MBE or WBE subcontractor. This should be reported as part of the revised MWBE Utilization Plan or in a monthly report.
- c. Provide timely and complete responses to inquiries from either the MBO or EFC staff as requested.
- d. Make all MWBE documents and records available upon request to EFC staff, the MBO, or their authorized representatives.
- e. Manage the project in a manner that creates meaningful opportunities for participation by MBEs and WBEs.
- f. Provide programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination on the basis of race, color, national origin (including limited English provision), age, disability, sex, gender, sexual orientation, religion, genetic characteristics or information, status as a victim of domestic violence, veteran or military status, marital or family status, or any other discrimination prohibited by law.

Additional guidance and requirements pertaining to the preparation and submission of the MWBE Utilization Plans can be found in the Part 1: Required Contract Language.

NOTE: Failure by the contractor to receive acceptance of the MWBE Utilization Plan by the Recipient or EFC may result in withholding of progress payments. Such withholding of progress payments shall not relieve the contractor of any contract requirements including the completion of the project within the specified contract time.

#### E. SUBCONTRACTOR'S MWBE RESPONSIBILITIES

Subcontractors are those individuals or business enterprises that contract directly with contractors. Subcontractors should:

1. Maintain their MWBE certifications, and notify the contractor and MBO of any change in their certification status.

- 2. Respond promptly to solicitation requests by completing and submitting bid information in a timely manner.
- 3. Maintain business records that should include, but not be limited to, contracts/agreements, records of receipts, correspondence, purchase orders, and canceled checks.
- 4. Complete and submit the EPA Form 6100-3 "DBE Subcontractor Performance Form" to the contractor prior to submission of the bid. Provide a receipt of EPA Form 6100-2 "DBE Subcontractor Participation Form" to the contractor prior to award of contract.
- 5. Ensure that a required EEO Policy Statement is included in each subcontract. Additionally, signed versions of each subcontract should be sent to the MBO within 30 days of execution.
- 6. Provide programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination on the basis of race, color, national origin (including limited English provision), age, disability, sex, gender, sexual orientation, religion, genetic characteristics or information, status as a victim of domestic violence, veteran or military status, marital or family status, or any other discrimination prohibited by law.
- 7. Notify the MBO and EFC when contract problems arise, such as non-payment for services or when the subcontractor is not employed as described in the MWBE Utilization Plan.
- 8. Perform the subcontracted scope of work in a professional and timely manner.

#### F. WAIVER REQUESTS

Each contractor is required to create meaningful opportunities for certified MWBE participation and to offer the MWBE certified firms a fair share of their work. After making good faith efforts to create meaningful opportunities, a contractor may find that it is not possible to meet the MWBE goals. In that case, the contractor shall request a waiver from the goals.

Even if an MWBE waiver is granted, EEO information must still be submitted. The EEO information is submitted as part of the Monthly Report.

- 1. **Preparation**: The contractor shall complete the waiver request portion of the MWBE Utilization Plan and submit it to the MBO along with adequate good faith effort documentation and a letter explaining why the waiver is necessary.
- 2. **Waiver Review**: The MBO and EFC will review each waiver request based on the good faith effort criteria presented above and the documentation submitted with the waiver request. EFC will not issue any automatic waivers from MWBE responsibilities. A full or partial waiver from the MWBE goals can be requested.
- 3. **Specialty Equipment/Service Waiver:** A specialty equipment/service waiver may be granted in cases where:
  - a. equipment is made by only one non-MWBE manufacturer,
  - b. the technical specifications call for equipment that is not available through an MWBE supplier;
  - c. the equipment is constructed on site by specially trained non-MWBE labor;
  - d. the service is not available through an MWBE (such as work done by National Grid);
  - e. the service is proprietary in nature (such as use of certain computer software necessary for control systems); or
  - f. the service cannot be subcontracted (such as litigation services).

If the contract includes specialty equipment or services, and documentation is submitted demonstrating that there are no MBE/WBE firms capable of completing this portion of the contract, the specialty amount of the contract may be deducted from the total contract amount to determine the MWBE Eligible Amount and the goals would be applied to the MWBE Eligible Amount. This determination is made at the discretion of the MBO and EFC.

Example: \$200,000 - \$50,000 = \$150,000 (Contract) (Specialty equipment/service) (MWBE Eligible Amount)

The MWBE goal is applied to the remaining balance.

A request for this specialty equipment/service deduction can be completed by filling out section two of the MWBE Utilization Plan and submitting it to the MBO. The request must include a copy of the page from the contract where the equipment/ service is described and the cost of each item. For construction contracts, the <u>schedule of values</u> or <u>bid tabulation sheet</u> should also be submitted. Additional documentation may be requested by the MBO or EFC.

#### G. PROTESTS/COMPLAINTS

Subcontractors or contractors who have any concerns, issues, or complaints regarding the implementation of the SRF MWBE/EEO Program, or wish to protest should do so in writing to the project MBO and EFC. The MBO, in consultation with EFC, will review the circumstances described in the submission, investigate to develop additional information, if warranted, and determine whether action is required. If the subcontractor believes the issue has not been resolved to their satisfaction, they may appeal in writing to EFC for consideration.

#### H. WASTE, FRAUD AND ABUSE

Subcontractors, contractors, service providers, or Recipients who know of or suspect any instances of waste, fraud, or abuse within the MWBE & EEO Program should notify the project MBO and EFC immediately. Additionally, suspected fraud activity should be reported to the USEPA – Office of Inspector General Hotline at (888) 546-8740, the New York State Office of Inspector General at (800) 367-4448, or the ESD Compliance Office at (212) 803-3268.

#### I. REMEDIES

If a Recipient makes a determination that a contractor has been non-responsive, is non-responsible, or is in breach as a result of a failure to comply with the program requirements discussed in <u>Part 1: Required Contract Language</u>, Recipient may withhold funds under the contract or take such other actions, impose liquidated damages or commence enforcement proceedings.

If a contractor or subcontractor fails to submit to Recipient an EEO policy statement within the required timeframe, Recipient may declare the contract to be null and void.

A failure to submit and/or adhere to an EEO policy statement and an MWBE Utilization Plan, and any other required reports, shall constitute a material breach of the terms of the contract between contractor and Recipient, and justify a finding of contractor non-responsiveness.

### SECTION 3 RESTRICTIONS ON LOBBYING

\*\*(Applies to all contracts greater than \$100,000)\*\*

Each contractor and subcontractor which has a contract with Recipient exceeding \$100,000 shall provide to the Recipient an executed certification on the form provided, that it will not expend appropriated federal funds to pay any person for influencing or attempting to influence an officer or employee of any agency, Member of Congress, officer or employee of Congress or any employee of any Member of Congress in accordance with the provisions of 40 CFR Part 34, and to maintain such certification for their own records.

### SECTION 4 DBRA REQUIREMENTS

\*\*(Applies to all: (1) Construction Contracts greater than \$2,000

(2) CWSRF Treatment Works Projects only – see Defined Terms
 (3) DWSRF Projects) \*\*

The Davis Bacon Related Act (DBRA) applies to all CWSRF-funded construction contracts for Treatment Works Projects and all DWSRF-funded construction contracts in excess of \$2,000 that are under construction after October 30, 2009. When SRF funding is sought for contracts where the construction started prior to October 30, 2009 but construction is still ongoing, it will be necessary to execute a change order to incorporate the DBRA provisions. DBRA requirements do not apply to non-construction contracts or for construction work categorized by EPA as non-point source projects or estuary management program projects, <u>unless the project involves treatment plant work</u>.

(Contact EFC or DOH Project Engineer prior to bid if you have these types of projects.)

The following activities must be implemented by each contractor on an SRF funded project in order to maintain compliance with the DBRA. These contractual obligations are included in the contract language in <u>Part 1: Required Contract Language</u> and expanded upon below.

#### Prior to bid and execution of any SRF eligible contracts, complete the following activities:

#### A. FEDERAL AND STATE WAGE RATES

When preparing the bid for SRF project, the contractor must use the higher of the prevailing federal, state, or applicable local wage rates paid to each trade. These rates apply to subcontractors working on the project as well. Federal wage rates can be found at <u>http://www.wdol.gov/</u>.

#### B. DEBARRED OR SUSPENDED CONTRACTORS

The contractor should ensure that the subcontractors bidding on the work are not included on either the state or federal debarred or suspended contractor's list, located within the state wage rate packet and available on the US Department of Labor website <a href="https://www.sam.gov/portal/public/SAM/">https://www.sam.gov/portal/public/SAM/</a>.

#### C. CONTRACT LANGUAGE AND WAGE RATES

The contractor must ensure that the most recent DBRA contract language and federal wage rates are included in the contract before execution.

Davis Bacon regulations require that Recipients must amend the solicitation if the Department of Labor issues a modification to the wage rates more than 10 days prior to the closing date (i.e. bid opening) for the solicitation.

Also, if the contract has not been awarded within 90 days after bid opening, the Recipient must

modify the solicitation or contract to include the most recent federal wage rates, if they have been modified. The federal wage website includes a list of wage determinations that are due for revision.

#### After execution of any contracts, complete the following activities:

#### D. WAGE RATE COMPLIANCE VERIFICATION

#### Contractor/Subcontractor Responsibilities:

- 1. Post Davis Bacon Wage Poster and federal, state, and applicable local wages in a visible area at the construction site. This poster may be found on the EFC website under the Resource Library. (Refer to Part 3: Required Forms)
- 2. Make your employees and subcontractors' employees available for wage interviews if necessary. Wage interviews must be conducted confidentially and using Labor Standard Interview Form (SF-1445) which can be found on the EFC website (<u>www.efc.ny.gov</u>) and in the Required Forms section.
- 3. Use federal payroll form WH-347 and complete the certifications on the back. If another form is being used, inform the Recipient and obtain a determination that the form is equivalent to the federal form. (Refer to <u>Part 3: Required Forms</u>)
- 4. Pay the higher of prevailing federal, state, or applicable local wages, including benefits (fringe & holidays), to each trade and overtime not less than one and one-half times the basic rate of pay for hours in excess of forty hours on contracts in excess of \$100,000. The wage rates apply to subcontractor trades as well.
- 5. Maintain proof of apprentice and trainee ratios for both contractor and subcontractor and certifications onsite.
- 6. Pay wages to your employees and your subcontractors on a weekly basis. Ensure that your subcontractors are paying their employees weekly.
- 7. Ensure that the subcontracts contain the Davis Bacon contract language, the federal, state, or applicable local wage determinations and equal employment opportunity language. This language is provided in the <u>Part 1: Required Contract Language</u>. Federal wage determinations are available at <u>www.wdol.gov.</u>
- 8. Provide payroll forms and apprentice and trainee certifications to the Recipient for their records.
- 9. Report potential waste, fraud and abuse violations to the EPA Davis Bacon Contact and DOL Wages and Hours District Office found on their website. <u>http://www.wdol.gov/</u>.
- 10. Any violations in payroll reporting or unpaid wages are subject to a daily monetary penalty.

Note that EFC expects to perform interim and final construction inspections. The EFC inspector can be expected to verify that the steps above are being followed and also check to ensure the proper signs and wage rates are posted in a visible area.

#### SECTION 5 AIS REQUIREMENTS

\*\*(Applies to all: (1) CWSRF Treatment Works Projects only – see Defined Terms (2) DWSRF Projects) \*\*

American Iron and Steel (AIS) requirements apply to any federally funded <u>construction</u> contract that meets all of the following conditions:

- For the construction, alteration, maintenance, or repair of public water system or treatment works;
- That execute a financial assistance agreement with the NYS Environmental Facilities Corporation

(EFC) after January 17, 2014 for assistance through either the Clean Water State Revolving Fund (CWSRF) or the Drinking Water State Revolving Fund (DWSRF), and

• Did not have the project plans and specifications submitted for review by a NYS agency on or before January 17, 2014 and approved by a NYS agency before April 15, 2014.

The following activities must be implemented by each contractor on an SRF funded project in order to maintain compliance with the AIS program. These contractual obligations are included in the contract language in <u>Part 1: Required Contract Language</u> and expanded upon below.

#### A. DEFINITIONS

It is required that all of the iron and steel products used in the project are produced in the United States. The term "**iron and steel products**" means the following products made primarily of iron or steel that is permanently incorporated into the public water system or treatment works:

Lined or unlined pipes or fittings Manhole Covers Municipal Castings (defined below); Hydrants Tanks Flanges Pipe clamps and restraints Valves Structural steel Reinforced precast concrete Construction materials (defined below)

For one of the listed products to be considered subject to the AIS requirement, it must be made of greater than 50% iron and steel, measured by material cost.

**Municipal castings** – cast iron or steel infrastructure products that are melted and cast. They typically provide access, protection, or housing for components incorporated into utility owned drinking water, storm water, wastewater, and surface infrastructure. They are typically made of grey or ductile iron, or steel. Examples of municipal castings are:

Access Hatches **Ballast Screen** Benches (Iron or Steel) Bollards Cast Bases Cast Iron Hinged Hatches Cast Iron Riser Rings Catch Basin Inlet Cleanout/Monument Boxes **Construction Covers and Frames** Curb and Corner Guards Curb Openings **Detectable Warning Plates** Downspout Shoes (Boot, Inlet) Drainage Grates, Frames and Curb Inlets

Inlets Junction Boxes Lampposts Manhole Covers, Rings and Frames, Risers Meter Boxes Service Boxes Steel Hinged Hatches Square and Rectangular Steel Riser Rings Trash receptacles Tree Grates Tree Guards Trench Grates Valve Boxes, Covers and Risers

**Construction Materials** – articles, materials, or supplies made primarily of iron and steel that are permanently incorporated into the project, not including mechanical and/or electrical components, equipment and systems. Some of these products may overlap with what is also considered "structural steel". This includes, but is not limited to, the following products:

Wire rod Bar Angle Concrete Reinforcing bar Wire Wire cloth

Wire rope and Cables Tubing Framing Joists Trusses Fasteners (i.e., nuts and bolts) Welding rods Decking Grating Railings Stairs

The SRF Bid Packet SRF Construction Contracts Access ramps Fire escapes Ladders Wall panels Dome structures Roofing Ductwork Surface drains Cable hanging systems Manhole steps Fencing and fence tubing Guardrails Doors Stationary screens

**NOT Considered Construction Materials**: Mechanical and electrical components, equipment and systems are not considered construction materials. Mechanical equipment is typically that which has motorized parts and/or is powered by a motor. Electrical equipment is typically any machine powered by electricity and includes components that are part of the electrical distribution system.

The following examples (including their appurtenances necessary for their intended use and operation) are NOT considered construction materials:

Pumps Motors Gear reducers Drives (including variable frequency drives (VFDs)) Electric/pneumatic/manual accessories used to operate valves (such as electric valve actuators), Mixers Gates Motorized screens (such as traveling screens) Blowers/aeration equipment Compressors Meters Sensors Controls and switches SCADA Membrane bioreactor systems Membrane filtration systems Filters

Clarifiers and clarifier mechanisms Rakes Grinders **Disinfection systems** Presses (including belt presses) Conveyors, cranes HVAC (excluding ductwork) Water heaters Heat exchangers Generators Cabinetry and housings (such as electrical boxes/enclosures) Lighting fixtures Electrical conduit Emergency life systems Metal office furniture Shelving Laboratory equipment Analytical instrumentation Dewatering equipment

#### B. CERTIFICATION

Each contractor that has a contract with the Recipient shall provide to the Recipient an executed certification on the form provided, that the iron and steel products and/or materials used on this project are in full compliance with the American Iron and Steel requirements in accordance with the provisions of the Consolidated Appropriations Act, and to maintain such certification for their own records.

It is recommended that a step certification process is used, in which each handler (supplier, fabricator, manufacturer, processor, etc) of the iron and steel products certifies that their step in the process was domestically performed. Each time a step in the manufacturing process takes place, the manufacturer delivers its work along with a certification of its origin.

A certification typically includes:

- a. the name of the manufacturer
- b. the location of the manufacturing facility where the product or process took place (not its headquarters)
- c. a description of the product or item being delivered
- d. a signature by a manufacturer's responsible party

These certifications should be collected and maintained by Recipients.

Alternatively, the final manufacturer that delivers the iron or steel product to the worksite, vendor,

or contractor, may provide a certification asserting that all manufacturing processes occurred in the US. While this type of certification may be acceptable, it may not provide the same degree of assurance. Additional documentation may be needed if the certification is lacking important information.

#### C. WAIVER REQUESTS

The EPA is allowed to issue waivers from the AIS requirements when:

- The application of the AIS requirements would be inconsistent with the public interest;
- Iron and steel products are not produced in the US in sufficient and reasonably available quantities and of a satisfactory quality; or
- Inclusion of iron and steel products produced in the US will increase the cost of the overall project by more than 25 percent.

AlS waivers can be product-specific, project-specific, regional, or nationwide. Waiver requests can only be submitted by either EFC or DOH to EPA, and only EPA can approve an AlS waiver. If the contractor is considering requesting an AlS waiver, documentation as described in the EPA guidance should be developed and submitted to the EFC or DOH Project Engineer. See EFC's website for EPA guidance.

#### 1. Waiver Documentation:

The contractor shall complete the waiver request to the Recipient along with adequate good faith effort documentation. Waiver requests should include the following information:

- a. Description of the foreign and domestic construction materials
- b. Unit of measure
- c. Quantity
- d. Price
- e. Time of delivery or availability
- f. Location of the construction project
- g. Name and address of the proposed supplier
- h. A detailed justification for the use of foreign construction materials

For **Cost Waiver Requests**, the contractor should compare the overall cost of the project with domestic iron and steel products to overall cost of the project with foreign iron and steel products. Relevant excerpts from the bid documents used by the contractors to complete the comparison, as well as supporting documentation indicating that the contractor made a reasonable survey of the market, such as a description of the process for identifying suppliers and a list of contacted suppliers may be used.

For **Availability Waiver Requests**, the request must include the following supporting documentation necessary to demonstrate the availability, quantity and/or quality of the materials for which the waiver is requested:

- a. Supplier information or pricing information from a reasonable number of domestic suppliers indicating availability/delivery date for construction materials
- b. Documentation of the assistance recipient's efforts to find available domestic sources, such as a description of the process for identifying suppliers and a list of contacted suppliers
- c. Project schedule
- d. Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of construction materials

Availability Waiver Requests should include a statement from the prime contractor and/or supplier confirming the non-availability of the domestic construction materials for which the waiver is sought.

#### 2. Waiver Review:

The Recipient and EFC will review each waiver request based on the criteria presented above and the documentation submitted with the waiver request. EFC will submit waiver request directly to EPA for final approval of submission. Granting a waiver is a three-step process:

- a. <u>Posting</u> After receiving an application for waiver of the AIS requirements, EPA will publish the request on its website for 15 days and receive informal comment.
- b. <u>Evaluation</u> EPA will review the application to determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver to make a determination.
- c. <u>Determination</u> In the event that EPA finds that adequate documentation and justification has been submitted, the EPA may grant a waiver to the Recipient. The Recipient should keep a copy of the signed waiver in its project files.

#### D. DE MINIMIS WAIVER

The AIS de minimis waiver allows that incidental iron and steel components that are tracked in a certain manner are exempt for the AIS requirements. Items that can be subject to the de minimis waiver must be:

- 1. Essential, but incidental to the construction
- 2. Incorporated into the physical structure of the project. and
- 3. Often are low cost and procured in bulk.

Examples items eligible for de minimis tracking include: washers, screws, nuts, bolts, fasteners, miscellaneous wire, corner bead, ancillary tubing, etc.

Examples of items that are NOT incidental and cannot be considered for de minimis tracking include: process fittings, tees, elbows, flanges, brackets, valves, sewer or water pipes for distribution, treatment or storage tanks, large structural support systems, etc.

To comply with the de minimis waiver, all items that are waived must meet the above criteria and must be 5% or less of the total cost of materials incorporated into the project. This can be measured on a project basis, or on a contract-by-contract basis, as long as the cost of the tracked de minimis iron and steel items is 5% or less of the total material cost of materials incorporated into the project.

Contractors should prepare a record, in spreadsheet form, which tracks the cost of all materials incorporated into the project. This spreadsheet can be either project specific or contract specific. If contract specific, a material tracking record for each construction contract should be prepared and items that are subject to the AIS de minimis waiver highlighted. There should be a clear calculation available to indicate that the cost of the de minimis iron and steel items is 5% or less of the total cost of all materials.

#### E. INSPECTIONS

EFC or DOH can be expected to conduct occasional site inspections that will include a review of AIS documentation for the project. Items that will be reviewed during these inspections include:

- 1. AIS certifications from vendors, suppliers, or manufacturers;
- 2. Contract and subcontracts to verify that the AIS contractual language has been included; and
- 3. The lists of the incidental iron and steel project components that are claimed under the AIS de minimis waiver.

#### F. BEST PRACTICES

The following Best Practices are suggestions and recommendations for the Contractor to remain in compliance with the AIS program. The EFC can be contacted directly with any questions regarding compliance.

- 1. The Contractor should carefully review the plans and specifications prepared to identify iron and steel products (as defined previously in Section 5.A) used in each project and incorporate American-made iron and steel at the time of bid.
- 2. The Contractor should acquire product certifications from all suppliers and manufacturers for iron and steel products verifying that the products used in the project are American-made. These certifications should be kept on file for the duration of the project and provided to the SRF Recipient.
- 3. The product/manufacturer certifications should be submitted with each equipment/material submittal to the Recipient and/or Engineer. The Contractor should retain all delivery slips, certifications and approved submittals in their file for the duration of the project.

## EEO PROGRAM CHECKLIST

The EEO program is required of all contracts.

The following forms must be completed and submitted to the Recipient. Refer to the applicable sections in the Guidance for further information.

At the Time of Bid:

**Guidance Reference** 

□ EEO Policy Statement

Section 1.B

Section 1.C

After Contract Award:

□ EEO Utilization Report

	DAVIS BACON REQUIREMENTS CHECKLIST					
		ors must comply with the DBRA program if "yes" is a owing question.	nswered for BOTH			
Yes	<u>No</u>					
		This project involves the construction, alteration, mainten public water system (DWSRF) or treatment works (CW treatment works include but are not limited to collect stations, and wastewater treatment plants (see Definitions	SRF). Examples of ion systems, pump			
		The construction contract is greater than \$2,000.				
be c	If you answered YES to all of the above, then the following forms and actions must be completed by the Contractor on behalf of the Recipient. Refer to the applicable sections in the Guidance for further information.					
<u>After</u>	Awa	rd of Contract	Guidance Reference			
	Post	Davis Bacon Wage Poster and wage rates	Section 4.A.1			
		nit weekly certified payrolls for all prime and ontractors	Section 4.A.3			
	Pay the higher of prevailing federal, state, or applicable local Section 4.A.4 wages, including benefits to each trade, including subcontractors.					
		re that the subcontracts contain Davis Bacon contract Jage.	Section 4.A.7			
	Appr	entice and Trainee Certifications (if applicable)	Section 4.A.8			

	MWBE and DBE PROGRAM CHECKLIST					
	tractors must comply with the MWBE program if "yes" is a ollowing questions. The DBE program is required of all co					
<u>Yes</u>	No					
	$\Box$ The construction contract is greater than \$100,000.					
	□ The initial construction contract was \$100,000 or less change order increased the total contracted value over \$					
	$\Box$ A change order was approved that is greater than \$25,0	00.				
	$\Box$ A partial or full waiver was not approved by the EFC.					
com cont	If you answered YES to any of the above, then the following MWBE forms must be completed and submitted to the Recipient. The DBE forms are required of all contracts that are bid. Refer to the applicable sections in the Guidance for further information.					
<u>At th</u>	e Time of Bid:	Guidance Reference				
	EPA Form 6100-3: "DBE Subcontractor Performance Form"	Section 2.D				
	EPA Form 6100-4: "DBE Subcontractor Utilization Form"	Section 2.D				
<u>Prio</u>	to Contract Award					
	EPA Form 6100-2: "DBE Subcontractor Participation Form"	Section 2.D				
<u>After</u>	Contract Award					
	MWBE Utilization Plan and/or Waiver Request and any Section 2.D.1 revisions subsequent to approval					
	Good Faith Effort Documentation (if submitting waiver)	Section 2.D.2				
	All executed subcontracts, agreements and purchase orders	Section 2.D.3				
	Proof of payment to MWBE firms	Section 2.D.4				
	Monthly MWBE Reports	Section 2.D.4				

### AMERICAN IRON AND STEEL (AIS) REQUIREMENTS CHECKLIST

Contractors must comply with the AIS program if "yes" is answered for ALL of the following questions.

<u>Yes</u> No

- □ □ This project involves the construction, alteration, maintenance, or repair of a public water system (DWSRF) or treatment works (CWSRF). Examples of treatment works include but are not limited to collection systems, pump stations, and wastewater treatment plants (see Definitions).
- □ □ A financing assistance agreement with the NYS Environmental Facilities Corporation (EFC) was executed after January 17 for assistance through either the Clean Water State Revolving Fund (CWSRF) or the Drinking Water State Revolving Fund (DWSRF).
- □ □ The project did not have the project plans and specifications submitted for review by a NYS agency on or before January 17, 2014 and approved by a NYS agency before April 15, 2014.

If you answered YES to all of the above, then the following forms must be completed and submitted to the Recipient. Refer to the applicable sections in the Guidance for further information.

After Contract Award

**Guidance Reference** 

□ AIS Compliance Certifications for all applicable iron and steel Section 5.B products

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# PART 3:

# **REQUIRED FORMS**

# FOR CONSTRUCTION CONTRACTS

# The following SRF forms are provided and may be required. Please refer to the Guidance Section Checklists to determine which forms are applicable to your project.

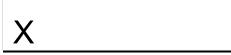
	Guidance Reference
EEO Policy Statement	Section 1.B
EEO Workforce Utilization Report (form available online only)	Section 1.C
MWBE Utilization Plan & Waiver Request Form (form available online only)	Section 2.D.1
Contractor's MWBE Monthly Report & EEO Workforce Utilization Report Form (form available online only)	Section 2.D.4
EPA Form 6100-2 "DBE Subcontractor Participation Form"	Section 2.D
EPA Form 6100-3 "DBE Subcontractor Performance Form"	Section 2.D
EPA Form 6100-4 "DBE Subcontractor Utilization Form"	Section 2.D
Lobbying Certification (Certification for Contracts, Grants, Loans, and Cooperative Agreements 30 CFR 34)	Section 3
AIS Compliance Certification	Section 5.B
Federal Payroll Form (WH-347)	Section 4.A.3
Labor Standards Interview Form (SF 1445)	Section 4.A.2
Davis Bacon Poster (WH-1321)	Section 4.A.1

#### AGREEMENT TO ABIDE BY EQUAL EMPLOYMENT OPPORTUNITY POLICY STATEMENT REQUIREMENTS NEW YORK STATE REVOLVING FUND (SRF)

- (i) A statement that the contractor will not discriminate on the basis of race, creed, color, national origin, sex, age, disability, or marital status against any employee or applicant for employment, will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination and will make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on contracts relating to the Project.
- (ii) An agreement that all of contractor's solicitations or advertisements for employees will state that, in the performance of the contract relating to this Project, all qualified applicants will be afforded equal employment opportunities without discrimination on the basis of race, creed, color, national origin, sex, age, disability or marital status.
- (iii) An agreement to request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union, or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the contractor's obligations herein.
- (iv) An agreement to comply with the provisions of the Human Rights Law (Article 15 of the Executive Law), including those relating to non-discrimination on the basis of prior criminal conviction and prior arrest, and with all other State and federal statutory constitutional non-discrimination provisions.

Blank EEO Policy Statements are available at www.efc.ny.gov/mwbe, if needed.

If contractor fails to submit to Recipient an EEO policy statement consistent with the provisions set forth above in clauses (i), (ii), (iii) and (iv) and within the timeframe required thereof, Recipient may declare this contract to be null and void.



Contractor/Service Provider Representative

Once completed, please provide to the Prime Contractor and/or the community MBO



#### Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Participation Form

An EPA Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE<sup>1</sup> subcontractor<sup>2</sup> the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID	No. (if known)	Point of Contact
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Fundir	ng Entity:

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services , Equipment or Supplies	Amount Received by Prime Contractor

<sup>1</sup> A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

<sup>2</sup> Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



OMB Control No: 2090-0030 Approved: 8/13/2013 Approval Expires: 8/31/2015

#### Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Participation Form

Please use the space below to report any concerns regarding the above EPA-funded project:

Subcontractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.



#### Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Performance Form

This form is intended to capture the DBE<sup>1</sup> subcontractor's<sup>2</sup> description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID	No. (if known)	Point of Contact
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Fundir	ng Entity:

Contract Item Number	-	k Submitted to the Prime Contractor on, Services , Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: DOT	SBA	Meets/ exceeds EPA certification standar	·ds?
Other:		YESNOUnknown	

<sup>1</sup> A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

<sup>2</sup> Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



#### Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Performance Form

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

Subcontractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

#### Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE<sup>1</sup> subcontractors<sup>2</sup> and the estimated dollar amount of each subcontract. An EPA Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name		
Bid/ Proposal No.	Assistance Agreement ID	No. (if known)	Point of Contact	
Address				
Telephone No.		Email Address		
Issuing/Funding Entity:		1		

I have identified potential DBE certified subcontractors	YES	NO						
If yes, please complete the table below. If no, please explain:								
Subcontractor Name/ Company Name	Company Address/ Phone/ Email	Est. Dollar Amt	Currently DBE Certified?					
	——— Continue on back if needed ————							

<sup>1</sup> A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

<sup>2</sup> Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

EPA FORM 6100-4 (DBE Subcontractor Utilization Form)



#### Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Utilization Form

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

#### CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS 40 CFR 34

#### SRF Project No.: \_\_\_\_\_

The undersigned each certify, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-contracts, sub-grants, and contracts under grant, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31 U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

By:			
Name:			
Title:			
Date: _			

Contract ID: \_\_\_\_\_

#### **Appendix 5: Sample Certifications**

The following information is provided as a sample letter of <u>step</u> certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Step Certification for Project (XXXXXXXXX)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

- 1. Xxxx
- 2. Xxxx
- 3. Xxxx

Such process took place at the following location:

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

The following information is provided as a sample letter of certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Certification for Project (XXXXXXXXX)

I, (company representative), certify that the following products and/or materials shipped/provided to the subject project are in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

- 1. Xxxx
- 2. Xxxx
- 3. Xxxx

Such process took place at the following location:

Signed by company representative

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

#### **U.S. Department of Labor**

U.S. Wage and Hour Division Bey. Dec. 2008

PAYROLL

Wage and Hour Division

#### (For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number

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NAME OF CONTRACTOR OR SUBCONTI	RACTOR							DRES	15							OMB No.: 1215-014 Expires: 12/31/201	
PAYROLL NO.		FOR WEEK ENDIN	G				PF	ROJEC	T AND LOCATI	ON				PROJECT	OR CONTRAC	CT NO.	
(1)	(2) SNIC	(3)	t ST.	(4) [	DAY AND	DATE		(5)	(6)	(7)			DEL	(8) DUCTIONS			(9)
NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	NO. OF WITHHOLDING EXEMPTIONS	WORK CLASSIFICATION	OT. OR	HOURS	VORKED	EACH DA	тс ау но	DTAL DURS	RATE OF PAY	GROSS AMOUNT EARNED	FICA	WITH- HOLDING TAX			OTHER	TOTAL DEDUCTIONS	NET WAGES PAID FOR WEEK
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While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

#### Public Burden Statement

We estimate that is will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

#### Date (Name of Signatory Party) (Title) do hereby state: (1) That I pay or supervise the payment of the persons employed by on the (Contractor or Subcontractor) ; that during the payroll period commencing on the (Building or Work) dav of \_\_\_\_\_, \_\_\_\_, and ending the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said from the full (Contractor or Subcontractor) weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Start. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below: (2) That any payrolls otherwise under this contract required to be submitted for the above period are

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

 in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in section 4(c) below.

#### (b) WHERE FRINGE BENEFITS ARE PAID IN CASH

 Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

c) EXCEPTIOI	DNS
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(

EXCEPTION (CRAFT)	EXPLANATION
REMARKS:	
NAME AND TITLE	SIGNATURE
	ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OF
	E ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR O UTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE

#### LABOR STANDARDS INTERVIEW

CONTRACT NUMBER				EMPLOYEE INFORMATION						
				LAST NAME			MI			
NAME OF PRIME CC	NTRACTOR									
				STREET ADDRESS						
NAME OF EMPLOYE	R			CITY		STATE	ZIP CODE			
	SUDE	RVISOR'S NAME				STATE	ZIF CODE			
LAST NAME	FIRST NAME	MI	WORK CLASSIFICATION		WAGE R					
						WINCE IN				
							CHECK	BELOW		
		AC	TION				YES	NO		
Do you work ove	er 8 hours per	r day?								
Do you work ove	er 40 hours p	er week?								
Are you paid at I	east time and	d a half for overtime hours?								
Are you receiving	g any cash p	ayments for fringe benefits rec	quired by	the posted wage detern	nination decision?					
WHAT DEDUCTIONS	OTHER THAN	TAXES AND SOCIAL SECURITY ARE	MADE FI	ROM YOUR PAY?						
HOW MANY HOURS THIS INTERVIEW?	DID YOU WOR	K ON YOUR LAST WORK DAY BEFO	RE		TOOLS YOU USE					
THIS INTERVIEW?										
DATE OF LAST WOR	RK DAY BEFORE	INTERVIEW (YYMMDD)								
DATE YOU BEGAN V	VORK ON THIS	PROJECT (YYMMDD)								
2		( ( , , , , , , , , , , , , , , , , , ,								
		THE ABOVE IS CO	RRECT T	O THE BEST OF MY KNOWLE	DGE					
EMPLOYEE'S SIGNA	TURE						DATE (Y	YMMDD)		
INTERVIEWER	SIGNATURE			TYPED OR PRINTED NAM	E		DATE (Y	YMMDD)		
	1	INTER	RVIEWE	R'S COMMENTS						
WORK EMPLOYEE V	VAS DOING WH	EN INTERVIEWED		ACTION (If explanation is	needed, use comments	section)	YES	NO		
				IS EMPLOYEE PROPERLY	Y CLASSIFIED AND PAII	D?				
				ARE WAGE RATES AND F	POSTERS DISPLAYED?					
		FOR US	E BY PA	AYROLL CHECKER			1	1		
IS ABOVE INFORMA		EMENT WITH PAYROLL DATA?								
YES	NO									

COMMENTS

	CHECKER	< c		
LAST NAME	FIRST NAME	MI	JOB TITLE	
SIGNATURE				DATE (YYMMDD)
AUTHORIZED FOR LOCAL REPRODUCTION			STANDARD FORM	11445 (REV. 12-96)
Previous edition not usable			Prescribed by GSA - FAF	R (48 CFR) 53.222(q)

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# **EMPLOYEE RIGHTS** UNDER THE DAVIS-BACON ACT FOR LABORERS AND MECHANICS

# FUR LABURERS AND MECHANICS EMPLOYED ON FEDERAL OR FEDERALLY ASSISTED CONSTRUCTION PROJECTS

# THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

PREVAILING WAGES	You must be paid not less than the wage rate listed in the Davis-Bacon Wage Decision posted with this Notice for the work you perform.
OVERTIME	You must be paid not less than one and one-half times your basic rate of pay for all hours worked over 40 in a work week. There are few exceptions.
ENFORCEMENT	Contract payments can be withheld to ensure workers receive wages and overtime pay due, and liquidated damages may apply if overtime pay requirements are not met. Davis-Bacon contract clauses allow contract termination and debarment of contractors from future federal contracts for up to three years. A contractor who falsifies certified payroll records or induces wage kickbacks may be subject to civil or criminal prosecution, fines and/or imprisonment.
APPRENTICES	Apprentice rates apply only to apprentices properly registered under approved Federal or State apprenticeship programs.
PROPER PAY	If you do not receive proper pay, or require further information on the applicable wages, contact the Contracting Officer listed below:

#### or contact the U.S. Department of Labor's Wage and Hour Division.



U.S. Department of Labor | Employment Standards Administration | Wage and Hour Division

WH 1321(Revised April 2009)

#### **SRF Program Decision Tree** Project Contractor Service Provider Role CWSRF Treatment Public Comply with Works or Contract Bid DWSRF DBE Project Procurement See Part 2 Type Sect. 1 **Comply with** CWSRF non-point **Davis Bacon** RFP projects such as green and AIS infrastructure and See Part 2 estuary projects Sect. 4 and 5 Contract Contract Value Value No No >\$100K <\$25K >\$25K No >\$100k <\$100k V Yes V Yes Yes Yes Yes **Comply with** Comply with **Comply with** EEO EEO EEO **Comply with** Comply with Acronym Key MWBE MWBE See Part 2 **MWBE** EEO An amendment Sect. 1 See Part 2 • AIS – American Iron and Steel Lobbying EEO DBE >\$25k is subject Sect. 1 and 2 See Part 2 • CWSRF – Clean Water State See Part 2 to MWBE DBE Sect. 1, 2 and 3 **Revolving Fund** Sect. 1 Lobbying • DBE - Disadvantaged See Part 2 Business Enterprise Sect. 1. 2 and 3 • DWSRF – Drinking Water State Revolving Fund Contract $\checkmark$ • EEO – Equal Employment Amendment Yes No Done Change Order Opportunity **Changes Contract** No Yes Done Changes • MWBE – Minority and Value? Contract Value? Women-Owned Business Enterprise

• RFP – Request for Proposal

## **APPENDICES TO INFORMATION FOR BIDDERS**

<u>APPENDIX G</u> Davis-Bacon Wage Rates

#### BID

#### **FOR THE CONSTRUCTION OF CONTRACT NO. 1 – GENERAL** OAK ORCHARD WASTEWATER TREATMENT PLANT LAGOON CLEANING AND REHABILITATION PROJECT

#### **BID REFERENCE NO. XXXX**

#### TO THE COUNTY OF ONONDAGA, NEW YORK:

#### The Signer of this Bid declares:

That he has carefully examined the annexed form of the Agreement and all Contract Documents.

#### B-1.01 Certificate of Non-Collusion.

Pursuant to Section 103-d of the General Municipal Law, by submission of this bid or proposal, the bidder certifies that: a) This bid or proposal has been independently arrived at without collusion with any other bidder or with any competitor or potential competitor; b) This bid or proposal has not been knowingly disclosed and will not be knowingly disclosed, prior to the opening of bids or proposals for this Project, to any other bidder, competitor or potential competitor; c) No attempt has been or will be made to induce any other person, partnership or corporation to submit or not to submit a bid or proposal; d) The person signing this bid or proposal certifies that he has fully informed himself regarding the accuracy of the statements contained in this certification, and under the penalties of perjury, affirms the truth thereof, such penalties being applicable to the bidder as well as to the person signing in its behalf; e) That attached hereto (if a corporate bidder) is a certified copy of the resolution authorizing the execution of this certificate by the signator of this bid or proposal in behalf of the corporate bidder.

#### B-1.02 Bidder's Examination of Documents and Work Site

The undersigned Bidder hereby declares that he has carefully examined all Bidding and Contract Documents and that he has personally inspected the actual location of the Work, together with the local sources of supply, has satisfied himself as to all the quantities and conditions, and understands that in signing this Bid he waives all rights to plead any misunderstanding regarding the same.

#### B-1.03 Bidder's Acknowledgment of Contract Time and Liquidated Damages.

The undersigned Bidder agrees that, if the Bid is accepted, all work of the Contract will be completed within the time(s) specified in these Contract Documents. The undersigned also understands and agrees that, should the work not be completed within the specified time(s) or formal extension(s) thereof, the Owner may impose the herein agreed-upon liquidated damages as stipulated in the Information For Bidders and the General Provisions.

#### B-1.04 Bidder's Offer.

Pursuant to and in compliance with the Advertisement for bids and the Documents relating thereto, the Bidder hereby offers to furnish all plant, labor, materials, supplies, equipment and other facilities and things necessary or proper for, or incidental to the construction and completion of this Contract, as required by and in strict compliance with the applicable provisions of all Contract Documents for the following unit and/or lump sum prices.

#### B-1.05.1 GENERAL BID FORM

BID

#### OAK ORCHARD WASTEWATER TREATMENT PLANT LAGOON CLEANING AND REHABILITATION PROJECT CONTRACT NO. 1 – GENERAL

Payment Item No.	Estimated Quantity	Payment Item Description Unit Price In Words	Unit Price In Figures	Extended Total In Figures
1.1	Fixed Maximum Lump Sum	Mobilization, for          Fifty Thousand       Dollars         Zero       Cents/FMLS	<mark>\$ 50,000.00</mark>	<mark>\$ 50,000.00</mark>
1.2	Lump Sum	Lagoon 1 Cleaning and Rehabilitation, for Dollars Cents/LS	\$	\$
1.3	Lump Sum	Lagoon 2 Cleaning and Rehabilitation, for Dollars Cents/LS	\$	\$
1.4	Lump Sum	Lagoon Access Road Rehabilitation and Embankment Modifications, for Dollars Cents/LS	\$	\$
1.5	Fixed Lump Sum	General Allowance, for          Fifty Thousand       Dollars         Zero       Cents/FLS	<mark>\$ 50,000.00</mark>	<mark>\$ 50,000.00</mark>

<u>BG -2</u> OCDWEP 1/04

			001	DWEP 1/04
Payment	Estimated	Payment Item Description	Unit Price	Extended Total
Item No.	Quantity	Unit Price In Words	In Figures	In Figures
nem ro.	<b>C</b>			
2.1	50	Additional Excavation and Backfill, for		
2.1	Cubic Yards	Additional Excavation and Dackini, for		
	Cubic Talus			
		Dollars	\$	\$
		Dollars	Ψ	Ψ
		Cents/CY		
2.2	20	A 11/(1		
2.2	20	Additional Select Backfill Material, for		
	Cubic Yards			
		Dollars	\$	\$
		Cents/CY		
2.3	6 500	Papeirs to Clay Liner in Lagoons		
2.5	6,500 Samaan	Repairs to Clay Liner in Lagoons		
	Square			
	Yards	Dollars	\$	\$
		<b>a</b> 1777		
		Cents/SY		
		¢		
Т	OTAL BID – C	P (Dring in Figures)		
		(Price in Figure	s)	

# B-1.06 Bid Acceptance.

If written notice of acceptance of this Bid in the form of a Letter of Intent to award the Contract is mailed, faxed or delivered to the undersigned within forty-five (45) days after the date of opening of the Bids, the undersigned will accept award of the Contract, provide the required insurance and bond documents and sign the Agreement contained in the Contract Documents.

The undersigned hereby declares that he has received and reviewed Addenda Numbered (if any) and has considered this (these) Addenda in preparation of his bid.

The undersigned hereby designates as his office to which such notice of acceptance may be mailed, telegraphed or delivered:

# NAME AND ADDRESS OF CONTACT PERSON:

\_\_\_\_\_ PHONE:\_\_\_\_\_ FAX:\_\_\_\_\_

# B-1.07 Bidder's Acknowledgement of Labor Law Requirements.

The undersigned agrees to comply with the requirements as to the conditions of employment, wage rates and hours of labor set forth in the Contract Documents and the New York State Department of Labor. The undersigned bidder hereby states that in the 5 years immediately preceding the submission of this bid, the bidder

# HAS HAS NOT (Cross Out One)

been found in willful violation of the New York State Labor Law for failure to pay prevailing wages and supplements, as those terms are defined in the New York State Labor Law.

# B-1.08 Bid Withdrawal.

The Bid may be withdrawn at any time prior to the scheduled time for the opening of bids or any authorized postponement thereof.

# B-1.09 Bid Security.

Accompanying this proposal is a certified check, checks or bid bond for the sum of \_\_\_\_\_

(\$) Dollars, which shall become the property of the Owner, if, in case this proposal shall be accepted by the Owner, the undersigned shall fail to execute a Contract with and give the required bonds and insurance to the Owner within fourteen (14) days after the date of said mailing, faxing or delivering of said notice of acceptance. If the undersigned fails or refuses to provide an approvable M/WBE Utilization Plan, such bidder shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with the bid.

B-1.10 Bid Signature Block.
Name of Bidder:*
Address of Bidder:
Telephone Number:
Facsimile Number:
Federal Identification Number:
Signature, Printed Name & Title of Person Signing on Behalf of Bidder:
Date of Signature:

\*Insert bidder's name; if a corporation, give the exact official corporate name and affix the Corporate seal; if a partnership or an individual doing business under an assumed name, give the exact official name as it appears on the Assumed Name Certificate.

# **RESOLUTION**

# (Corporate Bidders Only)

Resolved that

be authorized to sign and submit the bid or proposal of this corporation for the

following project\_\_\_\_\_

(Describe Project)

and to include in such bid or proposal the certificate as to non-collusion required by Section one hundred three-d of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under the penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by

corporation at a meeting of its board of directors held on the

\_\_\_\_\_day of \_\_\_\_\_\_, 20\_\_\_\_\_.

(SEAL OF THE CORPORATION)

Secretary

ATTACH

# BID SECURITY

# TO THIS SHEET

# STATEMENT OF SURETY'S INTENT

To:
We have reviewed the Bid of
(Contractor)
of(Address)
(Address)
for
(Project)
Bids for which will be received on
(Bid Opening Date)
and wish to advise that should this Bid of the Contractor be accepted and the Contract awarded to him, it is our present intention to become surety on the performance bond and labor and material bond required by the Contract.
Any arrangement for the bonds required by the Contract is a matter between the Contractor and ourselves and we assume no liability to you or third parties if for any reason we do not execute the requisite bonds.
We are duly authorized to do business in the State of New York.
Attest:
Surety's Authorized Signature(s)
Attach Power of Attorney
Corporate seal if any. If no seal, write "No Seal:
across this place and sign.)
(This Form Must Be Completed Prior To the Submission of the Bid)

# **CERTIFICATION OF NONSEGREGATED FACILITIES**

# (Applicable to contracts, subcontracts, and agreements with Applicants who are themselves performing federally assisted construction contracts, exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause).

By submission of this bid, the bidder, offeror, applicant, or subcontractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. Provided that separate or single user restrooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certificate, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation and entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that he will retain such certifications in his files, and that he will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods).

(Signature)

(Date)

(Name and Title of Signer-Please Type)

# CONCEPTUAL M/WBE WORK PLAN OAK ORCHARD WASTEWATER TREATMENT PLANT LAGOON CLEANING AND REHABILITATION PROJECT CONTRACT NO. 1 - GENERAL

Contract Name and Number	Scope of Work to be Subcontracted to M/WBE Firms	Estimated Value of Work
	Total	\$ X,XXX,XXX

# CONCEPTUAL M/WBE WORK PLAN SAMPLE BREAKDOWN

Contract Name and Number	Scope of Work to be Subcontracted to M/WBE Firms	Estimated Value of Work	
General Construction	Sitework – Landscaping and Restoration of Vegetated Surfaces	\$ XX,XXX	
(Contract No.1)	Masonry – Installation of Block Walls	\$ XX,XXX	
	Metals – Fabrication and Installation of Influent Pump Station Bar Screen	\$ XX,XXX	
	Site Work – Concrete Sidewalk Installation	\$ XX,XXX	
	Site Work – Pavement Restoration	\$ XX,XXX	
S	AMPLE		
S	AMPLE		
S.	AMPLE		
S.	AMPLE		
S.	AMPLE		

THIS CONTRACT, in five (5) copies, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, by and between the County of Onondaga, by Joanne M. Mahoney, County Executive of said County,

party of the first part, and\_\_\_\_\_\_

\_\_\_\_\_of\_\_\_\_\_

County of \_\_\_\_\_ State of \_\_\_\_\_\_ hereinafter designated as the CONTRACTOR, party of the second part.

WITNESSETH: That the parties hereto, each in consideration of the Agreements on the part of the other herein contained, have mutually agreed and hereby mutually agree, the party of the first part for itself and its successors, and the party of the second part for itself, himself or themselves and its successors, his or their executors, administrators and assigns as follows:

Article 1. DESCRIPTION. Under this Agreement and Contract, the Contractor shall construct

<u>Article 2.</u> <u>PERFORMANCE</u>. In consideration of the payments to be made as hereinafter provided, and of the performance by the Owner of all of the matters and things to be performed by the Owner as herein provided, the Contractor agrees, at his own sole cost and expense, to perform all of the labor and services, and to furnish all the labor and materials, plant and equipment necessary to complete, and to complete in good, substantial, workmanlike and approved manner, the work described under Article 1 hereof, within the time specified and in accordance with the terms, instructions, orders and direction of the Owner made in accordance with this Contract.

<u>Article 3.</u> <u>COMPENSATION</u>. The Owner agrees to pay and the Contractor agrees to accept as full compensation for all work done and materials furnished, and also for all costs and expenses incurred, and loss or damages sustained by reasons of the action of the elements or growing out of the nature of the work, or from any unforeseen obstructions or difficulty encountered in the prosecution of the work, and for all risks of every description connected with the work, and for all expenses incurred by, or in consequence of, the suspension or discontinuance of the work as herein specified, and for faithfully completing the work, and the whole thereof, as herein provided, and for maintaining the work in good condition until the final payment is made, the prices stipulated in the Bid hereto attached.

<u>Article 4.</u> <u>CONTRACT DOCUMENTS.</u> The following documents shall constitute integral parts of this Agreement, the whole to be collectively known and referred to as the Contract Documents.; the Table of Contents and the sections and items referred to therein; the Contract Drawings, whether bound into the Contract book or bound separately; and any written addenda issued by the Owner or the Engineer prior to the opening of bids as identified in Article 6, below.

Subsequent to the execution of this Agreement by the parties, the Contract Documents can only be changed as provided for in Section 5 of the General Provisions.

<u>Article 5.</u> <u>FAILURE TO COMPLY</u>. If the Contractor shall fail to comply with any of the terms, conditions, provisions or stipulations of these Contract Documents, according to the true intent and meaning thereof, then the Owner may make use of any or all remedies provided in that behalf in the Contract Documents and shall have the right and power to proceed in accordance with the provisions thereof.

<u>Article 6.</u> <u>ADDENDA</u>. The following alterations and addenda have been made and included in this Contract before it was signed by the parties hereto:

<u>Article 7.</u> <u>GOVERNING LAW.</u> This Agreement shall be governed and interpreted pursuant to the laws of the State of New York.

<u>Article 8.</u> <u>REMEDIES</u>. All claims, counterclaims, disputes and other matters in question between the Owner and Contractor arising out of or relating to this Agreement or the breach thereof will be decided by arbitration if the parties mutually agree, or in the New York State Supreme Court located in Onondaga County or the United States District Court located in the Northern District of the State of New York.

<u>Article 9. APPROPRIATIONS</u>. It is understood by and between the parties hereto that this Agreement shall be deemed executory only to the extent of the monies appropriated and available for the purpose of this Agreement, including but not limited to monies appropriated and made available from the New York State Water Pollution Control Revolving Fund, and no liability on account thereof shall be incurred by the Owner beyond monies appropriated and available for the purpose thereof.

<u>Article 10.</u> <u>SEVERABILITY</u>. If any term or provision of this Agreement shall be held invalid or unenforceable, the remainder of the Agreement shall not be affected thereby and every other term and provision of this Agreement shall be valid and enforced to the fullest extent permitted by law.

IN WITNESS WHEREOF, the parties to this Agreement have hereunto set their hands and seals and have executed this Agreement, in five copies the day and year first above written.

COUNTY OF ONONDAGA (Owner)

(SEAL)

Joanne M. Mahoney, County Executive

(SEAL)

Contractor

Bv:

By:\_\_\_\_\_

# ACKNOWLEDGEMENT OF OFFICER OF OWNER ATTESTING CONTRACT

State of New York ) ) County of Onondaga ) ss:

On \_\_\_\_\_\_, 20\_\_\_\_, before me, the undersigned, a Notary Public in and for said State, personally appeared Joanne M. Mahoney, Onondaga County Executive\_as \_\_\_\_\_\_\_, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that (s)he executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public

# ACKNOWLEDGEMENT OF CONTRACTOR

State of New York ) ) County of \_\_\_\_\_ ) ss:

On \_\_\_\_\_, 20\_\_, before me, the undersigned, a Notary Public in and for said State, personally appeared \_\_\_\_\_\_\_ as \_\_\_\_\_\_, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that (s)he executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public

# FAIR EMPLOYMENT CLAUSE

"During the performance of this contract, the Contractor or Vendor agrees:

- a) That he will not discriminate against employee or applicant for employment because of race, religion, age, color, sex or national origin.
- b) That he will cooperate with the Human Rights Commission of Syracuse and Onondaga County in implementing the Fair Employment Program adopted pursuant to Resolution No. 282, adopted by the Onondaga County Legislature on June 4, 1973, a copy of which is on file in the office of the Director of Purchase of the County of Onondaga.
- c) That he will provide to said Commission relevant information or reports required under said resolution or administrative regulations adopted pursuant thereto."

(Signature)

(Date)

(Firm)

# CONFLICT OF INTEREST

# AFFIDAVIT

State of New York	)				
County of Onondaga	)	ss:			
			, being duly sy	vorn, deposes a	nd says that:

1. I, \_\_\_\_\_, am an independent contractor, and have this date signed a contract to provide services to the County of Onondaga.

2. I certify that, as the Contractor, I have no interest nor will I acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of these services to the County.

3. I agree that in the rendering of services to the County, no persons having any such interest shall be employed by me. I assume full responsibility for knowing whether my employees or agents have any such interest and hereby certify that no such interest exists.

Dated: \_\_\_\_\_\_ 20\_\_\_ BY:\_\_\_\_\_

Sworn before me this \_\_\_\_\_ day of

\_\_\_\_\_, 20\_\_\_\_\_.

NOTARY PUBLIC

#### **SPECIAL PROJECT CONDITIONS**

#### P-001. Location and Description of Project.

The project consists of the cleaning and rehabilitation to the two lagoons at the Oak Orchard Wastewater Treatment Plant Site. Rehabilitation will include lagoon cleaning, lagoon piping modifications, access roadway and site modifications.

The Oak Orchard WWTP is located at 4300 Oak Orchard Road, Town of Clay, Onondaga County New York 13212.

#### P-002 WWTP Background Information

The incoming flows to the WWTP are from a sanitary sewer system, and sudden large increases in flow may occur due to wet weather, snowmelts, or other conditions beyond the control of the Owner. Flows discharge to the Oneida River in accordance with the Owner's New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) permit. The Contractor shall avoid causing overflow discharges due to the lagoon cleaning and rehabilitation.

The work under this Contract consists of rehabilitating critical components of the WWTP, which is owned, operated, and maintained by the Owner. The WWTP is an essential component of industries and residents normal life; therefore, the treatment capacity must be maintained in continuous operation 24 hours per day and 7 days per week during the execution of the work under this Contract. The WWTP is designed for a maximum average daily flow of 10 million gallons per day and reportedly can receive peak hourly flows of 30 mgd. **All flow shall be able to pass through the WWTP at all times.** Some of the treatment systems have redundancy, and will be taken offline during the project one at a time to allow execution of the work by the Contractor. During these offline periods the Owner may have no backup systems for treatment capacity and/or reduced treatment capacity. Therefore, it is critical that the Contractor schedules and coordinates all the work to ensure that the duration of lagoon outages are kept to an absolute minimum. Contractor is advised that if a portion of the plant has an equipment problem or other failure, that the Contractor, at the direction of the Engineer or Owner, shall restore an offline part of the lagoons where work is being performed in as quickly as possible.

A schedule, a detailed sequence of work, and verification that all required equipment and materials are onsite shall be documented by the Contractor and reviewed with the Owner and the Engineer prior to being permitted to work on the lagoons.

#### P-003. WWTP Infrastructure and Administration Building Rehabilitation Projects

Separate from this project, the Owner is planning to bid and award three (3) prime contracts to rehabilitate the Oak Orchard WWTP Infrastructure and four (4) prime contracts to rehabilitate the Oak Orchard WWTP Administration Building. These two projects may be occurring simultaneously with Oak Orchard WWTP Lagoon Cleaning and Rehabilitation contract. Of particular note, work on these other projects include replacing the existing lagoon surface aerators and access road lighting and electrical conduit. The Contractor shall coordinate work with the other Contractors onsite for the Oak Orchard WWTP Infrastructure Rehabilitation and Administration Building Rehabilitation projects.

### P-004. NYSEFC Requirements and Davis Bacon Wage Rates.

This Project is receiving funding from the New York State Environmental Facilities Corporation (NYSEFC). The Contractor shall fully comply with the NYSEFC funding requirements attached as IFB Appendix F, including Minority and Women's Business Enterprise (M/WBE) requirements and reporting. The Contractor shall also comply with Davis-Bacon Wage Rate requirements, included as IFB Appendix

G, in addition to the New York State Wage Rate requirements. The cost of fully complying with these requirements shall be included in the Contractor's bid. The NYSEFC M/WBE and workforce percentages supersede the percentages listed in the Information for Bidders.

#### P-005. Buy American Iron and Steel Requirements.

The Contractor acknowledges to and for the benefit of the recipient of the Clean Water State Revolving Fund (CWSRF) or the Drinking Water State Revolving Fund (DWSRF) financial assistance ("Purchaser") that the Contractor understands the goods and services under this Agreement are being funded with monies made available by the New York State Environmental Facilities Corporation (the "Corporation") through the CWSRF or the DWSRF and that such funding is subject to certain statutory restrictions requiring that certain iron and steel products used in the project be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products covered by the American Iron and Steel Requirement used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Corporation or any damages owed to the Corporation by the Purchaser). While the Contractor has no direct contractual privity with the Corporation, as a lender to the Purchaser for the funding of this project, the Purchaser and the Contractor agree that the Corporation is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Corporation.

Use of American Iron and Steel - Consolidated Appropriations Act, 2014 (ACT), includes an American Iron and Steel (AIS) requirement in Section 436. (a)(1) None of the funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12) shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States. The term "iron and steel products" means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

To comply with this program, the Contractor shall submit a certification with each shop drawing material submittal stating compliance with these regulations and where appropriate, supply STEP certifications for materials handled by each step in the manufacturing process. A separate certification is required for each material item submitted in the shop drawing process. For further information on specific act requirements, consult the EPA guidance: American Iron and Steel (AIS) Requirement Guidance. Sample certification forms are included in Appendix F.

STEP certification documents the location of the manufacturing process involved with the production of steel and iron materials. A step certification is a process under which each handler (supplier, fabricator, manufacturer, processor, etc.) of the iron and steel products certifies that their step in the process was domestically performed. Each time a step in the manufacturing process takes place, the

manufacturer shall deliver its work along with a certification of its origin. STEP certification shall include the name of the manufacturer, the location of the manufacturing facility where the product or process took place (not its headquarters), a description of the product or item being delivered, and a signature by a manufacturer's responsible party. The final manufacturer that delivers the iron or steel product to the worksite, vendor, or Contractor, may provide a certification asserting that all manufacturing processes occurred in the US with additional supporting documentation.

#### P-006. Iranian Divestment

By submission of this bid, each bidder and each person signing on behalf of any bidder certified, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of their knowledge and belief that each bidder is not on the list created pursuant of paragraph (b) of subdivision 3 of section 165-a of the state finance law"

In the absence of the list created pursuant to paragraph (b) of subdivision 3 of section 165-a of the state finance law each bidder and each person signing on behalf of any bidder certifies that to the best of their knowledge the vendor:

- (a) Does not provide goods or services of twenty million dollars or more in the energy section of Iran, including a person that provides oil or liquefied natural gas tankers, or products used to construct or maintain pipelines used to transport oil or liquefied natural gas, for the energy sector of Iran; AND
- (b) Is not a financial institution that extends twenty million dollars or more in credit to another person, for forty-five days or more, if that person will use the credit to provide goods or services in the energy sector in Iran.

# P-007. Receipt and Opening of Bids.

The County of Onondaga (herein called the Owner) invites bids on the forms attached hereto. Bid instructions are given in the Advertisement, Bid, and Information For Bidders sections of these Contract Documents.

The envelopes containing the Bids must be sealed and addressed to the Director, Onondaga County Division of Purchase, 13th Floor Civic Center, 421 Montgomery Street, Syracuse, New York 13202. The outside of the envelopes must bear the name and address of the Bidder, and "Bid for the Oak Orchard Wastewater Treatment Plant Lagoon Cleaning and Improvements Project" as well as the Contract Number.

The Owner may consider informal any Bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities in or reject any or all Bids. Any Bid may be withdrawn prior to the scheduled time for the opening of the Bids or authorized postponement thereof. No Bidder may withdraw a Bid within forty-five (45) days after the actual date of the opening thereof.

# P-008. Pre-Bid Meeting/Site Visit.

An informational pre-bid meeting will be held on XXXXXXX, 2015 at 10:00 A.M. at the offices of the Oak Orchard Wastewater Treatment Plant, 4300 Oak Orchard Road, Clay, New York 13041.

Following the pre-bid meeting, a site visit will be conducted for interested parties. A tour of the sites will be conducted by a representative of the Owner at this time. Due to the location of the sites, no other site visits will be allowed without prior authorization and coordination with the Owner.

#### P-009. Owner's Engineer.

The technical specifications and drawings were prepared by \_\_\_\_\_. Questions concerning the Contract Documents should be addressed to \_\_\_\_\_.

# P-010. Time is of the Essence.

All contract work is required to be complete within XXX calendar days of the written Notice to Proceed.

Failure by the Contractor to meet this schedule will result in the assessment of fines and penalties outlined in Section GP-4 "Time Provisions," and other applicable contract provisions. Since time is of the essence, failure by the Contractor to satisfactorily meet the contract schedule will result in the assessment of liquidated damages of five hundred dollars (\$500.00) per day (said amount superseding the \$200.00 per diem set forth in GP-4.05), as well as the assessment of fines and penalties as outlined in Section GP-4.0, Time Provisions; and other applicable contract provisions. The Contractor shall be liable for all assessments. It is the Contractor's sole responsibility to monitor the rate of progress of the work to ensure all contract times are met. Activities including, but not limited to, the following are to be conducted by the Contractor to maintain the required rate of progress of the work: performance of appropriate planning, scheduling of work force (including additional hours, days and/or shifts), the necessary application of resources, and coordination with other ongoing contracts; any and all of which shall be at no additional cost to the Owner.

# P-011. Order of Work.

The Contractor is advised that the requirement for completion of construction is identified in P-010. It shall be the Contractors' responsibility to develop and present a detailed schedule in accordance with the requirements of the Special Project Conditions and other parts of the Contract Documents. The schedule shall address coordination with other work as identified in P-012.

#### P-012. Collateral Work.

Coordination between Contract 1 / General Construction will be required in order to complete the respective work. The Contractor shall coordinate work through the Owner or Owner's Representative. No additional compensation will be granted for delays that occur due to the Contractor's construction procedures.

#### P-013 Contractor's Insurance.

Include as additional insured on all policies, in addition to those identified in Paragraph I-4.01A of the Information For Bidders, the following:

Onondaga County Onondaga County Department of Water Environment Protection GHD Consulting Services, Inc. CRA Infrastructure & Engineering, Inc.

# P-014. Hold Harmless, Defense and Indemnification

In addition to those identified in Paragraph I-4.06 of the Information For Bidders, the Contractor shall indemnify, defend and hold harmless the following parties in accordance with said paragraph:

Onondaga County Onondaga County Department of Water Environment Protection GHD Consulting Services, Inc. CRA Infrastructure & Engineering, Inc.

# P-015. Requests for Information

The Contractor shall make all requests for information, clarifications, interpretations of the Contract Documents in writing. The Contractor shall use the form attached as Appendix A to these Special Project Conditions.

# P-016. Site Safety Responsibilities and Roles.

It is the objective of the Owner that the Contractor maintain all construction worksites administered by the Owner in a safe, neat and orderly condition, and free from human hazard. It is the policy of the Owner that if an unsafe condition is encountered, the affected activity shall be suspended until the unsafe condition is corrected.

As clearly stated in the Contract Documents, the Contractor has the sole responsibility for ensuring that the construction worksite is safe, neat and maintained in an orderly condition, and is free from human hazard. The Contractor is also solely responsible by law for compliance, and regulatory reporting requirements, for all workplace and employee safety issues.

The Contractor's designated On-Site Safety Representative will be the sole point-of-contact for all safety issues and shall have the authority to stop work and implement corrective procedures.

The Contractor is required to submit a Project Specific Safety Plan prior to mobilization. The Project Specific Safety Plan shall outline the Contractor's actions that will ensure that the project site is maintained in a safe, neat and orderly condition, and is free from human hazard. The Project Specific Safety Plan shall also contain written procedures for the Contractor's compliance with governmental safety laws and associated reporting requirements.

At a minimum, the Project Specific Safety Plan shall include the following:

- Project Safety Objective Statement
- Safety Responsibilities and Roles within the Contractor's Organization
- The Contractor's Safety Policy Requirements for Subcontractors
- Mandatory Guidelines for the use of Personal Protective Equipment
- Emergency Response Procedures including routes to nearest Hospitals
- Procedures for Reporting Accidents
- Site Security Procedures
- Procedures for Governmental Agency Compliance Reporting
- Procedures for the Protection of the General Public

- Procedures for the Protection of Project Site Visitors
- Safety Procedures related to the Maintenance and Protection of Traffic
- Hazard Communication Program
- Confined Space Program
- Lockout and Ground Fault Protection Procedures
- Identification of the proposed Site Safety Representative and Competent Person, including credentials.
- Hazard Analysis for all Major Work Items.
- Rigging and Crane Safety Procedures
- Statement acknowledging that the Contractor is solely responsible for construction worksite safety issues.
- Health and Safety Plan for Hazardous Materials Handling.

The Contractor is required to hold weekly safety meetings with their personnel to teach and enforce the Contractor's safety policies as outlined in the Project Specific Safety Plan. Records of these meetings, including a list of attendees, shall be transmitted to the Owner's Representative within a week of the meeting and shall become part of the project record.

Failure of the Contractor to provide an appropriate Project Specific Safety Plan, or failure of the Contractor to provide a record of the weekly safety meetings, may result in the withholding of payments to the Contractor.

#### P-017. Specific Permit Information.

All permits required shall be the responsibility of the Contractor. In all cases, the Contractor shall be responsible for payment of all required fees, charges, maintenance, bonds, insurance, and penalties or fines for non-compliance, associated with all required permits. It shall be the Contractor's responsibility to obtain the appropriate permits from the Town of Clay.

#### P-018. Hazardous Materials Requirements.

The Owner is aware that hazardous materials may be located on this site. These materials shall be removed and disposed of in accordance with the requirements of the Contract Documents as well as applicable regulations. The Contractor shall follow all safety procedures and regulatory methods required for the removal and disposal of this material and as described in Specification Section 02050 - Demolition.

Suspect hazardous and/or non-hazardous industrial solid waste shall be reported to the Owner's Representative immediately upon encountered for characterization. The Owner's Representative shall characterize the material and classify as hazardous waste, non hazardous industrial solid, or construction and demolition debris. Hazardous waste shall be segregated from other material for removal and disposal in accordance with applicable regulations.

# P-019. Storage of Equipment and Materials

The Contractor shall provide temporary storage facilities for all materials and equipment delivered to the site and required to complete the Work of this Contract.

For the benefit of the Contractor, the Owner hereby makes it known that the available area for materials and equipment storage in the vicinity of the proposed work is limited, and off-site storage of materials and equipment may be required to be provided at no additional cost to the Owner. All temporary storage facilities at the site are subject to the approval of the Owner and Engineer.

### P-020. Non-Working Hours Construction Noise Limits

The maximum allowable sound levels generated by construction activities outside of normal working hours (Weekdays, 7:00 a.m. to 6:00 p.m.) shall not exceed the following:

55 decibels (dBA) at 100 feet distance from source.

All construction equipment and activities shall conform with these maximum allowable noise levels outside of normal working hours.

# P-021. Work Near Gas Mains.

Gas mains may possibly be located during pre-construction utility locating activities, as described in General Specifications Section S-025 – Protection and Restoration of Existing Structures, Facilities, and Features.

# P-022. Pumping, Dewatering and Disposal of Liquids

The Contractor is advised that the facilities being rehabilitated and/or replaced shall remain in service at all times, unless otherwise shown, specified or approved by the Engineer and the Owner of the system. The Contractor's attention is directed to the following:

- 1. Prior to the start of the excavation work and sediment removal on the project, the Owner will shut down the lagoons and lower the water levels using existing drainage facilities.
- 2. The Contractor shall be advised that there may be standing water in the lagoons after the Owner lowers the water levels. The Contractor shall furnish and operate all dewatering and pumping systems to dewater the lagoons as necessary to complete the sediment removal and associated lagoon modifications.
- 3. Water and liquids removed from the dewatering operations may be pumped to the head of the plant for treatment both during initial dewatering operations and during sediment removal operations. Discharge rates, TSS and size of solids generated from the dewatering operations that can be accepted by the plant are outlined in Section 02250.
- 4. The Contractor shall furnish, test, maintain and operate all necessary collection systems, piping, pumps and other equipment and procedures as necessary during dewatering operations and as dictated by site conditions. The costs of all pumping, dewatering systems and disposal of liquids shall be included for payment under the individual bid items of the Contract.
- 5. The Contractor shall be responsible for all laboratory testing of liquids as may be required for disposal. If laboratory testing of the liquids are required to meet the disposal requirements, the Contractor shall furnish the services of a testing laboratory to complete the tests. No additional payment will be made to the Contractor when laboratory testing is ordered to be performed.
- 6. The Contractor shall submit a dewatering and pumping plan that includes a written description of the work, equipment list, schedule and associated information for approval prior to the start of the work.

- 7. The Contractor shall provide all means and methods necessary to contain the liquids within the lagoon and collect the liquids for dewatering. Under no circumstances shall liquids generated from the dewatering operations be discharged to ditches, watercourses or other locations outside the lagoon structures. Spills of discharges outside the lagoons as a result of the Contractor's operations shall be completely cleaned-up and restored in accordance with applicable laws and regulations. All associated costs and applicable liquidated damages as outlined in Article P-023 of this section shall be the sole responsibility of the Contractor.
- 8. All pumping operations shall adhere to noise requirements specified in Section P-020 of the Special Project Conditions.

# P-023. Damages for Spills and Discharges

The Owner will recover from the Contractor damages of \$500 per day, plus all costs of clean-up to the Contractor, and all fines, penalties, or regulatory assessments due to spills or discharges of sediment or liquids outside of the lagoons, due to the operations of the Contractor. This will include, but not be limited to spills or discharges to ditches, watercourses or other locations outside of the lagoons, and spills from trucks.

# P-024. Removed and Salvaged Equipment and Materials

- 1. The Contractor shall be advised that all materials removed during construction of this project, unless otherwise noted or advised during construction, shall become the property of the Contractor and shall be removed and disposed of at an off-site location provided by the Contractor at no additional cost to the Owner.
- 2. All items removed by the Contractor shall be disposed of in accordance with local, state and federal rules, laws, regulations and codes.
- 3. The Owner reserves the right to retain any equipment removed during construction. Contractor shall obtain, through coordination with the Engineer, a list of equipment and materials to be retrieved by the Owner prior to removal from site. The equipment to be identified and retained by the Owner shall be carefully removed by the Contractor and delivered to: County of Onondaga Department of Water Environment Protection, 7120 Henry Clay Boulevard, Liverpool, New York 13088.

#### P-025. Disposal of Excavated Site Soils and Sediment

- 1. The Contractor shall dispose of all excavated soil and sediment that is not used for backfill material and removed from site in accordance with all federal, state and local laws, regulations and codes. Disposal shall be performed in a legal and environmentally safe manner. This includes the cost of all required soil characterizations for permit disposal.
- 2. It is assumed for the purposes of bidding that excavated soils and sediment are considered nonhazardous and shall be disposed of in a NYSDEC Part 360 permitted non-hazardous solid waste landfill.

# P-026. Shop Drawing Submittal Procedures

The Contractor shall submit shop drawings for review as specified in Technical Section 01340 of these Contract Documents.

#### P-027. Available Data and Physical Data

- 1. In preparation of the Drawings and Specifications, the Engineer relied upon the following information:
  - a. Partial plans and profiles for construction of the existing facilities from the Department of Water Environment Protection Onondaga County.
  - b. This information is not a part of the Contract Documents.

The above-listed information is available for inspection by appointment at the offices of CRA Infrastructure & Engineering, Inc., between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday, given two (2) business days' advance notice.

The making available of this information is not intended to relieve bidders from their responsibility to familiarize themselves with the conditions that may in any manner affect cost, progress, or performance of the work. The submission of a bid constitutes an agreement by the Bidder that the Bidder shall make no claims against the Owner, or its agents or employees and the Engineer or its officers, agents or employees because the data made available to prospective Bidders is not representative of the actual conditions.

- 2. The Contractor shall be required to be fully informed concerning the location of facilities and structures on, under, or over the project site, which may interfere with the operations of the Contractor, and it shall be assumed that the Contractor has prepared the bid and entered into the Contract in full understanding of the conditions to be encountered, and responsibility of the Contractor in connection therewith.
- 3. "As-Built" information for the existing facilities has been brought to the attention of the Engineer and is indicated on the Drawings. However, in some instances, information only from investigations and field surveys have been shown. The location of water, gas, electric, steam, or other utility lines, and the nature of the materials are not guaranteed. The indication on the drawings of such facilities shall not be assumed to relieve the Contractor of any responsibility with respect thereto; neither shall the Owner nor the Engineer be held responsible for any omission or failure to give notice to the Contractor of any other facility or structure on, under, or over the project site.
- 4. Lagoon sediment samples were collected and analyzed. The results, referenced to the locations shown on the Plans, are included as a courtesy in Appendix B of the Special Project Conditions. The sampling results are provided for reference only and are not a part of this Contract. It shall be the Contractor's obligation to satisfy himself to the nature, character, quality and quantity of the sediment likely to be encountered. Any reliance upon the analytical information made available by the Owner or the Engineer shall be at the Contractor's risk.

#### P-028. Stormwater Pollution Prevention Plan (SWPPP)

The Contractor is advised that a SWPPP has been prepared for this project, which is included as Appendix C of the Special Project Conditions. The Contractor shall be fully responsible for controlling erosion and sedimentation, and preventing contamination of waterways and areas adjacent to the work in accordance with Federal, State and local laws, regulations and codes.

### P-029. Project Closeout/Final Payment Checklist

The requirements to complete the Bond Act and EPA checklist items on Page 3 of the Project Closeout/Final Payment Checklist, found in Appendix A of the General Provisions, are deleted.

## APPENDICES TO SPECIAL PROJECT CONDITIONS

### Appendix A

Request for Information Form

## **Appendix B**

Appendix B-1 Round 1 Sediment Sampling Analytical Testing Data (Provided for Information Only)

Appendix B-2 Round 2 Sediment Sampling Analytical Testing Data (Provided for Information Only)

### Appendix C

Stormwater Pollution Prevention Plan (SWPPP) Report

# **APPENDICES TO SPECIAL PROJECT CONDITIONS**

<u>APPENDIX A</u> Request for Information Form

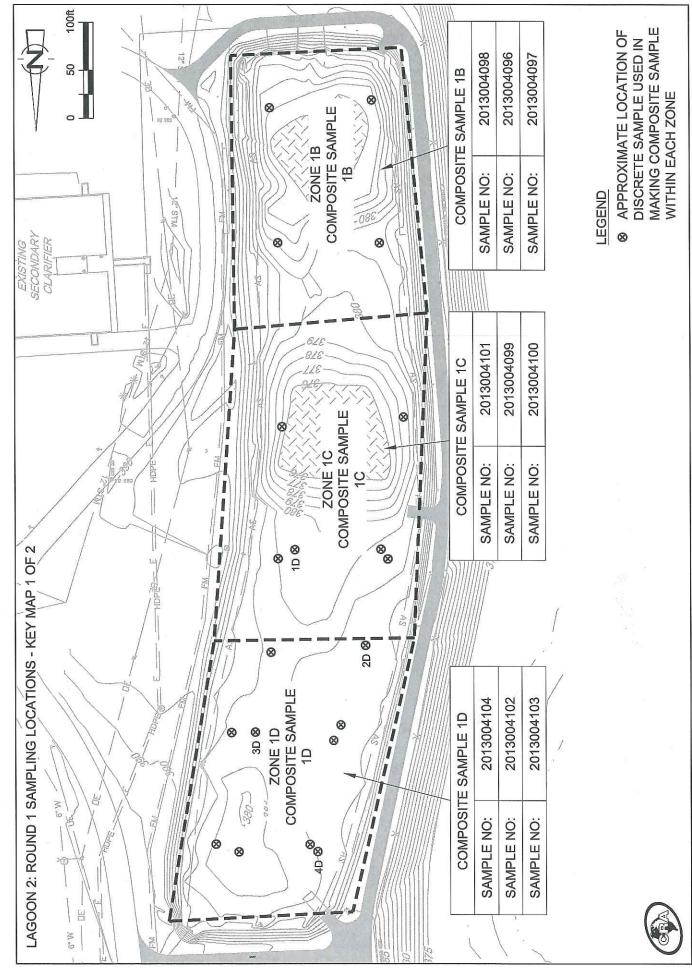
### **REQUEST FOR INFORMATION**

Project Name:				RFI NO.: Date:	
То:			Creation		
			Specification Section:		
Attn:			Drowing No.		
Attn:			Drawing No.		
Subject:					
Detailed Description:					
Proposed Solution:					
Possible Cost Impact:	Possible	Schedule	e Impact:		
Requested By:			Date Response Required:		
Response:					
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Response By:	Yes	No	Organization:		Date:
Documentation Attached:			]		

# APPENDICES TO SPECIAL PROJECT CONDITIONS

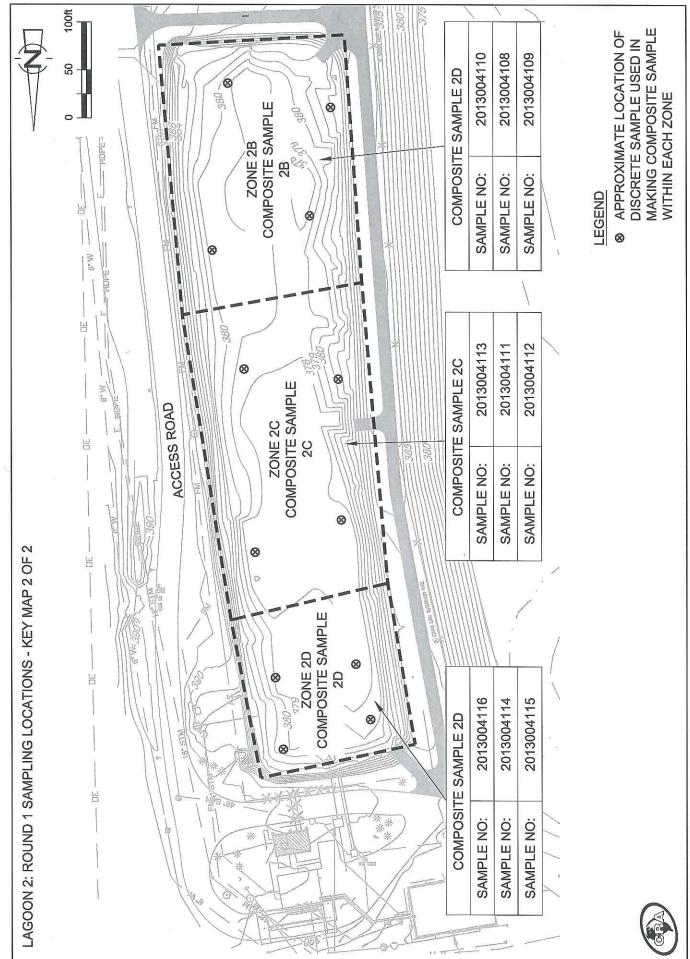
### **APPENDIX B-1**

Round 1 Sediment Sampling Analytical Testing Data (Provided for Information Only)

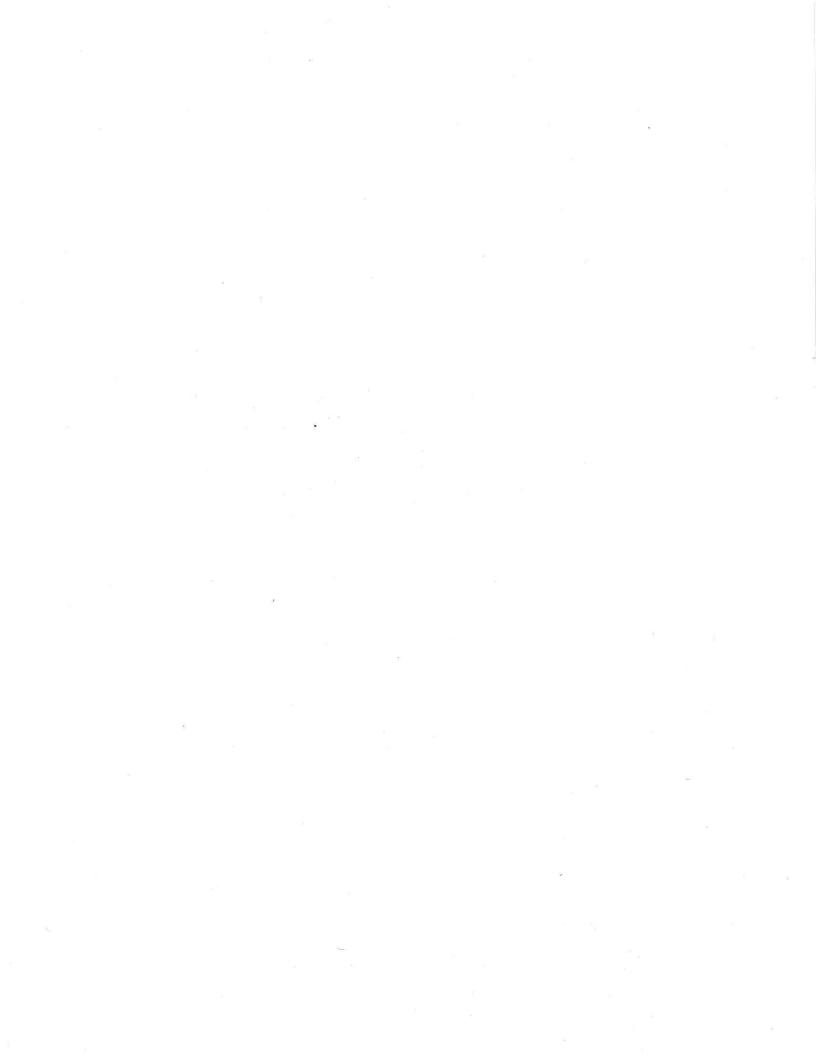


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Onondaga County Department of	ROUNI				Composi	te sampl B	E
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Sample No: 2013004097 Oak Orchard Lagoon	C	C: 1848		Proj	ect:	5	=
4300 Oak Orchard Road Clay 13041	NY			-			<u></u>
Sample Type: Composite			Re	quested By	/:		
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03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (7060A)           Be         EPA SW 846 (6010B)	:45: 03/21/2 <u>R</u> 4.3706 1.15 0.133 <0.1000	013 12:00: esult % mg/kg wet mg/kg wet mg/kg wet	<u>Flag</u> 0 0 0 U	<u>Testa</u> 4/10/2013 3/26/2013 3/26/2013 4/04/2013	ed On / By CRICH JBURN TPAUL CSMAL	Prep On / By 04/10/2013 CRI6 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA	LS LS LS
03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (7060A)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)	<b>:45:</b> <b>03/21/2</b> <b>R</b> 4.3706 1.15 0.133 <0.1000 <0.2500	013 12:00: esult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet	Flag 0 0 0 U 0 U 0	<u>Teste</u> 4/10/2013 3/26/2013 3/26/2013 4/04/2013 3/26/2013	ed On / By CRICH JBURN TPAUL CSMAL JBURN	Prep On / By 04/10/2013 CRI0 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA	LS LS LS LS
03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (7060A)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)	<b>:45:</b> <b>03/21/2</b> <b>R</b> 4.3706 1.15 0.133 <0.1000 <0.2500 1.43	013 12:00: cesult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	Flag 0 0 0 0 0 U 0 U 0 0	<u>Testa</u> 4/10/2013 3/26/2013 3/26/2013 4/04/2013 3/26/2013 3/26/2013	ed On / By CRICH JBURN TPAUL CSMAL JBURN JBURN	Prep On / By 04/10/2013 CRI6 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA	LS LS LS LS LS
03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)	<b>:45:</b> <b>03/21/2</b> <b>R</b> 4.3706 1.15 0.133 <0.1000 <0.2500 1.43 12.1	013 12:00: csult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	Flag 0 0 0 0 0 U 0 0 0 0	<u>Testa</u> 4/10/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013	ed On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN	Prep On / By 04/10/2013 CRI6 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA	LS LS LS LS LS LS
03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)           Ni         EPA SW 846 (6010B)	<b>:45:</b> <b>03/21/2</b> <b>R</b> 4.3706 1.15 0.133 <0.1000 <0.2500 1.43 12.1 0.762	013 12:00: esult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	Flag 0 0 0 0 0 U 0 0 0 0 0	<u>Teste</u> 4/10/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013	ed On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN	Prep On / By 04/10/2013 CRI0 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA	LS LS LS LS LS LS LS
03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)           Ni         EPA SW 846 (6010B)           Pb         EPA SW 846 (6010B)	<b>:45:</b> <b>03/21/2</b> <b>R</b> 4.3706 1.15 0.133 <0.1000 <0.2500 1.43 12.1 0.762 1.23	013 12:00: cesult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	Flag 0. 0 0 0 0 0 U 0 0 0 0 0 0 0	<u>Testa</u> 4/10/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013	ed On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN JBURN	Prep On / By 04/10/2013 CRI6 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA	LS LS LS LS LS LS LS LS
03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)           Ni         EPA SW 846 (6010B)           Sb         EPA SW 846 (6010B)	<b>:45:</b> <b>03/21/2</b> <b>R</b> 4.3706 1.15 0.133 <0.1000 <0.2500 1.43 12.1 0.762 1.23 <0.5000	013 12:00: cesult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	Flag 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Testa 4/10/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 4/04/2013	ed On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN JBURN JBURN	Prep On / By 04/10/2013 CRI6 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA	LS LS LS LS LS LS LS LS LS
03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)           Ni         EPA SW 846 (6010B)           Pb         EPA SW 846 (6010B)	<b>:45:</b> <b>03/21/2</b> <b>R</b> 4.3706 1.15 0.133 <0.1000 <0.2500 1.43 12.1 0.762 1.23	013 12:00: esult % mg/kg wet mg/kg wet	Flag 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<u>Testa</u> 4/10/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013 3/26/2013	ed On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN JBURN	Prep On / By 04/10/2013 CRI6 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA 03/25/2013 AWA	LS LS LS LS LS LS LS LS LS LS

Data Qualifier Flags

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates. V - Reported value is considered estimated due to variance from quality control or assurance criteria. U - Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.

P - Unacceptable for field quality assurance criteria. X - Reported value fails limnological or analytical reasonableness.

Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 1 of 2

Printed: 04/12/2013



Continuation of data for Report No13004097

Result

Flag

Tested On / By

Prep On / By

Sample Remarks:

Metals

Parameter / Method

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release.

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

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All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 2 of 2

Printed: 04/12/2013



	Onondaga County Department of	ROUND 1		Composit	e sample
	WATER	Certificate of	Analyses		
	ENVIRONMENT	Environmental ]	Laborator	V	
	PROTECTION	7120 Henry Clay F	Blvd.		
		Liverpool, New York Phone: (315) 435-5011	13088 Fax: (315) 435-5426	Report No.	2013004096TP
÷				Kepolt No.	20130040901P
	Sample No: 2013004096	IC/FC: 1848	Р	roject:	
	Oak Orchard Lagoon	30965-1B			
	4300 Oak Orchard Road	$\bigcirc$			
	Clay	NY			
( <del>)</del>	13041				
	Sample Type: Composite		Requested	By:	
	Sample Collection Period Start Date & Time		Received I	Date: 03/21/2013	
-	03/21/2013 11:4	45: 03/21/2013 12:00:			
-	Parameter / Method	Result	Flag	Tested On / By	Prep On / By
	Density	1.01	03/25/2		
V	Density	1.06	03/25/2	013 CRICH	
S	ample Remarks: Density; Results from 2	grabs collected 03/21/13 at	11:45 (630965-1	B.1) and 12:00 (630965	-1B.2)

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release.

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

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P - Unacceptable for field quality assurance criteria.

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Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191 Page 1 of 1



	ROUND 1		TE SAMPLE			
Report Date: 08-Apr-13 10:58		<ul> <li>Final Report</li> <li>Re-Issued Report</li> <li>Revised Report</li> </ul>				
	SPECTRUM ANALYTICAL, INC. Featuring					
	HANIBAL TECHNOLOGY					
	Laboratory Report					
Onondaga County Dept. WEP Env. Lab 7120 Henry Clay Blvd. Liverpool, NY 13088 Attn: Jeff Noce	Project: Oak Orch: Project #: 1848	ard Lagoon				
Laboratory IDClient Sample IDSB66626-012013004098	<u>Matrix</u> Sludge	Date Sampled 21-Mar-13 12:00	Date Received 26-Mar-13 21:00			
I attest that the information contained within the requirements for each method. These results rela All applicable NELAC requirements have been r		against the quality control				
Massachusetts # M-MA138/MA1110		Authorized by:				

Connecticut # PH-0777 Florida # E87600/E87936 Maine # MA138 New Hampshire # 2538 New Jersey # MA011/MA012 New York # 11393/11840 Pennsylvania # 68-04426/68-02924 Rhode Island # 98 USDA # S-51435



ficolo Leja

Nicole Leja Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 10 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

#### CASE NARRATIVE:

The samples were received 1.2 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

#### SW846 8082A

#### Samples:

SB66626-01 2013004098

The Reporting Limit has been raised to account for matrix interference.

#### SW846 8260C

#### Calibration:

#### 1303015

Analyte quantified by quadratic equation type calibration.

Bromoform Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

1306908-BLK1 1306908-BSD1 2013004098 S302593-ICV1 S303346-CCV1

#### S302593-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,4-Dioxane (124%) 2-Hexanone (MBK) (127%) 4-Methyl-2-pentanone (MIBK) (122%) Bromomethane (78%) Dichlorodifluoromethane (Freon12) (70%) trans-1,4-Dichloro-2-butene (132%)

This affected the following samples:

1306908-BLK1 1306908-BS1 1306908-BSD1 2013004098 S303346-CCV1

#### S302850-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Acrolein (121%)

\* Reportable Detection Limit

#### SW846 8260C

#### **Calibration:**

S302850-ICV1

This affected the following samples:

1306912-BLK1 1306912-BS1 1306912-BSD1 2013004098 S303392-CCV1

#### Samples:

#### S303346-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromomethane (-20.2%)

This affected the following samples:

1306908-BLK1 1306908-BS1 1306908-BSD1 2013004098

SB66626-01 2013004098

Insufficient preservative to reduce the sample pH to less than 2.

The Reporting Limit has been raised to account for matrix interference.

#### SW846 8270D

#### **Calibration:**

1301047

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol Carbazole

This affected the following samples:

2013004098 S300866-ICV1 S303581-CCV1

#### S300866-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

3,3'-Dichlorobenzidine (128%) 4,6-Dinitro-2-methylphenol (124%) 4-Nitroaniline (124%) 4-Nitrophenol (70%) Carbazole (129%) Indeno (1,2,3-cd) pyrene (122%)

This affected the following samples:

2013004098 S303581-CCV1

Laboratory Control Samples:

#### SW846 8270D

#### Laboratory Control Samples:

#### 1306872 BS

2,4-Dinitrophenol percent recovery 143 (30-130) is outside individual acceptance criteria, but within overall method allowances.

All reported results of the following samples are considered to have a potentially high bias:

2013004098

Benzidine percent recovery 0 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004098

Pyridine percent recovery 21 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004098

#### Samples:

#### S303563-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

3,3'-Dichlorobenzidine (24.7%)
4-Chlorophenyl phenyl ether (24.3%)
Diethyl phthalate (20.5%)
Hexachlorobutadiene (20.2%)
Hexachlorocyclopentadiene (26.5%)
Pyridine (-63.8%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

2,4-Dinitrophenol (53.3%) 4,6-Dinitro-2-methylphenol (39.8%) 4-Nitrophenol (56.1%) Pentachlorophenol (-21.3%)

This affected the following samples:

1306872-BLK1 1306872-BS1

#### S303581-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2,4,6-Trichlorophenol (-22.3%) 2,6-Dinitrotoluene (-25.0%) 3,3'-Dichlorobenzidine (-28.3%) 3-Nitroaniline (-21.2%) 4-Nitrophenol (-37.7%) Bis(2-chloroethyl)ether (25.2%) Pentachlorophenol (-21.2%)

This affected the following samples:

2013004098

#### SB66626-01 2013004098

The Reporting Limit has been raised to account for matrix interference.

#### Sample Acceptance Check Form

Client:	Onondaga County Dept. WEP Env. Lab
Project:	Oak Orchard Lagoon / 1848
Work Order:	SB66626
Sample(s) received on:	3/26/2013
Received by:	Vickie Knowles

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

- 1. Were custody seals present?
- 2. Were custody seals intact?
- 3. Were samples received at a temperature of  $\leq 6^{\circ}$ C?
- 4. Were samples cooled on ice upon transfer to laboratory representative?
- 5. Were samples refrigerated upon transfer to laboratory representative?
- 6. Were sample containers received intact?
- 7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?
- 8. Were samples accompanied by a Chain of Custody document?
- 9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?
- 10. Did sample container labels agree with Chain of Custody document?
- 11. Were samples received within method-specific holding times?

Yes	
$\mathbf{V}$	

Sample 10 20130040 SB66626				MA-Sector C	P <u>roject #</u> 48		<u>Matrix</u> Sludge	1000 million (1000 million)	ection Date -Mar-13 12		and the second	<u>ceived</u> Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert
Volatile O	rganic Compounds						1						
	anic Compounds		PH, R01										
8	by method SW846 5030 V												
67-64-1	Acetone	< 50.0	D	µg∕l	50.0	12.8	5	SW846 8260C	28-Mar-13	28-Mar-13	eq "	1306908	X
107-13-1	Acrylonitrile	< 2.50	D	hð\l	2.50	2.30	5	10 11			и		X
71-43-2	Benzene	< 5.00	D	hð\j	5.00	3.34	5			,			X
75-27-4	Bromodichloromethane	< 2.50		μg/l	2.50	2.40	5	r T		1	н		X
75-25-2	Bromoform	< 5.00	D	µg/l	5.00	3.02	5	20 A		ř			X
74-83-9	Bromomethane	< 10.0	D	µg/l	10.0	5.70	5			a a	п		X
78-93-3	2-Butanone (MEK) Carbon disulfide	< 50.0	D	hð\j	50.0	8.67	5			÷			X
75-15-0		< 10.0		µg∕l	10.0	3.14	5			÷.	w.		X
56-23-5	Carbon tetrachloride	< 5.00	D	µg∕l	5.00	2.74	5				11		X
108-90-7	Chlorobenzene	< 5.00	D	hð\l	5.00	3.27	5				w		X
75-00-3	Chloroethane	< 10.0	D	µg/l	10.0	5.16	5			2	0		X
67-66-3	Chloroform	< 5.00		hð\l	5.00	3.44	5			ĩ			X
74-87-3	Chloromethane	< 10.0	D	hð\l	10.0	7.36	5						X
124-48-1	Dibromochloromethane	< 2.50	D	hð\l	2.50	1.44	5						Х
95-50-1	1,2-Dichlorobenzene	< 5.00	D	hð\l	5.00	3.34	5			2			Х
541-73-1	1,3-Dichlorobenzene	< 5.00	D	hð\J	5.00	3.56	5						Х
106-46-7	1,4-Dichlorobenzene	< 5.00	D	μg/I	5.00	3.12	5			÷	n.		Х
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0	D	hð\I	10.0	2.24	5		5. <b>1</b> 5				Х
75-34-3	1,1-Dichloroethane	< 5.00	D	µg∕l	5.00	3.40	5						Х
107-06-2	1,2-Dichloroethane	< 5.00	D	µg/I	5.00	3.90	5					2 <b>H</b> .2	Х
75-35-4	1,1-Dichloroethene	< 5.00	D	hð\I	5.00	2.44	5			*	n		Х
156-59-2	cis-1,2-Dichloroethene	< 5.00	D	hðy	5.00	3.58	5				<b>n</b>	71	х
156-60-5	trans-1,2-Dichloroethene	< 5.00	D	μg/l	5.00	3.40	5	II.			"	. U	Х
78-87-5	1,2-Dichloropropane	< 5.00	D	hð\l	5.00	3.56	5	II.		T	37	-	х
10061-01-5	cis-1,3-Dichloropropene	< 2.50	D	µg∕l	2.50	1.26	5	II.			1		Х
10061-02-6	trans-1,3-Dichloropropene	< 2.50	D	hð <sub>\</sub> l	2.50	2.50	5	H.			10 20		Х
100-41-4	Ethylbenzene	< 5.00	D	hð\I	5.00	3.66	5	н		χ.	н		Х
591-78-6	2-Hexanone (MBK)	< 50.0	D	µg∕I	50.0	2.72	5	u	н				Х
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0	D	hð\l	50.0	4.66	5				n		Х
75-09-2	Methylene chloride	< 10.0	D	hð\j	10.0	3.45	5	а.			н	5 <b>0</b> -	Х
100-42-5	Styrene	< 5.00	D	hð\l	5.00	3.08	5	<b></b>				н	Х
79-34-5	1,1,2,2-Tetrachloroethane	< 2.50	D	µg∕l	2.50	1.74	5		н	٠	*	.0	Х
127-18-4	Tetrachloroethene	< 5.00	D	hð\l	5.00	3.72	5	н.				77 <b>8</b> . (1	Х
108-88-3	Toluene	< 5.00	D	hð\l	5.00	4.06	5	u			8	н	Х
71-55-6	1,1,1-Trichloroethane	< 5.00	D	hð\I	5.00	2.91	5	<u>u</u> :	.C	н	ï	н	Х
79-00-5	1,1,2-Trichloroethane	< 5.00	D	µg/I	5.00	3.21	5	u.			"	.0	Х
79-01-6	Trichloroethene	< 5.00	D	µg/I	5.00	3.78	5	т		e.	"	н	Х
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.00	D	µд∕I	5.00	3.14	5	<b>u</b>	1	i.	Ω.		Х
75-01-4	Vinyl chloride	< 5.00	D	µg/l	5.00	4.04	5	1920 <b>a</b> r (2.	10		n	( <b>.</b>	Х
179601-23-1	m,p-Xylene	< 10.0	D	µg/l	10.0	8.20	5	u i	- 11	6	n,		Х
95-47-6	o-Xylene	< 5.00	D	hð\l	5.00	4.41	5				н	( <b>n</b> .)	х

Surrogate recoveries:

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20130040 SB66626-				Contraction and the second sec	Project # 48		<u>Matrix</u> Sludge		ection Date, -Mar-13 12		Roman and	eceived Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile O	rganic Compounds	2					1						
Volatile Orga	anic Compounds		PH, R01										
Prepared	by method SW846 5030 V	Vater MS											
460-00-4	4-Bromofluorobenzene	102		**	70-13	0 %		SW846 8260C	28-Mar-13	28-Mar-13	eq	1306908	
2037-26-5	Toluene-d8	100			70-13	0%				u	"		
17060-07-0	1,2-Dichloroethane-d4	100			70-13	0%			u	u :		э	
1868-53-7	Dibromofluoromethane	103			70-13	0%		in the second se		u.	"		
2000 - Contraction - Contracti	anic Compounds		PH, R01										
2	by method SW846 5030 V	53 53		11000 W									
107-02-8	Acrolein	< 50.0	D	hð\I	50.0	23.3	5		28-Mar-13			1306912	
110-75-8	2-Chloroethylvinyl ether	< 50.0	D	hð\l	50.0	16.0	5		(*)				
108-05-4	Vinyl acetate	< 50.0	D	hð\l	50.0	30.4	5		6 <b>0</b> 75			2	
Surrogate reco	overies:												
460-00-4	4-Bromofluorobenzene	99			70-13	0 %		1	и	×(		2	
2037-26-5	Toluene-d8	100			70-13	0 %		я	3 <b>1</b> .3	<b>u</b> .			
17060-07-0	1,2-Dichloroethane-d4	98			70-13	0 %		Ĩ			2		
1868-53-7	Dibromofluoromethane	102			70-13	0%		1	<b>1</b>	n	н	31	
Semivolati	ile Organic Compounds by (	GCMS											
	Organic Compounds		R01										
	by method SW846 3510C												
83-32-9	Acenaphthene	< 5000		hð\l	5000	900	1	SW846 8270D	28-Mar-13	02-Apr-13	jg	1306872	х
208-96-8	Acenaphthylene	< 5000		µg/l	5000	870	1	7	3 <b>8</b> 3	н	я	0	Х
120-12-7	Anthracene	< 5000		µg/l	5000	900	1	ĩ		Ű.	u.		Х
56-55-3	Benzo (a) anthracene	< 5000		µg/l	5000	1190	8			н,	"	а	Х
50-32-8	Benzo (a) pyrene	< 5000		µg/l	5000	870	1				"		х
205-99-2	Benzo (b) fluoranthene	< 5000		μg/l	5000	850	1		3 <b>0</b> .7			а	Х
191-24-2	Benzo (g,h,i) perylene	< 5000		µg/l	5000	900	1				v		х
207-08-9	Benzo (k) fluoranthene	< 5000		hð\l	5000	1110	1	з	8 <b>0</b>			э	Х
111-91-1	Bis(2-chloroethoxy)metha	< 5000		µg/l	5000	700	1				v		Х
111-44-4	ne Bis(2-chloroethyl)ether	< 5000		μg/l	5000	840	1	ä	n				Х
108-60-1	Bis(2-chloroisopropyl)ethe	< 5000					3						
100-00-1	r	< 3000		µg/l	5000	980	2						Х
117-81-7	Bis(2-ethylhexyl)phthalate	< 5000		µg/l	5000	1020	1	1	u	n	n		Х
101-55-3	4-Bromophenyl phenyl ether	< 5000		hð\l	5000	850	1	н	u	π	л	9 <b>8</b> (*	х
85-68-7	Butyl benzyl phthalate	< 5000		μg/l	5000	1030	1	1				n	х
86-74-8	Carbazole	< 5000		hđ\l	5000	3210	1			н	в	a.	Х
59-50-7	4-Chloro-3-methylphenol	< 5000		µg/l	5000	- 950	1			u			Х
91-58-7	2-Chloronaphthalene	< 5000		µg∕l	5000	870	1			ж	ж	ан (	Х
95-57-8	2-Chlorophenol	< 5000		µg/l	5000	960	1	2	a	n		н	х
7005-72-3	4-Chlorophenyl phenyl ether	< 5000		ĥð\J	5000	890	1		1(11)	n)	n	5 <b>0</b> 5	Х
218-01-9	Chrysene	< 5000		µg/l	5000	1140	1	:	n	ũ,	н	, H	х
53-70-3	Dibenzo (a,h) anthracene	< 5000		hð\I	5000	930	1	п	U.)	н		<b></b>	х
132-64-9	Dibenzofuran	< 5000		µg/l	5000	880	1		n i				Х
95-50-1	1,2-Dichlorobenzene	< 5000		hð. hð	5000	980	1	a	0.1	u	я	.0	X
									¥2	7		1.00	x
541-73-1	1,3-Dichlorobenzene	< 5000		₽ð\I	5000	960	1		2.				x

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\* Reportable Detection Limit

Sample Identification 2013004098 SB66626-01			8	<u>Project #</u> 348		<u>Matrix</u> Sludge		ection Date/ -Mar-13 12			<u>ceived</u> Mar-13		
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert,
Semivolat	tile Organic Compounds by (	GCMS											
	e Organic Compounds		R01		22								
	by method SW846 3510C				5000	000	1 <sup>54</sup>	01410 40 00 70 D	00 M 40	00 1 10	1-	1000070	V
91-94-1 120-83-2	3,3'-Dichlorobenzidine 2,4-Dichlorophenol	< 5000 < 5000		µg/l	5000	680	1	SW846 8270D	28-Mar-13	02-Apr-13	jg "	1306872	X
84-66-2	Diethyl phthalate	< 5000		µg/l	5000	820 860	1 1	2					X X
131-11-3	Dimethyl phthalate	< 5000		µg/l	5000 5000	910	1						x
105-67-9	2,4-Dimethylphenol	< 5000		μg/l μg/l	5000	810	1				н	e e	x
84-74-2	Di-n-butyl phthalate	< 5000			5000	940	1				n		x
534-52-1	4,6-Dinitro-2-methylphenol	< 5000		µg/l	5000	670	1						x
51-28-5	2,4-Dinitrophenol	< 5000		µg/l	5000	2870	1	п				i.	x
121-14-2	2,4-Dinitrotoluene	< 5000		µg/l	5000	940	1	н					x
606-20-2	2,6-Dinitrotoluene	< 5000		µg/l	5000	940	1	1		ž	17		x
117-84-0		< 5000		µg/l	5000	940 780	. 1						X
206-44-0	Di-n-octyl phthalate Fluoranthene	< 5000		µg/l				н		ĩ	w		
86-73-7	Fluorene	< 5000		µg/l	5000	960	1	1		ĩ			X
118-74-1	Hexachlorobenzene	< 5000		µg/l	5000	900 930	1						X X
87-68-3	Hexachlorobutadiene	< 5000		µg/l	5000 5000	830	1				T.		x
77-47-4	Hexachlorocyclopentadien	< 5000		µg/I µg/I	5000	4720	1		(36)		н	2.80 7. <b>8</b> .	x
67-72-1	e Hexachloroethane	< 5000		uall	5000	1010	1	άŭ.			н		х
193-39-5	Indeno (1,2,3-cd) pyrene	< 5000		µg/l	5000	920	1						x
78-59-1	Isophorone	< 5000		µg/l	5000	920 830	1	'n			74		x
91-57-6	2-Methylnaphthalene	< 5000		µg/l	5000	910	1				u		x
95-48-7	2-Methylphenol	< 5000		µg/l	5000	960	, 1	Ű.		×	<b>1</b> 1		X
108-39-4,	3 & 4-Methylphenol	< 10000		μg/l	10000	940	1	u	=	R.			X
106-44-5	o a - Meanyphenor	- 10000		μ <del>Ω</del> η	10000	540	.34						Х
91-20-3	Naphthalene	< 5000		µg/I	5000	890	1			×.			Х
88-74-4	2-Nitroaniline	< 5000		hð\I	5000	820	1	u .	10	Υ.	н		Х
99-09-2	3-Nitroaniline	< 5000		рд/ј	5000	640	1						х
100-01-6	4-Nitroaniline	< 20000		hð <sub>l</sub>	20000	720	1						Х
98-95-3	Nitrobenzene	< 5000		hð\	5000	950	1	Л				. <b></b>	Х
88-75-5	2-Nitrophenol	< 5000		hð\l	5000	1030	1						Х
100-02-7	4-Nitrophenol	< 20000		hð\l	20000	2790	- 1	Ψ.		E.		3 <b>0</b> 2	Х
621-64-7	N-Nitrosodi-n-propylamine	< 5000		hð\I	5000	920	1	u		<b>E</b>	"		х
86-30-6	N-Nitrosodiphenylamine	< 5000		μg/I	5000	960	1	8		H_		.0	Х
87-86-5	Pentachlorophenol	< 20000		рд/І	20000	810	1				"		Х
85-01-8	Phenanthrene	< 5000		hð\l	5000	870	1	ε.	31	н.	41	a d	Х
108-95-2	Phenol	< 5000		hð\l	5000	950	1	<b>u</b>			"		Х
129-00-0	Pyrene	< 5000		hð\l	5000	1280	1	ίΪ.		т	н		Х
120-82-1	1,2,4-Trichlorobenzene	< 5000		hð\J	5000	920	1	N.			н		х
95-95-4	2,4,5-Trichlorophenol	< 5000		μg/I	5000	830	1			•	н		х
88-06-2	2,4,6-Trichlorophenol	< 5000		µg/l	5000	780	1	Ŋ,			n	.0	Х
Surrogate rec	overies:					10							
321-60-8	2-Fluorobiphenyl	110			30-130	)%		E.		щÈ	п	н	
367-12-4	2-Fluorophenol	84			15-110	1%		u		u.		÷ .	
4165-60-0	Nitrobenzene-d5	118			30-130	1%		ii.	ж		н		
4165-62-2	PhenoLd5	92			15-110	%		ii i	3	u			

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\* Reportable Detection Limit

Sample Identification 2013004098 SB66626-01			Client Project #			Matrix	5 C	llection Date/Time		Received 26-Mar-13			
			18	1848		Sludge	21-Mar-13 12:00						
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolati	le Organic Compounds by	GCMS											
	Organic Compounds by method SW846 35100	2	R01					5					
1718-51-0	Terphenyl-dl4	110			30-13	0 %		SW846 8270D	28-Mar-13	02-Apr-13	jg	1306872	
118-79-6	2,4,6-Tribromophenol	106			15-11	0 %			а <b>н</b> 7	ü	н		
Semivolati	ile Organic Compounds by	GC											
	ted Biphenyls by method SW846 35100	2	R01										
12674-11-2	Aroclor-1016	< 20.0		µg/I	20.0	0.860	1	SW846 8082A	28-Mar-13	02-Apr-13	IMR	1306874	х
11104-28-2	Aroclor-1221	< 20.0		µg/I	20.0	1.43	- 1	10 °	(11)	n		ан) (	х
11141-16-5	Aroclor-1232	< 20.0		µg∕I	20.0	1.34	1			u		u.	х
53469-21-9	Aroclor-1242	< 20.0		hð\I	20.0	0.730	1	CH 3	n i	и	э.	1	Х
12672-29-6	Aroclor-1248	< 20.0		µg/I	20.0	1.13	1			(¥			х
11097-69-1	Aroclor-1254	< 20.0		µg∕I	20.0	0.990	1	3 <b>1</b> 3	ж.	3	310	ан. Т	х
11096-82-5	Aroclor-1260	< 20.0		hð\I	20.0	0.580	1		и.			н	Х
Surrogate reci	overies:												
10386-84-2	4,4-DB-Octafluorobipheny (Sr)	95			30-15	0 %			u,	ш	"		
10386-84-2	4,4-DB-Octafluorobipheny (Sr) [2C]	130			30-15	0 %			R.	н	u		
2051-24-3	Decachlorobiphenyl (Sr)	115			30-15	0 %		×	•				
2051-24-3	Decachlorobiphenyl (Sr) [2C]	110			30-15	0%			u	u	н	110°	

#### Notes and Definitions

D	Data reported from a dilution
PH	Insufficient preservative to reduce the sample pH to less than 2.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
R01	The Reporting Limit has been raised to account for matrix interference.
dry	Sample results reported on a dry weight basis
NR .	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

<u>Method Detection Limit (MDL)</u>: The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

<u>Reportable Detection Limit (RDL)</u>: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification</u>: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by: June O'Connor Kimberly Wisk

Condition upon receipt.	Reimonistied by Had Falas HIMAG	DW = Drinking Water WW = Wastewater SW = Surface Water SL - Sludge X1 = X2 =	Report To: Onondaga County Dept. WJ 7120 Henry Clay Blvd Liverpool, NY 13088 Telephone #: 315-435-5011 1=Na2S2O3 2=HCl 3= 8=NaHSO4 9=Deionized V	Spectrum Analytical,
	then the second by	- GW=Groundwat O = Oil SO = Soil Sample Id 2013004098	Report To: Report To: Onondaga County Dept. WEP Env. Lab 7120 Henry Clay Blvd Liverpool, NY 13088 Telephone #: 315-435-5011 1=Na2S2O3 2=HCl 3=H2SO4 5=NaOH 8=NaHSO4 9=Deionized Water 10=H3PO4 1	Chain
Icod Rotigerated	1000 3/24/13 3/24/13 3/24/13 3/24/13	37112013     Ime     Ime     Ime       Natrix       Y     # of VOA Vials       Y     # of Amber Glass       # of Clear Glass	Invoice To: Onondaga County Dept. 650 W. Hiawatha Blvd. Syracuse, NY 13204 Contract # 34512 H 6=Ascorbic Acid 11=	Chain of Custody Record
118 . Fax 413-789-4076 .	915 1716 27107	# of Clear Glass # of Plastic EPA 8082 PP PCBs EPA 8260B PP(TCL) Volatile	WEP Env. Lab 7=CH3OH	Record
Ambiem loed Rafrigerated DI VOA Frozen Soil Jaa Frozen II Almgren Drive - Agawam, MA 01001. 413-789-9018. Fax 413-789-4076. www.spretrum-analytical.com	Temp Deg C	EPA 8270 PP(TCL) Semi-Vo	Site Name: Oak Orchard Lagoon 630965-1B Identification 1848 Sewer #: Code: Type: Composite List preserved code below: OA/QC Reportir	Sb. 66626 Special Handling Standard TAT - 7-10 Business days Rusb TAT - Date Needed: > All TATs subject to lab approval > Min. 24-hr notification needed for rushes > Samples disposed of after 60 days unless
		State-specific reporting	goon 630965-1B 	626 GW Iandling iness days iness days inoval server 60 days unless

Method Number 702

#### EPA 8082 PP PCBs

Spectrum Solid

Description

Lab Matrix

Name

Lab

Priority Pollutant Scan, Units:mg/kg dry

Spectrum

#### **COMPOUNDS**

- 1
   Aroclor-1016

   2
   Aroclor-1221

   3
   Aroclor-1232

   4
   Aroclor-1242

   5
   Aroclor-1248

   6
   Aroclor-1254
- 7 Aroclor-1260

UNITS mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry

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Method Version 1

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Method Number 703

#### EPA 8260B PP(TCL) Volatiles

Name Lab Matrix Spectrum Solid

Description

Priority Pollutant Scan, Units: mg/kg dry

Lab Spectrum

#### COMPOUNDS

1	COMPOUNDS Acetone	<u>UNITS</u> mg/kg dry
2	Benzene	mg/kg dry
3	Bromodichloromethane	mg/kg dry
4	Bromoform	mg/kg dry
5	Bromomethane	mg/kg dry
6	2-Butanone (MEK)	mg/kg dry
7	Carbon disulfide	mg/kg dry
8	Carbon Tetrachloride	mg/kg dry
9	Chlorobenzene	mg/kg dry
10	Chloroethane	mg/kg dry
11	Chloroform	mg/kg dry
12	Chloromethane	mg/kg dry
13	Dibromochloromethane	mg/kg dry
14	1,1-Dichloroethane	mg/kg dry
15	1,2-Dichloroethane	mg/kg dry
16	1,1-Dichloroethene	mg/kg dry
17	1,2-Dichloroethene, Total	mg/kg dry
18	1,2-Dichloropropane	mg/kg dry
19	cis-1,3-Dichloropropene	mg/kg dry
20	trans-1,3-Dichloropropene	mg/kg dry
21	Ethylbenzene	mg/kg dry
22	2-Hexanone	mg/kg dry
23	Methylene Chloride	mg/kg dry
24	4-Methyl-2-Pentanone (MIBK)	mg/kg dry
25	Styrene	mg/kg dry
26	1,1,2,2-Tetrachloroethane	mg/kg dry
27	Tetrachloroethene	mg/kg dry
28	Toluene	mg/kg dry
29	1,1,1-Trichloroethane	mg/kg dry
30	1,1,2-Trichloroethane	mg/kg dry
31	Trichloroethene	mg/kg dry
32	Vinyl Chloride	mg/kg dry
33	Total Xylenes	mg/kg dry
34	Acrolein	mg/kg dry
35	Acrylonitrile	mg/kg dry
36	2-Chloroethylvinylether	mg/kg dry
37	Dichlorodifluoromethane	mg/kg dry
38	Trichlorofluoromethane	mg/kg dry
39	1,2-Dichlorobenzene	mg/kg dry
40	1,3-Dichlorobenzene	mg/kg dry
41 42	1,4-Dichlorobenzene <sup>7</sup> Vinyl Acetate	mg/kg dry
42	Villyl Acciate	mg/kg dựy

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Method Version 3

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Method Number 704

#### EPA 8270 PP(TCL) Semi-Vol Name

Spectrum Solid Lab Matrix

Lab

Description

Priority Pollutants, Units: mg/kg dry Spectrum

	0404080 B00408				
ĩ	COMPOUNDS Acenaphthene				<u>UNITS</u> mg/kg dry
2	Acenaphthylene				
2	Anthracene			٠	mg/kg dry
	Benzo (a) anthracene				mg/kg dry
4					mg/kg dry
5	Benzo (b) fluoranthene	6			mg/kg dry
6	Benzo (k) fluoranthene				mg/kg dry
7	Benzo (g,h,i) perylene				mg/kg dry
8	Benzo (a) pyrene				mg/kg dry
9	4-Bromophenyl phenyl ether				mg/kg dry
10	Butyl Benzyl Phthalate				mg/kg dry
11	Carbazole				mg/kg dry
12	4-Chloroaniline				mg/kg dry
13	bis(2-Chloroethoxy) methane				mg/kg dry
14	bis (2-Chloroethyl) ether			î.	mg/kg dry
15	bis (2-Chloroisopropyl) ether				mg/kg dry
16	4-Chloro-3-methylphenol				mg/kg dry
17	2-Chloronaphthalene				mg/kg dry
18	2-Chlorophenol				mg/kg dry
19	4-Chlorophenyl phenyl ether				mg/kg dry
20	Chrysene				mg/kg dry
21	Dibenz (a,h) anthracene				mg/kg dry
22	Dibenzofuran	4			mg/kg dry
23	Di-n-butyl phthalate				mg/kg dry
24	1,2-Dichlorobenzene				mg/kg dry
25	1,3-Dichlorobenzene				mg/kg dry
26	1,4-Dichlorobenzene				mg/kg dry
27	3,3-Dichlorobenzidine				mg/kg dry
28	2,4-Dichlorophenol				mg/kg dry
29	Diethyl phthalate				mg/kg dry
30	2,4-Dimethylphenol				mg/kg dry
31	Dimethyl phthalate				mg/kg dry
32	2,4-Dinitrophenol				mg/kg dry
33	2,4-Dinitrotoluene				mg/kg dry
3,4	2,6-Dinitrotoluene				mg/kg dry
35	Di-n-octyl phthalate				mg/kg dry
36	bis (2-Ethylhexyl) phthalate				mg/kg dry
37	Fluoranthene				mg/kg dry
38	Fluorene	a) 1	5	S. 27	mg/kg dry
39	Hexachlorobenzene				mg/kg dry
40	Hexachlorobutadiene	8 <sub>0</sub>			mg/kg dry
41	Hexachlorocyclopentadiene				mg/kg dry
42	Hexachloroethane				mg/kg drุy
43	Indeno (1,2,3-c,d) pyrene				mg/kg dry
44	Isophorone				mg/kg dry

Method Version 1

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45	2-Methyl-4,6-dinitrophenol		mg/kg dry
46	2-Methylnaphthalene		mg/kg dry
47	2-Methylphenol (o-Cresol)		mg/kg dry
48	4-Methylphenol (p-Cresol)		mg/kg dry
49	Naphthalene		mg/kg dry
50	2-Nitroaniline		mg/kg dry
51	3-Nitroaniline		mg/kg dry
52	4-Nitroaniline		mg/kg dry
53	Nitrobenzene		mg/kg dry
54	2-Nitrophenol (o-Nitrophenol)		mg/kg dry
55	4-Nitrophenol		mg/kg dry
56	N-Nitrosodiphenylamine		mg/kg dry
57	N-Nitroso-di-n-propylamine		mg/kg dry
58	Pentachlorophenol		mg/kg dry
59	Phenanthrene		mg/kg dry
60	Phenol-C6H5OH		mg/kg dry
61	Pyrene		mg/kg dry
62	1,2,4-Trichlorobenzene		mg/kg dry
63	2,4,5-Trichlorophenol	1 <sup>26-1</sup>	mg/kg dry
64	2,4,6-Trichlorophenol		mg/kg dry

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SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY 11 Almgren Drive Agawam, MA 01001 (413) 789-9018

This preceding chain of custody has been amended to include the client requested additional analyses as noted below:

Laboratory ID	Client ID	Analysis	Added
SB66626-01	2013004098	Volatile Organic Compounds	4/3/2013

Олоп	daga County Department of	ROUN	1 00			Compos	ite sample
) Y	WATER NVIRONMENT ROTECTION	Enviro	nmental 20 Henry Clay pool, New Yo	Lat Blvd. rk 1308	ooratory	Report N	: 2013004100
Sample No:	2013004100 Oak Orchard Lagoon	-	FC: 1849		Pr	oject:	
r r	4300 Oak Orchard Road Clay 13041	NY			n. je		्रम् १ म स्
Sample Type: Sample Collect	Composite tion Period Start Date & Tin 03/20/2013 11		Date & Time 1/2013 11:45:	- 1	Requested Received D		3
Par	rameter / Method		Result	Flag	Te	ested On / By	Prep On / By
%TS	SM 18th Ed. (2540G)	6.84	83 %		04/10/201	3 CRICH	04/10/2013 CRICH
Ag	EPA SW 846 (6010B)	1.	99 mg/kg we	t	03/26/201	3 JBURN	03/25/2013 AWALS
As	EPA SW846 (7060A)		04 mg/kg we		03/26/201	3 TPAUL	03/25/2013 AWALS
Be	EPA SW 846 (6010B)	< 0.10	00 mg/kg we		04/04/201	3 CSMAL	03/25/2013 AWALS
Cd	EPA SW 846 (6010B)	< 0.25	00		03/26/201		03/25/2013 AWALS
Cr	EPA SW 846 (6010B)		20 mg/kg we		03/26/201		03/25/2013 AWALS
Cu	EPA SW 846 (6010B)	19	9.6 mg/kg we		03/26/201	3 JBURN	03/25/2013 AWALS
Ni	EPA SW 846 (6010B)	1.	01 mg/kg we		03/26/201	3 JBURN	03/25/2013 AWALS
Pb	EPA SW 846 (6010B)		53 mg/kg we		03/26/201		03/25/2013 AWALS
Sb	EPA SW 846 (6010B)	< 0.50	00		04/04/201	3 CSMAL	03/25/2013 AWALS
Se	EPA SW846 (7740)		54 mg/kg we		03/26/201	3 TPAUL	03/25/2013 AWALS
Tl	EPA SW 846 (6010B)	<1.0	00 mg/kg we	t U	04/04/201	3 CSMAL	03/25/2013 AWALS
Zn	EPA SW 846 (6010B)	30	).7 mg/kg we	t.	03/26/201	3 JBURN	03/25/2013 AWALS

Data Qualifier Flags

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates. V - Reported value is considered estimated due to variance from quality control or assurance criteria.

U - Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.

P - Unacceptable for field quality assurance criteria. X - Reported value fails limnological or analytical reasonableness.

Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 1 of 2

Printed: 04/12/2013



Continuation of data for Report No13004100

00

Flag

Tested On / By

Prep On / By

Sample Remarks:

Metals

Parameter / Method

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release .

Result

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

Data Qualifier Flags

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
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All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 2 of 2

Printed: 04/12/2013

Onondaga County Department of	ROUND	C	omposito IC	e Sample
<b>WATER</b> ENVIRONMENT PROTECTION	Certificate of A Environmental I 7120 Henry Clay B Liverpool, New York Phone: (315) 435-5011	Laboratory	Report No.	2013004099TP
Sample No: 2013004099 Oak Orchard Lagoon 4300 Oak Orchard Road Clay 13041	IC/FC: 1849 630965-1C NY	Project	:	
Sample Type: Composite Sample Collection Period Start Date & Tir 03/21/2013 11		Requested By: Received Date:	03/21/2013	
Density Density		Flag         Tested           03/25/2013         03/25/2013	<u>On / By</u> CRICH CRICH	<u>Prep On / By</u>

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release .

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

Data Qualifier Flags

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P - Unacceptable for field quality assurance criteria.

X - Reported value fails limnological or analytical reasonableness.

Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

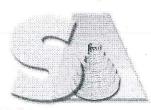
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# ROUND 1

Report Date: 08-Apr-13 11:13



COMPOSITE SAMPLE

- 🗹 Final Report
- Re-Issued Report
- Revised Report

SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY Laboratory Report

Onondaga County Dept. WEP Env. Lab 7120 Henry Clay Blvd. Liverpool, NY 13088 Attn: Jeff Noce

Project: Oak Orchard Lagoon Project #: 1849

Laboratory ID SB66631-01 Client Sample ID 2013004101

Matrix Sludge <u>Date Sampled</u> 21-Mar-13 11:45 Date Received 26-Mar-13 21:00

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received. All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110 Connecticut # PH-0777 Florida # E87600/E87936 Maine # MA138 New Hampshire # 2538 New Jersey # MA011/MA012 New York # 11393/11840 Pennsylvania # 68-04426/68-02924 Rhode Island # 98 USDA # S-51435



Authorized by:

piole Leja

Nicole Leja Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 11 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

#### CASE NARRATIVE:

The samples were received 1.2 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

#### SW846 8082A

#### Samples:

SB66631-01 2013004101

The Reporting Limit has been raised to account for matrix interference.

#### SW846 8260C

#### Calibration:

#### 1303015

Analyte quantified by quadratic equation type calibration.

Bromoform Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

1307216-BLK1 1307216-BSD1 2013004101 S302593-ICV1 S303541-CCV1

#### S302593-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,4-Dioxane (124%) 2-Hexanone (MBK) (127%) 4-Methyl-2-pentanone (MIBK) (122%) Bromomethane (78%) Dichlorodifluoromethane (Freon12) (70%) trans-1,4-Dichloro-2-butene (132%)

This affected the following samples:

1307216-BLK1 1307216-BS1 1307216-BSD1 2013004101 S303541-CCV1

S302850-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Acrolein (121%)

#### SW846 8260C

#### **Calibration:**

S302850-ICV1

This affected the following samples:

1307495-BLK1 1307495-BS1 1307495-BSD1 2013004101 S303683-CCV1

#### Laboratory Control Samples:

#### 1307495 BS/BSD

Acrolein percent recoveries (138/148) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

2013004101

#### Samples:

### S303541-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,1,2-Tetrachloroethane (24.9%) 1,4-Dioxane (21.3%) 2-Hexanone (MBK) (20.7%) 4-Methyl-2-pentanone (MIBK) (22.3%) Bromodichloromethane (23.9%) Carbon tetrachloride (30.3%) Dichlorodifluoromethane (Freon12) (-21.1%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Acetone (23.2%) Bromoform (29.4%) Dibromochloromethane (21.8%)

This affected the following samples:

1307216-BLK1 1307216-BS1 1307216-BSD1 2013004101

S303683-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Acrolein (48.2%)

This affected the following samples:

1307495-BLK1 1307495-BS1 1307495-BSD1 2013004101

SB66631-01 2013004101

Insufficient preservative to reduce the sample pH to less than 2.

The Reporting Limit has been raised to account for matrix interference.

This laboratory report is not valid without an authorized signature on the cover page.

#### SW846 8270D

#### Calibration:

#### 1301047

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol Carbazole

This affected the following samples:

2013004101 S300866-ICV1 S303582-CCV1

#### S300866-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

3,3'-Dichlorobenzidine (128%)
4,6-Dinitro-2-methylphenol (124%)
4-Nitroaniline (124%)
4-Nitrophenol (70%)
Carbazole (129%)
Indeno (1,2,3-cd) pyrene (122%)

This affected the following samples:

2013004101 S303582-CCV1

#### Laboratory Control Samples:

#### 1306872 BS

2,4-Dinitrophenol percent recovery 143 (30-130) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

2013004101

Benzidine percent recovery 0 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004101

Pyridine percent recovery 21 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004101

#### Samples:

#### S303563-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

3,3'-Dichlorobenzidine (24.7%)
4-Chlorophenyl phenyl ether (24.3%)
Diethyl phthalate (20.5%)
Hexachlorobutadiene (20.2%)
Hexachlorocyclopentadiene (26.5%)
Pyridine (-63.8%)

#### SW846 8270D

#### Samples:

#### S303563-CCV1

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

2,4-Dinitrophenol (53.3%) 4,6-Dinitro-2-methylphenol (39.8%) 4-Nitrophenol (56.1%) Pentachlorophenol (-21.3%)

This affected the following samples:

1306872-BLK1 1306872-BS1

#### S303582-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,3-Dichlorobenzene (-25.9%) 2,4,6-Trichlorophenol (-25.7%) 2,6-Dinitrotoluene (-26.7%) 4-Nitrophenol (-43.5%) Bis(2-chloroethyl)ether (31.3%) Pentachlorophenol (-28.2%)

This affected the following samples:

2013004101

SB66631-01 2013004101

The Reporting Limit has been raised to account for matrix interference.

#### Sample Acceptance Check Form

Client:	Onondaga County Dept. WEP Env. Lab
Project:	Oak Orchard Lagoon / 1849
Work Order:	SB66631
Sample(s) received on:	3/26/2013
Received by:	Vickie Knowles

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

- 1. Were custody seals present?
- 2. Were custody seals intact?
- 3. Were samples received at a temperature of  $\leq 6^{\circ}$ C?
- 4. Were samples cooled on ice upon transfer to laboratory representative?
- 5. Were samples refrigerated upon transfer to laboratory representative?
- 6. Were sample containers received intact?
- 7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?
- 8. Were samples accompanied by a Chain of Custody document?
- 9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?
- 10. Did sample container labels agree with Chain of Custody document?
- 11. Were samples received within method-specific holding times?

Yes

 $\checkmark$ 

 $\checkmark$ 

 $\checkmark$ 

1

 $\checkmark$ 

1

No

 $\checkmark$ 

1

N/A

~

Sample Identification 2013004101				Client Project # 1849			<u>Matrix</u> <u>Collection Date/Tip</u>							
SB66631-	01			18	:49		Sludge	- 21	-Mar-13 11	:45	26-1	Mar-13		
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Ce	
olatile O	rganic Compounds								42			ŝ	s v	
	anic Compounds	÷	PH, R01									125		
	by method SW846 5030 V	Vater MS												
37-64-1	Acetone	< 50.0	D	hð\l	50.0	12.8	5	SW846 8260C	02-Apr-13	02-Apr-13	eq	1307216	2	
07-13-1	Acrylonitrile	< 2.50	D	µg/l	2.50	2.30	5		H.	.0	0.00			
1-43-2	Benzene	< 5.00	D	hð\l	5.00	3.34	5		н	u				
5-27-4	Bromodichloromethane	< 2.50	~ D	µg/l	2.50	2.40	5	2010	H.	- <sup>- 10</sup>	э <b>н</b> :			
5-25-2	Bromoform	< 5.00	D	µg/l	5.00	3.02	5		U.		н	u.		
4-83-9	Bromomethane	< 10.0	D	µg/l	10.0	5.70	5	8 <b>H</b> (1	u.		и			
8-93-3	2-Butanone (MEK)	< 50.0	D	µg/l	50.0	8.67	5				н	×	į	
5-15-0	Carbon disulfide	< 10.0	D	µg∕l	10.0	3.14	5	200	H.	R	36		1	
3-23-5	Carbon tetrachloride	< 5.00	D	µg/l	5.00	2.74	5		I.		n		1	
08-90-7	Chlorobenzene	< 5.00	D	µg/l	5.00	3.27	5	$(\mathbf{n})$	u.		Т <b>н</b>			
5-00-3	Chloroethane	< 10.0	D	µg/l	10.0	5.16	5					в		
7-66-3	Chloroform	< 5.00	D	µg∕l	5.00	3.44	5	а.	π	8	н	۰.,		
4-87-3	Chloromethane	< 10.0	D	µg/l	10.0	7.36	5	. U	ũ.		н	я;		
24-48-1	Dibromochloromethane	< 2.50	D	µg/l	2.50	1.44	5	3 <b>H</b> /	ii.					
5-50-1	1,2-Dichlorobenzene	< 5.00	D	µg/l	5.00	3.34	5		н			к		
41-73-1	1,3-Dichlorobenzene	< 5.00	D	µg/l	5.00	3.56	5		K.		н			
06-46-7	1,4-Dichlorobenzene	< 5.00	D	hð\l	5.00	3.12	5	3 <b>1</b> .	u.		н	в		
5-71-8	Dichlorodifluoromethane (Freon12)	< 10.0	D	µg/l	10.0	2.24	5	1	<u>I</u>					
5-34-3	1,1-Dichloroethane	< 5.00	D	µg/l	5.00	3.40	5	u.	u.			u.	1	
07-06-2	1,2-Dichloroethane	< 5.00	D	µg/l	5.00	3.90	5		<u>e</u>	90				
5-35-4	1,1-Dichloroethene	< 5.00	D	μg/l	5.00	2.44	5	u.	u.	u		u.	1	
56-59-2	cis-1,2-Dichloroethene	< 5.00	D	μg/l	5.00	3.58	5	(iii)	<u>ii</u>	).		и.		
56-60-5	trans-1,2-Dichloroethene	< 5.00	D	µg/l	5.00	3.40	5		щ			IC.		
3-87-5	1,2-Dichloropropane	< 5.00	D	µg/l	5.00	3.56	5		N.	1		u.		
0061-01-5	cis-1,3-Dichloropropene	< 2.50	D	µg/l	2.50	1.26	5		к	э		IC:		
061-02-6	trans-1,3-Dichloropropene	< 2.50	D	μg/l	2.50	2.50	5		II.			i.		
00-41-4	Ethylbenzene	< 5.00	D	μg/l	5.00	3.66	5	( <b>x</b> .)	u	(n	30.6	ii.		
91-78-6	2-Hexanone (MBK)	< 50.0	D	μg/l	50.0	2.72	5			ù				
08-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0	D	µg/l	50.0	4.66	5		п	н	Ω.	ii ii		
5-09-2	Methylene chloride	< 10.0	D	µg∕I	10.0	3.45	5	247	<u>II</u>		u			
)0-42-5	Styrene	< 5.00	D	μg/l	5.00	3.08	5		н:	.1	л	н		
9-34-5	1,1,2,2-Tetrachloroethane	< 2.50	D	μg/l	2.50	1.74	5					и.		
27-18-4	Tetrachloroethene	< 5.00	D	μg/l	5.00	3.72	5	380	н		u	IC.		
8-88-3	Toluene	< 5.00	D	μg/I	5.00	4.06	5		u.	ŭ		i.		
-55-6	1,1,1-Trichloroethane	< 5.00	D	μg/I	5.00	2.91	5	3 <b>0</b> .5	u.	а	a.	ora in		
-00-5	1,1,2-Trichloroethane	< 5.00	D	μg/l	5.00	3.21	5			ji ji		8		
-01-6	Trichloroethene	< 5.00	D	hðų	5.00	3.78	5	. 10				10 10		
-69-4	Trichlorofluoromethane (Freon 11)	< 5.00	D.	hðu hðu	5.00	3.14	5	H	4		n	N,		
5-01-4	Vinyl chloride	< 5.00	D	µg/l	5.00	4.04	5	( <b>H</b> ))			к	u.		
79601-23-1	m,p-Xylene	< 10.0	D	hðų	10.0	8.20	5							
		10.0		₽ <del>9</del> 0	10.0	0.20	5					10 C		

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20130041 SB66631					<u>Project #</u> 49		<u>Matrix</u> Sludge	1.000	ection Date -Mar-13 11	(		<u>ceived</u> Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert
Volatile O	Organic Compounds												
	anic Compounds		PH, R01										
460-00-4	by method SW846 5030 V 4-Bromofluorobenzene	102			70-13	on ø/		SW846 8260C	02-Apr-13	02-Apr-13	eq	1307216	
2037-26-5	Toluene-d8	99			70-13			84040 02000	uz-Api-10	и "	"	"	
17060-07-0	1,2-Dichloroethane-d4	99	(Ge.)		70-13				200 2010 2010		n		
1868-53-7	Dibromofluoromethane	102			70-13			II.		ĸ	- n		
	anic Compounds	102	PH, R01										
	by method SW846 5030 V	Vater MS											
107-02-8	Acrolein	< 50.0	D	hð\l	50.0	23.3	5	н.	04-Apr-13	04-Apr-13	"	1307495	
110-75-8	2-Chloroethylvinyl ether	< 50.0	D	µg/l	50.0	16.0	5	<u>1</u>			υ.	, u	
108-05-4	Vinyl acetate	< 50.0	D	hð\l	50.0	30.4	5	U.	<b>3</b> 0		ŭ	50	
Surrogate rec	coveries:												
460-00-4	4-Bromofluorobenzene	99			70-13	30 %		Ű.			и	20	
2037-26-5	Toluene-d8	101			70-13	30 %				ť.	n	n	
17060-07-0	1,2-Dichloroethane-d4	101			70-13	30 %		u	18			а 1	
1868-53-7	Dibromofluoromethane	103			70-13	30 %		8	3		u.		
Semivolat	ile Organic Compounds by (	GCMS											
Semivolatile	Organic Compounds		R01										
Prepared	by method SW846 3510C												
83-32-9	Acenaphthene	< 5000		hð\j	5000	900	1	SW846 8270D	28-Mar-13	02-Apr-13	jg	1306872	Х
208-96-8	Acenaphthylene	< 5000		hð\l	5000	870	1	u.			n		Х
120-12-7	Anthracene	< 5000		hð\j	5000	900	î	n			н	30	Х
56-55-3	Benzo (a) anthracene	< 5000		µg/l	5000	1190	1	u.	•		"	•	Х
50-32-8	Benzo (a) pyrene	< 5000		µg/l	5000	870	1	I		<b>1</b> 2			Х
205-99-2	Benzo (b) fluoranthene	< 5000		hð\l	5000	850	1			•			Х
191-24-2	Benzo (g,h,i) perylene	< 5000		hð\l	5000	900	1	<b>1</b>		8	н		Х
207-08-9	Benzo (k) fluoranthene	< 5000		hð\l	5000	1110	1			ц.;	n.	,	Х
111-91-1	Bis(2-chloroethoxy)metha	< 5000		hð\l	5000	700	1			<b>U</b> _1	п		Х
111-44-4	ne Bis(2-chloroethyl)ether	< 5000		µg/l	5000	840	1	Π.	i i	H.	н		х
108-60-1	Bis(2-chloroisopropyl)ethe	< 5000		μg/l	5000	980	, 1				п	ч	x
	r	0000		pgn	5000	500	<i>1</i> .						X
117-81-7	Bis(2-ethylhexyl)phthalate	< 5000		µg/I	5000	1020	1				"	1	Х
101-55-3	4-Bromophenyl phenyl ether	< 5000		µд∕I	5000	850	1	8 <b>H</b>	н		9	н	Х
85-68-7	Butyl benzyl phthalate	< 5000		µg∕l	5000	1030	া	п	<u>i</u>		u.		Х
36-74-8	Carbazole	< 5000		hð\l	5000	3210	t	30			ñ	а	Х
59-50-7	4-Chloro-3-methylphenol	< 5000		µg∕l	5000	950	1				u.	л	Х
06-47-8	4-Chloroaniline	< 5000		hð\l	5000	560	1	3 <b>u</b> (		9. <b>u</b> 5	н	н	Х
91-58-7	2-Chloronaphthalene	< 5000		µg/l	5000	870	1		,		"	٠	х
95-57-8	2-Chlorophenol	< 5000		µg/l	5000	960	1	2002	н	. 8	R.	z	Х
7005-72-3	4-Chlorophenyl phenyl ether	< 5000		µg/l	5000	890	1	n.	n		H		Х
218-01-9	Chrysene	< 5000		µg/I	5000	1140	1	a (		5 <b>H</b> 5	8	ш	Х
53-70-3	Dibenzo (a,h) anthracene	< 5000		μg/I	5000	930	1				н		Х
32-64-9	Dibenzofuran	< 5000		µg/l	5000	880	1	(m)	н	5 <b>0</b> 0	n	п	X
95-50-1	1,2-Dichlorobenzene	< 5000		μg/l	5000	980	1				н	ж.	X
		9044991919191919			-10000-07-5	1000007010	1017 229						

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Sample 10 20130041	dentification 101			Project #		<u>Matrix</u>		ection Date		Received		
SB66631	-01		1	849		Sludge	21	-Mar-13 11	:45	26-1	Mar-13	
CAS No.	Analyte(s)	Result Fla	g Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolat	ile Organic Compounds by (	GCMS										
Solution and the solution of t	Organic Compounds by method SW846 3510C	R0	1									
106-46-7	1,4-Dichlorobenzene	< 5000	µg/l	5000	1000	1	SW846 8270D	28-Mar-13	02-Apr-13	jg	1306872	х
91-94-1	3,3'-Dichlorobenzidine	< 5000	µg/l	5000	680	1		н	u		н	х
120-83-2	2,4-Dichlorophenol	< 5000	µg/l	5000	820	1		л	п	н		Х
84-66-2	Diethyl phthalate	< 5000	µg/l	5000	860	1		( <b>H</b> )/	n		200	х
131-11-3	Dimethyl phthalate	< 5000	µg/l	5000	910	1	2			и		Х
105-67-9	2,4-Dimethylphenol	< 5000	µg/l	5000	810	1	э.	н	н	п	5 <b>1</b> 0.	х
84-74-2	Di-n-butyl phthalate	< 5000	µg/l	5000	940	1	3		n		и.	х
534-52-1	4,6-Dinitro-2-methylphenol	< 5000	µg/l	5000	670	1	1	82 <b>0</b> 3	n		а,	х
51-28-5	2,4-Dinitrophenol	< 5000	µg/l	5000	2870	đ	1				н	х
121-14-2	2,4-Dinitrotoluene	< 5000	µg/l	5000	940	1	1	н	r	ж	н	х
606-20-2	2,6-Dinitrotoluene	< 5000	μg/l	5000	940	1			ï			x
117-84-0	Di-n-octyl phthalate	< 5000	µg/l	5000	780	п	5i		u		н	х
206-44-0	Fluoranthene	< 5000	μg/l	5000	960	1	3	н	п	н	200	x
86-73-7	Fluorene	< 5000	µg/l	5000	900	1	a	W	н		н	x
118-74-1	Hexachlorobenzene	< 5000	μg/I	5000	930	1	1				п	x
87-68-3	Hexachlorobutadiene	< 5000	µg/l	5000	830	1		н	п	н		x
77-47-4	Hexachlorocyclopentadien e	< 5000	µg/I	5000	4720	1		(1 <u>11</u> )?	н		a.	X
67-72-1	e Hexachloroethane	< 5000	110/	5000	1010	1	Ĩ.	200	т			V
193-39-5	Indeno (1,2,3-cd) pyrene	< 5000	µg/l	5000	920	1	ä	н				X
78-59-1	Isophorone	< 5000	µg/I	5000	830	1	1				n	X
91-57-6	2-Methylnaphthalene	< 5000	µg/l	5000	910	1	5	π.			u	x
95-48-7	2-Methylphenol	< 5000	µg/l	5000	960	1	1	<b>1</b> 10)				X
108-39-4, 106-44-5	3 & 4-Methylphenol	< 10000	рд/I I\дц	10000	940	1	1		H		3 <b>8</b> ()	X X
91-20-3	Naphthalene	< 5000	µg/l	5000	890	1		н	ĸ			х
88-74-4	2-Nitroaniline	< 5000	μg/I	5000	820	1		н	ĩ	π		x
99-09-2	3-Nitroaniline	< 5000	рди ид/I	5000	640	1	,	u.	ï			x
100-01-6	4-Nitroaniline	< 20000	بوبر ا/وبر	20000	720	1	я	2100				x
98-95-3	Nitrobenzene	< 5000	μg/I	5000	950	1		н		π		x
88-75-5	2-Nitrophenol	< 5000	μg/I	5000	1030	1	1		н			x
100-02-7	4-Nitrophenol	< 20000	μg/l	20000	2790	1	Ϋ́.	н	54). H			x
621-64-7	N-Nitrosodi-n-propylamine	< 5000	اروبر اروبر	5000	920	1	3	u.	н		ĩ	x
86-30-6	N-Nitrosodiphenylamine	< 5000		5000	960	1	î	н	н	w		
87-86-5	Pentachlorophenol	< 20000	l/gų	20000			1					Х
85-01-8	Phenanthrene	< 5000	μg/l		810	. 1						x
108-95-2	Phenol	< 5000	µg/l	5000	870	1	ii.					
129-00-0	Pyrene	< 5000	μg/l	5000	950	l. ar	1					Х
129-00-0	1,2,4-Trichlorobenzene	< 5000	µg/l	5000	1280	1	1			n in the second s	5	Х
95-95-4	2,4,5-Trichlorophenol	< 5000	µg/l	5000	920	1	16 11			2 N	17 - C	х
95-95-4 88-06-2	2,4,6-Trichlorophenol	< 5000	hð\  hð\	5000 5000	830 780	1	1			а Э		X X
Surrogate rec	coveries:					1	0			-		
321-60-8	2-Fluorobiphenyl	90		30-13	0 %		3			. <b>N</b>	<b>.</b> 0	
367-12-4	2-Fluorophenol	88		15-11	0%		а	10	×.		u	
4165-60-0	Nitrobenzene-d5	121		30-13	0%		i.	3 <b>.</b> 1		л.,	п	

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0 1 1	1												
	dentification			Client H	Project #		Matrix	Coll	ection Date	/Time	Re	ceived	
2013004				18	49	ĸ	Sludge	21	-Mar-13 11	:45	26-1	Mar-13	
SB66631	-01	5	e	1.000				DANA P				and an and a second	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolat	tile Organic Compounds by	GCMS											
Semivolatile	e Organic Compounds		R01										
Prepared	by method SW846 3510C	Ż											
4165-62-2	Phenol-d5	96			15-11	0 %		SW846 8270D	28-Mar-13	02-Apr-13	jg	1306872	
1718-51-0	Terphenyl-dl4	110			30-13	10 %			•		n		
118-79-6	2,4,6-Tribromophenol	104			15-11	0%		-11		а	2002	Υ.	
Semivolat	tile Organic Compounds by	GC											
	ated Biphenyls I by method SW846 3510C		R01										
12674-11-2	Aroclor-1016	< 20.0		µg∕l	20.0	0.860	1	SW846 8082A	28-Mar-13	01-Apr-13	IMR	1306874	х
11104-28-2	Aroclor-1221	< 20.0		µg/l	20.0	1.43	1	• ~			W.	. E	Х
11141-16-5	Aroclor-1232	< 20.0		µg/l	20.0	1.34	1		6				х
53469-21-9	Aroclor-1242	< 20.0		µg/l	20.0	0.730	1			,	9	E	Х
12672-29-6	Aroclor-1248	< 20.0		hð\l	20.0	1.13	1		6	8			х
11097-69-1	Aroclor-1254	< 20.0		hð\l	20.0	0.990	1	ш	r				Х
11096-82-5	Aroclor-1260	< 20.0		µg/l	20.0	0.580	1	.0	6		n.		х
Surrogate red	coveries:												
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	85			30-15	0%					n		
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	145			30-15	0%		¥	×		n	6307	
2051-24-3	Decachlorobiphenyl (Sr)	110			30-15	0 %						1	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	120			30-15	0%					а.		

#### **Notes and Definitions**

D	Data reported from a dilution	
PH	Insufficient preservative to reduce the sample pH to less than 2.	
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.	
R01	The Reporting Limit has been raised to account for matrix interference.	
dry	Sample results reported on a dry weight basis	
NR	Not Reported	
RPD	Relative Percent Difference	

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

<u>Method Detection Limit (MDL)</u>: The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

<u>Reportable Detection Limit (RDL)</u>: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by: Kimberly Wisk

1=Na2S2O3 8=NaHSO4 Spectrum Analytical × " Condition upon receipt: SL - Sludge WW = Wastewater SW = Surface Water DW = Drinking Water 7120 Henry Clay Blvd Onondaga County Dept. WEP Env. Lab Report To: Telephone #: 315-435-5011 Liverpool, NY 13088 Relinquished by: \_ab.Id: 9=Deionized Water 10=H3PO4 11= X2 = N 2=HCI 3=H2SO4 Sample Ids 2013004101 0 = 0ilSO = SoilGW=Groundwater 11 Almgren Drive - Agawam, MA 01001.413-789-9018. Fax 413-789-4076. www.spretrum-analytical.com Ambient Chain of Custody Record Received by X3 = 03/21/2013 Date / Inntes 5=NaOH leed. Shill Syracuse, NY 13204 650 W. Hiawatha Blvd. Onondaga County Dept. WEP Env. Lab Invoice To: Contract # 34512 6=Ascorbic Acid SF and and Matrix 家 rated Pate: 4 # of VOA Vials Ó 4 Containers # of Amber Glass DI VOA Frozen 7=CH3OH # of Clear Glass 18 ame # of Plastic EPA 8082 PP PCBs List preserved code below EPA 8260B PP(TCL) Volatile omb ⊓eã ∩ EPA 8270 PP(TCL) Semi-Vo Soil Jan Frozei Type: Code: Site Name: Identification Analyses: All TAT's subject to lab approval
 Min. 24-hr notification needed for rushes
 Samples disposed of after 60 days unless Rush TAT - Date Needed: Standard TAT - 7-10 Business days  $\Box$  $\Box$ Composite Oak Orchard Lagoon 630965-1C E-mail to **EDD** Format 1849 Special Handling Sewer #: State-specific reporting \*additional charges may apply QA/QC Reporting Notes: C 5 4

## Method Report

Method Number 702

#### Method Version 1

	Name	EPA 8082 PP PCBs	45
	Lab Matrix	Spectrum Solid	
	Description	Priority Pollutant Scan, Units:mg/kg dry	
	Lab	Spectrum	
	COMPOUNDS	UNITS	5
1	Aroclor-1016	mg/kg dr	y
2	Aroclor-1221	, mg/kg dr	y
3	Aroclor-1232	mg/kg dr	Ŷ
4	Aroclor-1242	mg/kg dr	Ý
5	Aroclor-1248	mg/kg dr	y
6	Aroclor-1254	mg/kg dr	Ŷ
7	Aroclor-1260	mg/kg dr	ý

Page 1 of 1

01/22/2013

## Method Report

Method Number 703

#### Method Version 3

EPA 8260B PP(TCL) Volatiles Name Lab Matrix Spectrum Solid Description Priority Pollutant Scan, Units: mg/kg dry Lab Spectrum

	COMPOUNDS	UNITS
1	Acetone	mg/kg dry
2	Benzene .	mg/kg dry
3	Bromodichloromethane	mg/kg dry
4	Bromoform	mg/kg dry
5	Bromomethane	mg/kg dry
6	2-Butanone (MEK)	mg/kg dry
7	Carbon disulfide	mg/kg dry
8	Carbon Tetrachloride	mg/kg dry
9	Chlorobenzene	mg/kg dry
10	Chloroethane	mg/kg dry
11	Chloroform	mg/kg dry
12	Chloromethane -	mg/kg dry
13	Dibromochloromethane	mg/kg dry
14	1,1-Dichloroethane	mg/kg dry
15	1,2-Dichloroethane	mg/kg dry
16	1,1-Dichloroethene	mg/kg dry
17	1,2-Dichloroethene, Total	mg/kg dry
18	1,2-Dichloropropane	mg/kg dry
19	cis-1,3-Dichloropropene	mg/kg dry
20	trans-1,3-Dichloropropene	mg/kg dry
21	Ethylbenzene	mg/kg dry
22	2-Hexanone	mg/kg dry
23	Methylene Chloride	mg/kg dry
24	4-Methyl-2-Pentanone (MIBK)	mg/kg dry
25	Styrene	mg/kg dry
26	1,1,2,2-Tetrachloroethane	mg/kg dry
27	Tetrachloroethene	mg/kg dry
28	Toluene	mg/kg dry
29	1,1,1-Trichloroethane	mg/kg dry
30	1,1,2-Trichloroethane	mg/kg dry
31	Trichloroethene	mg/kg dry
32	Vinyl Chloride	mg/kg dry
33	Total Xylenes	mg/kg dry
34	Acrolein	mg/kg dry
35	Acrylonitrile	mg/kg dry
36	2-Chloroethylvinylether	mg/kg dry
37	Dichlorodifluoromethane	mg/kg dry
38	Trichlorofluoromethane	mg/kg dry
39	1,2-Dichlorobenzene	mg/kg dry
40	1,3-Dichlorobenzene	mg/kg dry
41	1,4-Dichlorobenzene	mg/kg dry
42	Vinyl Acetate	mg/kg dry

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		Ť.	Method Report				01/22/2013
ľ	Method Ni	imber 704			Method Version	1	
		blowne	EDA 9370 DD/T/CI \ Carris 1/-1				
		Name	EPA 8270 PP(TCL) Semi-Vol				
		Lab Matrix	Spectrum Solid				
		Description	Priority Pollutants, Units: mg/k	g dry			
		Lab	Spectrum				
		<b>COMPOUNDS</b>		UNITS			
	1	Acenaphthene		mg/kg dry			
	2	Acenaphthylene		mg/kg dry			
	3	Anthracene		mg/kg dry			
	4	Benzo (a) anthracene		mg/kg dry			
	5	Benzo (b) fluoranthene		mg/kg dry			
	6	Benzo (k) fluoranthene		mg/kg dry			
	7	Benzo (g,h,i) perylene		mg/kg dry			
	8	Benzo (a) pyrene		mg/kg dry			
	9	4-Bromophenyl phenyl ethe	r	mg/kg dry			
	10	Butyl Benzyl Phthalate		mg/kg dry			
	11	Carbazole	20	mg/kg dry			
	12	4-Chloroaniline		mg/kg dry			
	13	bis(2-Chloroethoxy) methar	ie	mg/kg dry			
	14	bis (2-Chloroethyl) ether	2	mg/kg dry			
	15	bis (2-Chloroisopropyl) ethe	er	mg/kg dry			
	16	4-Chloro-3-methylphenol		mg/kg dry			
	17	2-Chloronaphthalene		mg/kg dry			
	18	2-Chlorophenol		mg/kg dry			2
	19	4-Chlorophenyl phenyl ethe	<u> </u>	mg/kg dry			
	20	Chrysene		mg/kg dry			
	21	Dibenz (a,h) anthracene		mg/kg dry			
	22	Dibenzofuran		mg/kg dry			
	23	Di-n-butyl phthalate		mg/kg dry			a di s
	24	1,2-Dichlorobenzene		mg/kg dry			20
	25	1,3-Dichlorobenzene		mg/kg dry			
	26	1,4-Dichlorobenzene		mg/kg dry			
	27	3,3-Dichlorobenzidine		mg/kg dry			
	28	2,4-Dichlorophenol		mg/kg dry			4 OK 121
	29 30	Diethyl phthalate 2,4-Dimethylphenol		mg/kg dry			
		Dimethyl phthalate		mg/kg dry			
	31			mg/kg dry			
	32 33	2,4-Dinitrophenol 2,4-Dinitrotoluene		mg/kg dry			
	33	2,6-Dinitrotoluene		mg/kg dry	5		×
	34	Di-n-octyl phthalate	5	mg/kg dry mg/kg dry			, Califica de la
	36	bis (2-Ethylhexyl) phthalate					- 1
	. 37	Fluoranthene	°r+	mg/kg dry mg/kg dry	•	8	
	38	Fluorene		mg/kg dry mg/kg dry	*		
	39	Hexachlorobenzene	13	mg/kg dry mg/kg dry			
	40	Hexachlorobutadiene		mg/kg dry mg/kg dry	, <sup>10</sup>		
	41	Hexachlorocyclopentadiene		mg/kg dry			
	42	Hexachloroethane		mg/kg dry			2 N 18 15
	43	Indeno (1,2,3-c,d) pyrene		mg/kg dry			
	44	Isophorone	8 8 II 60. 5	mg/kg dry	( <b>b</b> )		
				maing ury			

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# Method Report

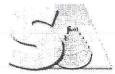
45	2-Methyl-4,6-dinitrophenol			mg/kg dry
46	2-Methylnaphthalene			mg/kg dry
47	2-Methylphenol (o-Cresol)			mg/kg dry
48	4-Methylphenol (p-Cresol)			mg/kg dry
49	Naphthalene			mg/kg dry
50	2-Nitroaniline			mg/kg dry
51	3-Nitroaniline			mg/kg dry
52	4-Nitroaniline			mg/kg dry
53	Nitrobenzene			mg/kg dry
54	2-Nitrophenol (o-Nitrophenol)		*	mg/kg dry
55	4-Nitrophenol			mg/kg dry
56	N-Nitrosodiphenylamine			mg/kg dry
57	N-Nitroso-di-n-propylamine			mg/kg dry
58	Pentachlorophenol			mg/kg dry
59	Phenanthrene			mg/kg dry
60	Phenol-C6H5OH			mg/kg dry
61	Pyrene			mg/kg dry
62	1,2,4-Trichlorobenzene			mg/kg dry
63	2,4,5-Trichlorophenol		1.00	mg/kg dry
64	2,4,6-Trichlorophenol	3 <b>1</b> 0		mg/kg dry

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01/22/2013

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Page 2 of 2



SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

11 Almgren Drive Agawam, MA 01001 (413) 789-9018

This preceding chain of custody has been amended to include the client requested additional analyses as noted below:

Laboratory ID Client ID		Analysis	Added
SB66631-01	2013004101	Volatile Organic Compounds	4/3/2013

G

Onondaga County Department of	ROUM	1 00		Composite Sample			
NA/ATED	Certifica	te of An	alvses	SAMPLE NO	: 2013004103		
					1 20.000 9103		
<b>ENVIRONMENT</b> PROTECTION	Environme	nry Clay Blvd.	oratory				
PROTECTION		New York 1308	8				
	Phone: (315) 435-5011	1 Fax:	(315) 435-5426	Report No	. )13004103		
Sample No: 2013004103	IC/FC: 1	1850	Proje	ect:			
Oak Orchard Lagoon	630965-1D						
4300 Oak Orchard Road	$\cup$						
Clay	NY						
13041							
Sample Type:			Requested By:		n an		
Sample Type: <b>Composite</b>			Requested by.		E.		
Sample Collection Period Start Date & Tim 03/20/2013 11	ACTIVATION AND A A	and the second	Received Date				
Sample Collection Period Start Date & Tin	ACTIVATION AND A A	3 11:30:	Received Date		Prep On / By		
Sample Collection Period Start Date & Tin 03/20/2013 11	:15: 03/21/2013	3 11:30: <u>It Flag</u>	Received Date	: 03/21/2013	<u>Prep On / By</u> 04/10/2013 CRICH		
Sample Collection Period Start Date & Tin 03/20/2013 11 Parameter / Method	:15: 03/21/2013 <u>Resul</u> 5.6206 %	3 11:30: <u>It Flag</u>	Received Date	: 03/21/2013 d On / By			
Sample Collection Period Start Date & Tim 03/20/2013 11 <u>Parameter / Method</u> %TS SM 18th Ed. (2540G)	:15: 03/21/2013 <u>Resul</u> 5.6206 %	3 11:30: <u>It</u> <u>Flag</u> bg/kg wet	Received Date <u>Tester</u> 04/10/2013	: 03/21/2013 d <u>On / By</u> CRICH JBURN	04/10/2013 CRICH		
Sample Collection Period Start Date & Tim 03/20/2013 11 <u>Parameter / Method</u> %TS SM 18th Ed. (2540G) Ag EPA SW 846 (6010B)	:15: 03/21/2013 <u>Resul</u> 5.6206 % 2.07 m	3 11:30: <u>It</u> <u>Flag</u> hg/kg wet hg/kg wet	Received Date <u>Tester</u> 04/10/2013 03/26/2013	: 03/21/2013 d On / By CRICH JBURN TPAUL	04/10/2013 CRICH 03/25/2013 AWALS		
Sample Collection Period Start Date & Tim 03/20/2013 11 <u>Parameter / Method</u> %TS SM 18th Ed. (2540G) Ag EPA SW 846 (6010B) As EPA SW846 (7060A)	<b>Resul</b> 5.6206 % 2.07 m 0.214 m	It:30:       It:     Flag       ng/kg wet     ng/kg wet       ng/kg wet     U	Received Date <u>Tester</u> 04/10/2013 03/26/2013 03/26/2013	: 03/21/2013 d On / By CRICH JBURN TPAUL	04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS		
Sample Collection Period         Start Date & Tim 03/20/2013           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW846 (7060A)           Be         EPA SW 846 (6010B)	:15: 03/21/2013 <u>Resul</u> 5.6206 % 2.07 m 0.214 m <0.1000 m <0.2500 m	It:30:       It:     Flag       ng/kg wet     ng/kg wet       ng/kg wet     U	Received Date <u>Tester</u> 04/10/2013 03/26/2013 03/26/2013 04/04/2013	: 03/21/2013 d On / By CRICH JBURN TPAUL CSMAL	04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS		
Sample Collection Period         Start Date & Tim 03/20/2013           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (7060A)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)	:15: 03/21/2013 <u>Resul</u> 5.6206 % 2.07 m 0.214 m <0.1000 m <0.2500 m 2.52 m	It:30:       It     Flag       ng/kg wet     ng/kg wet       ng/kg wet     U       ng/kg wet     U       ng/kg wet     U	Received Date <u>Tester</u> 04/10/2013 03/26/2013 03/26/2013 04/04/2013 03/26/2013	: 03/21/2013 d On / By CRICH JBURN TPAUL CSMAL JBURN	04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS		
Sample Collection Period         Start Date & Tim 03/20/2013           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)	:15: 03/21/2013 <u>Resul</u> 5.6206 % 2.07 m 0.214 m <0.1000 m <0.2500 m 2.52 m	It:30:       It     Flag       ng/kg wet     ng/kg wet       ng/kg wet     U       ng/kg wet     U       ng/kg wet     U       ng/kg wet     u	Received Date <u>Tester</u> 04/10/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013	: 03/21/2013 d On / Bv CRICH JBURN TPAUL CSMAL JBURN JBURN	04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS		
Sample Collection Period         Start Date & Tim 03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)	:15: 03/21/2013 <u>Resul</u> 5.6206 % 2.07 m 0.214 m <0.1000 m <0.2500 m 2.52 m 23.9 m 0.960 m	It:30:       It     Flag       ng/kg wet     ng/kg wet       ng/kg wet     U       ng/kg wet     U       ng/kg wet     U       ng/kg wet     u	Received Date <u>Tester</u> 04/10/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013	: 03/21/2013 d On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN	04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS		
Sample Collection Period         Start Date & Tim 03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)           Ni         EPA SW 846 (6010B)	:15: 03/21/2013 <u>Resul</u> 5.6206 % 2.07 m 0.214 m <0.1000 m <0.2500 m 2.52 m 23.9 m 0.960 m	It     Flag       ag/kg wet     Flag       ag/kg wet     Bg/kg wet       ag/kg wet     U       ag/kg wet     U       ag/kg wet     U       ag/kg wet     Bg/kg wet       ag/kg wet     Bg/kg wet	Received Date <u>Tester</u> 04/10/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013	: 03/21/2013 d On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN	04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS		
Sample Collection Period         Start Date & Tim 03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)           Ni         EPA SW 846 (6010B)           Pb         EPA SW 846 (6010B)	:15: 03/21/2013 <u>Resul</u> 5.6206 % 2.07 m 0.214 m <0.1000 m <0.2500 m 2.52 m 23.9 m 0.960 m 3.26 m	It     Flag       ag/kg wet     Flag       ag/kg wet     Image: Second Seco	Received Date <u>Tester</u> 04/10/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013	: 03/21/2013 d On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN JBURN JBURN JBURN	04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS		
Sample Collection Period         Start Date & Tim 03/20/2013 11           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)           Ni         EPA SW 846 (6010B)           Ni         EPA SW 846 (6010B)           Sb         EPA SW 846 (6010B)	:15: 03/21/2013 <u>Resul</u> 5.6206 % 2.07 m 0.214 m <0.1000 m <0.2500 m 2.52 m 23.9 m 0.960 m 3.26 m <0.5000 m	It:30:       It:30: <td< td=""><td>Received Date <u>Tester</u> 04/10/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013</td><td>: 03/21/2013 d On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN JBURN JBURN CSMAL TPAUL</td><td>04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS</td></td<>	Received Date <u>Tester</u> 04/10/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013	: 03/21/2013 d On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN JBURN JBURN CSMAL TPAUL	04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS		

Data Qualifier Flags

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates. V - Reported value is considered estimated due to variance from quality control or assurance criteria.

U - Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.

P - Unacceptable for field quality assurance criteria. X - Reported value fails limnological or analytical reasonableness.

Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 1 of 2

Printed: 04/12/2013

Continuation of data for Report Nø13004103

04103

Flag

Sample Remarks:

Parameter / Method

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release.

Result

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

Data Qualifier Flags

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
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All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 2 of 2

Printed: 04/12/2013

Onendaga County Department of WATER ENVIRONMENT	Certificate of Anal Environmental Labo	<i>,</i>	SAMPLE
PROTECTION	7120 Henry Clay Blvd. Liverpool, New York 13088 Phone: (315) 435-5011 Fax: (315)	5) 435-5426 Report N	o. 2013004102TP
Sample No: 2013004102 Oak Orchard Lagoor	IC/FC: 1850 630965-1D	Project:	
4300 Oak Orchard Road Clay 13041	NY		
Sample Type: Composite	Re	equested By:	
Sample Collection Period Start Date & Tip 03/21/2013 1		eceived Date: 03/21/2013	}
Density Density	<u>Result</u> <u>Flag</u> 1.00 1.05	Tested On / By           03/25/2013         CRICH           03/25/2013         CRICH	Prep On / By
Sample Remarks: Density; Results from	2 grabs collected 03/21/13 at 11:15 (6	30965-1D.1) and 11:30 (63096	5-1D.2)

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release.

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

Data Qualifier Flags N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates. V - Reported value is considered estimated due to variance from quality control or assurance criteria. U - Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes. P - Unacceptable for field quality assurance criteria.

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Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191 Page 1 of 1

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	COMPOSITE SAMPLE				
	Final Re	eport			
		ed Report			
<u>)</u>	□ Revised	Report			
TICAL, INC.					
NOLOGY					
Report					
2	Lagoon				
Project #: 1850					
Matrix	Date Sampled	Date Received			
Sludge	21-Mar-13 11:30	26-Mar-13 21:00			
ccuracy and checked aga eived.	inst the quality control				
	Authorized by:				
	Λ				
	Δ.,	feja			
	TICAL, INC. NOLOGY Report Project: Oak Orchard Project #: 1850 <u>Aatrix</u> Sludge exuracy and checked aga	Image: Constraint of the system of the sy			

Nicole Leja Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

New Jersey # MA011/MA012 New York # 11393/11840

Rhode Island # 98 USDA # S-51435

Pennsylvania # 68-04426/68-02924

Please note that this report contains 10 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

#### CASE NARRATIVE:

The samples were received 1.2 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

#### SW846 8082A

#### Samples:

SB66630-01 2013004104

The Reporting Limit has been raised to account for matrix interference.

#### SW846 8260C

#### **Calibration:**

#### 1303015

Analyte quantified by quadratic equation type calibration.

Bromoform Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

1306908-BLK1 1306908-BS1 1306908-BSD1 2013004104 S302593-ICV1 S303346-CCV1

#### S302593-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,4-Dioxane (124%) 2-Hexanone (MBK) (127%) 4-Methyl-2-pentanone (MIBK) (122%) Bromomethane (78%) Dichlorodifluoromethane (Freon12) (70%) trans-1,4-Dichloro-2-butene (132%)

This affected the following samples:

1306908-BLK1 1306908-BS1 1306908-BSD1 2013004104 S303346-CCV1

#### S302850-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Acrolein (121%)

#### SW846 8260C

#### **Calibration:**

S302850-ICV1

This affected the following samples:

1306912-BLK1 1306912-BS1 1306912-BSD1 2013004104 S303392-CCV1

#### Samples:

#### S303346-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromomethane (-20.2%)

This affected the following samples:

1306908-BLK1 1306908-BS1 1306908-BSD1 2013004104

SB66630-01 2013004104

Insufficient preservative to reduce the sample pH to less than 2.

The Reporting Limit has been raised to account for matrix interference.

#### SW846 8270D

#### Calibration:

#### 1301047

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol Carbazole

This affected the following samples:

2013004104 S300866-ICV1 S303582-CCV1

#### S300866-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

3,3'-Dichlorobenzidine (128%)
4,6-Dinitro-2-methylphenol (124%)
4-Nitroaniline (124%)
4-Nitrophenol (70%)
Carbazole (129%)
Indeno (1,2,3-cd) pyrene (122%)

This affected the following samples:

2013004104 \$303582-CCV1

Laboratory Control Samples:

#### SW846 8270D

#### Laboratory Control Samples:

#### 1306872 BS

2,4-Dinitrophenol percent recovery 143 (30-130) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

2013004104

Benzidine percent recovery 0 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004104

Pyridine percent recovery 21 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004104

#### Samples:

#### S303563-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

3,3'-Dichlorobenzidine (24.7%)
4-Chlorophenyl phenyl ether (24.3%)
Diethyl phthalate (20.5%)
Hexachlorobutadiene (20.2%)
Hexachlorocyclopentadiene (26.5%)
Pyridine (-63.8%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

2,4-Dinitrophenol (53.3%) 4,6-Dinitro-2-methylphenol (39.8%) 4-Nitrophenol (56.1%) Pentachlorophenol (-21.3%)

This affected the following samples:

1306872-BLK1 1306872-BS1

#### S303582-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,3-Dichlorobenzene (-25.9%) 2,4,6-Trichlorophenol (-25.7%) 2,6-Dinitrotoluene (-26.7%) 4-Nitrophenol (-43.5%) Bis(2-chloroethyl)ether (31.3%) Pentachlorophenol (-28.2%)

This affected the following samples:

2013004104

#### SB66630-01 2013004104

The Reporting Limit has been raised to account for matrix interference.

#### Sample Acceptance Check Form

Client:	Onondaga County Dept. WEP Env. Lab	
Project:	Oak Orchard Lagoon / 1850	
Work Order:	SB66630	
Sample(s) received on:	3/26/2013	
Received by:	Vickie Knowles	

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

- 1. Were custody seals present?
- 2. Were custody seals intact?
- 3. Were samples received at a temperature of  $\leq 6^{\circ}$ C?
- 4. Were samples cooled on ice upon transfer to laboratory representative?
- 5. Were samples refrigerated upon transfer to laboratory representative?
- 6. Were sample containers received intact?
- 7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?
- 8. Were samples accompanied by a Chain of Custody document?
- 9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?
- 10. Did sample container labels agree with Chain of Custody document?
- 11. Were samples received within method-specific holding times?

Yes

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 $\checkmark$ 

 No

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 $\Box$ 

N/A

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Sample Identification 2013004104 SB66630-01		<u>Client Project #</u> 1850			<u>Matrix</u> Sludge	Collection Date/Time 21-Mar-13 11:30			Received 26-Mar-13				
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert
Volatile O	rganic Compounds							3					
	anic Compounds		PH, R01										
	by method SW846 5030 V			1070.0 <b>D</b>							12103		
67-64-1	Acetone	< 50.0	D	µg∕l	50.0	12.8	5	SW846 8260C	28-Mar-13	28-Mar-13	eq "	1306908	
107-13-1	Acrylonitrile	< 2.50	D	hð\j	2.50	2.30	5					÷	Х
71-43-2	Benzene	< 5.00	D	μg/l	5.00	3.34	5			а. 1	ñ		X
75-27-4	Bromodichloromethane	< 2.50	D	μgγl	2.50	2.40	5					,	Х
75-25-2	Bromoform	< 5.00	D	hð\j	5.00	3.02	5		- <sup>2</sup> .		м 11		Х
74-83-9	Bromomethane	< 10.0	D	µg/l	10.0	5.70	5				u u	÷.	X
78-93-3	2-Butanone (MEK)	< 50.0	D	μg/l	50.0	8.67	5				8 11		Х
75-15-0	Carbon disulfide	< 10.0	D	µg/l	10.0	3.14	5		- 				X
56-23-5	Carbon tetrachloride	< 5.00	D	µg/l	5.00	2.74	5	*. *			H.		X
108-90-7	Chlorobenzene	< 5.00	D	hð\l	5.00	3.27	5						X
75-00-3	Chloroethane	< 10.0	D	µg∕l	10.0	5.16	5						Х
67-66-3	Chloroform	< 5.00	D	hðyl	5.00	3.44	5						Х
74-87-3	Chloromethane	< 10.0	D	hð\j	10.0	7.36	5						Х
124-48-1	Dibromochloromethane	< 2.50	D	hð\J	2.50	1.44	5	5					Х
95-50-1	1,2-Dichlorobenzene	< 5.00	D	µg/I	5.00	3.34	5				"		Х
541-73-1	1,3-Dichlorobenzene	< 5.00	D	hð <sub>\</sub> j	5.00	3.56	5	E.	8		"	i.	Х
106-46-7	1,4-Dichlorobenzene	< 5.00	D	μg/I	5.00	3.12	5						Х
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0	D	µg/I	10.0	2.24	5	i.	•	H.	ų	1	Х
75-34-3	1,1-Dichloroethane	< 5.00	D	µg/l	5.00	3.40	5	L			u	Χ.	Х
107-06-2	1,2-Dichloroethane	< 5.00	D	hð\l	5.00	3.90	5				"	X	Х
75-35-4	1,1-Dichloroethene	< 5.00	D	hð\l	5.00	2.44	5	. <b>K</b>			u.		Х
156-59-2	cis-1,2-Dichloroethene	< 5.00	D	hð\l	5.00	3.58	5			•	"	X	х
156-60-5	trans-1,2-Dichloroethene	< 5.00	D	hð\l	5.00	3.40	5			2 M ()	н	*	Х
78-87-5	1,2-Dichloropropane	< 5.00	D	µg/l	5.00	3.56	5				5	ŝ.	х
10061-01-5	cis-1,3-Dichloropropene	< 2.50	D	µg/l	2.50	1.26	5	1	ж 2	2 M .:	н		Х
10061-02-6	trans-1,3-Dichloropropene	< 2.50	D	µg/I	2.50	2.50	5				n	8.1	х
100-41-4	Ethylbenzene	< 5.00	D	hð\l	5.00	3.66	5	10			S. 00		Х
591-78-6	2-Hexanone (MBK)	< 50.0	D	µg/l	50.0	2.72	5	н	1		u	×.	Х
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0	D	µg/l	50.0	4.66	5	н			. <b>n</b>	5	Х
75-09-2	Methylene chloride	< 10.0	D	µg/I	10.0	3.45	5				۳		Х
100-42-5	Styrene	< 5.00	D	µg/I	5.00	3.08	5			3 <b>8</b> .3	8 <b>H</b> .		Х
79-34-5	1,1,2,2-Tetrachloroethane	< 2.50	D	µg/I	2.50	1.74	5	•	×			×.	Х
127-18-4	Tetrachloroethene	< 5.00	D	µg/I	5.00	3.72	5	н	ж х	10		Ŧ	Х
108-88-3	Toluene	< 5.00	D	µg/l	5.00	4.06	5		×.				Х
71-55-6	1,1,1-Trichloroethane	< 5.00	D	µg/l	5.00	2.91	5		×	æ.,	ан.		Х
79-00-5	1,1,2-Trichloroethane	< 5.00	D	μ <b>g</b> /l	5.00	3.21	5	н		20.7			Х
79-01-6	Trichloroethene	< 5.00	D	µg/l	5.00	3.78	5		°″. ₩		- <b>H</b>	a 11	Х
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.00	D	μg/Ι	5.00	3.14	5	3 <b>0</b> .		200 2002		¢	Х
75-01-4	Vinyl chloride	< 5.00	D	µg/l	5.00	4.04	5			1417	s <b>n</b> s	×.	Х
179601-23-1	m,p-Xylene	< 10.0	D	hð\l	10.0	8.20	5	( <b>II</b> .)		5			х
95-47-6	o-Xylene	< 5.00	D	µg∕l	5.00	4.41	5	3		3			х

Surrogate recoveries;

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20130041 SB66630-				<u>Client F</u> 18	Project # 50		<u>Matrix</u> Sludge	17.00	ection Date -Mar-13 11	1	10. 100 M	<u>ceived</u> Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cer
Volatile ()	rganic Compounds						0						
	anic Compounds		PH, R01										
	by method SW846 5030 V	Vater MS	1.000 a.0.500 km							5			
60-00-4	4-Bromofluorobenzene	102			70-130	0%		SW846 8260C	28-Mar-13	28-Mar-13	eq	1306908	
2037-26-5	Toluene-d8	98			70-130	0 %		1	3 <b>8</b> 0	я. — —			
7060-07-0	1,2-Dichloroethane-d4	102			70-130	0 %		X.		n	н		
868-53-7	Dibromofluoromethane	106			70-130	0 %		и	( <b>n</b> .)		н	Ξ <b>n</b>	
	anic Compounds by method SW846 5030 V	Vater MS	PH, R01										
07-02-8	Acrolein	< 50.0	D	µg/I	50.0	23.3	5	í.	28-Mar-13			1306912	
10-75-8	2-Chloroethylvinyl ether	< 50.0	D	µg/l	50.0	16.0	5	'n	3 <b>1</b> 1	н			
08-05-4	Vinyl acetate	< 50.0	D	μg/I	50.0	30.4	5	i.	u	π			
Surrogate rec	overies.			-			, M. 13						
60-00-4	4-Bromofluorobenzene	100			70-13	0%			3 <b>0</b> 0	U.			
037-26-5	Toluene-d8	98			70-13			ÿ.					
7060-07-0	1.2-Dichloroethane-d4	98 100			70-13	2018					21		
868-53-7	Dibromofluoromethane	100			70-13			3	ŭ	II.			
	ile Organic Compounds by (				70-10	~ /0							
	Organic Compounds	3CMB	R01										
	by method SW846 3510C												
3-32-9	Acenaphthene	< 5000		hð\l	5000	900	1	SW846 8270D	28-Mar-13	02-Apr-13	jg	1306872	>
08-96-8	Acenaphthylene	< 5000		µg/l	5000	870	1		<u>i</u>				)
20-12-7	Anthracene	< 5000		µg/l	5000	900	1		н.		n	ан. С	)
6-55-3	Benzo (a) anthracene	< 5000		µg∕l	5000	1190	1			<b>H</b>			)
0-32-8	Benzo (a) pyrene	< 5000		µg/l	5000	870	1		<b>B</b> _(	л		н	X
05-99-2	Benzo (b) fluoranthene	< 5000		µg/l	5000	850	1		<b>#</b> )	,	v		Х
91-24-2	Benzo (g,h,i) perylene	< 5000		µg/l	5000	900	1	÷0	•	u			×
07-08-9	Benzo (k) fluoranthene	< 5000		µg/l	5000	1110	1			<u>n</u>			Х
11-91-1	Bis(2-chloroethoxy)metha ne	< 5000		µg/I	5000	700	1	а				a.	Х
11-44-4	Bis(2-chloroethyl)ether	< 5000		µg∕l	5000	840	1		n	<u>H</u>	п	1	Х
08-60-1	Bis(2-chloroisopropyl)ethe r	< 5000		hð\J	5000	980	1		н.		н	n	Х
17-81-7	Bis(2-ethylhexyl)phthalate	< 5000		hð\l	5000	1020	1		ю	Ω.	30	ан. Т	>
01-55-3	4-Bromophenyl phenyl ether	< 5000		µg/l	5000	850	1		й.				X
5-68-7	Butyl benzyl phthalate	< 5000		hð\l	5000	1030	1		н.			а.	X
6-74-8	Carbazole	< 5000		µg/l	5000	3210	1		и	a.		a.	>
9-50-7	4-Chloro-3-methylphenol	< 5000		μg/I	5000	950	1	н			п	200	)
06-47-8	4-Chloroaniline	< 5000		μg/l	5000	560	1			n			>
1-58-7	2-Chloronaphthalene	< 5000		μg/l	5000	870	. 1	n		u	С., И	- <b>H</b>	X
5-57-8	2-Chlorophenol	< 5000		ہوب اروپا	5000	960	1			9	н	н	>
005-72-3	4-Chlorophenyl phenyl ether	< 5000		hð\J	5000	890	1	8 <b>0</b> -	U	'n	п	n	X
18-0 <b>1</b> -9	Chrysene	< 5000		μg/l	5000	1140	1	н	W.				>
3-70-3	Dibenzo (a,h) anthracene	< 5000		μg/l	5000	930	1	i H	n	п	.n	н	)
32-64-9	Dibenzofuran	< 5000		µg∕l	5000	880	1				u	u	X
02 04 0					00000000								
5-50-1	1,2-Dichlorobenzene	< 5000		hð\l	5000	980	1	н	12 H	30		C 2008	)

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\* Reportable Detection Limit

<u>Sample I</u> 20130041 SB66630				<u>Client F</u> 18	<u>Project #</u> 50		<u>Matrix</u> Sludge	103 ° A	ection Date -Mar-13 11	1447.010	Rec	<u>ceived</u> Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolat	ile Organic Compounds by (	GCMS											2
Semivolatile	Organic Compounds		R01				69						
	by method SW846 3510C												
106-46-7	1,4-Dichlorobenzene	< 5000		hð\l	5000	1000	1	SW846 8270D	28-Mar-13	02-Apr-13	jg 	1306872	х
91-94-1	3,3'-Dichlorobenzidine	< 5000		hð\l	5000	680	9	a 22			и 11		х
120-83-2	2,4-Dichlorophenol	< 5000		hð\l	5000	820	1	5.0 -	•				x
84-66-2	Diethyl phthalate	< 5000		hð\J	5000	860	1	ĩ		Ŷ	n		х
131-11-3	Dimethyl phthalate	< 5000		µg/l	5000	910	1			÷		1	х
105-67-9	2,4-Dimethylphenol	< 5000		hð\l	5000	810	1						x
84-74-2	Di-n-butyl phthalate	< 5000		hð\I	5000	940	1						х
534-52-1	4,6-Dinitro-2-methylphenol	< 5000		hð\I	5000	670	1			*			x
51-28-5	2,4-Dinitrophenol	< 5000		hð\I	5000	2870	1					: N.C.	х
121-14-2	2,4-Dinitrotoluene	< 5000		hð\l	5000	940	1				n	11	Х
606-20-2	2,6-Dinitrotoluene	< 5000		hð\l	5000	940	1				n	10	х
117-84-0	Di-n-octyl phthalate	< 5000		µg∕l	5000	780	1	<b></b>			n		Х
206-44-0	Fluoranthene	< 5000		hð\j	5000	960	t	. <b>n</b>		ж. 25			Х
86-73-7	Fluorene	< 5000		hð\l	5000	900	1	n	•	8	u.		Х
118-74-1	Hexachlorobenzene	< 5000		hð\J	5000	930	1	×		17 <b>1</b> 7	ar .		х
87-68-3	Hexachlorobutadiene	< 5000		µд∕I	5000	830	1				"	u.	х
77-47-4	Hexachlorocyclopentadien e	< 5000		hð\l	5000	4720	1			e.	и	н	Х
67-72-1	Hexachloroethane	< 5000		µg/l	5000	1010	1				"		х
193-39-5	Indeno (1,2,3-cd) pyrene	< 5000		µg/l	5000	920	1	н	<b>1</b>	K.	ж	ш	x
78-59-1	Isophorone	< 5000		μg/l	5000	830	Ŷ	N.		i i	3		x
91-57-6	2-Methylnaphthalene	< 5000		μg/l	5000	910	1	н	21	ii:	п		x
95-48-7	2-Methylphenol	< 5000		µg/l	5000	960	1	u.					x
108-39-4,	3 & 4-Methylphenol	< 10000		μg/l	10000	940	ĩ	н	5 <b>0</b>		n		x
106-44-5	e a l'inealyiphener	10000		P9/1	10000	545	2						Л
91-20-3	Naphthalene	< 5000		hð\l	5000	890	1			# :	u		Х
88-74-4	2-Nitroaniline	< 5000		μg/l	5000	820	1						Х
99-09-2	3-Nitroaniline	< 5000		µg∕l	5000	640	1	U č	31			0	Х
100-01-6	4-Nitroaniline	< 20000		µg/l	20000	720	1						Х
98-95-3	Nitrobenzene	< 5000		hð\j	5000	950	1	11"	3	π.	н		Х
88-75-5	2-Nitrophenol	< 5000		µg/I	5000	1030	1	1	-10	U.			Х
100-02-7	4-Nitrophenol	< 20000		hð\l	20000	2790	1	n.					Х
621-64-7	N-Nitrosodi-n-propylamine	< 5000		hð\l	5000	920	1			: 0.	u.		Х
86-30-6	N-Nitrosodiphenylamine	< 5000		µg/l	5000	960	1	5	8				Х
87-86-5	Pentachlorophenol	< 20000		µg∕l	20000	810	1	<b>n</b> .		3 <b>0</b> .		30	Х
85-01-8	Phenanthrene	< 5000		µg/I	5000	870	1	π		я	n	20	Х
108-95-2	Phenol	< 5000		µg/l	5000	950	1	<b>H</b> (	н		н	н	Х
129-00-0	Pyrene	< 5000		µg/I	5000	1280	1	U.				10	Х
120-82-1	1,2,4-Trichlorobenzene	< 5000		µg/l	5000	920	1	л:		73 <b>1</b> .5	н	57 - 3 <b>0</b>	Х
- 95-95-4	2,4,5-Trichlorophenol	< 5000		µg/l	5000	830	1		÷	u			Х
88-06-2	2,4,6-Trichlorophenol	< 5000		hð\l	5000	780	1	3 <b>a</b> 1		≥∎ °	9 <sup>11</sup>		Х
Surrogate reci	overies:					Xe		-					
321-60-8	2-Fluorobiphenyl	89			30-130	1%							
367-12-4	2-Fluorophenol	88			15-110	1%		а <b>н</b> 5	н	2 <b>0</b> 3	n	н	
4165-60-0	Nitrobenzene-d5	114			30-130	1%							

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\* Reportable Detection Limit

<u>Sample Io</u> 20130041 SB66630	<ul> <li></li></ul>				Project # 350		<u>Matrix</u> Sludge		ection Date. -Mar-13 11			<u>veived</u> Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolat	ile Organic Compounds by G	CMS											
	Organic Compounds by method SW846 3510C		R01										
4165-62-2	Phenol-d5	102			15-11	0 %		SW846 8270D	28-Mar-13	02-Apr-13	jg	1306872	
1718-51-0	Terphenyl-dl4	106			30-13	0 %				н			
118-79-6	2,4,6-Tribromophenol	104			15-11	0 %				n			
Semivolat	ile Organic Compounds by C	SC											
	<u>ted Biphenyls</u> by method SW846 3510C		- R01										
12674-11-2	Aroclor-1016	< 20.0		µg/l	20.0	0.860	1	SW846 8082A	28-Mar-13	01-Apr-13	IMR	1306874	Х
11104-28-2	Aroclor-1221	< 20.0		µg/I	20.0	1.43	1				"		Х
11141-16-5	Aroclor-1232	< 20.0		µg/l	20.0	1.34	1					н	Х
53469-21-9	Aroclor-1242	< 20.0		µg/l	20.0	0.730	1	a			n		х
12672-29-6	Aroclor-1248	< 20.0		µg/l	20.0	1.13	1	1	п			я	Х
11097-69-1	Aroclor-1254	< 20.0		µg/I	20.0	0.990	1						Х
11096-82-5	Aroclor-1260	< 20.0		µg/l	20.0	0.580	1	л	ារ	u	н	ii.	х
Surrogate rec	coveries:												
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	95			30-15	0 %		,	3	U.	"		
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	80			30-15	0 %		i	5		u		
2051-24-3	Decachlorobiphenyl (Sr)	120			30-15	i0 %			н	H.		a i	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	105			30-15	i0 %		3	3	a.	"	1	

# Notes and Definitions

D	Data reported from a dilution	
PH	Insufficient preservative to reduce the sample pH to less than 2.	
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.	
R01	The Reporting Limit has been raised to account for matrix interference.	
dry	Sample results reported on a dry weight basis	
NR	Not Reported	
RPD	Relative Percent Difference	

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

<u>Method Detection Limit (MDL)</u>: The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

<u>Reportable Detection Limit (RDL)</u>: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification</u>: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by: Kimberly Wisk

11 Almgren Dr	Condition upon receipt	Relinquished by: Healthouse and Aller 1049 May Ol	DW = Drinking Water     GW=Groundwater       WW = Wastewater     0 = Oil       SW = Surface Water     SO = Soil       SL - Sludge     X2 =       X1 =     X2 =       X1 =     X3 =       Labid:     Sample Id:       Labid:     2013004104       03/2	1=Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 2=HCl 3=H <sub>2</sub> SO <sub>4</sub> 5=NaOH 8=NaHSO <sub>4</sub> 9=Deionized Water 10=H <sub>3</sub> PO <sub>4</sub> 11=	Report To: Onondaga County Dept. WEP Env. Lab 7120 Henry Clay Blvd Liverpool, NY 13088 Telephone #: 315-435-5011	Spectrum Analytical
11 Almgren Drive - Agawam, MA 01001. 413-789-9018 . Fax 413-789-4076 . www.spretrum-analytical.com	Lood Refrigented DIVO	Received by Art Art Art Art Art Art Art Art Art Art	03/21/2013	5=NaOH 6=Ascorbic Acid 7=CH3OH =H3PO4 11=	Lab Onondaga County Dept. WEP Env. Lab 650 W. Hiawatha Blvd. Syracuse, NY 13204 Contract # 34512	Chain of Custody Record
413-789-4076 . www.spretrum-analytical.c	DI VOA Frozen Soilaar Trozen	Time Temp Deg C $\Box$ EDD Format	# of Plastic EPA 8082 PP PCBs EPA 8260B PP(TCL) Volatile EPA 8270 PP(TCL) Semi-Vo	30H	Site Name: Identification Code: Type: Co	
со <b>т</b>		Pormat	State-specific reporting	OA/OC Reporting Notess +additional onarges may apply	Oak Orchard Lagoon 630965-1D 1850 Sewer #: mposite	SB66630 System Special Handling Standard TAT - 7-10 Business days Rush TAT - Date Needed: All TAT's subject to lab approval > All TAT's subject to lab approval > Min. 24-hr notification needed for rushes > Min. 24-hr notification needed for rushes > Samples disposed of after 60 days unless

.

# Method Report

Method Number 702

# EPA 8082 PP PCBs

Lab Matrix Spectrum Solid

Description

Name

Lab

Priority Pollutant Scan, Units:mg/kg dry

Spectrum

# **COMPOUNDS**

Aroclor-1016 1 Aroclor-1221 2 3 Aroclor-1232 4 Aroclor-1242 5 Aroclor-1248 6 Aroclor-1254

7

Aroclor-1260

UNITS mg/kg dry mg/kgˈdry mg/kg dry mg/kg dry mg/kg dry mg/kg dry

mg/kg dry

01/22/2013

# Method Version 1

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	(191) (191)			
		Method Repo	ort	01/22/2013
Method N	umber 703		Method Versio	- 2
Incenou iv	umber 705		Wiethod versio	<b>1</b> 5
	Name	EPA 8260B PP(TCL)	Volatiles	
	Lab Matrix	Spectrum Solid		
	Description	Priority Pollutant Scan	Units: mo/ko dry	
	Lab	Spectrum		
		opeeran	TINITIO	
1	COMPOUNDS Acetone	-	UNITS mg/kg dry	
2	Benzene		mg/kg dry	
3	Bromodichloromethane		mg/kg dry	
4	Bromoform		mg/kg dry	
5	Bromomethane		mg/kg dry	
6	2-Butanone (MEK)	22	mg/kg dry	
7	Carbon disulfide		mg/kg dry	
8	Carbon Tetrachloride		mg/kg dry	
9	Chlorobenzene		mg/kg dry	
10	Chloroethane		mg/kg dry	
11	Chloroform		mg/kg dry	
12	Chloromethane		mg/kg dry	
13	Dibromochloromethane		mg/kg dry	
14	1,1-Dichloroethane		mg/kg dry	
15	1,2-Dichloroethane		mg/kg dry	
16	1,1-Dichloroethene		mg/kg dry	
17	1,2-Dichloroethene, Total		mg/kg dry	
18	1,2-Dichloropropane		mg/kg dry	
19	cis-1,3-Dichloropropene		mg/kg dry	
20	trans-1,3-Dichloropropene	2	mg/kg dry	1
21	Ethylbenzene		mg/kg dry	
22	2-Hexanone	8	mg/kg dry	2 D
23	Methylene Chloride	IDV)	mg/kg dry	141 (j. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
24	4-Methyl-2-Pentanone (M	IBK)	mg/kg dry	
25	Styrene		mg/kg dry	1 (c) (c)
26 27	1,1,2,2-Tetrachloroethane Tetrachloroethene		mg/kg dry	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
27	Toluene		mg/kg dry	
28	1,1,1-Trichloroethane		' mg/kg dry mg/kg dry	
30	1,1,2-Trichloroethane		mg/kg dry	
31	Trichloroethene		mg/kg dry	s <sup>a</sup> lje s
32	Vinyl Chloride		mg/kg dry	1. (m. 191
33	Total Xylenes		mg/kg dry	
3,4	Acrolein		mg/kg dry	
35	Acrylonitrile	10	mg/kg dry	2 <sup>40</sup> 10
36	2-Chloroethylvinylether		mg/kg dry	
37	Dichlorodifluoromethane		mg/kg dry	
38	Trichlorofluoromethane	м. Я.,	mg/kg dry	
39	1,2-Dichlorobenzene		mg/kg dry	
40	1,3-Dichlorobenzene		mg/kg dry	
. 41	1,4-Dichlorobenzene	a <sup>460</sup> k	mg/kg dry	x + , a H1
42	Vinyl Acetate		mg/kg dry	
			20 °	÷.

Page 1 of 1

# Method Report

Method Number 704

#### EPA 8270 PP(TCL) Semi-Vol Name

Lab Matrix

Spectrum Solid

Priority Pollutants, Units: mg/kg dry

Description

	Lab Creations	557 - 55 5
	Lab Spectrum	
	COMPOUNDS	UNITS
1	Acenaphthene	mg/kg dry
2	Acenaphthylene .	mg/kg dry
3	Anthracene	mg/kg dry
4	Benzo (a) anthracene	mg/kg dry
5	Benzo (b) fluoranthene	mg/kg dry
6	Benzo (k) fluoranthene	mg/kg dry
7	Benzo (g,h,i) perylene	mg/kg dry
8	Benzo (a) pyrene	mg/kg dry
9	4-Bromophenyl phenyl ether	mg/kg dry
10	Butyl Benzyl Phthalate	mg/kg dry
11	Carbazole	mg/kg dry
12	4-Chloroaniline	mg/kg dry
13	bis(2-Chloroethoxy) methane	mg/kg dry
14	bis (2-Chloroethyl) ether	mg/kg dry
15	bis (2-Chloroisopropyl) ether	mg/kg dry
16	4-Chloro-3-methylphenol	mg/kg dry
17	2-Chloronaphthalene	- mg/kg dry
18	2-Chlorophenol	mg/kg dry
19	4-Chlorophenyl phenyl ether	mg/kg dry
20	Chrysene	mg/kg dry
21	Dibenz (a,h) anthracene	mg/kg dry
22	Dibenzofuran	mg/kg dry
23	Di-n-butyl phthalate	mg/kg dry
24	1,2-Dichlorobenzene	mg/kg dry
25	1,3-Dichlorobenzene	mg/kg dry
26	1,4-Dichlorobenzene	mg/kg dry
27	3,3-Dichlorobenzidine	mg/kg dry
28	2,4-Dichlorophenol	mg/kg dry
29	Diethyl phthalate	mg/kg dry
30	2,4-Dimethylphenol	mg/kg dry
31	Dimethyl phthalate	mg/kg dry
32	2,4-Dinitrophenol	mg/kg dry
33	2,4-Dinitrotoluene	mg/kg dry
3,4	2,6-Dinitrotoluene	mg/kg dry
35	Di-n-octyl phthalate	mg/kg dry
36	bis (2-Ethylhexyl) phthalate	mg/kg dry
37	Fluoranthene	mg/kg dry
38	Fluorene	mg/kg dry
39	Hexachlorobenzene	mg/kg dry
40	Hexachlorobutadiene	mg/kg dry
41	Hexachlorocyclopentadiene	mg/kg dry
42	Hexachloroethane	mg/kg dry
43	Indeno (1,2,3-c,d) pyrene	mg/kg dry
44	Isophorone	mg/kg dry
	24 E. 2	

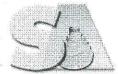
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	·	14			
		d Report			01/22/2013
45	2-Methyl-4,6-dinitrophenol		mg/kg dry		
46	2-Methylnaphthalene		mg/kg dry	2	
47	2-Methylphenol (o-Cresol)		mg/kg dry	*	
48	4-Methylphenol (p-Cresol)		mg/kg dry		
49	Naphthalene		mg/kg dry		
50	2-Nitroaniline		mg/kg dry		
51	3-Nitroaniline		mg/kg dry		
52	4-Nitroaniline		mg/kg dry		
53	Nitrobenzene		mg/kg dry		
54	2-Nitrophenol (o-Nitrophenol)		mg/kg dry		
55	4-Nitrophenol		mg/kg dry		
56	N-Nitrosodiphenylamine		mg/kg dry		
57	N-Nitroso-di-n-propylamine		mg/kg dry		
58	Pentachlorophenol		mg/kg dry		
59	Phenanthrene	32	mg/kg dry		
60	Phenol-C6H5OH		mg/kg dry		
61	Pyrene		mg/kg dry		
62	1,2,4-Trichlorobenzene		mg/kg dry		
63	2,4,5-Trichlorophenol		mg/kg dry		
64	2,4,6-Trichlorophenol	с. Н	mg/kg dry		

Page 2 of 2



SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

11 Almgren Drive Agawam, MA 01001 (413) 789-9018

This preceding chain of custody has been amended to include the client requested additional analyses as noted below:

Laboratory ID	Client ID	Analysis	Added	
SB66630-01	2013004104	Volatile Organic Compounds	4/3/2013	

<b>W</b> ENV	County Department of IRONMENT E1	7120 1	cate of nental I Henry Clay F	LaU Blvd. 13088	orator	Sample No	0:2		
Sample No: ( Oa	2013004109 k Orchard Lagoon 630	0	: 1852		Р	roject:		- 8 <sup>- 1</sup>	=
(	1300 Oak Orchard Road Clay N 13041	٩Y			ş	1	2 30 30 1		
Sample Type:	Composite				Requested	l By:			
Sample Collection	Period <u>Start Date &amp; Time</u> 03/20/2013 10:45:	<u>End Date</u> 03/21/20	<u>&amp; Time</u> 013 11:05:		Received	Date: 03/21/20	13		9
Parame	ter / Method	R	esult	Flag	1	fested On / By		Prep On / By	
%TS	SM 18th Ed. (2540G)	6.7916	%		04/10/20			10/2013 CRIC	CH
Ag	EPA SW 846 (6010B)	2.83	mg/kg wet		03/26/20	13 JBURN	N 03/2	25/2013 AWA	LS
As	EPA SW846 (7060A)	0.240	mg/kg wet		03/26/20	13 TPAUI	L 03/2	25/2013 AWA	LS
Be	EPA SW 846 (6010B)	< 0.1000	mg/kg wet	U	04/04/20	13 CSMA	L 03/2	25/2013 AWAI	LS
Cd	EPA SW 846 (6010B)		mg/kg wet		03/26/20			25/2013 AWA	LS
Cr	EPA SW 846 (6010B)		mg/kg wet		03/26/20			25/2013 AWA	13 M ( 190
Cu	EPA SW 846 (6010B)		mg/kg wet		03/26/20			25/2013 AWA	
Ni	EPA SW 846 (6010B)		mg/kg wet		03/26/20			25/2013 AWAI	
Pb	EPA SW 846 (6010B)		mg/kg wet		03/26/20	_		25/2013 AWAI	
Sb	EPA SW 846 (6010B)		mg/kg wet	U	04/04/20			25/2013 AWA	
Se	EPA SW846 (7740)		mg/kg wet	* *	03/26/20			25/2013 AWAI	
Tl	EPA SW 846 (6010B)		mg/kg wet	U	04/04/20			25/2013 AWAI	
Zn	EPA SW 846 (6010B)	55.8	mg/kg wet		03/26/20	13 JBURN	N 03/2	25/2013 AWAI	LS

Data Qualifier Flags

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates. V - Reported value is considered estimated due to variance from quality control or assurance criteria.

U - Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.

P - Unacceptable for field quality assurance criteria. X - Reported value fails limnological or analytical reasonableness.

Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 1 of 2

Printed: 04/12/2013



 Continuation of data for Report No13004109

 Parameter / Method
 Result
 Flag
 Tested On / By
 Prep On / By

 Sample Remarks:
 Metals

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release.

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

Data Qualifier Flags

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 V - Reported value is considered estimated due to variance from quality control or assurance criteria.
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All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 2 of 2

Printed: 04/12/2013

Onondaga County Department of	Certificate of		omposite 20	e sample
ENVIRONMENT	Environmental 7120 Henry Clay Liverpool, New Yor Phone: (315) 435-5011	Laboratory Blvd.	Report No.	2013004108TP
Sample No: 2013004108 Oak Orchard Lagoor 4300 Oak Orchard Road Clay 13041	IC/FC: 1852 1 630965-2B NY	Projec	t:	
Sample Type: Composite Sample Collection Period Start Date & Ti 03/21/2013 1		Requested By: Received Date:	03/21/2013	
Density Density Sample Remarks: Density: Results from	<u>Result</u> 1.00 1.06 2 grabs collected 03/21/13 a	03/25/2013 03/25/2013	<u>1 On / Bv</u> CRICH CRICH	Prep On / By

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release.

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

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Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191



	ROUND I		TE SAMPLE
Report Date:		🗹 Final R	eport
08-Apr-13 11:26	E E		ed Report
		Revised	d Report
	SPECTRUM ANALYTICAL, INC.		
ं स	Featuring		
	HANIBAL TECHNOLOGY		5 24 52 51
	Laboratory Report		
Onondaga County Dept. WEP Env. Lab			
7120 Henry Clay Blvd.	Project: Oak Orch	ard Lagoon	41. 1
Liverpool, NY 13088	Project #: 1852		
Attn: Jeff Noce			
Laboratory ID Client Sample ID	Matrix	Date Sampled	Date Received
SB66632-01 2013004110	Sludge	21-Mar-13 11:05	26-Mar-13 21:00
	eport has been reviewed for accuracy and checked a	against the quality control	
requirements for each method. These results relate	· · · · ·		
All applicable NELAC requirements have been me	et.		
Massachusetts # M-MA138/MA1110		Authorized by:	11
Connecticut # PH-0777		Δ	A
Florida # E87600/E87936	PACCRED	Aliole	Joia
Maine # MA138		Ciquid	and -
New Hampshire # 2538 New Jersey # MA011/MA012			V
New York # 11393/11840	TNI	Nicola Loio	
Pennsylvania # 68-04426/68-02924		Nicole Leja Laboratory Director	2
Rhode Island # 98	BORATOH	Laboratory Director	

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

USDA # S-51435

Please note that this report contains 11 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

#### CASE NARRATIVE:

The samples were received 1.2 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

# SW846 8082A

# Samples:

SB66632-01 2013004110

The Reporting Limit has been raised to account for matrix interference.

# SW846 8260C

# **Calibration:**

### 1303015

Analyte quantified by quadratic equation type calibration.

Bromoform Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

1307018-BLK1 1307018-BSD1 2013004110 S302593-ICV1 S303408-CCV1

# S302593-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,4-Dioxane (124%) 2-Hexanone (MBK) (127%) 4-Methyl-2-pentanone (MIBK) (122%) Bromomethane (78%) Dichlorodifluoromethane (Freon12) (70%) trans-1,4-Dichloro-2-butene (132%)

This affected the following samples:

1307018-BLK1 1307018-BS1 1307018-BSD1 2013004110 S303408-CCV1

## S302850-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Acrolein (121%)

# SW846 8260C

# Calibration:

S302850-ICV1

This affected the following samples:

1307021-BLK1 1307021-BS1 1307021-BSD1 2013004110 S303428-CCV1

# Laboratory Control Samples:

# 1307021 BS/BSD

Acrolein percent recoveries (137/108) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

2013004110

# Samples:

#### S303408-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,1,2-Tetrachloroethane (25.0%)2-Hexanone (MBK) (24.1%)Bromodichloromethane (21.1%)Bromomethane (-25.7%)Carbon tetrachloride (23.4%)trans-1,4-Dichloro-2-butene (22.7%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Bromoform (25.0%)

This affected the following samples:

1307018-BLK1 1307018-BS1 1307018-BSD1 2013004110

SB66632-01 2013004110

Insufficient preservative to reduce the sample pH to less than 2.

The Reporting Limit has been raised to account for matrix interference.

# SW846 8270D

### Calibration:

1301047

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol Carbazole

This affected the following samples:

2013004110 \$300866-ICV1 \$303582-CCV1

# SW846 8270D

# **Calibration:**

#### S300866-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

3,3'-Dichlorobenzidine (128%)
4,6-Dinitro-2-methylphenol (124%)
4-Nitroaniline (124%)
4-Nitrophenol (70%)
Carbazole (129%)
Indeno (1,2,3-cd) pyrene (122%)

This affected the following samples:

2013004110 S303582-CCV1

### Laboratory Control Samples:

### 1306872 BS

2,4-Dinitrophenol percent recovery 143 (30-130) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

2013004110

Benzidine percent recovery 0 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004110

Pyridine percent recovery 21 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004110

# Samples:

#### S303563-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

3,3'-Dichlorobenzidine (24.7%)
4-Chlorophenyl phenyl ether (24.3%)
Diethyl phthalate (20.5%)
Hexachlorobutadiene (20.2%)
Hexachlorocyclopentadiene (26.5%)
Pyridine (-63.8%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

2,4-Dinitrophenol (53.3%) 4,6-Dinitro-2-methylphenol (39.8%) 4-Nitrophenol (56.1%) Pentachlorophenol (-21.3%)

This affected the following samples:

1306872-BLK1 1306872-BS1

#### \$303582-CCV1

# SW846 8270D

# Samples:

# \$303582-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,3-Dichlorobenzene (-25.9%) 2,4,6-Trichlorophenol (-25.7%) 2,6-Dinitrotoluene (-26.7%) 4-Nitrophenol (-43.5%) Bis(2-chloroethyl)ether (31.3%) Pentachlorophenol (-28.2%)

This affected the following samples:

2013004110

SB66632-01 2013004110

The Reporting Limit has been raised to account for matrix interference.

# Sample Acceptance Check Form

Client:	Onondaga County Dept. WEP Env. Lab		
Project:	Oak Orchard Lagoon / 1852		
Work Order:	SB66632		
Sample(s) received on:	3/26/2013		
Received by:	Vickie Knowles		

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

- 1. Were custody seals present?
- 2. Were custody seals intact?
- 3. Were samples received at a temperature of  $\leq 6^{\circ}$ C?
- 4. Were samples cooled on ice upon transfer to laboratory representative?
- 5. Were samples refrigerated upon transfer to laboratory representative?
- 6. Were sample containers received intact?
- 7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?
- 8. Were samples accompanied by a Chain of Custody document?
- 9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?
- 10. Did sample container labels agree with Chain of Custody document?
- 11. Were samples received within method-specific holding times?

Yes

 $\square$ 

V

V

 $\overline{\mathbf{V}}$ 

V

 $\checkmark$ 

No

 $\checkmark$ 

 $\Box$ 

V

Π

 $\Box$ 

N/A

1

Π

20130041 SB66632			2		<u>Project #</u> 52		<u>Matrix</u> Sludge	2011.0	ection Date/ -Mar-13 11	Contraction of the Contraction o	100000000000000000000000000000000000000	<u>ceived</u> Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile C	organic Compounds						8						
	anic Compounds		PH, R01										8
	by method SW846 5030 V		-										
67-64-1	Acetone	< 50.0	D	μg/l	50.0	12.8	5	SW846 8260C	29-Mar-13	29-Mar-13	eq	1307018	
107-13-1	Acrylonitrile	< 2.50	D	µg∕l	2.50	2.30	5	ju Ju					Х
71-43-2	Benzene	< 5.00	D	hð\l	5.00	3.34	5		e	3	n		Х
75-27-4	Bromodichloromethane	< 2.50	D	μg/l	2.50	2.40	5				900 		Х
75-25-2	Bromoform	< 5.00	D	µg∕l	5.00	3.02	5				Π		Х
74-83-9	Bromomethane	< 10.0	D	μ <b>g</b> /l	10.0	5.70	5	н		3	9 <b>1</b> 2		Х
78-93-3	2-Butanone (MEK)	< 50.0	D	μg/l	50.0	8.67	5	н			м		Х
75-15-0	Carbon disulfide	< 10.0	D	hðyl	10.0	3.14	5		5 <b>4</b> 0		(N)	5	Х
56-23-5	Carbon tetrachloride	< 5.00	D	hð\I	5.00	2.74	5	1		*	n		Х
108-90-7	Chlorobenzene	< 5.00	D	µg/l	5.00	3.27	5	20			н	5	Х
75-00-3	Chloroethane	< 10.0	D	µg/l	10.0	5.16	5	10	(c <b>m</b> .)				Х
67-66-3	Chloroform	< 5.00	D	hð\[	5.00	3.44	5			٠		r.	Х
74-87-3	Chloromethane	< 10.0	D	µg/l	10.0	7.36	5	и	83 <b>0</b> 13		<b>n</b> .	U.	Х
124-48-1	Dibromochloromethane	< 2.50	D	μg/l	2.50	1.44	5				n		Х
95-50-1	1,2-Dichlorobenzene	< 5.00	D	μ <b>g</b> /l	5.00	3.34	5	и	(10C)		10.5	ан 1	Х
541-73-1	1,3-Dichlorobenzene	< 5.00	D	µg/l	5.00	3.56	5	n		×.			Х
106-46-7	1,4-Dichlorobenzene	< 5.00	D	μg/l	5.00	3.12	5	'n		×			Х
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0	D	µд∕І	10.0	2.24	5	n				•	х
75-34-3	1,1-Dichloroethane	< 5.00	D	µg/l	5.00	3.40	5	н		•	.0		Х
107-06-2	1,2-Dichloroethane	< 5.00	D	µg/l	5.00	3.90	5	ii.	Ŧ				Х
75-35-4	1,1-Dichloroethene	< 5.00	D	µg/l	5.00	2.44	5	н			н	78	Х
156-59-2	cis-1,2-Dichloroethene	< 5.00	D	µg∕l	5.00	3.58	5	<b>H</b>					Х
156-60-5	trans-1,2-Dichloroethene	< 5.00	D	hð\l	5.00	3.40	5	•	5 <b>0</b> 15			1	Х
78-87-5	1,2-Dichloropropane	< 5.00	D	µg/l	5.00	3.56	5	u.		ŝ.	"	1	Х
10061-01-5	cis-1,3-Dichloropropene	< 2.50	D	µg∕I	2.50	1.26	5	ίι.	( <b>a</b> )		л	2	Х
10061-02-6	trans-1,3-Dichloropropene	< 2.50	D	hð\l	2.50	2.50	5			i.	9	3 <b>1</b> .2	Х
100-41-4	Ethylbenzene	< 5.00	D	hð\l	5.00	3.66	5	I.		8			Х
591-78-6	2-Hexanone (MBK)	< 50.0	D	µg∕l	50.0	2.72	5	н	000				Х
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0	D	hð\l	50.0	4.66	5	n	*		M		Х
75-09-2	Methylene chloride	< 10.0	D	µg/l	10.0	3.45	5			×.			х
100-42-5	Styrene	< 5.00	D	µg/I	5.00	3.08	5						Х
79-34-5	1,1,2,2-Tetrachloroethane	< 2.50	D	μg/I	2.50	1.74	5	н.			n		Х
127-18-4	Tetrachloroethene	< 5.00	D	µg/l	5.00	3.72	5	I.		I. S.	n .		х
108-88-3	Toluene	< 5.00	D	hð\l	5.00	4.06	5	п		н.			х
71-55-6	1,1,1-Trichloroethane	< 5.00	D	µg/l	5.00	2.91	5	<u>.</u>		τ.	u		х
79-00-5	1,1,2-Trichloroethane	< 5.00	D	µg/l	5.00	3.21	5	a.		ю.	8	( <b>n</b> ))	Х
79-01-6	Trichlorosthene	< 5.00	D	µg/l	5.00	3.78	5	<u>8</u> )					х
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.00	D	hð\j	5.00	3.14	5		, N		n	a 2	Х
75-01-4	Vinyl chloride	< 5.00	D	hð\l	5.00	4.04	5	10 B		. · ·		,	х
179601-23-1	m,p-Xylene	< 10.0	D	µg∕l	10.0	8.20	5	н	а	H.S.		<b>.</b>	х
95-47-6	o-Xylene	< 5.00	D	μg/l	5.00	4.41	5			u	0		х

Surrogate recoveries:

This laboratory report is not valid without an authorized signature on the cover page.

\* Reportable Detection Limit

Sample Id 20130041	lentification 10				roject #		Matrix	10.02P22	ection Date			ceived	
SB66632-01				18	52		Sludge	21	-Mar-13 11	:05	26-1	Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile O	rganic Compounds												
	anic Compounds		PH, R01	100									
Prepared	by method SW846 5030 V	Vater MS											
460-00-4	4-Bromofluorobenzene	100			70-13	0 %		SW846 8260C	29-Mar-13	29-Mar-13	eq	1307018	
2037-26-5	Toluene-d8	99		8	70-13	0 %		1	н	•			
7060-07-0	1,2-Dichloroethane-d4	103			70-13	0 %		,	н	н:	л	1	
868-53-7	Dibromofluoromethane	104			70-13	0 %	12		<b>u</b>		17	3	
(	anic Compounds by method SW846 5030 V	Votor MC	PH, R01										
07-02-8	Acrolein	< 50.0	D	uall	50.0	23.3	5		29-Mar-13	Ű.	я	1307021	
10-75-8	2-Chloroethylvinyl ether	< 50.0	D	µg/l	50.0	16.0	5		29-Wal-13	ĩ		1307021	
108-05-4	Vinyl acetate	< 50.0	D	µg/l µg/l	50.0	30.4	5	ĩ		ii i			
				μ <del>Ω</del> γι	50.0	00.4	U U			50 		586	
Surrogate rec 160-00-4	overies: 4-Bromofluorobenzene	97			70-13	0.0/		1		ũ.	и		
037-26-5	Toluene-d8	97 100											
7060-07-0	1,2-Dichloroethane-d4	102			70-13 70-13			ĩ					
868-53-7	Dibromofluoromethane	102							300				
					70-13	0 %							
	ile Organic Compounds by (	GCMS	R01										
	Organic Compounds by method SVV846 3510C		HUT										
3-32-9	Acenaphthene	< 5000		µg/l	5000	900	1	SW846 8270D	28-Mar-13	02-Apr-13	jg	1306872	Х
08-96-8	Acenaphthylene	< 5000		μg/l	5000	870	1			а в	"	"	x
20-12-7	Anthracene	< 5000		μg/I	5000	900	1		н		"		x
6-55-3	Benzo (a) anthracene	< 5000		μg/l	5000	1190	1		10.002				x
60-32-8	Benzo (a) pyrene	< 5000		μg/l	5000	870	1		н	n	п		Х
205-99-2	Benzo (b) fluoranthene	< 5000		μg/I	5000	850	1		a <b>n</b> (	u			X
91-24-2	Benzo (g,h,i) perylene	< 5000		µg/l	5000	900	1		н	u			X
207-08-9	Benzo (k) fluoranthene	< 5000		μg/l	5000	1110	1	п	( <b>11</b> .)	н)	ж		x
111-91-1	Bis(2-chloroethoxy)metha	< 5000		µg/l	5000	700	1			u.			x
	ne			P91	0000	700							A
11-44-4	Bis(2-chloroethyl)ether	< 5000		µg/l	5000	840	1	2	383	в.		30	Х
08-60-1	Bis(2-chloroisopropyl)ethe	< 5000		µg/l	5000	980	1			×	•		Х
				12	0200	1000		2	725				
17-81-7	Bis(2-ethylhexyl)phthalate	< 5000		µg/l	5000	1020	1					296) 297	Х
01-55-3	4-Bromophenyl phenyl ether	< 5000		µg/l	5000	850	1		r	u		н	Х
5-68-7	Butyl benzyl phthalate	< 5000		µg∕l	5000	1030	1		1			. 0	х
6-74-8	Carbazole	< 5000		μg/l	5000	3210	1		( <b>) n</b> (	п	н	a l	x
9-50-7	4-Chloro-3-methylphenol	< 5000		μg/l	5000	950	t			¥.	n		х
06-47-8	4-Chloroaniline	< 5000		µg/l	5000	560	1	<b>n</b>	u.	я	300	ene.	x
1-58-7	2-Chloropaphthalene	< 5000		hð\l	5000	870	a	U	a.	n	п		х
5-57-8	2-Chlorophenol	< 5000		hð\l	5000	960	4			W.	п		х
005-72-3	4-Chlorophenyl phenyl ether	< 5000		µg/l	5000	890	1		<b>u</b>	1	n	9 <b>.0</b> .	Х
218-01-9	Chrysene	< 5000		µg∕l	5000	1140	9	и	и.:		n	2 <b>H</b> 2	х
	Dibenzo (a,h) anthracene	< 5000		µg∕l	5000	930	4			×			X
3-70-3	Ensence (a, i) antinacente	- 0000		P84									
	Dibenzofuran	< 5000		unl	5000	000			n.,			1	
53-70-3 132-64-9 9 <del>5</del> -50-1	Dibenzofuran 1,2-Dichlorobenzene	< 5000 < 5000		hð\  hð\	5000 5000	880 980	1		í.				X X

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<u>Sample Ic</u> 20130041 SB66632-	- 1			<u>Client P</u> 18			<u>Matrix</u> Sludge	100-00	ection Date -Mar-13 11			<u>ceived</u> Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolati	ile Organic Compounds by (	GCMS						1					
	Organic Compounds		R01										
	by method SW846 3510C					1000	<b>3</b>	01110-10-00700	60 M 40		12	1000070	N
106-46-7	1,4-Dichlorobenzene	< 5000		hð\l	5000	1000	1	SW846 8270D	28-Mar-13 "	02-Apr-13	pi "	1306872	x
91-94-1	3,3'-Dichlorobenzidine	< 5000		hð\j	5000	680	1				÷.		Х
120-83-2	2,4-Dichlorophenol	< 5000		hð\l	5000	820	1				л		х
84-66-2	Diethyl phthalate	< 5000		hð\l	5000	860	1			i i	'n		Х
131-11-3	Dimethyl phthalate	< 5000		hð\j	5000	910	1				'n		Х
105-67-9	2,4-Dimethylphenol	< 5000		hð\l	5000	810	1			-			х
84-74-2	Di-n-butyl phthalate	< 5000		μ <b>g</b> /l	5000	940	- 1		5 <b>.</b>		"		Х
534-52-1	4,6-Dinitro-2-methylphenol	< 5000		hð\l	5000	670	1	8			,	W	Х
51-28-5	2,4-Dinitrophenol	< 5000		hð\l	5000	2870	1			r X	" "		х
121-14-2	2,4-Dinitrotoluene	< 5000		hð\l	5000	940	1	20	•			8	Х
606-20-2	2,6-Dinitrotoluene	< 5000		µg∕l	5000	940	1	10		r X	"		х
117-84-0	Di-n-octyl phthalate	< 5000		hð\J	5000	780	1						х
206-44-0	Fluoranthene	< 5000		hð\j	5000	960	1	•	3 <b>8</b> -3	*		2013	х
86-73-7	Fluorene	< 5000		hð\l	5000	900	1	503 241					Х
118-74-1	Hexachlorobenzene	< 5000		hð\J	5000	930	1	<b>N</b>		•			х
87-68-3	Hexachlorobutadiene	< 5000		hð\j	5000	830	1	<b>N</b>		•	"	W	Х
77-47-4	Hexachlorocyclopentadien e	< 5000		hð\I	5000	4720	1	н			н	ано 1	Х
67-72-1	Hexachloroethane	< 5000		µg/l	5000	1010	1			ĸ			х
193-39-5	Indeno (1,2,3-cd) pyrene	< 5000		μg/l	5000	920	1	Ш	э <b>н</b>	ĸ	м	п	х
78-59-1	Isophorone	< 5000		µg/l	5000	830	ł	U.		i.			х
91-57-6	2-Methylnaphthalene	< 5000		µg/l	5000	910	Ť	ï			л		х
95-48-7	2-Methylphenol	< 5000		µg/l	5000	960	1	II.		ł.			х
108-39-4,	3 & 4-Methylphenol	< 10000		μg/l	10000	940	1	П		ii.	н		x
106-44-5				15									
91-20-3	Naphthalene	< 5000		hð\l	5000	890	1	n			n	ан.) 1	Х
88-74-4	2-Nitroaniline	< 5000		µg/I	5000	820	1						Х
99-09-2	3-Nitroaniline	< 5000		hð\l	5000	640	1	II.	н		"		Х
100-01-6	4-Nitroaniline	< 20000		µg/l	20000	720	1	n			U		Х
98-95-3	Nitrobenzene	< 5000		hð\l	5000	950	1	K.			п	50	Х
88-75-5	2-Nitrophenol	< 5000		hð\l	5000	1030	1	u.			"	Ш	Х
100-02-7	4-Nitrophenol	< 20000		µg∕l	20000	2790	1	U.	1		**	-	Х
621-64-7	N-Nitrosodi-n-propylamine	< 5000		hð\J	5000	920	1	0			"		Х
36-30-6	N-Nitrosodiphenylamine	< 5000		µg/I	5000	960	1	<b>H</b>		5	ч		х
87-86-5	Pentachlorophenol	< 20000		jµg/l	20000	810	1	U.	· ·	C.	"	U	Х
85-01-8	Phenanthrene	< 5000		hð\I	5000	870	1	п		5			Х
108-95-2	Phenol	< 5000		hð\l	5000	950	1	U.		C.	"		Х
129-00-0	Pyrene	< 5000	*	µg/l	5000	1280	1	003 ■ 201			"		Х
120-82-1	1,2,4-Trichlorobenzene	< 5000		hð\l	5000	920	1		с		*	и	Х
95-95-4	2,4,5-Trichlorophenol	< 5000		µg/l	5000	830	1	•	II.		u		Х
38-06-2	2,4,6-Trichlorophenol	< 5000	1	µg/l	5000	780	1	10	1		u.	11	Х
Surrogate reco	overies:										11		
321-60-8	2-Fluorobiphenyl	81			30-130	) %		о <b>н</b>		н	ŧ.		
367-12-4	2-Fluorophenal	86			15-110	)%		U		100	ĸ	н	
4165-60-0	Nitrobenzene-d5	121			30-130	7 %		a.		и,	15.0	н	

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Onondage County Department of	ROUND 1		Compos	ITE SAMPLE
	Certificate of	Analyses	SAMPLE NO	2013004112
				12013009112
ENVIRONMENT	Environmental	~		
PROTECTION	7120 Henry Clay Liverpool, New Yo			
	Phone: (315) 435-5011	Fax: (315) 435-5426	Report N	o. )13004112
Sample No: 2013004112	IC/FC: 1853	Pro	ject:	
Oak Orchard Lagoon	630965-2C			
4300 Oak Orchard Road	$\bigcirc$			
Clay	NY			
13041				
Sample Type: Composite	5	Requested E	łv.	
Composite		requested L	-y.	
Sample Collection Period Start Date & Tir 03/20/2013 10		Received Da	7	
Sample Collection Period Start Date & Tir 03/20/2013 10		Received Da	ate: 03/21/2013	
Sample Collection Period Start Date & Tir	0:20: 03/21/2013 10:40:	Received Da	ate: 03/21/2013	<u>Ргер Оп / Ву</u> 04/10/2013 CRICH
Sample Collection Period <u>Start Date &amp; Tir</u> 03/20/2013 10 <u>Parameter / Method</u>	0:20: 03/21/2013 10:40: <u>Result</u>	Received Da Flag <u>Tes</u> 04/10/2013	ate: 03/21/2013	Prep On / By
Sample Collection Period <u>Start Date &amp; Tir</u> 03/20/2013 10 <u>Parameter / Method</u> %TS SM 18th Ed. (2540G)	0:20: 03/21/2013 10:40: <u>Result</u> 5.9654 %	Flag         Test           04/10/2013         03/26/2013	tte: 03/21/2013 tted On / By CRICH	<u>Prep On / By</u> 04/10/2013 CRICH
Sample Collection Period Start Date & Tir 03/20/2013 10 <u>Parameter / Method</u> %TS SM 18th Ed. (2540G) Ag EPA SW 846 (6010B)	0:20: 03/21/2013 10:40: <u>Result</u> 5.9654 % 1.16 mg/kg we	Flag         Test           04/10/2013         03/26/2013           t         03/26/2013	ate: 03/21/2013 ated On / By CRICH JBURN	<u>Prep On / By</u> 04/10/2013 CRICH 03/25/2013 AWALS
Sample Collection Period Start Date & Tir 03/20/2013 10 <u>Parameter / Method</u> %TS SM 18th Ed. (2540G) Ag EPA SW 846 (6010B) As EPA SW846 (7060A)	<b>Result</b> 5.9654 % 1.16 mg/kg we 0.159 mg/kg we	Flag         Tes           04/10/2013         03/26/2013           t         03/26/2013           t         03/26/2013           t         U           04/04/2013	tte: 03/21/2013 tted On / By CRICH JBURN TPAUL	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS
Sample Collection Period Start Date & Tir 03/20/2013 10 <u>Parameter / Method</u> %TS SM 18th Ed. (2540G) Ag EPA SW 846 (6010B) As EPA SW 846 (7060A) Be EPA SW 846 (6010B)	0:20: 03/21/2013 10:40: <u>Result</u> 5.9654 % 1.16 mg/kg we 0.159 mg/kg we <0.1000 mg/kg we	Flag         Test           04/10/2013         03/26/2013           t         03/26/2013           t         03/26/2013           t         04/04/2013           t         U           03/26/2013	ate: 03/21/2013 ated On / By CRICH JBURN TPAUL CSMAL	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS
Sample Collection Period         Start Date & Tir 03/20/2013           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (7060A)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)	Result           5.9654         %           1.16         mg/kg we           <0.159	Flag         Test           04/10/2013         03/26/2013           t         03/26/2013           t         04/04/2013           t         03/26/2013           t         03/26/2013           t         03/26/2013           t         03/26/2013           t         03/26/2013           t         03/26/2013	ate: 03/21/2013 ated On / By CRICH JBURN TPAUL CSMAL JBURN JBURN	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS
Sample Collection Period         Start Date & Tir 03/20/2013           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (7060A)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)	Result           5.9654         %           1.16         mg/kg we           <0.159	Flag         Test           04/10/2013         03/26/2013           t         03/26/2013	ate: 03/21/2013 ated On / By CRICH JBURN TPAUL CSMAL JBURN JBURN	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS
Sample Collection Period         Start Date & Tir 03/20/2013 10           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)	Result           5.9654         %           1.16         mg/kg we           <0.159	Flag         Test           04/10/2013         03/26/2013           t         03/26/2013	ate: 03/21/2013 ated On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS
Sample Collection Period         Start Date & Tir 03/20/2013           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (7060A)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)           Ni         EPA SW 846 (6010B)	Result           5.9654         %           1.16         mg/kg we           0.159         mg/kg we           <0.1000	Flag         Tes           04/10/2013         03/26/2013           t         03/26/2013	ate: 03/21/2013 Exted On / By CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS
Sample Collection Period         Start Date & Tir 03/20/2013 10           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cr         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)           Ni         EPA SW 846 (6010B)           Pb         EPA SW 846 (6010B)	Result           5.9654         %           1.16         mg/kg we           0.159         mg/kg we           <0.1000	Flag         Tes           04/10/2013         03/26/2013           t         03/26/2013	tte: 03/21/2013 CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN JBURN	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS
Sample Collection Period         Start Date & Tir 03/20/2013 10           Parameter / Method           %TS         SM 18th Ed. (2540G)           Ag         EPA SW 846 (6010B)           As         EPA SW 846 (6010B)           Be         EPA SW 846 (6010B)           Cd         EPA SW 846 (6010B)           Cu         EPA SW 846 (6010B)           Ni         EPA SW 846 (6010B)           Sb         EPA SW 846 (6010B)	Result           5.9654         %           1.16         mg/kg we           0.159         mg/kg we           <0.1000	Flag         Tes           04/10/2013         03/26/2013           t         03/26/2013	ate: 03/21/2013 CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN JBURN JBURN JBURN JBURN	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS

Data Qualifier Flags

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates. V - Reported value is considered estimated due to variance from quality control or assurance criteria.

U - Indicates that the reported value is below the MRL. (lovation is dependent upon analyzed mass, volumes, and / or dilution volumes. P - Unacceptable for field quality assurance criteria. X - Reported value fails limnological or analytical reasonableness.

Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab 1D# 10191

Page 1 of 2

Printed: 04/12/2013



	Continuation of	data for Report Nø13004112			
	Parameter / Method	Result	Flag	Tested On / By	<u>Prep On / By</u>
Sample Remarks:	Metals				

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release.

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

Data Qualifier Flags

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates. V - Reported value is considered estimated due to variance from quality control or assurance criteria. that the reported value is below the MPL (Alverticity is dependent were negligible under the product of the spike of

U - Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes. P - Unacceptable for field quality assurance criteria.

X - Reported value fails limnological or analytical reasonableness

Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 2 of 2

Printed: 04/12/2013



Onondaga County Department of WAATER EN VIRONMENT PROTECTION	Certificate of A Certificate of A Environmental I 7120 Henry Clay B Liverpool, New York Phone: (315) 435-5011	Analyses Laboratory	20	2013004111TP
Sample No: 2013004111 Oak Orchard Lagoon 4300 Oak Orchard Road Clay 13041	IC/FC: 1853 630965-2C NY	Project	•	
Sample Type: Composite Sample Collection Period Start Date & Tin 03/21/2013 10		Requested By: Received Date:	03/21/2013	
Density Density Sample Remarks: Density; Results from	<u>Result</u> 1.07 1.00 2 grabs collected 03/21/13 at	03/25/2013 03/25/2013	<u>On / By</u> CRICH CRICH dl 12:00 (630965-:	<u>Prep On / By</u> 2C.2)

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release.

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

Data Qualifier Flags N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates. V - Reported value is considered estimated due to variance from quality control or assurance criteria.

U - Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.

P - Unacceptable for field quality assurance criteria.

X - Reported value fails limnological or analytical reasonableness.

Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab 1D# 10191

Transaction Comparison Star

	ROUND I	Composite 20	E SAMPLE C	
Report Date:		🗹 Final R	eport	
08-Apr-13 11:07	(Fed.	🗖 Re-Issu	ed Report	
	S 2	□ Revised	l Report	
5 g ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	SPECTRUM ANALYTICAL, INC.			
	Featuring HANIBAL TECHNOLOGY			
	Laboratory Report			
Onondaga County Dept. WEP Env. Lab 7120 Henry Clay Blvd. Liverpool, NY 13088 Attn: Jeff Noce <u>Laboratory ID</u> <u>Client Sample ID</u> SB66629-01 2013004113	Project: Oak O Project #: 1853 <u>Matrix</u> Sludge	Prchard Lagoon <u>Date Sampled</u> 21-Mar-13 10:40	<u>Date Received</u> 26-Mar-13 21:00	
I attest that the information contained within the re requirements for each method. These results relate All applicable NELAC requirements have been me	e only to the sample(s) as received.	ed against the quality control		
Massachusetts # M-MA138/MA1110 Connecticut # PH-0777 Florida # E87600/E87936 Maine # MA138 New Hampshire # 2538 New Jersey # MA011/MA012 New York # 11393/11840	R ACCREDINES	Authorized by: Autole Nicole Leja	Leja	

Nicole Leja Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Pennsylvania # 68-04426/68-02924

Rhode Island # 98 USDA # S-51435

Please note that this report contains 10 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

# CASE NARRATIVE:

The samples were received 1.2 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

## SW846 8082A

## Samples:

SB66629-01 2013004113

The Reporting Limit has been raised to account for matrix interference.

### SW846 8260C

# Calibration:

#### 1303015

Analyte quantified by quadratic equation type calibration.

Bromoform Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

1306908-BLK1 1306908-BSD1 2013004113 S302593-ICV1 S303346-CCV1

#### S302593-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,4-Dioxane (124%) 2-Hexanone (MBK) (127%) 4-Methyl-2-pentanone (MIBK) (122%) Bromomethane (78%) Dichlorodifluoromethane (Freon12) (70%) trans-1,4-Dichloro-2-butene (132%)

This affected the following samples:

1306908-BLK1 1306908-BS1 1306908-BSD1 2013004113 S303346-CCV1

### S302850-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Acrolein (121%)

# SW846 8260C

# **Calibration:**

S302850-ICV1

This affected the following samples:

1306912-BLK1 1306912-BS1 1306912-BSD1 2013004113 S303392-CCV1

# Samples:

# S303346-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromomethane (-20.2%)

This affected the following samples:

1306908-BLK1 1306908-BS1 1306908-BSD1 2013004113

SB66629-01 2

2013004113

Insufficient preservative to reduce the sample pH to less than 2.

The Reporting Limit has been raised to account for matrix interference.

# SW846 8270D

# Calibration:

# 1301047

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol Carbazole

This affected the following samples:

2013004113 S300866-ICV1 S303582-CCV1

### S300866-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

3,3'-Dichlorobenzidine (128%)
4,6-Dinitro-2-methylphenol (124%)
4-Nitroaniline (124%)
4-Nitrophenol (70%)
Carbazole (129%)
Indeno (1,2,3-cd) pyrene (122%)

This affected the following samples:

2013004113 \$303582-CCV1

Laboratory Control Samples:

# SW846 8270D

### Laboratory Control Samples:

#### 1306872 BS

2,4-Dinitrophenol percent recovery 143 (30-130) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

2013004113

Benzidine percent recovery 0 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004113

Pyridine percent recovery 21 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004113

# Samples:

#### S303563-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

3,3'-Dichlorobenzidine (24.7%)
4-Chlorophenyl phenyl ether (24.3%)
Diethyl phthalate (20.5%)
Hexachlorobutadiene (20.2%)
Hexachlorocyclopentadiene (26.5%)
Pyridine (-63.8%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

2,4-Dinitrophenol (53.3%) 4,6-Dinitro-2-methylphenol (39.8%) 4-Nitrophenol (56.1%) Pentachlorophenol (-21.3%)

This affected the following samples:

1306872-BLK1 1306872-BS1

### S303582-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,3-Dichlorobenzene (-25.9%) 2,4,6-Trichlorophenol (-25.7%) 2,6-Dinitrotoluene (-26.7%) 4-Nitrophenol (-43.5%) Bis(2-chloroethyl)ether (31.3%) Pentachlorophenol (-28.2%)

This affected the following samples:

2013004113

### SB66629-01 2013004113

The Reporting Limit has been raised to account for matrix interference.

### Sample Acceptance Check Form

			e	
Client:	Onondaga County Dept. WEP Env. Lab			
Project:	Oak Orchard Lagoon / 1853			
Work Order:	SB66629	đ		
Sample(s) received on:	3/26/2013			
Received by:	Vickie Knowles			

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	<u>No</u>	<u>N/A</u>
1. Were custody seals present?		$\checkmark$	
2. Were custody seals intact?			1
3. Were samples received at a temperature of $\leq 6^{\circ}$ C?	$\checkmark$		
4. Were samples cooled on ice upon transfer to laboratory representative?		$\checkmark$	
5. Were samples refrigerated upon transfer to laboratory representative?	$\mathbf{r}$		
6. Were sample containers received intact?	$\checkmark$		
7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?			
8. Were samples accompanied by a Chain of Custody document?			
9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?		V	
10. Did sample container labels agree with Chain of Custody document?			
11. Were samples received within method-specific holding times?	$\checkmark$		

Sample Id 20130041 SB66629				<u>Client F</u> 18	Project <u>#</u> 53		<u>Matrix</u> Sludge		ection Date -Mar-13 10	071	0.49	<u>ceived</u> Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile O	rganic Compounds												8
	anic Compounds		PH, R01										
	by method SW846 5030 V	100000										1000000	
67-64-1	Acetone	< 50.0	D	hð\l	50.0	12.8	5	SW846 8260C	28-Mar-13	28-Mar-13	eq "	1306908	
107-13-1	Acrylonitrile	< 2.50 < 5.00	D D	µg/l	2.50	2.30	5		2	÷	п	-	x x
71-43-2 75-27-4	Benzene Bromodichloromethane	< 2.50	D	µg/l	5.00	3.34 2.40	5 5			ĩ	anc <sup>27</sup>		x
75-25-2	Bromotorm	< 5.00	D	µg/l	2.50 5.00	3.02	5	42 3 <b>0</b>			W.	31	X
74-83-9	Bromomethane	< 10.0	D	µд/I µд/I	10.0	5.70	5				30		x
78-93-3	2-Butanone (MEK)	< 50.0	D	μg/l	50.0	8.67	5	30	E.			н	X
75-15-0	Carbon disulfide	< 10.0	D	μg/l	10.0	3.14	5		6	ž			Х
56-23-5	Carbon tetrachloride	< 5.00	D	µg/l	5.00	2.74	5		c		me	30	Х
108-90-7	Chlorobenzene	< 5.00	D	μg/l	5.00	3.27	5		÷.		11		х
75-00-3	Chloroethane	< 10.0	D	μg/l	10.0	5.16	5				3 <b>11</b> 3	(H.)	x
67-66-3	Chloroform	< 5.00	D	μg/l	5.00	3.44	5		6				х
74-87-3	Chloromethane	< 10.0	D	µg/l	10.0	7.36	5	a a	e				х
124-48-1	Dibromochloromethane	< 2.50	D	μ <b>g</b> /l	2.50	1.44	5	n	i.		n		х
95-50-1	1,2-Dichlorobenzene	< 5.00	D	μg/l	5.00	3.34	5				ans.		х
541-73-1	1,3-Dichlorobenzene	< 5.00	D	µg/l	5.00	3.56	5	.0					х
106-46-7	1,4-Dichlorobenzene	< 5.00	D	μg/l	5.00	3.12	5				н		х
75-71-8	Dichlorodifluoromethane (Freon 12)	< 10.0	D	µд∕І	10.0	2.24	5				n	( <b>B</b> )	Х
75-34-3	1,1-Dichloroethane	< 5.00	D	μg/l	5.00	3.40	5	'n			н	/m.)	х
107-06-2	1,2-Dichloroethane	< 5.00	D	hð\l	5.00	3.90	5	3	•				Х
75-35-4	1,1-Dichloroethene	< 5.00	D	µg/l	5.00	2.44	5	н		Ţ.	n.	a l	Х
156-59-2	cis-1,2-Dichloroethene	< 5.00	D	hð\l	5.00	3.58	5	a.	8 <b>8</b> .)			10	Х
156-60-5	trans-1,2-Dichloroethene	< 5.00	D	µg/l	5.00	3.40	5				Υ.		Х
78-87-5	1,2-Dichloropropane	< 5.00	D	µg∕l	5.00	3.56	5	в	3 <b>1</b> 0	ж	0	( <b>H</b> .)	Х
10061-01-5	cis-1,3-Dichloropropene	< 2.50	D	µg/l	2.50	1.26	5		×	r.	U		х
10061-02-6	trans-1,3-Dichloropropene	< 2.50	D	hðyj	2.50	2.50	5	'n	() <b>a</b> ()	•	н.		Х
100-41-4	Ethylbenzene	< 5.00	D	µg∕I	5.00	3.66	5	a de la companya de la					Х
591-78-6	2-Hexanone (MBK)	< 50.0	D	µg/l	50.0	2.72	5	ii			(H		Х
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0	D	hð\l	50.0	4.66	5	U	•		и		Х
75-09-2	Methylene chloride	< 10.0	D	µg/l	10.0	3.45	5	и				( <b>u</b> )	Х
100-42-5	Styrene	< 5.00	D	μg/l	5.00	3.08	5			Ξ.	20		х
79-34-5	1,1,2,2-Tetrachloroethane	< 2.50	D	μg/l	2.50	1.74	5		a.	ĸ	au	ា	х
127-18-4	Tetrachloroethene	< 5.00	D	μg/l	5.00	3.72	5				u	B	Х
108-88-3	Toluene	< 5.00	D	µg/l	5.00	4.06	5	¥	10		31	30	х
71-55-6	1,1,1-Trichloroethane	< 5.00	D	μg/I	5.00	2.91	5	u.		i.	"		х
79-00-5	1,1,2-Trichloroethane	< 5.00	D	µg/l	5.00	3.21	5	u			м	्रो विष	х
79-01-6	Trichloroethene	< 5.00	D	μg/l	5.00	3.78	5	u .		ų,			х
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.00	D	hð\I	5.00	3.14	5	н		۳	н		х
75-01-4	Vinyl chloride	< 5.00	D	hð\l	5.00	4.04	5	ii.		ñ.,		8	Х
179601-23-1	m,p-Xylene	< 10.0	D	hð\l	10.0	8.20	5	ΰ.		E.	"	я	Х
95-47-6	o-Xylene	< 5.00	۵	µg/l	5.00	4.41	5			i.	ii		х

Surrogate recoveries:

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<sup>\*</sup> Reportable Detection Limit

20130041					Project #		<u>Matrix</u> Sludge		ection Date -Mar-13 10			<u>ceived</u> Mar-13	
SB66629	-01						5111-6-				201	vidi 15	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile O	rganic Compounds											-9	
Volatile Org	anic Compounds		PH, R01										
Prepared	by method SW846 5030 V	Vater MS											
460-00-4	4-Bromofluorobenzene	101			70-130	0%		SW846 8260C	28-Mar-13	28-Mar-13	eq	1306908	
2037-26-5	Toluene-d8	100			70-130	0%			( <b>u</b> .)	и			
7060-07-0	1,2-Dichloroethane-d4	101			70-130	0 %				н	n		
868-53-7	Dibromofluoromethane	102			70-130	0%			20 <b>4</b> 11	н			
	anic Compounds	5	PH, R01										
	by method SW846 5030 V												
07-02-8	Acrolein	< 50.0	D	µg/l	50.0	23.3	5		28-Mar-13			1306912	
10-75-8	2-Chloroethylvinyl ether	< 50.0	D	µg/l	50.0	16.0	5		a.	2			
08-05-4	Vinyl acetate	< 50.0	D	µg/l	50.0	30.4	5		u		"	( <b>1</b> 6)	
Surrogate rec	coveries:												
60-00-4	4-Bromofluorobenzene	99			70-130	0 %			100	ï	н	u .	
037-26-5	Toluene-d8	100			70-130	0 %			u	н		(. <b>U</b> )	
7060-07-0	1,2-Dichloroethane-d4	99			70-130	0 %			000	н		н	
868-53-7	Dibromofluoromethane	101			70-130	0%		1	u.	n	п	0.0	
emivolat	ile Organic Compounds by (	GCMS											
emivolatile	Organic Compounds		R01										
repared	by method SW846 3510C												
3-32-9	Acenaphthene	< 5000		µg/l	5000	900	1	SW846 8270D	28-Mar-13	02-Apr-13	jg	1306872	Х
8-96-8	Acenaphthylene	< 5000		µg∕l	5000	870	1		8			н	Х
20-12-7	Anthracene	< 5000		hð\l	5000	900	1		0.005	н	э	2003	Х
5-55-3	Benzo (a) anthracene	< 5000		µg/l	5000	1190	1			u	2	н	Х
0-32-8	Benzo (a) pyrene	< 5000		hð\l	5000	870	1	з	(1 <b>0</b> 1)	п	39	80	Х
)5-99-2	Benzo (b) fluoranthene	< 5000		µg/l	5000	850	1			<u></u>	"	н	Х
91-24-2	Benzo (g,h,i) perylene	< 5000		µg/l	5000	900	1	1	1.0	'n	n	n	Х
07-08-9	Benzo (k) fluoranthene	< 5000		µg/l	5000	1110	1		u	ï		л	Х
11-91-1	Bis(2-chloroethoxy)metha ne	< 5000		µg/l	5000	700	1	н	2000	'n	v		Х
11-44-4	Bis(2-chloroethyl)ether	< 5000		μg/l	5000	840	1			'n	n		х
08-60-1	Bis(2-chloroisopropyl)ethe	< 5000		µg/l	5000	980	1	,	1.0		w	(160)	x
	r			19.	100400 To To To		121						А
17-81-7	Bis(2-ethylhexyl)phthalate	< 5000		µg/I	5000	1020	1	1		Э.	W		Х
01-55-3	4-Bromophenyl phenyl ether	< 5000		µg/I	5000	850	1	ii.	. <b>R</b> .	u		(*)	Х
5-68-7	Butyl benzyl phthalate	< 5000		hð\I	5000	1030	1	ж	. <b>1</b> 0	n	n	a.	Х
5-74 <b>-</b> 8	Carbazole	< 5000		µg/I	5000	3210	1	ä		u	n	1.85	х
9-50-7	4-Chloro-3-methylphenol	< 5000		µg/I	5000	950	1	а	ан (	'n	n		x
6-47-8	4-Chloroaniline	< 5000		μg/I	5000	560	1	3		.0	п	н	x
-58-7	2-Chloronaphthalene	< 5000		hð\l	5000	870	1	н	<b>.</b>	u	п		X
5-57-8	2-Chlorophenol	< 5000		μg/l	5000	960	1	ũ		н		<b>B</b>	x
005-72-3	- 4-Chlorophenyl phenyl ether	< 5000		hð,l	5000	890	1				,		x
18-01-9	Chrysene	< 5000		uc/l	5000	1140	1	3					V
3-70-3	Dibenzo (a,h) anthracene	< 5000		µg/l				T I	(11)		я	(M)	X
32-64-9	Dibenzofuran			µg/l	5000	930	1			2	"		Х
		< 5000		µg/l	5000	880	1		- <b>1</b> 0	-			Х
5-50-1	1,2-Dichlorobenzene	< 5000		hð\l	5000	980	1		526	•			Х
41-73-1	1,3-Dichlorobenzene	< 5000		µg/l	5000	960	1		u.		"	3.007)	Х

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<u>Sample I</u> 2013004 SB66629				<u>Client P</u> 18			<u>Matrix</u> Sludge		ection Date, -Mar-13 10		0000	<u>xeived</u> Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolat	tile Organic Compounds by (	GCMS		<i>u</i>									
	e Organic Compounds		R01										
	by method SW846 3510C				а. 								
106-46-7	1,4-Dichlorobenzene	< 5000		hð\l	5000	1000	1	SW846 8270D	28-Mar-13	02-Apr-13	gi "	1306872	х
91-94-1	3,3'-Dichlorobenzidine	< 5000		µg/l	5000	680	1						х
120-83-2	2,4-Dichlorophenol	< 5000		hð <sub>l</sub> l	5000	820	1						X
84-66-2	Diethyl phthalate	< 5000		hð\l	5000	860	1			÷.			X
131-11-3	Dimethyl phthalate	< 5000		hð\l	5000	910	1						x
105-67-9	2,4-Dimethylphenol	< 5000		hð\l	5000	810	1						x
84-74-2	Di-n-butyl phthalate	< 5000		µg/l	5000	940	1						X
534-52-1	4,6-Dinitro-2-methylphenol	< 5000		hð\j	5000	670	1						х
51-28-5	2,4-Dinitrophenol	< 5000		hð <sub>\</sub> l	5000	2870	1		*			u.	Х
121-14-2	2,4-Dinitrotoluene	< 5000		hðy	5000	940	1				n		Х
606-20-2	2,6-Dinitrotoluene	< 5000		µg∕l	5000	940	1						х
117-84-0	Di-n-octyl phthalate	< 5000		hð\j	5000	780	1		-				х
206-44-0	Fluoranthene	< 5000		µg/l	5000	960	1						Х
86-73-7	Fluorene	< 5000		μg/l	5000	900	1						х
118-74-1	Hexachlorobenzene	< 5000		hð\l	5000	930	1						х
87-68-3	Hexachlorobutadiene	< 5000		hð\l	5000	830	1						Х
77-47-4	Hexachlorocyclopentadien e	< 5000		hð\J	5000	4720	1	.0.			11		Х
67-72-1	Hexachloroethane	< 5000		µg/l	5000	1010	1	ĩ			3 <b>1</b> S	a	х
193-39-5	Indeno (1,2,3-cd) pyrene	< 5000		µg/l	5000	920	1	н		i.	-, <b>2</b>		x
78-59-1	Isophorone	< 5000		µg∕l	5000	830	1	. <u>n</u>		x	ar :		х
91-57-6	2-Methylnaphthalene	< 5000		μg/l	5000	910	1				<u>.</u>		x
95-48-7	2-Methylphenol	< 5000		μg/l	5000	960	1				я		x
108-39-4,	3 & 4-Methylphenol	< 10000		μg/l	10000	940	1	н			6		x
106-44-5	,			P9.			<u>,</u> ,						
91-20-3	Naphthalene	< 5000		hð\l	5000	890	1	ш.				U.	Х
88-74-4	2-Nitroaniline	< 5000		µg/l	5000	820	1				и	0.002	Х
99-09-2	3-Nitroaniline	< 5000		µg∕l	5000	640	1	u .		•			Х
100-01-6	4-Nitroaniline	< 20000		μ <b>g</b> /l	20000	720	1	n	9 <b>8</b> S			H.	Х
98- <del>9</del> 5-3	Nitrobenzene	< 5000		hð\]	5000	950	1	ш	5 <b>8</b> .2	•	"		Х
88-75-5	2-Nitrophenol	< 5000		hð\J	5000	1030	1	п		5	"	а	х
100-02-7	4-Nitrophenol	< 20000		µg/I	20000	2790	1	н.	(. <b>.</b> ).			0.005	Х
621-64-7	N-Nitrosodi-n-propylamine	< 5000		µg/l	5000	920	1	И.		1	u		Х
86-30-6	N-Nitrosodiphenylamine	< 5000		hð\l	5000	960	1	Ш	( <b>1</b> 1)	r.	'n	.0.5	Х
87-86-5	Pentachlorophenol	< 20000		µg/I	20000	810	1	u.		i.	"	•	Х
85-01-8	Phenanthrene	< 5000		µg/l	5000	870	1	n	9 <b>1</b>		n	н.	Х
108-95-2	Phenol	< 5000		hð\l	5000	950	1					•	Х
129-00-0	Pyrene	< 5000		µg/l	5000	1280	1	п	÷0	•	н		Х
120-82-1	1,2,4-Trichlorobenzene	< 5000		µg/l	5000	920	1	u	•				х
95-95-4	2,4,5-Trichlorophenol	< 5000		µg/l	5000	830	1			м <sup>2</sup> (5)		21	Х
88-06-2	2,4,6-Trichlorophenol	< 5000		µg/l	5000	780	1	U			"	•	х
Surrogate rec	overies:												5
321-60-8	2-Fluorobiphenyl	81			30-130	)%		U.		IC.	ñ	30	
367-12-4	2-Fluorophenol	85			15-110			n			÷ 11		
4165-60-0	Nitrobenzene-d5	108			30-130	)%		U.			н		
													10

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<u>Sample I</u> 2013004 SB66629				2,5	<u>Project #</u> 53		<u>Matrix</u> Sludge	11.0	ection Date -Mar-13 10			<u>ceived</u> Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivola	tile Organic Compounds by (	GCMS							4				
	<u>e Organic Compounds</u> 1 by method SW846 3510C		R01										
4165-62-2	Phenol-d5	80			15-11	0%		SW846 8270D	28-Mar-13	02-Apr-13	jg	1306872	
1718-51-0	Terphenyl-dl4	105			30-13	80 %		5		ŭ	ÿ		
118-79-6	2,4,6-Tribromophenol	99			15-11	0%		1	аў.			н	
Semivola	tile Organic Compounds by O	<del>.</del> С											
	ated Biphenyls d by method SW846 3510C		R01			10						12	
12674-11-2	Aroclor-1016	< 20.0		hð\l	20.0	0.860	1	SW846 8082A	28-Mar-13	01-Apr-13	IMR	1306874	Х
11104-28-2	Aroclor-1221	< 20.0		hð\I	20.0	1.43	1			н	н	2.00	х
11141-16-5	Aroclor-1232	< 20.0		µg/l	20.0	1.34	1			н	н	и.	Х
53469-21-9	Aroclor-1242	< 20.0		µg/l	20.0	0.730	1	( <b>m</b> ))		н	n		х
12672-29-6	Aroclor-1248	< 20.0		hð\J	20.0	1.13	1			Ű	3		х
11097-69-1	Aroclor-1254	< 20.0		µg∕l	20.0	0.990	1		a <b>10</b> 7	u .			Χ.
11096-82-5	Aroclor-1260	< 20.0		µg/l	20.0	0.580	1			n.		.1.	Х
Surrogate re	coveries:												
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	90			30-15	50 %			( <b>1</b> ),	U.		<b>10</b> 3	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	75			30-15	50 %		.∎ 0	а		л		
2051-24-3	Decachlorobiphenyl (Sr)	115			30-15	50 %							
2051-24-3	Decachlorobiphenyl (Sr) [2C]	105			30-15	50 %			Suc.	u:			

#### Notes and Definitions

D	Data reported from a dilution
PH	Insufficient preservative to reduce the sample pH to less than 2.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
R01	The Reporting Limit has been raised to account for matrix interference.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

<u>Method Detection Limit (MDL)</u>: The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

<u>Reportable Detection Limit (RDL)</u>: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification:</u> The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by: Kimberly Wisk

Condition upon receipt Ambient	Redinquished by Fred Ealary Hully Mully	DW = Drinking Water GW=Groundwater WW = Wastewater O = Oil SW = Surface Water SO = Soil SL - Sludge X2 = X3 = X3 = X1 = X2 = X3	1=Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 2=HCl 3=H <sub>2</sub> SO <sub>4</sub> 5=NaC 8=NaHSO <sub>4</sub> 9=Deionized Water 10=H <sub>3</sub> PO <sub>4</sub>	Report To: Onondaga County Dept. WEP Env. Lab 7120 Henry Clay Blvd Liverpool, NY 13088 Telephone #: 315-435-5011	Spectrum Analytical,
- Agawam, MA 010		10 40	Ť.		ain of Cu
Ambjent loed Refrigerated D	5/26/13 3/26/13 3/26/13	Y     # of VOA Vials       Y     # of Amber Glass       # of Clear Glass	6=Ascorbic Acid 7=	Invoice To: Onondaga County Dept. WEP Env. Lab 650 W. Hiawatha Blvd. Syracuse, NY 13204 Contract # 34512	Chain of Custody Record
DI VOA Frozen Soll Jar Frozen	9/5- 2/10 2/10	# of Clear Glass # of Plastic EPA 8082 PP PCBs ; EPA 8260B PP(TCL) Volatile	7=СН3ОН	VEP Env. Lab	ecord
		EPA 8270 PP(TCL) Semi-Vo	Listpreserved dode below	Site Name: Identification Code: Type: Co	
ytical.com	EDD Format			Oak Orchard 1853 mposite	Special Handling Standard TAT - 7-10 Business days Rush TAT - Date Necded: > All TATs subject to lab approval > Min. 24-hr notification needed for rushes > Samples disposed of after 60 days unless
		State-specific reporting	OA/OC Reporting Notes: *additional charges may simily	Lagoon 630965-2C Sewer #:	5.66623 Fundling Special Handling - 7-10 Business days rate Needed: ect to lab approval ffication needed for rushes psed of after 60 days unless

### Method Report

#### Method Number 702

#### Name EPA 8082 PP PCBs

Spectrum Solid

Lab Matrix Description

Priority Pollutant Scan, Units:mg/kg dry

Lab Spectrum

#### **COMPOUNDS**

- 1
   Aroclor-1016

   2
   Aroclor-1221

   3
   Aroclor-1232

   4
   Aroclor-1242

   5
   Aroclor-1248

   6
   Aroclor-1254
- 7 Aroclor-1260

## Method Version 1

<u>UNITS</u> mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry

mg/kg dry

mg/kg dry

Page 1 of 1

		18.6	Method Report			01/22/2013
Met	hod N	umber 703			Method Version 3	Ĩ
		Name	EPA 8260B PP(TCL) Vola	atiles		
		Lab Matrix	Spectrum Solid			
					1	
		Description	Priority Pollutant Scan, Un	its: mg/kg dry		
		Lab	Spectrum		3	
		<u>COMPOUNDS</u>		UNITS		
	1	Acetone		mg/kg dry		
	2	Benzene		mg/kg dry		
	3 4	Bromodichloromethane		mg/kg dry		
	4 5	Bromoform Bromomethane		mg/kg dry		
	6	2-Butanone (MEK)	3	mg/kg dry		
	7	Carbon disulfide		mg/kg dry		
	8	Carbon Tetrachloride		mg/kg dry		
	9	Chlorobenzene		mg/kg dry		
	10	Chloroethane		mg/kg dry mg/kg dry		
	11	Chloroform		mg/kg dry		
	12	Chloromethane	*	mg/kg dry		
	13	Dibromochloromethane		mg/kg dry		
	14	1,1-Dichloroethane		mg/kg dry		
	15	1,2-Dichloroethane	1	mg/kg dry		
	16	1,1-Dichloroethene		mg/kg dry		
	17	1,2-Dichloroethene, Total		mg/kg dry		
	18	1,2-Dichloropropane		mg/kg dry		ð é
	19	cis-1,3-Dichloropropene		mg/kg dry		
	20	trans-1,3-Dichloropropene		mg/kg dry		14 - 14 - 14 - 14 - 14 - 14 - 14 - 14 -
	21	Ethylbenzene		mg/kg dry		
	22	2-Hexanone	12	mg/kg dry		
	23	Methylene Chloride		mg/kg dry		
	24	4-Methyl-2-Pentanone (MI	BK)	mg/kg dry		
	25	Styrene		mg/kg dry		
	26	1,1,2,2-Tetrachloroethane		mg/kg dry		
	27	Tetrachloroethene		mg/kg dry		1
	28	Toluene	8	mg/kg dry		
	29	1,1,1-Trichloroethane		mg/kg dry		11 - 12 - 13 - 13 - 13 - 13 - 13 - 13 -
	30 31	1,1,2-Trichloroethane Trichloroethene		mg/kg dry		
	32	Vinyl Chloride		mg/kg dry		
	33	Total Xylenes		mg/kg dry mg/kg dry		
	3,4	Acrolein		mg/kg dry mg/kg dry	44 St.	
	35	Acrylonitrile	У. У	mg/kg dry		
	36	2-Chloroethylvinylether		mg/kg dry		a freek
	37	Dichlorodifluoromethane		mg/kg dry		а 1
	38	Trichlorofluoromethane	ж П.,	mg/kg dry		
	39	1,2-Dichlorobenzene		mg/kg dry	8	
	40	1,3-Dichlorobenzene		mg/kg dry		
	41	1,4-Dichlorobenzene		mg/kg dry		2 2
	42	Vinyl Acetate		mg/kg dry		60 Fil
						3

Page 1 of 1

#### Method Report

Method Number 704

#### EPA 8270 PP(TCL) Semi-Vol Name

Priority Pollutants, Units: mg/kg dry

Spectrum Solid Lab Matrix

Description

Lab

Spectrum

### COMPOUNDS

1 Acenaphthene 2 Acenaphthylene 3 Anthracene 4 Benzo (a) anthracene Benzo (b) fluoranthene 5 6 Benzo (k) fluoranthene 7 Benzo (g,h,i) perylene 8 Benzo (a) pyrene 9 4-Bromophenyl phenyl ether 10 Butyl Benzyl Phthalate 11 Carbazole 12 4-Chloroaniline 13 bis(2-Chloroethoxy) methane 14 bis (2-Chloroethyl) ether bis (2-Chloroisopropyl) ether 15 16 4-Chloro-3-methylphenol 17 2-Chloronaphthalene 18 2-Chlorophenol 19 4-Chlorophenyl phenyl ether 20 Chrysene 21 Dibenz (a,h) anthracene 22 Dibenzofuran 23 Di-n-butyl phthalate 24 1,2-Dichlorobenzene 25 1,3-Dichlorobenzene 26 1,4-Dichlorobenzene 27 3,3-Dichlorobenzidine 28 2,4-Dichlorophenol 29 Diethyl phthalate 30 2,4-Dimethylphenol 31 Dimethyl phthalate 32 2,4-Dinitrophenol 33 2,4-Dinitrotoluene 34 2,6-Dinitrotoluene 35 Di-n-octyl phthalate 36 bis (2-Ethylhexyl) phthalate 37 Fluoranthene 38 Fluorene 39 Hexachlorobenzene 40 Hexachlorobutadiene 41 Hexachlorocyclopentadiene 42 Hexachloroethane 43 Indeno (1,2,3-c,d) pyrene

44

Isophorone

Page 1 of 2

01/22/2013

Method Version 1

UNITS

mg/kg dry

			- 18 J			
		5	Method	Report		01/22/2013
	45	2-Methyl-4,6-dinitrophenol			mg/kg dry	
	46	2-Methylnaphthalene			mg/kg dry	7
	47	2-Methylphenol (o-Cresol)			mg/kg dry	
	48	4-Methylphenol (p-Cresol)			mg/kg dry	
	49	Naphthalene			mg/kg dry	
	50	2-Nitroaniline			mg/kg dry	
	51	3-Nitroaniline			mg/kg dry	
	52	4-Nitroaniline			mg/kg dry	
	53	Nitrobenzene			mg/kg dry	
	54	2-Nitrophenol (o-Nitrophenol)			mg/kg dry	
	55	4-Nitrophenol			mg/kg dry	
22	56	N-Nitrosodiphenylamine			mg/kg dry	
	57	N-Nitroso-di-n-propylamine			mg/kg dry	
	58	Pentachlorophenol	7		mg/kg dry	
	59	Phenanthrene			mg/kg dry	
	60	Phenol-C6H5OH			mg/kg dry	
	61	Pyrene			mg/kg dry	
	62	1,2,4-Trichlorobenzene			mg/kg dry	
	63	2,4,5-Trichlorophenol		100.00	mg/kg dry	
	64	2,4,6-Trichlorophenol	-		mg/kg dry	

Page 2 of 2



#### SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

11 Almgren Drive Agawam, MA 01001 (413) 789-9018

This preceding chain of custody has been amended to include the client requested additional analyses as noted below:

Added	 Analysis	Client ID	Laboratory ID
3/2013	Volatile Organic Compounds	2013004113	SB66629-01
1	Volatile Organic Compounds	2013004113	

Олоп	daga County Department of	Rou	1 00%				te sample
	WATED	Certifie	cate of	Ana	alyses S	AMPLENO:	2013004115
		Environ					
	NVIRONMENT ROTECTION		Henry Clay I		oratory	4	
	OILCHON		ol, New York		8		
a		Phone: (315) 435-:	5011	Fax: (	315) 435-5426	Report No	D. )13004115
Sample No:	2013004115	IC/FC	2: 1854		Proje	ect:	
	Oak Orchard Lagoon	630965-2D					
	4300 Oak Orchard Road		)				
	Clay	NY					
	13041						
Sample Type:	Composite		reete were in a hour		Requested By:	:	
Sample Collect	ion Period Start Date & Tir	me End Date	e & Time		Received Date:	03/21/2013	
Sample Collect	ion Period <u>Start Date &amp; Tin</u> 03/20/2013 09	and subset of the subset of th	e & Time 013 10:15:		Received Date:	: 03/21/2013	
		9:45:1 03/21/2	arrent at a hereit	Flag		03/21/2013	Prep On / By
	03/20/2013 09	9:45:1 03/21/2	013 10:15: esult			00/21/2010	
Par	03/20/2013 09 ameter / Method SM 18th Ed. (2540G) EPA SW 846 (6010B)	9:45:1 03/21/2 <u>R</u> 12.7724 1.31	013 10:15: <u>esult</u> % mg/kg wet		<u>Tested</u> 04/10/2013 03/26/2013	<u>d On / By</u> CRICH JBURN	Prep On / By
	03/20/2013 09 ameter / Method SM 18th Ed. (2540G) EPA SW 846 (6010B) EPA SW846 (7060A)	9:45:1 03/21/2 <u>R</u> 12.7724 1.31 0.240	esult % mg/kg wet mg/kg wet		<u>Tested</u> 04/10/2013	<u>d On / By</u> CRICH	<u>Prep On / By</u> 04/10/2013 CRICH
<u>Par</u> %TS Ag	03/20/2013 09 ameter / Method SM 18th Ed. (2540G) EPA SW 846 (6010B) EPA SW 846 (7060A) EPA SW 846 (6010B)	9:45:1 03/21/2 R 12.7724 1.31 0.240 <0.1000	esult % mg/kg wet mg/kg wet mg/kg wet		<u>Tested</u> 04/10/2013 03/26/2013	<u>d On / By</u> CRICH JBURN TPAUL CSMAL	<u>Prep On / Bv</u> 04/10/2013 CRICH 03/25/2013 AWALS
<u>Par</u> %TS Ag As	03/20/2013 09 ameter / Method SM 18th Ed. (2540G) EPA SW 846 (6010B) EPA SW846 (7060A)	9:45:1 03/21/2 <u>R</u> 12.7724 1.31 0.240	esult % mg/kg wet mg/kg wet	Flag	<u>Tested</u> 04/10/2013 03/26/2013 03/26/2013	<u>d On / Bv</u> CRICH JBURN TPAUL	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS
<u>Par</u> %TS Ag As Be	03/20/2013 09 ameter / Method SM 18th Ed. (2540G) EPA SW 846 (6010B) EPA SW 846 (7060A) EPA SW 846 (6010B)	9:45:1 03/21/2 R 12.7724 1.31 0.240 <0.1000	esult % mg/kg wet mg/kg wet mg/kg wet	<u>Flag</u> U	<u>Tested</u> 04/10/2013 03/26/2013 03/26/2013 04/04/2013	<u>d On / By</u> CRICH JBURN TPAUL CSMAL	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS
Par %TS Ag As Be Cd	03/20/2013 09 ameter / Method SM 18th Ed. (2540G) EPA SW 846 (6010B) EPA SW 846 (7060A) EPA SW 846 (6010B) EPA SW 846 (6010B)	9:45:1 03/21/2 R 12.7724 1.31 0.240 <0.1000 <0.2500	esult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet	<u>Flag</u> U	<u>Tested</u> 04/10/2013 03/26/2013 03/26/2013 04/04/2013 03/26/2013	<u>d On / Bv</u> CRICH JBURN TPAUL CSMAL JBURN	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS
Par %TS Ag As Be Cd Cr	03/20/2013 09 ameter / Method SM 18th Ed. (2540G) EPA SW 846 (6010B) EPA SW 846 (6010B) EPA SW 846 (6010B) EPA SW 846 (6010B) EPA SW 846 (6010B)	9:45:1 03/21/2 R 12.7724 1.31 0.240 <0.1000 <0.2500 1.91	esult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	<u>Flag</u> U	<u>Tested</u> 04/10/2013 03/26/2013 03/26/2013 04/04/2013 03/26/2013 03/26/2013	<u>d On / Bv</u> CRICH JBURN TPAUL CSMAL JBURN JBURN	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS
Par %TS Ag As Be Cd Cr Cu	03/20/2013 09 ameter / Method SM 18th Ed. (2540G) EPA SW 846 (6010B) EPA SW 846 (6010B)	9:45:1 03/21/2 R 12.7724 1.31 0.240 <0.1000 <0.2500 1.91 15.7	esult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	<u>Flag</u> U	<u>Tested</u> 04/10/2013 03/26/2013 03/26/2013 04/04/2013 03/26/2013 03/26/2013 03/26/2013	<u>d On / Bv</u> CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN	Prep On / By           04/10/2013         CRICH           03/25/2013         AWALS           03/25/2013         AWALS
Par %TS Ag As Be Cd Cr Cu Ni	03/20/2013 09 ameter / Method SM 18th Ed. (2540G) EPA SW 846 (6010B) EPA SW 846 (6010B)	9:45:1 03/21/2 R 12.7724 1.31 0.240 <0.1000 <0.2500 1.91 15.7 0.934	esult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	<u>Flag</u> U	Tested 04/10/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013	<u>d On / Bv</u> CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS
Par %TS Ag As Be Cd Cr Cu Ni Pb	03/20/2013 09 ameter / Method SM 18th Ed. (2540G) EPA SW 846 (6010B) EPA SW 846 (6010B)	9:45:1 03/21/2 R 12.7724 1.31 0.240 <0.1000 <0.2500 1.91 15.7 0.934 3.52	esult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	<u>Flag</u> U U	Tested 04/10/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013	<u>d On / Bv</u> CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN JBURN	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS
Par %TS Ag As Be Cd Cr Cu Ni Pb Sb	03/20/2013 09 ameter / Method SM 18th Ed. (2540G) EPA SW 846 (6010B) EPA SW 846 (6010B)	9:45:1 03/21/2 R 12.7724 1.31 0.240 <0.1000 <0.2500 1.91 15.7 0.934 3.52 <0.5000	esult % mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	<u>Flag</u> U U	Tested 04/10/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013 03/26/2013	d On / Bv CRICH JBURN TPAUL CSMAL JBURN JBURN JBURN JBURN JBURN JBURN CSMAL	Prep On / By 04/10/2013 CRICH 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS 03/25/2013 AWALS

Data Qualifier Flags

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates. V - Reported value is considered estimated due to variance from quality control or assurance criteria.
 U - Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.

P - Unacceptable for field quality assurance criteria. X - Reported value fails limnological or analytical reasonableness.

Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 1 of 2

Printed: 04/12/2013

	Continuation of c	ata for Report Nø13004115			
Par	rameter / Method	Result	Flag	Tested On / By	<u>Prep On / By</u>
Sample Remarks:	Metals				
2000 and 100	n	edge and belief, the data as report ollowing signature has authorized		[5] The state of the state o	

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

Data Qualifier Flags

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates. V - Reported value is considered estimated due to variance from quality control or assurance criteria. U - Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes. P - Unacceptable for field quality assurance criteria. X - Reported value fails limnological or analytical reasonableness.

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All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 2 of 2

Printed: 04/12/2013

	ROUND	Cor		SAMPLE
Onondaga County Department of			20	
WALER	Certificate of	Analyses		and the second second second second second second second second second second second second second second secon
ENVIRONMENT	Environmental	Laboratory		
PROTECTION	7120 Henry Clay I			
9	Liverpool, New York Phone: (315) 435-5011	Fax: (315) 435-5426	Report No	2013004114TP
		· · · · · · · · · · · · · · · · · · ·		201300411411
Sample No: 2013004114	IC/FC: 1854	Project		
Oak Orchard Lagoon	630965-2D			
4300 Oak Orchard Road				
Clay	NY			
13041				
Sample Type: Composite		Requested By:		
Sample Type: Composite		Requested by.		
Sample Collection Period Start Date & Tin		Received Date:	03/21/2013	
03/21/2013 0	9:45: 03/21/2013 10:15:			
Parameter / Method	Result	Flag Tested	On / By	Prep On / By
Density	1.00	03/25/2013	CRICH	
Density	1.00	03/25/2013	CRICH	
Sample Remarks: Density; Results from	2 grabs collected 03/21/13 at	09:45 (630965-2D.1) an	d 10:15 (630965-	2D.2)

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release.

C. Jeffrey Noce

C. Jeffery Noce Laboratory Director

Data Qualifier Flags N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
 V - Reported value is considered estimated due to variance from quality control or assurance criteria.
 U - Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.

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Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

	ROUND	Composition 2	e sample D
Report Date:		☑ Final R	Ceport
08-Apr-13 11:03	front in		ied Report
		Revise	d Report
		κ.	
	SPECTRUM ANALYTICAL, INC. Featuring		
	HANIBAL TECHNOLOGY		
	Laboratory Report		
Onondaga County Dept. WEP Env. Lab 7120 Henry Clay Blvd.	Project: Oak Orch	hard Lagoon	
Liverpool, NY 13088 Attn: Jeff Noce	Project #: 1854		
Laboratory ID Client Sample ID	Matrix	Date Sampled	Date Received
SB66628-01 2013004116	Sludge	21-Mar-13 10:15	26-Mar-13 21:00
I attest that the information contained within the re requirements for each method. These results relate All applicable NELAC requirements have been me	e only to the sample(s) as received.	against the quality control	
Massachusetts # M-MA138/MA1110		Authorized by:	

Connecticut # PH-0777 Florida # E87600/E87936 Maine # MA138 New Hampshire # 2538 New Jersey # MA011/MA012 New York # 11393/11840 Pennsylvania # 68-04426/68-02924 Rhode Island # 98 USDA # S-51435



Acide Leja

Nicole Leja Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 10 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

#### CASE NARRATIVE:

The samples were received 1.2 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/-1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

#### SW846 8082A

#### Samples:

SB66628-01 2013004116

The Reporting Limit has been raised to account for matrix interference.

#### SW846 8260C

#### **Calibration:**

#### 1303015

Analyte quantified by quadratic equation type calibration.

Bromoform Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

1306908-BLK1 1306908-BSD1 2013004116 S302593-ICV1 S303346-CCV1

#### S302593-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,4-Dioxane (124%) 2-Hexanone (MBK) (127%) 4-Methyl-2-pentanone (MIBK) (122%) Bromomethane (78%) Dichlorodifluoromethane (Freon12) (70%) trans-1,4-Dichloro-2-butene (132%)

This affected the following samples:

1306908-BLK1 1306908-BS1 1306908-BSD1 2013004116 S303346-CCV1

#### S302850-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Acrolein (121%)

#### SW846 8260C

#### **Calibration:**

S302850-ICV1

This affected the following samples:

1306912-BLK1 1306912-BS1 1306912-BSD1 2013004116 S303392-CCV1

#### Samples:

#### S303346-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromomethane (-20.2%)

This affected the following samples:

1306908-BLK1 1306908-BS1 1306908-BSD1 2013004116

SB66628-01 2013004116

Insufficient preservative to reduce the sample pH to less than 2.

The Reporting Limit has been raised to account for matrix interference.

#### SW846 8270D

#### **Calibration:**

#### 1301047

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol Carbazole

This affected the following samples:

2013004116 S300866-ICV1 S303621-CCV1

#### S300866-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

3,3'-Dichlorobenzidine (128%)
4,6-Dinitro-2-methylphenol (124%)
4-Nitroaniline (124%)
4-Nitrophenol (70%)
Carbazole (129%)
Indeno (1,2,3-cd) pyrene (122%)

This affected the following samples:

2013004116 \$303621-CCV1

Laboratory Control Samples:

#### SW846 8270D

#### Laboratory Control Samples:

#### 1306872 BS

2,4-Dinitrophenol percent recovery 143 (30-130) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

2013004116

Benzidine percent recovery 0 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004116

Pyridine percent recovery 21 (40-140) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013004116

#### Samples:

#### S303563-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

3,3'-Dichlorobenzidine (24.7%)
4-Chlorophenyl phenyl ether (24.3%)
Diethyl phthalate (20.5%)
Hexachlorobutadiene (20.2%)
Hexachlorocyclopentadiene (26.5%)
Pyridine (-63.8%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

2,4-Dinitrophenol (53.3%) 4,6-Dinitro-2-methylphenol (39.8%) 4-Nitrophenol (56.1%) Pentachlorophenol (-21.3%)

This affected the following samples:

1306872-BLK1 1306872-BS1

#### S303621-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,3-Dichlorobenzene (-24.6%) 2,4,6-Trichlorophenol (-21.0%) 2,6-Dinitrotoluene (-28.1%) 2-Nitroaniline (-23.1%) 4-Nitrophenol (-47.7%) Bis(2-chloroethyl)ether (21.3%) Pentachlorophenol (-24.8%)

This affected the following samples:

2013004116

#### SB66628-01 2013004116

Acid surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two acid surrogates.

2,4,6-Tribromophenol

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### Sample Acceptance Check Form

Client:	Onondaga County Dept. WEP Env. Lab	
Project:	Oak Orchard Lagoon / 1854	
Work Order:	SB66628	
Sample(s) received on:	3/26/2013	
Received by:	Vickie Knowles	

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

		Yes	NO	NA
1	. Were custody seals present?			
2	. Were custody seals intact?			
3	. Were samples received at a temperature of $\leq 6^{\circ}$ C?	$\checkmark$		
4	. Were samples cooled on ice upon transfer to laboratory representative?		$\checkmark$	
5	. Were samples refrigerated upon transfer to laboratory representative?	$\checkmark$		
6	. Were sample containers received intact?	$\checkmark$		
7	. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?			
8	. Were samples accompanied by a Chain of Custody document?	$\checkmark$		
9	. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?		1	
10	. Did sample container labels agree with Chain of Custody document?	$\checkmark$		
11	. Were samples received within method-specific holding times?			

~ · · · ·													
	Sample Identification 2013004116			Client H	roject #		Matrix	Coll	ection Date	Time/	Rec	ceived	
SB66628				18	54		Sludge	21	-Mar-13 10	:15	26-1	Mar-13	
		i deska i des											
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Ce
Volatile C	Organic Compounds		Ξ.										
	<u>anic Compounds</u> I by method SW846 5030 V	Vater MS	PH, R01		1975								
67-64-1	Acetone	< 50.0	D	µg/l	50.0	12.8	5	SW846 8260C	28-Mar-13	28-Mar-13	eq	1306908	2
107-13-1	Acrylonitrile	< 2.50	D	µg/l	2.50	2.30	5			•			d
71-43-2	Benzene	< 5.00	D	µg∕l	5.00	3.34	5	8					З
75-27-4	Bromodichloromethane	< 2.50	D	μg/l	2.50	2.40	5		e.		30.5	а." -	2
75-25-2	Bromoform	< 5.00	D	hð\l	5.00	3.02	5					н	2
4-83-9	Bromomethane	< 10.0	D	µg∕l	10.0	5.70	5	<b>1</b>	10 A	¥	0	ат.	c.
78-93-3	2-Butanone (MEK)	< 50.0	D	μ <b>g</b> /l	50.0	8.67	5		÷		9		1
75-15-0	Carbon disulfide	< 10.0	D	µg/l	10.0	3.14	5		5		47		
56-23-5	Carbon tetrachloride	< 5.00	D	hð\l	5.00	2.74	5					30.1	3
08-90-7	Chiorobenzene	< 5.00	D	µg/l	5.00	3.27	5				n		
5-00-3	Chloroethane	< 10.0	D	µg/I	10.0	5.16	5		эc			н	
7-66-3	Chloroform	< 5.00	D	µд/I	5.00	3.44	5				IT		20
4-87-3	Chloromethane	< 10.0	D	µg/I	10.0	7.36	5	ж			30%	<b>.</b>	
24-48-1	Dibromochloromethane	< 2.50	D	µg/I	2.50	1.44	5	н		x			
5-50-1	1,2-Dichlorobenzene	< 5.00	D	µg/l	5.00	3.34	5	Ξŭ.			щ	н.	
41-73-1	1,3-Dichlorobenzene	< 5.00	D	µg/l	5.00	3.56	5	u		x			
06-46-7	1,4-Dichlorobenzene	< 5.00	D	hð\l	5.00	3.12	5	.0	а. С		в	200	
5-71-8	Dichlorodifluoromethane (Freon12)	< 10.0	D	hð\J	10.0	2.24	5	×		×			
5-34-3	1,1-Dichloroethane	< 5.00	D	µg/l	5.00	3.40	5	30			ж	10	
07-06-2	1,2-Dichloroethane	< 5.00	D	µg/l	5.00	3.90	5				"	1	
′5-35-4	1,1-Dichloroethene	< 5.00	D	µg/l	5.00	2.44	5	20			2002	1	
56-59-2	cis-1,2-Dichloroethene	< 5.00	D	hð\l	5.00	3.58	5	н			н		
56-60-5	trans-1,2-Dichloroethene	< 5.00	D	µg/I	5.00	3.40	5	u .					
8-87-5	1,2-Dichloropropane	< 5.00	D	hð\l	5.00	3.56	5				n		1
0061-01-5	cis-1,3-Dichloropropene	< 2.50	D	µg/l	2.50	1.26	5				3005		
0061-02-6	trans-1,3-Dichloropropene	< 2.50	D	hð\J	2.50	2.50	5	ш	2 - <b>10</b>		u		11
00-41-4	Ethylbenzene	< 5.00	D	µg/l	5.00	3.66	5	n			0		
91-78-6	2-Hexanone (MBK)	< 50.0	D	μ <b>g</b> /l	50.0	2.72	5	н	×			2 <b>8</b> 3	
08-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0	D	µg/l	50.0	4.66	5	9		×	n	.u	
5-09-2	Methylene chloride	< 10.0	D	µg∕1	10.0	3.45	5	ж		i i	н.		8
00-42-5	Styrene	< 5.00	D	µд/І	5.00	3.08	5			E.	'n		
9-34-5	1,1,2,2-Tetrachloroethane	< 2.50	D	µg/l	2.50	1.74	5	н	(#)		n	5 <b>9</b> 0 S	
27-18-4	Tetrachloroethene	< 5.00	D	hð\I	5.00	3.72	5	11			2		
08-88-3	Toluene	< 5.00	D	µg/I	5.00	4.06	5		( <b>B</b> )				
1-55-6	1,1,1-Trichloroethane	< 5.00	D	µg/l	5.00	2.91	5	×.			и		
9-00-5	1,1,2-Trichloroethane	< 5.00	D	hð\l	5.00	3.21	5		ж	ĸ	21		
9-01-6	Trichloroethene	< 5.00	D	μg/l	5.00	3.78	5	m		i.	0		
5-69-4	Trichlorofluoromethane (Freon 11)	< 5.00	D	hð\I	5.00	3.14	5	H and a state of the state of t	2 <b>1</b> 2		u		
5-01-4	Vinyl chloride	< 5.00	D	μg/l	5.00	4.04	5	n	•	Ĭ.	"		
79601-23-1	m,p-Xylene	< 10.0	D	µg∕l	10.0	8.20	5	п		к.	Ш		3
5-47-6	o-Xylene	< 5.00	D	µg/l	5.00	4.41	5	и.		Ξ.		U.	3

Surrogate recoveries:

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Sample Identification 2013004116 SB66628-01		×		<u>roject #</u> 54		<u>Matrix</u> Sludge	1000 C	ection Date -Mar-13 10			veived Mar-13		
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert
	rganic Compounds												
	nic Compounds		PH, R01										
	by method SW846 5030 V	Vater MS											
160-00-4	4-Bromofluorobenzene	101			70-13	0 %		SW846 8260C	28-Mar-13	28-Mar-13	eq	1306908	
2037-26-5	Toluene-d8	100			70-13	0% -	ē	а.	û <i>⋶</i>			<b>u</b> )	
7060-07-0	1,2-Dichloroethane-d4	101			70-13	0 %						1.08	
868-53-7	Dibromofluoromethane	103			70-13	0 %				ju	эн	۳.	
olatile Orga	inic Compounds		PH, R01										
Prepared	by method SW846 5030 V	Vater MS											
07-02-8	Acrolein	< 50.0	D	hð\l	50.0	23.3	5	н	28-Mar-13	(n	. <b>H</b> .	1306912	
10-75-8	2-Chloroethylvinyl ether	< 50.0	D	hð\l	50.0	16.0	5	н	n	.0			
08-05-4	Vinyl acetate	< 50.0	D	hð\l	50.0	30.4	5	. н	u.	5 <b>1</b>		<b>11</b> <sup>12</sup>	
Surrogate reco	overies:												a new land
160-00-4	4-Bromofluorobenzene	99			70-13	0%			п		н		
037-26-5	Toluene-d8	100			70-13				ũ.			۰.	
7060-07-0	1,2-Dichloroethane-d4	100			70-13						ч		
868-53-7	Dibromofluoromethane	102			70-13				н				
Semivolati	le Organic Compounds by (												
	Organic Compounds	acias											
	by method SW846 3510C												
3-32-9	Acenaphthene	< 5000		µg∕l	5000	900	1	SW846 8270D	28-Mar-13	03-Apr-13	jg	1306872	х
08-96-8	Acenaphthylene	< 5000		μg/l	5000	870	ન	"	Eo mai ro		"	1000072	X
20-12-7	Anthracene	< 5000		μg/l	5000	900	4	п	ĸ	5 <b>1</b> 62	п	II.	X
6-55-3	Benzo (a) anthracene	< 5000	2	μg/I	5000	1190	1	н		и	n		^ X
0-32-8	Benzo (a) pyrene	< 5000		μg/l	5000	870	1				п	II.	X
05-99-2	Benzo (b) fluoranthene	< 5000			5000	850	1		n				
91-24-2		< 5000		hđ\			1						X
07-08-9	Benzo (g,h,i) perylene			µg∕l	5000	900		ii.					Х
	Benzo (k) fluoranthene	< 5000		hð\l	5000	1110	1				н	7	Х
11-91-1	Bis(2-chloroethoxy)metha ne	< 5000		hð\l	5000	700	1			1.00		10	х
11-44-4	Bis(2-chloroethyl)ether	< 5000		hð\l	5000	840	1	U)	ii.			n.	х
08-60-1	Bis(2-chloroisopropyl)ethe	< 5000		hð\l	5000	980	à	u.	ï	2 <b>(#</b> ):	н	ii.	х
and a second descent of the second of the se	r r			-2.									~
17-81-7	Bis(2-ethylhexyl)phthalate	< 5000		µg∕l	5000	1020	1	п	u.			u.	х
01-55-3	4-Bromophenyl phenyl	< 5000		µg/l	5000	850	1	<b>H</b> S	Ш		ų	H.	Х
F 60 7	ether	- 5000		2000 <b>N</b>			27			2020		201	2,22
5-68-7	Butyl benzyl phthalate	< 5000		hð\	5000	1030	1						Х
6-74-8	Carbazole	< 5000		hð\l	5000	3210	1		<b>1</b> 0	5 <b>H</b> (2	"	<b>H</b> .	Х
9-50-7	4-Chloro-3-methylphenol	< 5000		hð\l	5000	950	1	5		н.	u		х
06-47-8	4-Chloroaniline	< 5000		µg/l	5000	560	1	<b>N</b>	· .	1.07			Х
1-58-7	2-Chloronaphthalene	< 5000		hð\l	5000	870	1			н	ų	6	Х
5-57-8	2-Chlorophenol	< 5000		hð\l	5000	960	1	н.		н	u.		Х
005-72-3	4-Chlorophenyl phenyl ether	< 5000		hð\l	5000	890	1	n			"	×.	х
18-01-9	Chrysene	< 5000		unit	5000	1140	1				'n		Х
3-70-3	Dibenzo (a,h) anthracene	< 5000		μg/l	5000	930	1	ii		u.	н	÷	
	Dibenzo (a,n) antiracene Dibenzofuran	< 5000 < 5000		µg/l			1		n.	60806 31 <b>8</b> 10			X
32.64.0		~ 5000		hð/	5000	880	a -			1101	20	-	Х
132-64-9 95-50-1	1,2-Dichlorobenzene	< 5000		Įųg/l	5000	980	Ť	ii)	11	200	n.	2	Х

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<u>Sample I</u> 2013004 SB66628					<u>Project #</u> 54	2 28	<u>Matrix</u> Sludge		ection Date -Mar-13 10		10 m	<u>ceived</u> Mar-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivola	tile Organic Compounds by (	GCMS	в										
a strange of the second s	e Organic Compounds												
	by method SW846 3510C												
106-46-7	1,4-Dichlorobenzene	< 5000		hð\J	5000	1000	1	SW846 8270D	28-Mar-13	03-Apr-13	jg	1306872	Х
91-94-1	3,3'-Dichlorobenzidine	< 5000		µg/l	5000	680	1					×.	х
120-83-2	2,4-Dichlorophenol	< 5000		µg/I	5000	820	1	0 <b>1</b>		2 <b>8</b> 0	"		Х
84-66-2	Diethyl phthalate	< 5000		µg/I	5000	860	1				v	5	Х
131-11-3	Dimethyl phthalate	< 5000		µg/l	5000	910	1				3 <b>11</b> 1125		Х
105-67-9	2,4-Dimethylphenol	< 5000		hð\l	5000	810	1				17	K 2	Х
84-74-2	Di-n-butyl phthalate	< 5000		µg/l	5000	940	1		•		n	×	Х
534-52-1	4,6-Dinitro-2-methylphenol	< 5000		µg/l	5000	670	1				"		Х
51-28-5	2,4-Dinitrophenol	< 5000		µg/l	5000	2870	1						Х
121-14-2	2,4-Dinitrotoluene	< 5000		hð\l	5000	940	1				w	×.	Х
606-20-2	2,6-Dinitrotoluene	< 5000		µg/l	5000	940	1			•	н	1	х
117-84-0	Di-n-octyl phthalate	< 5000		µg/l	5000	780	1			2.			Х
206-44-0	Fluoranthene	< 5000		µg/l	5000	960	1			1		*	Х
86-73-7	Fluorene	< 5000		µg/I	5000	900	1	н			ж		Х
118-74-1	Hexachlorobenzene	< 5000		µg/l	5000	930	۹Ĵ		Ĭ.		n		х
87-68-3	Hexachlorobutadiene	< 5000		hð\l	5000	830	1				3000		Х
77-47-4	Hexachlorocyclopentadien e	< 5000		hð\l	5000	4720	1		Ĩ.	,	"		Х
67-72-1	Hexachloroethane	< 5000		μg/l	5000	1010	1				n	<u>.</u>	х
193-39-5	Indeno (1,2,3-cd) pyrene	< 5000		µg/l	5000	920	1	a.	8			i.	Х
78-59-1	Isophorone	< 5000		μ <b>g</b> /l	5000	830	1	u .			п	к.	х
91-57-6	2-Methylnaphthalene	< 5000		μ <b>g</b> /l	5000	910	1				.0		х
95-48-7	2-Methylphenol	< 5000		μg/l	5000	960	1		a 1.			1	х
108-39-4, 106-44-5	3 & 4-Methylphenol	< 10000		µg/l	10000	940	1		Ĭ.	ł		E.	Х
91-20-3	Naphthalene	< 5000		µg/l	5000	890	1				ar -	I.	х
88-74-4	2-Nitroaniline	< 5000		μg/l	5000	820	1				n		х
99-09-2	3-Nitroaniline	< 5000		µg/l	5000	640	1	1	8	3	н	ξ.	х
100-01-6	4-Nitroaniline	< 20000		hð\l	20000	720	1		к.		'n.,		х
98-95-3	Nitrobenzene	< 5000		µg/l	5000	950	1		÷.	3	н		х
88-75-5	2-Nitrophenol	< 5000		µg/l	5000	1030	1	a l			. <b>n</b> .:	R.	х
100-02-7	4-Nitrophenol	< 20000		μg/l	20000	2790	1		ŝ				х
621-64-7	N-Nitrosodi-n-propylamine	< 5000		µg/l	5000	920	1	×.			я		х
86-30-6	N-Nitrosodiphenylamine	< 5000		μg/l	5000	960	1		ē	i i		i.	х
87-86-5	Pentachlorophenol	< 20000		μg/I	20000	810	1				n.	0	х
85-01-8	Phenanthrene	< 5000		µg/l	5000	870	1		÷.				х
108-95-2	Phenol	< 5000		hð\l	5000	950	1				an.		х
129-00-0	Pyrene	< 5000		µg/l	5000	1280	1	н				( <b></b> )	x
120-82-1	1,2,4-Trichlorobenzene	< 5000		μg/l	5000	920	ł	ŝ <b>u</b>	Ē.				x
95-95-4	2,4,5-Trichlorophenol	< 5000		μg/l	5000	830	1	n	0		.0.1		x
88-06-2	2,4,6-Trichlorophenol	< 5000		μg/l	5000	780	. 1	a a		- 1	н –		x
82-68-8	Pentachloronitrobenzene	< 5000		μg/l	5000	910	1				<sup>12</sup> .00	8 <b>8</b> 3	x
2				La.									
Surrogate rec		100			00 100	1.0/		v	1 <b>.</b>		an :		
321-60-8 367-12-4	2-Fluorobiphenyl	100 87			30-130								
007-12-4	2-Fluorophenol	0/			15-110	70		Unit III		~	- 19 <sup>4</sup> ()	(1881)	

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<u>Sample Identification</u> 2013004116 SB66628-01		<u>Client Project</u> 1854			<u>Matrix</u> Sludge		Collection Date/Time 21-Mar-13 10:15			<u>Rec</u> 26-1			
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<u>Semivolatile</u>	ile Organic Compounds by ( Organic Compounds by method SW846 3510C	GCMS											
4165-60-0	Nitrobenzene-d5	105			30-13	10 %		SW846 8270D	28-Mar-13	03-Apr-13	jg	1306872	
4165-62-2	Phenol-d5	102			15-11	0%				u	n	н	
1718-51-0	Terphenyl-dl4	110			30-13	10 %			3 <b>0</b> 3	н	.0	н	
118-79-6	2,4,6-Tribromophenol	113	SAC		15-11	0%		3			"		
Semivolat	ile Organic Compounds by (	GC											
	<u>ated Biphenyls</u> by method SW846 3510C		R01										1
12674-11-2	Aroclor-1016	< 20.0		µg/I	20.0	0.860	1	SW846 8082A	28-Mar-13	01-Apr-13	IMR	1306874	х
11104-28-2	Aroclor-1221	< 20.0		µg∕l	20.0	1.43	1	x	5 <b>a</b> 3		н	u	х
11141-16-5	Aroclor-1232	< 20.0		hð\l	20.0	1.34	1	,			n	500	Х
53469-21-9	Aroclor-1242	< 20.0		µg∕l	20.0	0.730	1	a a a a a a a a a a a a a a a a a a a	<b>1</b>		п	1	х
12672-29-6	Aroclor-1248	< 20.0		µg/l	20.0	1.13	1	u		н.	н		х
11097-69-1	Aroclor-1254	< 20.0		µg/l	20.0	0.990	1		u.	н			х
11096-82-5	Aroclor-1260	< 20.0		hð\l	20.0	0.580	1		<li>(0.)</li>	н.	"	S <b>1</b> 0	х
Surrogate red	coveries:												
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	80			30-15	50 %		0	000	н	u	ан:	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	135			30-15	50 %				ini H	u		
2051-24-3	Decachlorobiphenyl (Sr)	100			30-15	50 %		i I	и		и		
2051-24-3	Decachlorobiphenyl (Sr) [2C]	105			30-15	50 %				ĸ			

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#### **Notes and Definitions**

D	Data reported from a dilution
PH	Insufficient preservative to reduce the sample pH to less than 2.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
R01	The Reporting Limit has been raised to account for matrix interference.
SAC	Acid surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two acid surrogates.
dry	Sample results reported on a dry weight basis
NR	Not Reported

RPD Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

<u>Method Detection Limit (MDL)</u>: The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

<u>Reportable Detection Limit (RDL)</u>: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification</u>: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by: June O'Connor Kimberly Wisk

1=Na2S2O3 8=NaHSO4 Spectrum Analytical, Inc. ×1 = SL - Sludge SW = Surface Water WW = Wastewater DW = Drinking Water Telephone #: 315-435-5011 7120 Henry Clay Blvd Onondaga County Dept. WEP Env. Lab Report To: Liverpool, NY 13088 Condition upon receipt: 8299 Lab Id Relinquished by: 9=Deionized Water 10=H3PO4 11= X2 11 2=HCI 3=H2SO4 Sample Id: 53203 2013004116 GW=Groundwater O = Oil SO = Soil 11 Almgren Drive - Agawam, MA 01001. 413-789-9018. Fax 413-789-4076. www.spretrum-analytical.com Amblent Chain of Custody Record Received by: X3 = 03/21/2013 5=NaOH Iced 1015 Lime: Invoice To: Syracuse, NY 13204 650 W. Hiawatha Blvd. Onondaga County Dept. WEP Env. Lab Contract # 34512 6=Ascorbic Acid Refrigerated 5 Dates ポス Matrix B 1 9 # of VOA Vials X Containers P # of Amber Glass 7=CH3OH DI VOA Frozen # of Clear Glass 210 11 6 ame: # of Plastic EPA 8082 PP PCBs EPA 8260B PP(TCL) Volatile Ust preserved code below. Temp Deg C: EPA 8270 PP(TCL) Semi-Vo Soil Jar Brozen Type: Code: Site Name: Identification Analyses: > Min. 24-hr notification needed for rushes > All TAT's subject to lab approval Standard TAT - 7-10 Business days > Samples disposed of after 60 days unless Rush TAT - Date Needed:  $\Box$ E-mail to Composite Oak Orchard Lagoon 630965-2D **EDD** Format UF 1854 C Special Handling 528 Sewer #: State-specific reporting \*additional charges may apply QA/QC Reporting Notes: (F)

#### **Method Report**

Method Number 702

#### EPA 8082 PP PCBs

Spectrum Solid

Description

Lab Matrix

Name

Lab

Priority Pollutant Scan, Units:mg/kg dry

Spectrum

#### **COMPOUNDS**

- 1 Aroclor-1016 2 Aroclor-1221 3 Aroclor-1232 4 Aroclor-1242 5 Aroclor-1248 Aroclor-1254 6
- 7 Aroclor-1260

Method Version 1

UNITS

mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry

Page 1 of I

	~ ~ ~					
	2 a	Method Report				01/22/2013
Mothed N	umber 703					
Niethod N	umber 705			Method Version	3	
	Name	EPA 8260B PP(TCL) Vola	tiles			
	Lab Matrix	Spectrum Solid				
	Description	Priority Pollutant Scan, Unit	is: mg/kg ary			
	Lab	Spectrum				
	COMPOUNDS		UNITS			
1	Acetone		mg/kg dry			
2 3	Benzene Bromodichloromethane		mg/kg dry			
3 4	Bromoform		mg/kg dry			
5	Bromomethane		mg/kg dry mg/kg dry			*)
6	2-Butanone (MEK)	3	mg/kg dry			
7	Carbon disulfide		mg/kg dry			
8	Carbon Tetrachloride		mg/kg dry			
9	Chlorobenzene		mg/kg dry			
10	Chloroethane		mg/kg dry			
11	Chloroform		mg/kg dry			
12	Chloromethane	-	mg/kg dry			
13	Dibromochloromethane		mg/kg dry			
14	1,1-Dichloroethane		mg/kg dry			
15	1,2-Dichloroethane	3	mg/kg dry			
16	1,1-Dichloroethene		mg/kg dry			
17	1,2-Dichloroethene, Total		mg/kg dry			
18	1,2-Dichloropropane		mg/kg dry			. 40
19	cis-1,3-Dichloropropene		mg/kg dry			
20	trans-1,3-Dichloropropene	K.	mg/kg dry			
21	Ethylbenzene		mg/kg dry			
22	2-Hexanone	,	mg/kg dry			
23	Methylene Chloride	-26	mg/kg dry			N 1 1
24	4-Methyl-2-Pentanone (M	IBK)	mg/kg dry			
25	Styrene		mg/kg dry			
26	1,1,2,2-Tetrachloroethane		mg/kg dry			
27	Tetrachloroethene	×	mg/kg dry			10 10
28 29	Toluene		mg/kg dry			
29 30	1,1,1-Trichloroethane 1,1,2-Trichloroethane		mg/kg dry			
30	Trichloroethene		mg/kg dry			
32	Vinyl Chloride		mg/kg dry mg/kg dry			s
33	Total Xylenes		mg/kg dry			
34	Acrolein		mg/kg dry			
35	Acrylonitrile		mg/kg dry			
36	2-Chloroethylvinylether		mg/kg dry	3		
37	Dichlorodifluoromethane	50 1008	mg/kg dry			(e.,
38	Trichlorofluoromethane	9 <sup>18</sup> 19	mg/kg dry	ы. <sup>10</sup>		и х <sub>а</sub> ви с
39	1,2-Dichlorobenzene		mg/kg dry			
40	1,3-Dichlorobenzene	9 <sup>10</sup> 2	mg/kg dry			5 <b>*</b>
41	1,4-Dichlorobenzene		mg/kg dry			
42	Vinyl Acetate	2 ····	mg/kg dry			
			and the second second second second second second second second second second second second second second second			

Page 1 of 1

#### Method Report

#### Name EPA 8270 PP(TCL) Semi-Vol

Lab Matrix

Lab

Spectrum Solid Priority Pollutants, Units: mg/kg dry

Description

Spectrum

#### COMPOUNDS

	70					
I	COMPOUNDS Acenaphthene				<u>UNITS</u> mg/kg dry	
2	Acenaphthylene				mg/kg dry	
3	Anthracene			8	mg/kg dry	
4	Benzo (a) anthracene				mg/kg dry	
5	Benzo (b) fluoranthene				mg/kg dry	
6	Benzo (k) fluoranthene	3.65			mg/kg dry	
7	Benzo (g,h,i) perylene				mg/kg dry	
8	Benzo (a) pyrene				mg/kg dry	
9	4-Bromophenyl phenyl ether				mg/kg dry	
10	Butyl Benzyl Phthalate				mg/kg dry	
11	Carbazole				mg/kg dry	
12	4-Chloroaniline				mg/kg dry	
13	bis(2-Chloroethoxy) methane		8		mg/kg dry	
14	bis (2-Chloroethyl) ether				mg/kg dry	2
15	bis (2-Chloroisopropyl) ether			4	mg/kg dry	
16	4-Chloro-3-methylphenol				mg/kg dry	
17	2-Chloronaphthalene				mg/kg dry	
18	2-Chlorophenol				mg/kg dry	
19	4-Chlorophenyl phenyl ether				mg/kg dry	
20	Chrysene				mg/kg dry	
21	Dibenz (a,h) anthracene				mg/kg dry	
22	Dibenzofuran				mg/kg dry	
23	Di-n-butyl phthalate				mg/kg dry	
24	1,2-Dichlorobenzene				mg/kg dry	
25	1.3-Dichlorobenzene				mg/kg dry	
26	1,4-Dichlorobenzene				mg/kg dry	
27	3,3-Dichlorobenzidine				mg/kg dry	
28	2,4-Dichlorophenol			*	mg/kg dry	
29	Diethyl phthalate				mg/kg dry	
30	2,4-Dimethylphenol				mg/kg dry	
31	Dimethyl phthalate				mg/kg dry	
32	2,4-Dinitrophenol				mg/kg dry	
33	2.4-Dinitrotoluene				mg/kg dry	
34	2,6-Dinitrotoluene				mg/kg dry	
35	Di-n-octyl phthalate		14		mg/kg dry	
36	bis (2-Ethylhexyl) phthalate				mg/kg dry	
37	Fluoranthene				mg/kg dry	
38	Fluorene			8	mg/kg dry	
39	Hexachlorobenzene				mg/kg dry	
40	Hexachlorobutadiene				mg/kg dry	
41	Hexachlorocyclopentadiene				mg/kg dry	
42	Hexachloroethane				mg/kg dry	
43	Indeno (1,2,3-c,d) pyrene				mg/kg dry	
44	Isophorone				mg/kg dry	
	10-10-10-10-10-10-10-10-10-10-10-10-10-1				1000 10000 (1000)	

01/22/2013

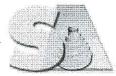
#### Method Version 1

Page 1 of 2

	· · · · · ·				
	Method	Renort		01/22/2013	
15		Inport	in a state of the		i i
45	2-Methyl-4,6-dinitrophenol		mg/kg dry		
46	2-Methylnaphthalene		mg/kg dry		
47	2-Methylphenol (o-Cresol)		mg/kg dry		
48	4-Methylphenol (p-Cresol)		mg/kg dry		
49	Naphthalene		mg/kg dry		
50	2-Nitroaniline		mg/kg dry		
51	3-Nitroaniline		mg/kg dry		
52	4-Nitroaniline		mg/kg dry		
53	Nitrobenzene		mg/kg dry		
54	2-Nitrophenol (o-Nitrophenol)		mg/kg dry		
55	4-Nitrophenol		mg/kg dry		
56	N-Nitrosodiphenylamine		mg/kg dry		
57	N-Nitroso-di-n-propylamine		mg/kg dry		
58	Pentachlorophenol		mg/kg dry		
59	Phenanthrene		mg/kg dry		
60	Phenol-C6H5OH		mg/kg dry		
61	Pyrene		mg/kg dry		
62	1,2,4-Trichlorobenzene		mg/kg dry		
63	2,4,5-Trichlorophenol		mg/kg dry		
64	2,4,6-Trichlorophenol		mg/kg dry		

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Page 2 of 2



SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY 11 Almgren Drive Agawam, MA 01001 (413) 789-9018

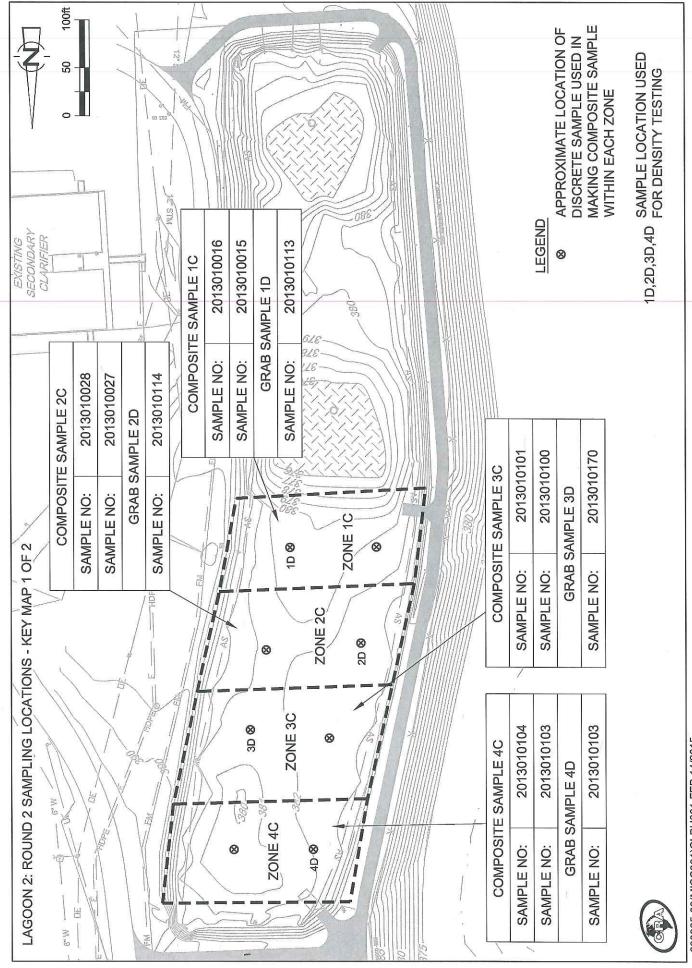
This preceding chain of custody has been amended to include the client requested additional analyses as noted below:									
Laboratory ID	Cliant ID	Analysis	Added						

Laboratory ID	Client ID	Analysis	Added	
SB66628-01	2013004116	Volatile Organic Compounds	4/3/2013	

# APPENDICES TO SPECIAL PROJECT CONDITIONS

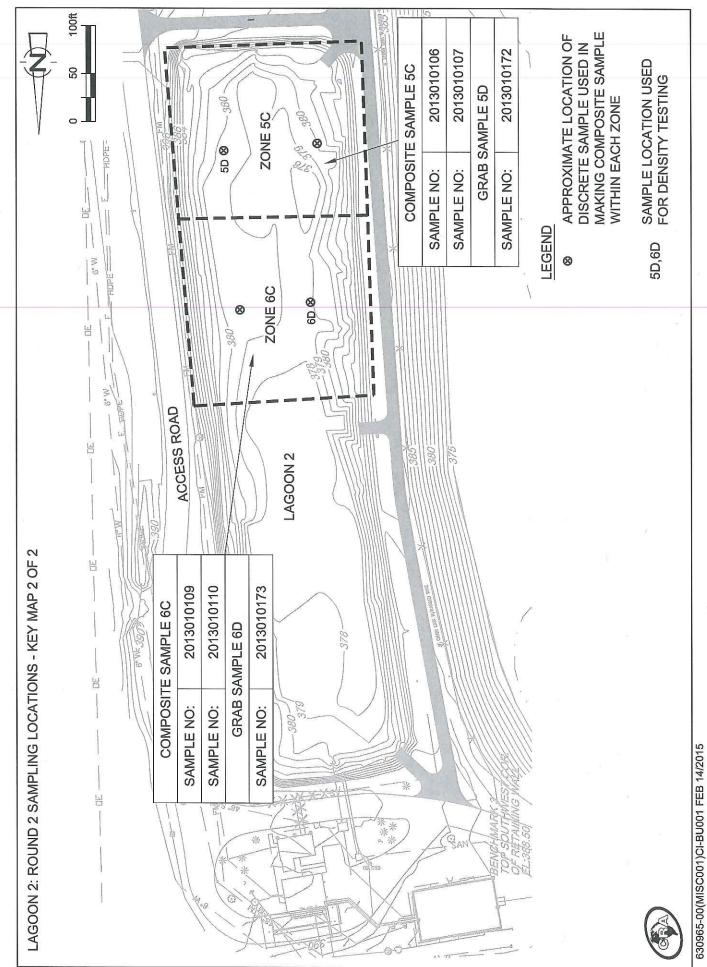
# **APPENDIX B-2**

Round 2 Sediment Sampling Analytical Testing Data (Provided for Information Only)



630965-00(MISC001)CI-BU001 FEB 14/2015







Onondaga County Department of WAATER ENVIRONMENT PROTECTION	Certificate of Analyses Certificate of Analyses Environmental Laboratory 7120 Henry Clay Blvd. Liverpool, New York 13088 Phone: (315) 435-5011 Fax: (315) 435-5426	COMPOSITE SAMPLE IC SAMPLE NO: 2013010015 Report No. 2013010015SPE
Sample No: 2013010015 Oak Orchard South I 4300 Oak Orchard Road Clay		oject:
13041		
Sample Type: Composite	Requested	By:
Sample Collection Period Start Date July 9, 2013		Received Date & Time July 10, 2013 12:22 pm
C. Jeffery Noce Laboratory Director	-ce	500 EB

New York ELAP ID# 10191

BORATON

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the signature above has authorized the data contained in this report for release.

Onondaga County Department of WEP Environmental Laboratory holds certification in the State of New York for the analytes as indicated with an A in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes.

Onondaga County Department of WEP Environmental Laboratory is a New York State ELAP accredited laboratory and meets the NELAC testing standards. Use of the NELAC logo however does not insure that this environmental laboratory is currently accredited for the specified method or analyte indicated. This report may not be reproduced, except in full, without the approval from Onondaga County Dept of WEP.

Data Qualifier Flags

- V Reported value is considered estimated due to variance from quality control or assurance criteria.
- U Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.
- P Unacceptable for field quality assurance criteria.

X - Reported value fails limnological or analytical reasonableness

Result Codes: NC- Not Collected TNP - Test Not Performed NR - Not Required LA - Lab Accident EP - Error in Preservation

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.

Continuation of data for Report No. 2013010015 SPE

Sample No: 2013010015 IO

IC/FC: 1849

# Oak Orchard South Lagoon 630965-1C

		<u>Start Date &amp; Time</u> July 9, 2013 10:25 am		<u>End I</u> July 9, 2	Date & Ti 013 10:			2		
Parameter	Cert.	Method	F	Result		Tested On	Analyst	Prep On Prep By		
%TS	A	SM 18th Ed. (2540G)	19.7157	%		07/11/2013	KSTOC	07/11/2013 KSTOC		
Ag	А	EPA SW 846 (6010B)	4.18	mg/kg wet		07/17/2013	JBURN	07/15/2013 CRICH		
As	A	EPA SW846 (7060A)	0.770	mg/kg wet		07/16/2013	TPAUL	07/15/2013 CRICH		
Ba	А	EPA 1994 (200.7)	82.9	mg/kg wet		07/25/2013	CSMAL	07/15/2013 CRICH		
Cd	A	EPA SW 846 (6010B)	0.387			07/17/2013	JBURN	07/15/2013 CRICH		
Cr	A	EPA SW 846 (6010B)	6.48	mg/kg wet		07/17/2013	JBURN	07/15/2013 CRICH		
Cu	Α	EPA SW 846 (6010B)		mg/kg wet		07/17/2013	JBURN	07/15/2013 CRICH		
Hg	A	EPA SW 846 (7471A)		mg/kg wet		07/17/2013	TPAUL	07/15/2013 JBURN		
Ni	A	EPA SW 846 (6010B)	3.59			07/17/2013	JBURN	07/15/2013 CRICH		
Pb	A	EPA SW 846 (6010B)	9.11	-		07/17/2013	JBURN	07/15/2013 CRICH		
Se	A	EPA SW846 (7740)	0.252	mg/kg wet		07/16/2013	TPAUL	07/15/2013 CRICH		
Zn	A	EPA SW 846 (6010B)		mg/kg wet		07/17/2013	JBURN	07/15/2013 CRICH		

Sample Remarks:

Metals

Onondaga County Department of	ROUND 2	GRAG SAMPLE
WATER ENVIRONMENT PROTECTION	Certificate of Analyses Environmental Laboratory 7120 Henry Clay Blvd.	SAMPLE NO: 2013010113
PROTECTION	Liverpool, New York 13088 Phone: (315) 435-5011 Fax: (315) 435-5426	Report No. 2013010113SPE
Sample No: 2013010113 Oak Orchard South I		oject:
4300 Oak Orchard Road Clay 13041	NY	
Sample Type: Grab	Requested I	Зу:
Sample Collection Period Start Date July 9, 2013		Received Date & Time July 10, 2013 12:23 pm
Ce Jeffrey No	CQ SULP	0

C. Jeffery Noce Laboratory Director



I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the signature above has authorized the data contained in this report for release.

Onondaga County Department of WEP Environmental Laboratory holds certification in the State of New York for the analytes as indicated with an A in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes.

Onondaga County Department of WEP Environmental Laboratory is a New York State ELAP accredited laboratory and meets the NELAC testing standards. Use of the NELAC logo however does not insure that this environmental laboratory is currently accredited for the specified method or analyte indicated. This report may not be reproduced, except in full, without the approval from Onondaga County Dept of WEP.

Data Qualifier Flags

- N Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
- V Reported value is considered estimated due to variance from quality control or assurance criteria.
- U Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.
- P Unacceptable for field quality assurance criteria. X - Reported value fails limnological or analytical reasonableness.

Result Codes: NC- Not Collected TNP - Test Not Performed NR - Not Required LA - Lab Accident EP - Error in Preservation Continuation of data for Report No. 2013010113 SPE

Sample No: 2013010113 IC/FC: 1850

# Oak Orchard South Lagoon 630965-1D

<u>Start Date & Time</u> July 9, 2013 10:45 am <u>End Date & Time</u> July 9, 2013 11:00 am

Parameter	Cert.	Method	I R	esult	Flag	Tested On	Analyst	Prep On	Prep By
Density			1.039	g/mL		07/10/2013	JCAPI	21.	
Sample Remar	ks:	Density							
			3-		z				
									a 5

	ROUND Z	Composi	TE SAMPLE
Report Date:		🗹 Final R	eport
24-Jul-13 14:27		🗖 Re-Issu	ed Report
		Revised	l Report
	SPECTRUM ANALYTICAL, INC.		
	Featuring HANIBAL TECHNOLOGY		
	Laboratory Report		
Onondaga County Dept. WEP Env. Lab			
7120 Henry Clay Blvd.	Project: Oak Orch	ard South Lagoon	
Liverpool, NY 13088	Project #: 1849		
Attn: Jeff Noce			
Laboratory ID Client Sample ID	Matrix	Date Sampled	Date Received
SB73030-01 2013010016	Sludge	09-Jul-13 10:45	11-Jul-13 21:00
I attest that the information contained within the requirements for each method. These results rela All applicable NELAC requirements have been r		against the quality control	
Massachusetts # M-MA138/MA1110		Authorized by:	
Connecticut # PH-0777		Δ	<b>X</b>
Florida # E87600/E87936	P ACCRED	X. linda	Loia
Maine # MA138	S'A	June	

Laboratory Director

Nicole Leja

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

New Hampshire # 2538 New Jersey # MA011/MA012 New York # 11393/11840

Rhode Island # 98 USDA # S-51435

Pennsylvania # 68-04426/68-02924

Please note that this report contains 10 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.



### **CASE NARRATIVE:**

The samples were received 1.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Additional dilution factors may be required to keep analyte concentration within instrument calibration.

Method SW846 5035A is designed to use on samples containing low levels of VOCs, ranging from 0.5 to 200 ug/Kg. Target analytes that are less responsive to purge and trap may be present at concentrations over 200ug/Kg but may not be reportable in the methanol preserved vial (SW846 5030). This is the result of the inherent dilution factor required for the methanol preservation.

All volatile soil/product/solid samples should be collected in accordance method SW846 5035/5035A. Any sample with a result below 200ug/Kg that has not been collected in accordance with method 5035/5035A must be evaluated as potentially biased low.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

## SW846 8260C

## **Calibration:**

#### 1307033

Analyte quantified by quadratic equation type calibration.

2-Hexanone (MBK) 4-Methyl-2-pentanone (MIBK) Acetone Bromoform cis-1,3-Dichloropropene Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

S307951-ICV1

## S307951-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,2,3-Trichloropropane (79%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 S308221-CCV1

### S308258-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

2-Chloroethylvinyl ether (72%)

### SW846 8260C

#### Calibration:

S308258-ICV1

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010016 S308330-CCV1

### Samples:

#### S308221-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromodichloromethane (20.3%) Ethylbenzene (20.6%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 2013010016

### S308330-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2-Chloroethylvinyl ether (-27.3%)

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010016

SB73030-01 2013010016

The Reporting Limits for this analysis are elevated due to sample foaming.

## SW846 8270D

### **Calibration:**

### 1306076

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol

This affected the following samples:

S307211-ICV1

### S307211-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

4-Nitroaniline (126%) Benzidine (76%) Pentachloronitrobenzene (79%)

## SW846 8270D

### **Calibration:**

### S307211-ICV1

This affected the following samples:

1317032-BLK1 1317032-BS1 2013010016 \$308501-CCV1 \$308590-CCV1

## Laboratory Control Samples:

## 1317032 BS

Benzoic acid percent recovery 26 (30-130) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013010016

### Samples:

#### S308501-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

4-Chloroaniline (-31.0%) 4-Nitrophenol (-22.2%) Aniline (-26.2%) Benzoic acid (-33.6%) Benzyl alcohol (-30.1%) Carbazole (-30.8%) N-Nitrosodimethylamine (-30.3%) Pyridine (-29.1%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Benzidine (-68.5%)

This affected the following samples:

1317032-BLK1 1317032-BS1

### S308590-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Carbazole (-34.4%) Pyridine (-34.8%)

This affected the following samples:

2013010016

## Sample Acceptance Check Form

Client:	Onondaga County Dept. WEP Env. Lab
Project:	Oak Orchard South Lagoon / 1849
Work Order:	SB73030
Sample(s) received on:	7/11/2013
Received by:	Vickie Knowles

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

- 1. Were custody seals present?
- 2. Were custody seals intact?
- 3. Were samples received at a temperature of  $\leq 6^{\circ}$ C?
- 4. Were samples cooled on ice upon transfer to laboratory representative?
- 5. Were samples refrigerated upon transfer to laboratory representative?
- 6. Were sample containers received intact?
- 7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?
- 8. Were samples accompanied by a Chain of Custody document?
- 9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?
- 10. Did sample container labels agree with Chain of Custody document?
- 11. Were samples received within method-specific holding times?

<u>Yes</u>	
2	

2013010016 SB73030-01				N2	<u>Project #</u> 49		<u>Matrix</u> Sludge		ction Date		<u>Re</u> 11-		
		Dagula	Flag	Tinida	*201	MDI	Dilution	Mathead Daf	D	4	4	Dedet	C
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Preparea	Analyzed	Analyst	Batch	Cer
Volatile Or	ganic Compounds												
	VOC Extraction	Lab extracted		N/A			1	VOC Soil Extraction	12-Jul-13	12-Jul-13	DJB	1316473	
/olatile Or	ganic Compounds by SW		R04					Exclusion					
	by method SW846 5035A					Init	ial weight: 1	4.96 g					
7-64-1	Acetone	< 0.501	D	mg/kg	0.501	0.377	50	SW846 8260C	15-Jul-13	17-Jul-13	naa	1316572	х
07-13-1	Acrylonitrile	< 0.0501	D	mg/kg	0.0501	0.0449	50	u			9		Х
1-43-2	Benzene	< 0.0501	D	mg/kg	0.0501	0.0263	50	u	н			"	Х
5-27-4	Bromodichloromethane	< 0.0501	D	mg/kg	0.0501	0.0190	50	n.				31	х
5-25-2	Bromoform	< 0.0501	D	mg/kg	0.0501	0.0346	50	u		"	u.	u	х
4-83-9	Bromomethane	< 0.100	D	mg/kg	0.100	0.0903	50	8 <b>0</b> 0			м.:	н	x
8-93-3	2-Butanone (MEK)	< 0.501	D	mg/kg	0.501	0.430	50		n	н			X
5-15-0	Carbon disulfide	< 0.100	D	mg/kg	0.100	0.0716	50	u					Х
6-23-5	Carbon tetrachloride	< 0.0501	D	mg/kg	0.0501	0.0498	50	н	u		n		X
08-90-7	Chlorobenzene	< 0.0501	D	mg/kg	0.0501	0.0280	50	3 <b>H</b> 3	ж	n	н	303	Х
5-00-3	Chloroethane	< 0.100	D	mg/kg	0.100	0.0710	50			n in in			X
7-66-3	Chloroform	< 0.0501	D	mg/kg	0.0501	0.0245	50	н	SH S	u		н	X
4-87-3	Chloromethane	< 0.100	D	mg/kg	0.100	0.0252	50						>
24-48-1	Dibromochloromethane	< 0.0501	D	mg/kg	0.0501	0.0241	50	u	ас.	û	n		>
5-50-1	1,2-Dichlorobenzene	< 0.0501	D	mg/kg	0.0501	0.0404	50			n		. 11	>
41-73-1	1,3-Dichlorobenzene	< 0.0501	D	mg/kg	0.0501	0.0499	50	5 <b>0</b> .	an:			n	>
06-46-7	1,4-Dichlorobenzene	< 0.0501	D	mg/kg	0.0501	0.0338	50	u		ũ.	u	u	)
5-71-8	Dichlorodifluoromethane (Freon12)	< 0.100	D	mg/kg	0.100	0.0846	50	n	u		u	n	>
5-34-3	1,1-Dichloroethane	< 0.0501	D	mg/kg	0.0501	0.0490	50		n.		u	u	>
07-06-2	1,2-Dichloroethane	< 0.0501	D	mg/kg	0.0501	0.0280	50	( <b>n</b> )	я	н	n		)
5-35-4	1,1-Dichloroethene	< 0.0501	D	mg/kg	0.0501	0.0250	50			'n	u	n	>
56-59-2	cis-1,2-Dichloroethene	< 0.0501	D	mg/kg	0.0501	0.0211	50	iin (	2017		и		)
56-60-5	trans-1,2-Dichloroethene	< 0.0501	D	mg/kg	0.0501	0.0416	50	л			n	i i	>
8-87-5	1,2-Dichloropropane	< 0.0501	D	mg/kg	0.0501	0.0255	50		5 <b>11</b>			н	>
0061-01-5	cis-1,3-Dichloropropene	< 0.0501	D	mg/kg	0.0501	0.0273	50		u		н		>
0061-02-6	trans-1,3-Dichloropropene	< 0.0501	D	mg/kg	0.0501	0.0142	50	н		2			>
00-41-4	Ethylbenzene	< 0.0501	D	mg/kg	0.0501	0.0305	50		<b>n</b> .	.0			>
91-78-6	2-Hexanone (MBK)	< 0.501	D	mg/kg	0.501	0.128	50	n	U.		n	н	>
08-10-1	4-Methyl-2-pentanone (MIBK)	< 0.501	D	mg/kg	0.501	0.163	50	n	an.	н	ж	и	)
5-09-2	Methylene chloride	< 0.100	D	mg/kg	0.100	0.0255	50	. <b>u</b>	<b>n</b>	_ <sup>20</sup>			)
00-42-5	Styrene	< 0.0501	D	mg/kg	0.0501	0.0371	50		n	ŭ		a.	)
9-34-5	1,1,2,2-Tetrachloroethane	< 0.0501	D	mg/kg	0.0501	0.0381	50	w	e <b>n</b> e		n –	n	)
27-18-4	Tetrachloroethene	< 0.0501	D	mg/kg	0.0501	0.0287	50	u	n				>
08-88-3	Toluene	< 0.0501	D	mg/kg	0.0501	0.0449	50					н	>
1-55-6	1,1,1-Trichloroethane	< 0.0501	D	mg/kg	0.0501	0.0402	50	н.,	i.	ш	м	з <b>н</b>	>
9-00-5	1,1,2-Trichloroethane	< 0.0501	D	mg/kg	0.0501	0.0431	50					н	)
9-01-6	Trichloroethene	< 0.0501	D	mg/kg	0.0501	0.0384	50	2 <b>11</b> (	з <b>н</b>	н		<u>n</u> :	>
5-69-4	Trichlorofluoromethane (Freon 11)	< 0.0501	D	mg/kg	0.0501	0.0209	50	u	n		н	н	>
5-01-4	Vinyl chloride	< 0.0501	D	mg/kg	0.0501	0.0470	50			'n			)
79601-23-1		< 0.100	D	mg/kg	0.100	0.0972	50	3 <b>0</b> 0	n	n	n	n	>
95-47-6	o-Xylene	< 0.0501	D	mg/kg	0.0501	0.0342	50		122	10			×

<b>20130100</b> SB73030-				<u>Client Project #</u> 1849				ection Date 9-Jul-13 10		<u>Received</u> 11-Jul-13			
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cer
Volatile O	rganic Compounds												
	rganic Compounds by SW by method SW846 5035A		R04			Init	ial weight:	14.96 a					
		Soli (nightie	ven		19.40	<u></u>	iai weigi it.	14.50 <u>q</u>					11
	recoveries:				70.44			014/040 00000	45 1 1 40	47 1 1 40		4040570	
460-00-4	4-Bromofluorobenzene	88			70-13			SW846 8260C	15-Jul-13 "	17-Jul-13 "	naa "	1316572	
2037-26-5 17060-07-0	Toluene-d8	88 91			70-13						л	30	
1868-53-7	1,2-Dichloroethane-d4 Dibromofluoromethane	97 91			70-13			ü				u	
		91	R04		70-73	<i>i0 %</i>							
	rganic Compounds by method SW846 5035A	Soil (high le				Init	ial weight:	14.96 g					
107-02-8	Acrolein	< 0.501	D	mg/kg	0.501	0.219	50		15-Jul-13	8 <b>11</b> 3	n	1316571	
110-75-8	2-Chloroethylvinyl ether	< 0.501	D	mg/kg	0.501	0.130	50			n	'n	W	
108-05-4	Vinyl acetate	< 0.501	D	mg/kg	0.501	0.0652	50		н	н	11	и	
Surrogate	recoveries:												
460-00-4	4-Bromofluorobenzene	96			70-13	80 %					n	м	
2037-26-5	Toluene-d8	85			70-13	80 %		н	: <b>11</b> /2	н	н	an i	
1868-53-7	Dibromofluoromethane	103			70-13	0 %		п	<b>u</b>				
Semivolati	ile Organic Compounds by (	GCMS											
	tile Organic Compounds												
	by method SW846 3550C												
83-32-9	Acenaphthene	< 0.464		mg/kg	0.464	0.118	1	SW846 8270D	19-Jul-13	22-Jul-13	JG	1317032	Х
208-96-8	Acenaphthylene	< 0.464		mg/kg	0.464	0.128	1		п	n.	n		Х
120-12-7	Anthracene	< 0.464		mg/kg	0.464	0.118	1		u.		"	•	х
56-55-3	Benzo (a) anthracene	< 0.464		mg/kg	0.464	0.124	1		R		н	u	Х
50-32-8	Benzo (a) pyrene	< 0.464		mg/kg	0.464	0.126	1	ų.	н	H	n	n.	Х
205-99-2	Benzo (b) fluoranthene	< 0.464		mg/kg	0.464	0,101	1		п		"	n	Х
191-24-2	Benzo (g,h,i) perylene	< 0.464		mg/kg	0.464	0.129	1	**	30.5	2 <b>10</b> .9	'n	.0	Х
207-08-9	Benzo (k) fluoranthene	< 0.464		mg/kg	0.464	0.164	1	u			n	n	Х
111-91-1	Bis(2-chloroethoxy)metha	< 0.916		mg/kg	0.916	0.101	1	u	in a	191	и	. U	Х
111-44-4	ne Bis(2-chloroethyl)ether	< 0.464		mg/kg	0.464	0.112	1	n	н	н	'n	<b>10</b> 2	х
108-60-1	Bis(2-chloroisopropyl)ethe	< 0.464		mg/kg	0.464	0.118	1		<b>.</b>	u.	ñ	'n	x
	r	0.101		inging	0.101	0.110	•						
117-81-7	Bis(2-ethylhexyl)phthalate	< 0.464		mg/kg	0.464	0.123	1	и	я	310	N.	н	Х
101-55-3	4-Bromophenyl phenyl ether	< 0.916		mg/kg	0.916	0.115	1	u.			"		х
85-68-7	Butyl benzyl phthalate	< 0.916		mg/kg	0.916	0.117	1	а	я	а	п	н	х
86-74-8	Carbazole	< 0.464		mg/kg	0.464	0.379	ল	0 <b>m</b>		н		n	х
59-50-7	4-Chloro-3-methylphenol	< 0.916		mg/kg	0.916	0.124	1	8 <b>u</b> .	и	8 <b>0</b> 0	н	91	Х
106-47-8	4-Chloroaniline	< 0.464		mg/kg	0.464	0.253	1	u	н	u	n	n	Х
91-58-7	2-Chloronaphthalene	< 0.916		mg/kg	0.916	0.121	1	<b>.</b> n		ामः		ж.	х
95-57-8	2-Chlorophenol	< 0.464		mg/kg	0.464	0.133	1	n		u	n		х
7005-72-3	4-Chlorophenyl phenyl ether	< 0.916		mg/kg	0.916	0.105	1	<b>u</b>	"	u	w	an t	х
218-01-9	Chrysene	< 0.464		mg/kg	0.464	0.131	1		'n	n		n	х
53-70-3	Dibenzo (a,h) anthracene	< 0.464		mg/kg	0.464	0.120	1	н	в	an i		н	х
132-64-9	Dibenzofuran	< 0.464		mg/kg	0.464	0.120	1 -	ú			. Ä	'n	х
95-50-1	1,2-Dichlorobenzene	< 0.916		mg/kg	0.916	0.130	1	Ξπ	н		n	ü	х
541-73-1	1,3-Dichlorobenzene	< 0.916		mg/kg	0.916	0.126	1					ä	х

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0130100	dentification 016			39	Project #		Matrix		ection Date	10.2229	Received		
B73030	-01			1849			Sludge	09	9-Jul-13 10	:45	11-	Jul-13	
AS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Ce
emivolat	ile Organic Compounds by (	GCMS											
emivola	tile Organic Compounds												
repared	by method SW846 3550C												
6-46-7	1,4-Dichlorobenzene	< 0.916		mg/kg	0.916	0.133	1	SW846 8270D	19-Jul-13	22-Jul-13	JG	1317032	
-94-1	3,3'-Dichlorobenzidine	< 0.916		mg/kg	0.916	0.270	1	и	"	n	"	n	)
0-83-2	2,4-Dichlorophenol	< 0.464		mg/kg	0.464	0.124	1		"	и	.11	н	)
-66-2	Diethyl phthalate	< 0.916		mg/kg	0,916	0.122	1		u			•	)
1-11-3	Dimethyl phthalate	< 0.916		mg/kg	0.916	0.112	1	5 <b>1</b> 1		н	°u	ан) Т	)
5-67-9	2,4-Dimethylphenol	< 0.916		mg/kg	0.916	0.112	1	u			"	u	)
-74-2	Di-n-butyl phthalate	< 0.916		mg/kg	0.916	0.113	<sup>2</sup> 1	30	н		11		)
4-52-1	4,6-Dinitro-2-methylphenol	< 0.916		mg/kg	0.916	0.143	1	u	u	и	u	n	)
-28-5	2,4-Dinitrophenol	< 0.916		mg/kg	0.916	0.409	1	30		n	**		)
1-14-2	2,4-Dinitrotoluene	< 0.464		mg/kg	0.464	0.153	1	u	ŭ	u	11	. <b>n</b> .	)
6-20-2	2,6-Dinitrotoluene	< 0.464		mg/kg	0.464	0.155	1	и		n	"		)
7-84-0	Di-n-octyl phthalate	< 0.916		mg/kg	0.916	0.118	1	u	u		. <b>n</b> .	. <b>n</b>	)
5-44-0	Fluoranthene	< 0.464		mg/kg	0.464	0.129	1	Su:			n	u	)
-73-7	Fluorene	< 0.464		mg/kg	0.464	0.129	1	п				я	)
3-74-1	Hexachlorobenzene	< 0.464		mg/kg	0.464	0.131	1	a.			11	н	)
-68-3	Hexachlorobutadiene	< 0.464		mg/kg	0.464	0.116	1			.0.		n	)
47-4	Hexachlorocyclopentadien e	< 0.464		mg/kg	0.464	0.113	1	n	u	n	u	n	)
-72-1	Hexachloroethane	< 0.464		mg/kg	0.464	0.137	1	H		н			)
3-39-5	Indeno (1,2,3-cd) pyrene	< 0.464		mg/kg	0.464	0.128	1	ar -		u		н	3
-59-1	Isophorone	< 0.464		mg/kg	0.464	0.104	1			ж.			,
-57-6	2-Methylnaphthalene	< 0.464		mg/kg	0.464	0.132	1	an a	"	п			)
-48-7	2-Methylphenol	< 0.916		mg/kg	0.916	0.113	1			н	п	я	)
8-39-4, 6-44-5	3 & 4-Methylphenol	< 0.916		mg/kg	0.916	0.127	1		n		u		>
-20-3	Naphthalene	< 0.464		mg/kg	0.464	0.129	1			ж	- 11	н	>
-74-4	2-Nitroaniline	< 0.916		mg/kg	0.916	0.136	1	п		п			>
-09-2	3-Nitroaniline	< 0.916		mg/kg	0.916	0.164	1		н		n	н	>
0-01-6	4-Nitroaniline	< 0.464		mg/kg	0.464	0.136	1		н			н	>
-95-3	Nitrobenzene	< 0.464		mg/kg	0.464	0.113	1	ж	н	n		u.	>
-75-5	2-Nitrophenol	< 0.464		mg/kg	0.464	0.178	1				n	u	>
0-02-7	4-Nitrophenol	< 3.66		mg/kg	3.66	0.206	1	310	in a		n		
1-64-7	N-Nitrosodi-n-propylamine	< 0.464		mg/kg	0.464	0.208	1		"		"		>
-30-6	N-Nitrosodiphenylamine	< 0.916		mg/kg	0.916	0.114	1	3 M (	н	н		n	>
-86-5	Pentachlorophenol	< 0.910		mg/kg	0.916	0.138	1				"		>
-01-8	Phenanthrene	< 0.464		mg/kg	0.464	0.136	1		a contra		n.	u	)
3-95-2	Phenol	< 0.916			0.464		1		n				)
-00-0	Pyrene	< 0.464		mg/kg		0.121	1	u	ŭ				)
)-86-1	Pyridine	< 0.916		mg/kg	0.464	0.112		u	ii ii				)
)-82-1	1,2,4-Trichlorobenzene			mg/kg	0.916	0.130	1						>
-95-4		< 0.916		mg/kg	0.916	0.125	1		и и	и и			>
-95-4	2,4,5-Trichlorophenol	< 0.916		mg/kg	0.916	0.107	1			и и			>
	2,4,6-Trichlorophenol	< 0.464		mg/kg	0.464	0.126	1	729			4		>
-	recoveries:												
1-60-8	2-Fluorobiphenyl	56			30-13				я.		н	н	
7-12-4	2-Fluorophenol	52			30-13	0%			ιi.		<b>1</b> 1		

Sample Identification 2013010016 SB73030-01			<u>Client Project #</u> 1849			Collection Date/Time 09-Jul-13 10:45			Received 11-Jul-13			
CAS No.	Analyte(s)	Result Fla	ag Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolati	lle Organic Compounds by G	GCMS										
	ile Organic Compounds by method SW846 3550C											
4165-60-0	Nitrobenzene-d5	57		30-13	80 %		SW846 8270D	19-Jul-13	22-Jul-13	JG	1317032	
4165-62-2	Phenol-d5	46		30-13	80 %			н		u	n	
1718-51-0	Terphenyl-dl4	64		30-13	80 %			н	u	H	н	
118-79-6	2,4,6-Tribromophenol	75		30-13	80 %			н	9	н	м	
Semivolati	ile Organic Compounds by G	<sup>2</sup> C										
	nated Biphenyls by method SW846 3550C											
12674-11-2	Aroclor-1016	< 0.0660	mg/kg	0.0660	0.0493	1	SW846 8082A	18-Jul-13	20-Jul-13	BLM	1316908	Х
11104-28-2	Aroclor-1221	< 0.0660	mg/kg	0.0660	0.0595	3				н.		Х
11141-16-5	Aroclor-1232	< 0.0660	mg/kg	0.0660	0.0424	1	n		n	n,	H	Х
53469-21-9	Aroclor-1242	< 0.0660	mg/kg	0.0660	0.0397	1	н	н		n	.u	Х
12672-29-6	Aroclor-1248	< 0.0660	mg/kg	0.0660	0.0343	1					u	Х
11097-69-1	Aroclor-1254	< 0.0660	mg/kg	0.0660	0.0550	1		н	и	n	ા	Х
11096-82-5	Aroclor-1260	< 0.0660	mg/kg	0.0660	0.0409	1		n				х
Surrogate I	recoveries:			94								
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	100		30-15	<i>i0 %</i>		n	н		u	u.	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	110		30-15	60 %		9	20	n	N	n	
2051-24-3	Decachlorobiphenyl (Sr)	140		30-15	i0 %						u	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	130		30-15	i0 %		u	3 <b>n</b>	н	н	u	

## **Notes and Definitions**

D	Data reported from a dilution
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QR5	RPD out of acceptance range.
R04	The Reporting Limits for this analysis are elevated due to sample foaming.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

<u>Method Detection Limit (MDL)</u>: The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

<u>Reportable Detection Limit (RDL)</u>: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification</u>: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by: Nicole Leja Rebecca Merz

X1 = Spectrum Analytical Condition upon receipt SL - Sludge SW = Surface Water WW = Wastewater 8=NaHSO4 DW = Drinking Water 7120 Henry Clay Blvd Report To: 1=Na2S2O3 Telephone #: 315-435-5011 Liverpool, NY 13088 Onondaga County Dept. WEP Env. Lab 9=Deionized Water 10=H3PO4 11= <u>ک</u> 2=HCI 3=H2SO4 Sample 2013010016 SO = Soil GW=Groundwater O = Oil11 Almgren Drive - Agawam, MA 01001 . 413-789-9018 . Fax 413-789-4076 . www.spretrum-analytical.com Ambient Kecei Chain of Custody Record X3 = 07/09/2013 5=NaOH wed by (000) In45 Syracuse, NY 13204 650 W. Hiawatha Blvd. Onondaga County Dept. WEP Env. Lab Invoice To: Contract # 34512 6=Ascorbic Acid S 7-11-13 Matrix Dater Y # of VOA Vials -4 Containers # of Amber Glass 7=CH3OH DIVOA Frozen 44 # of Clear Glass 2100 100 7:46 (1) (1) (-) # of Plastic EPA 8082 PP PCBs List preserved code below EPA 8260B PP(TCL) Volatile 7% C. Sach due L EPA 8270 PP(TCL) Semi-Vo Solldar Froz Type: Code: Site Name: Identification Analyses DM Rush TAT - Date Needed: > Min: 24-hr notification needed for rushes > All TAT's subject to lab approval Standard TAT - 7-10 Business days E-mail to > Samples disposed of after 60 days unless Composite **EDD** Format **Oak Orchard South Lagoon 630965-1C** 1849 Special Handling Sewer #: additional charges may apply State-specific reporting QA/QC Reporting Notes:

Method Number 702

Method Version 1

Name	EPA 8082 PP PCBs	
Lab Matrix	Spectrum Solid	
Description	Priority Pollutant Scan, Units:mg/kg dry	
Lab	Spectrum	
COMPOUNDS	UNITS	
Aroclor-1016		
Aroclor-1221	mg/kg dry	7
Aroclor-1232		
Aroclor-1242		
Aroclor-1248		
Aroclor-1254		
Aroclor-1260		
	Lab Matrix Description Lab COMPOUNDS Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242 Aroclor-1248 Aroclor-1254	Lab MatrixSpectrum SolidDescriptionPriority Pollutant Scan, Units:mg/kg dryLabSpectrumCOMPOUNDSUNITSAroclor-1016mg/kg dryAroclor-1221mg/kg dryAroclor-1232mg/kg dryAroclor-1242mg/kg dryAroclor-1248mg/kg dryAroclor-1254mg/kg dry

Page 1 of 1

## Method Number 703

		e

Lab

Lab Matrix

Description

EPA 8260B PP(TCL) Volatiles Spectrum Solid Priority Pollutant Scan, Units: mg/kg dry Spectrum

## COMPOUNDS

	COMPOUNDS	UNITS
1	Acetone	mg/kg dry
2	Benzene	mg/kg dry
3	Bromodichloromethane	mg/kg dry
4	Bromoform	mg/kg dry
5	Bromomethane	mg/kg dry
6	2-Butanone (MEK)	mg/kg dry
7	Carbon disulfide	mg/kg dry
8	Carbon Tetrachloride	mg/kg dry
9	Chlorobenzene	mg/kg dry
10	Chloroethane	mg/kg dry
11	Chloroform	mg/kg dry
12	Chloromethane	mg/kg dry
13	Dibromochloromethane	mg/kg dry
14	1,1-Dichloroethane	mg/kg dry
15	1,2-Dichloroethane	mg/kg dry
16	1,1-Dichloroethene	mg/kg dry
17	1,2-Dichloroethene, Total	mg/kg dry
18	1,2-Dichloropropane	mg/kg dry
19	cis-1,3-Dichloropropene	mg/kg dry
20	trans-1,3-Dichloropropene	mg/kg dry
21	Ethylbenzene	mg/kg dry
22	2-Hexanone	mg/kg dry
23	Methylene Chloride	mg/kg dry
24	4-Methyl-2-Pentanone (MIBK)	mg/kg dry
25	Styrene	mg/kg dry
26	1,1,2,2-Tetrachloroethane	mg/kg dry
27	Tetrachloroethene	mg/kg dry
28	Toluene	mg/kg dry
29	1,1,1-Trichloroethane	mg/kg dry
30	1,1,2-Trichloroethane	mg/kg dry
31	Trichloroethene	mg/kg dry
32	Vinyl Chloride	mg/kg dry
33	Total Xylenes	mg/kg dry
34	Acrolein	mg/kg dry
35	Acrylonitrile	mg/kg dry
36	2-Chloroethylvinylether	mg/kg dry
37	Dichlorodifluoromethane	mg/kg dry
38	Trichlorofluoromethane	mg/kg dry
39	1,2-Dichlorobenzene	mg/kg dry
40	1,3-Dichlorobenzene	mg/kg dry
41	1,4-Dichlorobenzene	mg/kg dry
42	Vinyl Acetate	mg/kg dry

Method Version 3

01/22/2013

\* \* \*

01/22/2013

Method N	umber 704			Method Version 1	
	Name	EPA 8270 PP(TCL) Semi-V	Vol		
	Lab Matrix	Spectrum Solid			
	Description	Priority Pollutants, Units: m	g/kg dry		
	Lab	Spectrum			
	COMPOUNDS		UNITS		
1	Acenaphthene		mg/kg dry		
2	Acenaphthylene		mg/kg dry		
3	Anthracene		mg/kg dry		
4	Benzo (a) anthracene		mg/kg dry		
5	Benzo (b) fluoranthene		mg/kg dry		
6	Benzo (k) fluoranthene		mg/kg dry		
7	Benzo (g,h,i) perylene	1	mg/kg dry		
8	Benzo (a) pyrene		mg/kg dry		
9 10	4-Bromophenyl phenyl eth	er	mg/kg dry		
10	Butyl Benzyl Phthalate Carbazole		mg/kg dry		
11	4-Chloroaniline		mg/kg dry		
12	bis(2-Chloroethoxy) metha	20	mg/kg dry		
13	bis (2-Chloroethyl) ether		mg/kg dry mg/kg dry		
14	bis (2-Chloroisopropyl) eth	ier (	mg/kg dry		
15	4-Chloro-3-methylphenol		mg/kg dry		
10	2-Chloronaphthalene		mg/kg dry		
18	2-Chlorophenol		mg/kg dry		
10	4-Chlorophenyl phenyl eth	er	mg/kg dry		
20	Chrysene		mg/kg dry		
21	Dibenz (a,h) anthracene		mg/kg dry		
22	Dibenzofuran		mg/kg dry		
23	Di-n-butyl phthalate	8	mg/kg dry		8
24	1,2-Dichlorobenzene		mg/kg dry		
25	1,3-Dichlorobenzene		mg/kg dry		
26	1,4-Dichlorobenzene		mg/kg dry		
27	3,3-Dichlorobenzidine		mg/kg dry		
28	2,4-Dichlorophenol	.*	mg/kg dry		
29	Diethyl phthalate		mg/kg dry		
30	2,4-Dimethylphenol		mg/kg dry		
31	Dimethyl phthalate	QH	mg/kg dry		
32	2,4-Dinitrophenol		mg/kg dry		
33	2,4-Dinitrotoluene		mg/kg dry	x	
34 .	2,6-Dinitrotoluene		mg/kg dry	28	
35	Di-n-octyl phthalate		mg/kg dry		e.
36	bis (2-Ethylhexyl) phthalat	е.	mg/kg dry	1. Al	
37	Fluoranthene		mg/kg dry	95	
38	Fluorene		mg/kg dry	*	
39 40	Hexachlorobenzene Hexachlorobutadiene	£	mg/kg dry mg/kg dry	ă.	
40	Hexachlorocyclopentadien	A	mg/kg dry mg/kg dry		
41	Hexachloroethane		mg/kg dry mg/kg dry		
43	Indeno (1,2,3-c,d) pyrene		mg/kg dry		
44	Isophorone		mg/kg dry	N	
	Topholone		mg/ng uly		

Page 1 of 2

45	2-Methyl-4,6-dinitrophenol			mg/kg dry
46	2-Methylnaphthalene			mg/kg dry
47	2-Methylphenol (o-Cresol)			mg/kg dry
48	4-Methylphenol (p-Cresol)			mg/kg dry
49	Naphthalene			mg/kg dry
50	2-Nitroaniline	3		mg/kg dry
51	3-Nitroaniline			mg/kg dry
52	4-Nitroaniline			mg/kg dry
53	Nitrobenzene			mg/kg dry
54	2-Nitrophenol (o-Nitrophenol)			mg/kg dry
55	4-Nitrophenol			mg/kg dry
56	N-Nitrosodiphenylamine			mg/kg dry
57	N-Nitroso-di-n-propylamine			mg/kg dry
58	Pentachlorophenol			mg/kg dry
59	Phenanthrene			mg/kg dry
60	Phenol-C6H5OH			mg/kg dry
61	Pyrene			mg/kg dry
62	1,2,4-Trichlorobenzene		¥.	mg/kg dry
63	2,4,5-Trichlorophenol		100	mg/kg dry
64	2,4,6-Trichlorophenol	1.5%	1. 22	mg/kg dry

## 01/22/2013

Onondaga County Department of	ROUNO 2	COMPOSITE SAMPLE 20
MATER	Certificate of Ana	lyses SAMPLEND: 2013010027
ENVIRONMENT	Environmental Lab	
PROTECTION	7120 Henry Clay Blvd. Liverpool, New York 1308 Phone: (315) 435-5011 Fax: (	8 315) 435-5426 Report No. 2013010027SPE
Sample No: 2013010027 Oak Orchard South I	IC/FC: 1853 agoon 630965-2C	Project:
4300 Oak Orchard Road Clay 13041	NY	
Sample Type: Composite		Requested By:
Sample Collection Period Start Date July 9, 2013		Received Date & Time
		:00 pm July 10, 2013 12:22 pm
Ce Jeffrey No	ce	ALLE ACCRED

C. Jeffery Noce Laboratory Director

New York ELAP ID# 10191

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the signature above has authorized the data contained in this report for release.

Onondaga County Department of WEP Environmental Laboratory holds certification in the State of New York for the analytes as indicated with an A in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes.

Onondaga County Department of WEP Environmental Laboratory is a New York State ELAP accredited laboratory and meets the NELAC testing standards. Use of the NELAC logo however does not insure that this environmental laboratory is currently accredited for the specified method or analyte indicated. This report may not be reproduced, except in full, without the approval from Onondaga County Dept of WEP.

Data Qualifier Flags

- N Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
- V Reported value is considered estimated due to variance from quality control or assurance criteria.
- U Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.
- P Unacceptable for field quality assurance criteria.
- X Reported value fails limnological or analytical reasonableness.

Result Codes: NC- Not Collected TNP - Test Not Performed NR - Not Required LA - Lab Accident EP - Error in Preservation Continuation of data for Report No. 2013010027 SPE

Sample No: 2013010027

IC/FC: 1853

## Oak Orchard South Lagoon 630965-2C

<u>Start Date & Time</u> July 9, 2013 11:30 am End Date & Time July 9, 2013 12:00 pm

Parameter	Cert.	Method	R	lesult	Flag	Tested On	Analyst	Prep On	Prep By
%TS	A	SM 18th Ed. (2540G)	5.4097	%		07/11/2013	KSTOC	07/11/2013	KSTOC
Ag	Α	EPA SW 846 (6010B)	3.66	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
As	Α	EPA SW846 (7060A)	0.312	mg/kg wet		07/16/2013	TPAUL	07/15/2013	CRICH
Ba	Α	EPA 1994 (200.7)	71.3	mg/kg wet		07/25/2013	CSMAL	07/15/2013	CRICH
Cd	A	EPA SW 846 (6010B)	< 0.2500	mg/kg wet	U	07/17/2013	JBURN	07/15/2013	CRICH
Cr	Α	EPA SW 846 (6010B)	3.65			07/17/2013	JBURN	07/15/2013	CRICH
Cu	Α	EPA SW 846 (6010B)	33.7	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Hg	Α	EPA SW 846 (7471A)	0.0460	mg/kg wet		07/17/2013	TPAUL	07/15/2013	JBURN
Ni	Α	EPA SW 846 (6010B)	1.40	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
РЪ	Α	EPA SW 846 (6010B)	2.44	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Se	А	EPA SW846 (7740)		mg/kg wet		07/16/2013	TPAUL	07/15/2013	CRICH
Zn	А	EPA SW 846 (6010B)		mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH

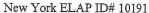
Sample Remarks:

Metals

Onondaga County Department of WATER ENVIRONMENT PROTECTION	Certificate of Analyses Environmental Laboratory 7120 Henry Clay Blvd.	GRAB SAMPLE 2D SAMPLENO: 2013010114
	Liverpool, New York 13088 Phone: (315) 435-5011 Fax: (315) 435-5426	Report No. 2013010114SPE
Sample No: 2013010114 Oak Orchard South 4300 Oak Orchard Road Clay 13041		oject:
Sample Type: Grab	Requested B	у:
Sample Collection Period Start Date		Received Date & Time
July 9, 2013	12:00 pm July 9, 2013 12:10 pm	July 10, 2013 12:23 pm
C. Jeffery Noce	and a state	

C. Jeffery Noce Laboratory Director





I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the signature above has authorized the data contained in this report for release.

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Data Qualifier Flags

- N Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
- V Reported value is considered estimated due to variance from quality control or assurance criteria.
- U Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.
- P Unacceptable for field quality assurance criteria.

X - Reported value fails limnological or analytical reasonableness.

Result Codes: NC- Not Collected TNP - Test Not Performed NR - Not Required LA - Lab Accident EP - Error in Preservation Continuation of data for Report No. 2013010114 SPE

Sample No: 2013010114 IC/FC: 1854

## Oak Orchard South Lagoon 630965-2D

<u>Start Date & Time</u> July 9, 2013 12:00 pm End Date & Time July 9, 2013 12:10 pm

Parameter	Cert.	Method	R	esult	Flag	Tested On	Analyst	Prep On	Prep By
Density			1.143	g/mL	(	07/10/2013	JCAPI	×	
Sample Rema	arks:	Density							

	ROUND 2	Compos	Site Sample 2C
Report Date: 24-Jul-13 14:31	S		eport ed Report 1 Report
	SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY Laboratory Report		
Onondaga County Dept. WEP Env. Lab 7120 Henry Clay Blvd. Liverpool, NY 13088 Attn: Jeff Noce	Project: Oak Orch Project #: 1853	ard South Lagoon	
Laboratory ID SB73031-01 Client Sample ID 2013010028	<u>Matrix</u> Sludge	<u>Date Sampled</u> 09-Jul-13 12:10	<u>Date Received</u> 11-Jul-13 21:00

Massachusetts # M-MA138/MA1110 Connecticut # PH-0777 Florida # E87600/E87936 Maine # MA138 New Hampshire # 2538 New Jersey # MA011/MA012 New York # 11393/11840 Pennsylvania # 68-04426/68-02924 Rhode Island # 98 USDA # S-51435



Authorized by:

Juiole Leja

Nicole Leja Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 10 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

## CASE NARRATIVE:

The samples were received 1.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Additional dilution factors may be required to keep analyte concentration within instrument calibration.

Method SW846 5035A is designed to use on samples containing low levels of VOCs, ranging from 0.5 to 200 ug/Kg. Target analytes that are less responsive to purge and trap may be present at concentrations over 200ug/Kg but may not be reportable in the methanol preserved vial (SW846 5030). This is the result of the inherent dilution factor required for the methanol preservation.

All volatile soil/product/solid samples should be collected in accordance method SW846 5035/5035A. Any sample with a result below 200ug/Kg that has not been collected in accordance with method 5035/5035A must be evaluated as potentially biased low.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

### SW846 8260C

### **Calibration:**

### 1307033

Analyte quantified by quadratic equation type calibration.

2-Hexanone (MBK) 4-Methyl-2-pentanone (MIBK) Acetone Bromoform cis-1,3-Dichloropropene Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

S307951-ICV1

### S307951-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,2,3-Trichloropropane (79%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 S308221-CCV1

### S308258-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

2-Chloroethylvinyl ether (72%)

### SW846 8260C

## **Calibration:**

S308258-ICV1

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010028 S308330-CCV1

## Samples:

S308221-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromodichloromethane (20.3%) Ethylbenzene (20.6%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 2013010028

### S308330-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2-Chloroethylvinyl ether (-27.3%)

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010028

SB73031-01

2013010028

The Reporting Limits for this analysis are elevated due to sample foaming.

## SW846 8270D

## **Calibration:**

### 1306076

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol

This affected the following samples:

S307211-ICV1

## S307211-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

4-Nitroaniline (126%) Benzidine (76%) Pentachloronitrobenzene (79%)

## SW846 8270D

### **Calibration:**

S307211-ICV1

This affected the following samples:

1317032-BLK1 1317032-BS1 2013010028 S308501-CCV1 S308590-CCV1

## Laboratory Control Samples:

### 1317032 BS

Benzoic acid percent recovery 26 (30-130) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013010028

## Samples:

#### S308501-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

4-Chloroaniline (-31.0%) 4-Nitrophenol (-22.2%) Aniline (-26.2%) Benzoic acid (-33.6%) Benzyl alcohol (-30.1%) Carbazole (-30.8%) N-Nitrosodimethylamine (-30.3%) Pyridine (-29.1%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Benzidine (-68.5%)

This affected the following samples:

1317032-BLK1 1317032-BS1

#### S308590-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Carbazole (-34.4%) Pyridine (-34.8%)

This affected the following samples:

2013010028

## Sample Acceptance Check Form

Client:	Onondaga County Dept. WEP Env. Lab		
Project:	Oak Orchard South Lagoon / 1853		
Work Order:	SB73031		
Sample(s) received on:	7/11/2013		
Received by:	Vickie Knowles		

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	<u>No</u>	<u>N/A</u>
1. Were custody seals present?		$\checkmark$	
2. Were custody seals intact?			$\checkmark$
3. Were samples received at a temperature of $\leq 6^{\circ}C$ ?	$\checkmark$		
4. Were samples cooled on ice upon transfer to laboratory representative?		$\checkmark$	
5. Were samples refrigerated upon transfer to laboratory representative?	$\checkmark$		
6. Were sample containers received intact?	$\checkmark$		
7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	$[ \checkmark ]$		
8. Were samples accompanied by a Chain of Custody document?	$\checkmark$		
9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?		<u>&lt;</u>	
10. Did sample container labels agree with Chain of Custody document?	$\checkmark$		
11. Were samples received within method-specific holding times?	$\checkmark$		

Sample Identification 2013010028 SB73031-01				<u>Client Project #</u> 1853			<u>Matrix</u> Sludge		Collection Date/Time 09-Jul-13 12:10			Received 11-Jul-13		
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.	
Volatile Or	rganic Compounds VOC Extraction	Lab extracted		N/A			1	VOC Soil Extraction	12-Jul-13	12-Jul-13	DJB	1316473	l	
	rganic Compounds by SW		R04			2 51								
Prepared 67-64-1	by method SW846 5035A				0.400	11	ial weight:		45 1440	17 101 10		1316572	2 X	
107-13-1	Acetone	< 0.496	D	mg/kg	0.496 0.0496	0.373 0.0444	50 50	SW846 8260C	10-JUI-13 "	17-Jul-13 "	naa "	1310372	x	
71-43-2	Acrylonitrile Benzene	< 0.0496 < 0.0496	D	mg/kg	0.0496	0.0444	50	u			а	к	x	
75-27-4	Bromodichloromethane	< 0.0496	D	mg/kg	0.0496	0.0280	50	n		п	u	u	x	
75-25-2			D	mg/kg	0.0496	0.0343	50	n		в		н	X	
74-83-9	Bromoform	< 0.0496	D	mg/kg			50		u		u	н	x	
78-93-3	Bromomethane	< 0.0992	D	mg/kg	0.0992	0.0893		n	u	R		п	x	
	2-Butanone (MEK)	< 0.496		mg/kg	0.496	0.425	50							
75-15-0 56-23-5	Carbon disulfide	< 0.0992	D	mg/kg	0.0992	0.0709	50		ŭ	п.	u		X X	
	Carbon tetrachloride	< 0.0496	D	mg/kg	0.0496	0.0493	50	.0	a s	п	u	88 M		
108-90-7	Chlorobenzene	< 0.0496	D	mg/kg	0.0496	0.0277	50	п		н	11		X	
75-00-3	Chloroethane	< 0.0992	D	mg/kg	0.0992	0.0702	50		u.				X	
67-66-3	Chloroform	< 0.0496	D	mg/kg	0.0496	0.0243	50		ü	ñ	u		X	
74-87-3	Chloromethane	< 0.0992	D	mg/kg	0.0992	0.0250	50	n i		P	,n	24	X	
124-48-1	Dibromochloromethane	< 0.0496	D	mg/kg	0.0496	0.0238	50						X	
95-50-1	1,2-Dichlorobenzene	< 0.0496	D	mg/kg	0.0496	0.0399	50	100 100			u	an an	X	
541-73-1	1,3-Dichlorobenzene	< 0.0496	D	mg/kg	0.0496	0.0494	50						Х	
106-46-7	1,4-Dichlorobenzene	< 0.0496	D	mg/kg	0.0496	0.0335	50						X	
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.0992	D	mg/kg	0.0992	0.0837	50						Х	
75-34-3	1,1-Dichloroethane	< 0.0496	D	mg/kg	0.0496	0.0485	50				n	u	Х	
107-06-2	1,2-Dichloroethane	< 0.0496	D	mg/kg	0.0496	0.0277	50	n	R	н		n	Х	
75-35-4	1,1-Dichloroethene	< 0.0496	D	mg/kg	0.0496	0.0247	50	11	n	n	u	a	Х	
156-59-2	cis-1,2-Dichloroethene	< 0.0496	D	mg/kg	0.0496	0.0208	50	n			u	,u	Х	
156-60-5	trans-1,2-Dichloroethene	< 0.0496	D	mg/kg	0.0496	0.0412	50	u	н	8	n	11	х	
78-87-5	1,2-Dichloropropane	< 0.0496	D	mg/kg	0.0496	0.0252	50		"		n		х	
10061-01-5	cis-1,3-Dichloropropene	< 0.0496	D	mg/kg	0.0496	0.0270	50		н	u	n	u	Х	
10061-02-6	trans-1,3-Dichloropropene	< 0.0496	D	mg/kg	0.0496	0.0140	50			"	"	ų	х	
100-41-4	Ethylbenzene	< 0.0496	D	mg/kg	0.0496	0.0302	50			u	.8.2	u	Х	
591-78-6	2-Hexanone (MBK)	< 0.496	D	mg/kg	0.496	0.127	50	u	n	ų		n	Х	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.496	D	mg/kg	0.496	0.161	50	N 2				. H	Х	
75-09-2	Methylene chloride	< 0.0992	D	mg/kg	0.0992	0.0252	50	n	8	н	н	н	Х	
100-42-5	Styrene	< 0.0496	D	mg/kg	0.0496	0.0367	50					n	х	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.0496	D	mg/kg	0.0496	0.0377	50	n		R.			х	
127-18-4	Tetrachloroethene	< 0.0496	D	mg/kg	0.0496	0.0284	50	зи	3 <b>0</b> .			н	Х	
108-88-3	Toluene	< 0.0496	D	mg/kg	0.0496	0.0444	50		n				х	
71-55-6	1,1,1-Trichloroethane	< 0.0496	D	mg/kg	0.0496	0.0397	50	н	.u	н	an :	н	Х	
79-00-5	1,1,2-Trichloroethane	< 0.0496	D	mg/kg	0.0496	0.0427	50				n		Х	
79-01-6	Trichloroethene	< 0.0496	D	mg/kg	0.0496	0,0380	50	u	н	"	.0	*1	Х	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.0496	D	mg/kg	0.0496	0.0206	50				n	u	Х	
75-01-4	Vinyl chloride	< 0.0496	D	mg/kg	0.0496	0.0465	50	в	3 <b>0</b>	9	.0	an.	х	
179601-23-1	m,p-Xylene	< 0.0992	D	mg/kg	0.0992	0.0962	50			u			х	
95-47-6	o-Xylene	< 0.0496	D	mg/kg	0.0496	0.0339	50	n	200.			в	х	

Sample Identification 2013010028			<u>Client P</u> 18	24 1 2 2		<u>Matrix</u> Sludge		ection Date, -Jul-13 12:	1000	Received 11-Jul-13			
SB73031-(	01			10	55		Shudge	0,	-Jul-15 12.	10	11-	Jul-15	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert
Volatile Or	ganic Compounds												
	ganic Compounds by SW		R04										
Prepared b	by method SW846 5035A	Soil (high le	<u>vel)</u>			<u>Init</u>	ial weight:	<u>15.12 q</u>					
Surrogate re	ecoveries:												
460-00-4	4-Bromofluorobenzene	88			70-13	0%		SW846 8260C	15-Jul-13	17-Jul-13	naa	1316572	
2037-26-5	Toluene-d8	83			70-13	0%			н.		"	u	
17060-07-0	1,2-Dichloroethane-d4	87			70-13	0%			<b>. H</b>	3 <b>m</b>	u	'n	
1868-53-7	Dibromofluoromethane	87			70-13	0%			u.	ш	**	n	
	ganic Compounds		R04										
Prepared b	by method SW846 5035A	Soil (high le	<u>vel)</u>			<u>Init</u>	ial weight:	<u>15.12 g</u>					
107-02-8	Acrolein	< 0.496	D	mg/kg	0.496	0.216	50	n	15-Jul-13		1	1316571	
110-75-8	2-Chloroethylvinyl ether	< 0.496	D	mg/kg	0.496	0.129	50			n	ũ		
108-05-4	Vinyl acetate	< 0.496	D	mg/kg	0.496	0.0645	50	н	u	ų	"	"	
Surrogate re	ecoveries:												
460-00-4	4-Bromofluorobenzene	97			70-13	0 %			u	u	n	"	
2037-26-5	Toluene-d8	79			70-13	0%		<b>30</b> 10	200	ч	н	0	
1868-53-7	Dibromofluoromethane	98			70-13	0%		n		ü		9	
Semivolatil	le Organic Compounds by (	GCMS											
	le Organic Compounds												
	by method SW846 3550C												
33-32-9	Acenaphthene	< 0.499		mg/kg	0.499	0.127	1	SW846 8270D	19-Jul-13	22-Jul-13	JG	1317032	X
208-96-8	Acenaphthylene	< 0.499		mg/kg	0.499	0.138	1	9 <b>40</b> (0		n	u	н	Х
120-12-7	Anthracene	< 0.499		mg/kg	0.499	0.127	1			n	9	н	Х
56-55-3	Benzo (a) anthracene	< 0.499		mg/kg	0,499	0.134	1	100.00	Sat S	н	n	300	Х
50-32-8	Benzo (a) pyrene	< 0.499		mg/kg	0.499	0.136	1		н	H	n	ж	Х
205-99-2	Benzo (b) fluoranthene	< 0.499		mg/kg	0.499	0.108	1	an S	000	n		n	Х
191-24-2	Benzo (g,h,i) perylene	< 0.499		mg/kg	0.499	0.139	1			n	0		х
207-08-9	Benzo (k) fluoranthene	< 0.499		mg/kg	0.499	0.177	1		u	"	•	n	Х
111-91-1	Bis(2-chloroethoxy)metha	< 0.986		mg/kg	0.986	0.108	1			ii ii		.0	х
	ne												
111-44-4	Bis(2-chloroethyl)ether	< 0.499		mg/kg	0.499	0.120	1	п	- 94	n		н	Х
108-60-1	Bis(2-chloroisopropyl)ethe	< 0.499		mg/kg	0.499	0.127	1		n	n		"	Х
117-81-7	r Bis(2-ethylhexyl)phthalate	< 0.499		mg/kg	0.499	0.133	1		.u.,			u	х
101-55-3	4-Bromophenyl phenyl	< 0.986		mg/kg	0.986	0.133	1	п		"		n	x
	ether	× 0,300		mg/kg	0.300	0.124	19						~
85-68-7	Butyl benzyl phthalate	< 0.986		mg/kg	0.986	0.126	1		U	n			х
86-74-8	Carbazole	< 0.499		mg/kg	0.499	0.408	1	30	an:			u	х
59-50-7	4-Chloro-3-methylphenol	< 0.986		mg/kg	0.986	0.134	1	н		ñ		я	х
106-47-8	4-Chloroaniline	< 0.499		mg/kg	0.499	0.272	1	a.		9	u.	н	х
91-58-7	2-Chloronaphthalene	< 0.986		mg/kg	0.986	0.131	1	n	n			( <b>H</b> .)	х
95-57-8	2-Chlorophenol	< 0.499		mg/kg	0.499	0.143	1	н	n	n	"	•	х
005-72-3	4-Chlorophenyl phenyl ether	< 0.986		mg/kg	0.986	0.113	1	386	5 <b>0</b> .	n	n	<b>H</b>	х
218-01-9	Chrysene	< 0.499		mg/kg	0.499	0.141	1	(n):		n	n	<b>n</b>	х
53-70-3	Dibenzo (a,h) anthracene	< 0.499		mg/kg	0.499	0.129	1			u	n		×
132-64-9	Dibenzofuran	< 0.499			0.499	0.129	1	н	n				x
95-50-1				mg/kg			1	и		е п			
	1,2-Dichlorobenzene	< 0.986		mg/kg	0.986	0.140	1			-02	1857	0.68.0	Х

4

Sample Identification 2013010028 SB73031-01			Client Project # 1853			<u>Matrix</u> Sludge		ection Date 9-Jul-13 12:	1045	Received 11-Jul-13			
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolat	tile Organic Compounds by (	GCMS											
0	tile Organic Compounds												
	by method SW846 3550C								942807 - 2207 <b>2</b> - 22072				
106-46-7	1,4-Dichlorobenzene	< 0.986		mg/kg	0.986	0.143	1	SW846 8270D	19-Jul-13	22-Jul-13	JG "	1317032	
91-94-1	3,3'-Dichlorobenzidine	< 0.986		mg/kg	0.986	0.291	1					u 	Х
120-83-2	2,4-Dichlorophenol	< 0.499		mg/kg	0.499	0.133	1					*	X
84-66-2	Diethyl phthalate	< 0.986		mg/kg	0.986	0.132	1				3 <b>1</b> 12		х
131-11-3	Dimethyl phthalate	< 0.986		mg/kg	0.986	0.121	1	n	u	н	"	w	Х
105-67-9	2,4-Dimethylphenol	< 0.986		mg/kg	0.986	0.121	1		3 <b>0</b> 3		30.5		Х
84-74-2	Di-n-butyl phthalate	< 0.986		mg/kg	0.986	0.122	1	п	н		n	u	Х
534-52-1	4,6-Dinitro-2-methylphenol	< 0.986		mg/kg	0.986	0.154	1	n	3 <b>H</b> (	"	ж: 		х
51-28-5	2,4-Dinitrophenol	< 0.986		mg/kg	0.986	0.441	1			8	n	n	Х
121-14-2	2,4-Dinitrotoluene	< 0.499		mg/kg	0.499	0.164	1	n		н	n	30	Х
606-20-2	2,6-Dinitrotoluene	< 0.499		mg/kg	0.499	0.167	1			"	"		х
117-84-0	Di-n-octyl phthalate	< 0.986		mg/kg	0.986	0.127	1		п	н	н	2000	Х
206-44-0	Fluoranthene	< 0.499		mg/kg	0.499	0.139	1				"		х
86-73-7	Fluorene	< 0.499		mg/kg	0.499	0,139	1	<u>, 0</u>	u	8	u	**	Х
118-74-1	Hexachlorobenzene	< 0.499		mg/kg	0.499	0.141	1		( <b>H</b> )	н	<b>A</b> .	( <b>91</b> )	х
87-68-3	Hexachlorobutadiene	< 0.499		mg/kg	0.499	0.125	1						х
77-47-4	Hexachlorocyclopentadien e	< 0.499		mg/kg	0.499	0.122	1	30		• >	H	- 98	Х
67-72-1	Hexachloroethane	< 0.499		mg/kg	0.499	0.147	1		W		305		Х
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.499		mg/kg	0.499	0.138	1		2 <b>9</b> 2		н	**	х
78-59-1	Isophorone	< 0.499		mg/kg	0.499	0.112	1		u	Ř	n	n	х
91-57-6	2-Methylnaphthalene	< 0.499		mg/kg	0.499	0.142	1						Х
95-48-7	2-Methylphenol	< 0.986		mg/kg	0.986	0.122	1		н	R	"		X
108-39-4, 106-44-5	3 & 4-Methylphenol	< 0.986		mg/kg	0.986	0.136	1	v	241		n	390	Х
91-20-3	Naphthalene	< 0.499		mg/kg	0.499	0.139	1	ÿ					Х
88-74-4	2-Nitroaniline	< 0.986		mg/kg	0.986	0.147	1	н	н		n		Х
99-09-2	3-Nitroaniline	< 0.986		mg/kg	0.986	0.177	1	n			n	n	х
100-01-6	4-Nitroaniline	< 0.499		mg/kg	0.499	0.146	1		н	n	an c		х
98-95-3	Nitrobenzene	< 0.499		mg/kg	0.499	0.122	1	ü	н	u	n	n	х
88-75-5	2-Nitrophenol	< 0.499		mg/kg	0.499	0.192	1	<u>.</u>	н.		an s		х
100-02-7	4-Nitrophenol	< 3.95		mg/kg	3.95	0.222	1		.n.			n	х
621-64-7	N-Nitrosodi-n-propylamine	< 0.499		mg/kg	0.499	0.123	1		н	u	n	n	х
86-30-6	N-Nitrosodiphenylamine	< 0,986		mg/kg	0.986	0.127	1	u			а.		х
87-86-5	Pentachlorophenol	< 0.986		mg/kg	0.986	0.148	1	•			u	п.	х
85-01-8	Phenanthrene	< 0.499		mg/kg	0.499	0.133	1	u	н	8	н.	ж	х
108-95-2	Phenol	< 0.986		mg/kg	0.986	0.130	1	u			n		х
129-00-0	Pyrene	< 0.499		mg/kg	0.499	0.121	1	u	310	н	3 <b>1</b> C	н	х
110-86-1	Pyridine	< 0.986		mg/kg	0.986	0.141	1	n		n	(n.)		х
120-82-1	1,2,4-Trichlorobenzene	< 0.986		mg/kg	0.986	0.135	1	н	9 <b>0</b> -		м	н	х
95-95-4	2,4,5-Trichlorophenol	< 0.986		mg/kg	0.986	0.115	1	U U	н	н	n	n	х
88-06-2	2,4,6-Trichlorophenol	< 0.499		mg/kg	0.499	0.136	1	n			iii	ч	х
		2010/10/2013		<u> </u>			ya 	-				1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 -	iteratu Managaria Ma
	recoveries:	50				0.07		<i>w</i>	н		'n	u	
321-60-8	2-Fluorobiphenyl	59			30-13			u u			ал Эк		
367-12-4	2-Fluorophenol	46			30-13	0 %						1220	

Sample Id 20130100	lentification 28		100000000	Project #		<u>Matrix</u>		ection Date		20-0-	ceived	
SB73031-	-01		18	353		Sludge	09	9-Jul-13 12:	10	11-	Jul-13	
CAS No.	Analyte(s)	Result Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolati	ile Organic Compounds by G	GCMS										
	tile Organic Compounds by method SW846 3550C											
4165-60-0	Nitrobenzene-d5	54		30-13	80 %		SW846 8270D	19-Jul-13	22-Jul-13	JG	1317032	
4165-62-2	Phenol-d5	44		30-13	80 %			н	н	п		
1718-51-0	Terphenyl-dl4	73		30-13	80 %				u	u		
118-79-6	2,4,6-Tribromophenol	74		30-13	80 %		н	в	u	си.	н	
Semivolati	ile Organic Compounds by O	FC .										
and a close of the second second second second second second second second second second second second second s	inated Biphenyls by method SW846 3550C											
12674-11-2	Aroclor-1016	< 0.0655	mg/kg	0.0655	0.0490	1	SW846 8082A	18-Jul-13	20-Jul-13	BLM	1316908	Х
11104-28-2	Aroclor-1221	< 0.0655	mg/kg	0.0655	0.0590	1		н		u	8	Х
11141-16-5	Aroclor-1232	< 0.0655	mg/kg	0.0655	0.0421	1	ĸ	н		н	n	Х
53469-21-9	Aroclor-1242	< 0.0655	mg/kg	0.0655	0.0394	1	<b>"</b>	н	н	к	n	Х
12672-29-6	Aroclor-1248	< 0.0655	mg/kg	0.0655	0.0341	1	.0			к	91	Х
11097-69-1	Aroclor-1254	< 0.0655	mg/kg	0.0655	0.0546	1			н		_11	Х
11096-82-5	Aroclor-1260	< 0.0655	mg/kg	0.0655	0.0406	1			<b>n</b>			Х
Surrogate	recoveries:				10							
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	115		30-15	50 %		н	U.	u		"	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	100		30-15	50 %							
2051-24-3	Decachlorobiphenyl (Sr)	130		30-15	50 %		n	n	n,			
2051-24-3	Decachlorobiphenyl (Sr) [2C]	130		30-15	50 %		u	"	"			

# Notes and Definitions

D	Data reported from a dilution	
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.	
QR5	RPD out of acceptance range.	
R04	The Reporting Limits for this analysis are elevated due to sample foaming.	
dry	Sample results reported on a dry weight basis	

NR Not Reported

RPD Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

<u>Method Detection Limit (MDL</u>): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

<u>Reportable Detection Limit (RDL)</u>: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification</u>: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by: Nicole Leja Rebecca Merz

Condition upon receipt: A Ambient Treed	Rollinguished by Fred Falasing Umplanda Quin Dyn Umplanda Ulan Un Umplanda Ulan Un	DW = Drinking Water GW=Groundwater  WW = Wastewater O = Oil SW = Surface Water SO = Soil SL - Sludge $X2 = X3 =X1 =Lab.Id. Sample Id Date./ TimeLab.Id. Sample Id Date./ Time1 \neq 10$	1=Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 2=HCl 3=H <sub>2</sub> SO <sub>4</sub> 5=NaOH 8=NaHSO <sub>4</sub> 9=Deionized Water 10=H <sub>3</sub> PO <sub>4</sub> 1	Report To: Onondaga County Dept. WEP Env. Lab 7120 Henry Clay Blvd Liverpool, NY 13088 Telephone #: 315-435-5011	Spectrum Analytical, Inc.
Ambient Fleed Reingerated DI VOA Frozen Solulian Frozen C C C C C C C C C C C C C C C C C C C	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Image: State-specific reporting         Image: State-specific reporting	OH     6=Ascorbic Acid     7=CH3OH     List preserved code below     QA/OC Reporting Notes       4     11=      QA/OC Reporting Notes       4     11=	Invoice To:Site Name:Oak Orchard South Lagoon 630965-2COnondaga County Dept. WEP Env. Lab 650 W. Hiawatha Blvd.IdentificationIdentificationSyracuse, NY 13204 Contract # 34512Identification1853Sewer #:Type:CompositeType:Composite	hain of Custody Record       Sb 73631       Special Handling         Standard TAT - 7-10 Business days       Rush TAT - Date Needed:       > All TATs subject to lab approval         > All TATs subject to lab approval       > Min. 24-hr notification needed for rushes         > Samples disposed of after 60 days unless

u.

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Method Number 702

Name	EPA 8082 PP PCBs
Lab Matrix	Spectrum Solid
Description	Priority Pollutant Scan, Units:mg/kg dry
Lab	Spectrum

# COMPOUNDS

- Aroclor-1016

   2
   Aroclor-1221

   3
   Aroclor-1232

   4
   Aroclor-1242

   5
   Aroclor-1248

   6
   Aroclor-1254
- 7 Aroclor-1260

UNITS mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry Method Version 1

01/22/2013

3

Method Nu	imber 703			Method Version
	Name	EPA 8260B PP(TCL) Vola	tiles	
	Lab Matrix	Spectrum Solid		
	Description	Priority Pollutant Scan, Unit	ts: mg/kg dry	
	Lab	Spectrum		
	COMPOUNDS		UNITS	
1	Acetone		mg/kg dry	
2	Benzene		mg/kg dry	
3	Bromodichloromethane		mg/kg dry	
4	Bromoform		mg/kg dry	
5	Bromomethane		mg/kg dry	
6	2-Butanone (MEK)		mg/kg dry	
7	Carbon disulfide		mg/kg dry	
8	Carbon Tetrachloride		mg/kg dry	
9	Chlorobenzene		mg/kg dry	
10	Chloroethane		mg/kg dry	
11	Chloroform		mg/kg dry	
12	Chloromethane		mg/kg dry	
13	Dibromochloromethane		mg/kg dry	
14	1,1-Dichloroethane		mg/kg dry	
15	1,2-Dichloroethane		mg/kg dry	
16	1,1-Dichloroethene		mg/kg dry	
17	1,2-Dichloroethene, Total		mg/kg dry	
18	1,2-Dichloropropane		mg/kg dry	
19	cis-1,3-Dichloropropene	18	mg/kg dry	
20	trans-1,3-Dichloropropene		mg/kg dry	
21	Ethylbenzene		mg/kg dry	
22	2-Hexanone		mg/kg dry	
23	Methylene Chloride		mg/kg dry	
24	4-Methyl-2-Pentanone (MI	BK)	mg/kg dry	
25	Styrene		mg/kg dry	
26	1,1,2,2-Tetrachloroethane		mg/kg dry	
27	Tetrachloroethene		mg/kg dry	
28	Toluene		mg/kg dry	
29	1,1,1-Trichloroethane		mg/kg dry	
30	1,1,2-Trichloroethane		mg/kg dry	
31	Trichloroethene	<b>x</b>	mg/kg dry	
32	Vinyl Chloride		mg/kg dry	
33	Total Xylenes		mg/kg dry	
34 `	Acrolein		mg/kg dry	*
35	Acrylonitrile		mg/kg dry	1900
36	2-Chloroethylvinylether	2	mg/kg dry	5 at
37	Dichlorodifluoromethane	A	mg/kg dry	
38	Trichlorofluoromethane		mg/kg dry	N
39	1,2-Dichlorobenzene		mg/kg dry	
40	1,3-Dichlorobenzene		mg/kg dry	
41	1,4-Dichlorobenzene	***)	mg/kg dry	
42	Vinyl Acetate	47) 1	mg/kg dry	
	addata en la cateloría			

\* \* : e Sa

Page 1 of 1

# Method Number 704

18	1.8		15.	322	100
- 1	N.	а	m	76	ρ.

Lab

EPA 8270 PP(TCL) Semi-Vol

Lab Matrix Spectrum Solid

Description

Priority Pollutants, Units: mg/kg dry

Spectrum

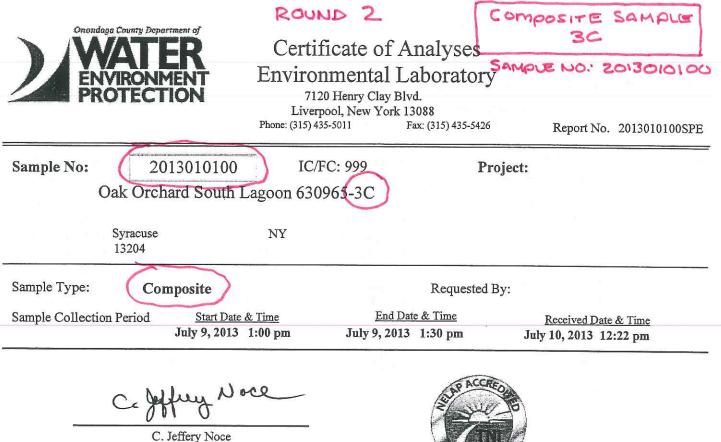
	COMPOUNDS					UNITS	
1	Acenaphthene					mg/kg dry	
2	Acenaphthylene					mg/kg dry	
3	Anthracene					mg/kg dry	
4	Benzo (a) anthracene					mg/kg dry	
5	Benzo (b) fluoranthene					mg/kg dry	
6	Benzo (k) fluoranthene					mg/kg dry	
7	Benzo (g,h,i) perylene					mg/kg dry	
8	Benzo (a) pyrene		5			mg/kg dry	
9	4-Bromophenyl phenyl ether					mg/kg dry	
10	Butyl Benzyl Phthalate			81		mg/kg dry	R
11	Carbazole					mg/kg dry	
12	4-Chloroaniline		1.00	65		mg/kg dry	5
13	bis(2-Chloroethoxy) methane			20		mg/kg dry	
14	bis (2-Chloroethyl) ether				Ţ.	mg/kg dry	ł, ż
15	bis (2-Chloroisopropyl) ether					mg/kg dry	61 21
16	4-Chloro-3-methylphenol					mg/kg dry	8 4
17	2-Chloronaphthalene					mg/kg dry	6
18	2-Chlorophenol					mg/kg dry	10
19	4-Chlorophenyl phenyl ether					mg/kg dry	8
20	Chrysene					mg/kg dry	
21	Dibenz (a,h) anthracene					mg/kg dry	i.
22	Dibenzofuran					mg/kg dry	
23	Di-n-butyl phthalate	A				mg/kg dry	5
24	1,2-Dichlorobenzene					mg/kg dry	
25	1,3-Dichlorobenzene					mg/kg dry	
26	1,4-Dichlorobenzene					mg/kg dry	
27	3,3-Dichlorobenzidine					mg/kg dry	
28	2,4-Dichlorophenol				×.	mg/kg dry	
29	Diethyl phthalate					mg/kg dry	
30	2,4-Dimethylphenol					mg/kg dry	
31	Dimethyl phthalate			~		mg/kg dry	
32	2,4-Dinitrophenol					mg/kg dry	
33	2,4-Dinitrotoluene					mg/kg dry	
34	2,6-Dinitrotoluene					mg/kg dry	
35	Di-n-octyl phthalate				e	mg/kg dry	
36	bis (2-Ethylhexyl) phthalate					mg/kg dry	
37	Fluoranthene					mg/kg dry	
38	Fluorene		а Э			mg/kg dry	
39	Hexachlorobenzene		20	75		mg/kg dry	
40	Hexachlorobutadiene					mg/kg dry	
41	Hexachlorocyclopentadiene	а <sup>2</sup> 3				mg/kg dry	
42	Hexachloroethane					mg/kg dry	
43	Indeno (1,2,3-c,d) pyrene					mg/kg dry	
44	Isophorone					mg/kg dry	
	19 C					1972 - 1977 - N. S.	

01/22/2013

Method Version 1

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45	2-Methyl-4,6-dinitrophenol	mg/kg dry
46	2-Methylnaphthalene	mg/kg dry
47	2-Methylphenol (o-Cresol)	mg/kg dry
48	4-Methylphenol (p-Cresol)	mg/kg dry
49	Naphthalene	mg/kg dry
50	2-Nitroaniline	mg/kg dry
51	3-Nitroaniline	mg/kg dry
52	4-Nitroaniline	mg/kg dry
53	Nitrobenzene	mg/kg dry
54	2-Nitrophenol (o-Nitrophenol)	mg/kg dry
55	4-Nitrophenol	mg/kg dry
56	N-Nitrosodiphenylamine	mg/kg dry
57	N-Nitroso-di-n-propylamine	mg/kg dry
58	Pentachlorophenol	mg/kg dry
59	Phenanthrene	mg/kg dry
60	Phenol-C6H5OH	mg/kg dry
61	Pyrene	mg/kg dry
62	1,2,4-Trichlorobenzene	, mg/kg dry
63	2,4,5-Trichlorophenol	mg/kg dry
64	2,4,6-Trichlorophenol	mg/kg dry



C. Jeffery Noce Laboratory Director

New York ELAP ID# 10191

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the signature above has authorized the data contained in this report for release.

Onondaga County Department of WEP Environmental Laboratory holds certification in the State of New York for the analytes as indicated with an A in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes.

Onondaga County Department of WEP Environmental Laboratory is a New York State ELAP accredited laboratory and meets the NELAC testing standards. Use of the NELAC logo however does not insure that this environmental laboratory is currently accredited for the specified method or analyte indicated. This report may not be reproduced, except in full, without the approval from Onondaga County Dept of WEP.

Data Qualifier Flags

- V Reported value is considered estimated due to variance from quality control or assurance criteria.
- U Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.
- P Unacceptable for field quality assurance criteria.
- X Reported value fails limnological or analytical reasonableness.

Result Codes: NC- Not Collected TNP - Test Not Performed NR - Not Required LA - Lab Accident EP - Error in Preservation

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.

Continuation of data for Report No. 2013010100 SPE

Sample No: 2013010100

IC/FC: 999

# Oak Orchard South Lagoon 630965-3C

<u>Start Date & Time</u> July 9, 2013 1:00 pm End Date & Time July 9, 2013 1:30 pm

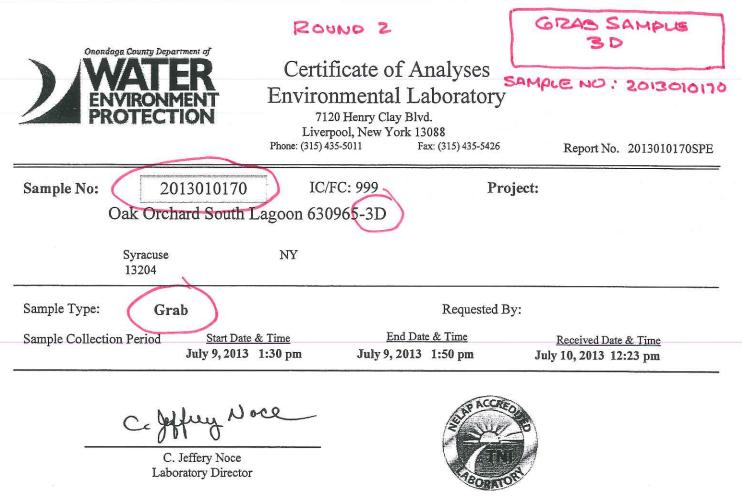
Parameter	Cert.	Method	F	lesult	Flag	Tested On	Analyst	Prep On	Prep By
%TS	A	SM 18th Ed. (2540G)	13.2560	%		07/11/2013	KSTOC	07/11/2013	KSTOC
Ag	A	EPA SW 846 (6010B)	8.08	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
As	Α	EPA SW846 (7060A)	0.843	mg/kg wet		07/16/2013	TPAUL	07/15/2013	CRICH
Ba	A	EPA 1994 (200.7)	163	mg/kg wet		07/25/2013	CSMAL	07/15/2013	CRICH
Cd	A	EPA SW 846 (6010B)	1.08	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Cr	A	EPA SW 846 (6010B)	9.97	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Cu	Α	EPA SW 846 (6010B)	126	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Hg	А	EPA SW 846 (7471A)	0.129	mg/kg wet		07/17/2013	TPAUL	07/15/2013	JBURN
Ni	A	EPA SW 846 (6010B)	3.66	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Рb	A	EPA SW 846 (6010B)	29.3	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Se	Α	EPA SW846 (7740)	0.543	mg/kg wet		07/16/2013	TPAUL	07/15/2013	CRICH
Zn	A	EPA SW 846 (6010B)	159	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH

Sample Remarks:

Metals

Page 2 of 2

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New York ELAP ID# 10191

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the signature above has authorized the data contained in this report for release.

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Data Qualifier Flags

- N Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
- V Reported value is considered estimated due to variance from quality control or assurance criteria.
- U Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.
- P Unacceptable for field quality assurance criteria. X - Reported value fails limnological or analytical reasonableness.

Result Codes: NC- Not Collected TNP - Test Not Performed NR - Not Required LA - Lab Accident EP - Error in Preservation

		Continuation of data f	or Report No. 2013	3010170 S	PE				
Sample N	No:	2013010170	IC/FC: 99	9					
Oak Or	charc	I South Lagoon 6	30965-3D						
		<u>Start Date</u> July 9, 2013 1:3			1 Date & Tim 2013 1:50	-			
Parameter (	Cert.	Method	R	esult	Flag	Tested On	Analyst	Prep On	Prep By
Density			1.082	g/mL		07/10/2013	JCAPI		
Sample Remarks		Density							

	Round 2	COMPOSITE SAMPLE 30
Report Date:		☑ Final Report
23-Jul-13 11:39		Re-Issued Report
		□ Revised Report
	SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY	
	Laboratory Report	
Onondaga County Dept. WEP Env. Lab		
7120 Henry Clay Blvd.	Project: Oak Orch	hard South Lagoon
Liverpool, NY 13088 Attn: Jeff Noce	Project #: 999	

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB73033-01	2013010101	Sludge	09-Jul-13 14:00	11-Jul-13 21:00

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received. All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110 Connecticut # PH-0777 Florida # E87600/E87936 Maine # MA138 New Hampshire # 2538 New Jersey # MA011/MA012 New York # 11393/11840 Pennsylvania # 68-04426/68-02924 Rhode Island # 98 USDA # S-51435



Authorized by:

Jieds Leja

Nicole Leja Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 10 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

# CASE NARRATIVE:

The samples were received 1.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Additional dilution factors may be required to keep analyte concentration within instrument calibration.

Method SW846 5035A is designed to use on samples containing low levels of VOCs, ranging from 0.5 to 200 ug/Kg. Target analytes that are less responsive to purge and trap may be present at concentrations over 200ug/Kg but may not be reportable in the methanol preserved vial (SW846 5030). This is the result of the inherent dilution factor required for the methanol preservation.

All volatile soil/product/solid samples should be collected in accordance method SW846 5035/5035A. Any sample with a result below 200ug/Kg that has not been collected in accordance with method 5035/5035A must be evaluated as potentially biased low.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

# SW846 8260C

#### **Calibration:**

### 1307033

Analyte quantified by quadratic equation type calibration.

2-Hexanone (MBK) 4-Methyl-2-pentanone (MIBK) Acetone Bromoform cis-1,3-Dichloropropene Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

S307951-ICV1

### S307951-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,2,3-Trichloropropane (79%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 S308221-CCV1

# S308258-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

2-Chloroethylvinyl ether (72%)

# SW846 8260C

# **Calibration:**

S308258-ICV1

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010101 S308330-CCV1

# Samples:

#### S308221-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromodichloromethane (20.3%) Ethylbenzene (20.6%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 2013010101

### S308330-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2-Chloroethylvinyl ether (-27.3%)

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010101

SB73033-01 2013010101

The Reporting Limits for this analysis are elevated due to sample foaming.

# SW846 8270D

# Calibration:

### 1306076

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol

This affected the following samples:

S307211-ICV1

# S307211-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

4-Nitroaniline (126%) Benzidine (76%) Pentachloronitrobenzene (79%)

# SW846 8270D

### **Calibration:**

S307211-ICV1

This affected the following samples:

1317032-BLK1 1317032-BS1 2013010101 S308501-CCV1 S308518-CCV1 S308590-CCV1

#### SB73033-01

Internal standard area count (830807) is outside criteria of the associated CCAL (1663907) for 1,4-Dichlorobenzene-d4 (50%).

### Laboratory Control Samples:

#### 1317032 BS

Benzoic acid percent recovery 26 (30-130) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias: 2013010101

# Samples:

# S308501-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

4-Chloroaniline (-31.0%) 4-Nitrophenol (-22.2%) Aniline (-26.2%) Benzoic acid (-33.6%) Benzyl alcohol (-30.1%) Carbazole (-30.8%) N-Nitrosodimethylamine (-30.3%) Pyridine (-29.1%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Benzidine (-68.5%)

This affected the following samples:

1317032-BLK1 1317032-BS1

# S308518-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

3-Nitroaniline (-26.5%) 4-Nitrophenol (-24.7%) Carbazole (-39.3%) Pyridine (-33.5%)

This affected the following samples:

2013010101

SB73033-01 2013010101

Elevated Reporting Limits due to the presence of high levels of non-target analytes.

# Sample Acceptance Check Form

Client:	Onondaga County Dept. WEP Env. Lab
Project:	Oak Orchard South Lagoon / 999
Work Order:	SB73033
Sample(s) received on:	7/11/2013
Received by:	Vickie Knowles

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

- 1. Were custody seals present?
- 2. Were custody seals intact?
- 3. Were samples received at a temperature of  $\leq 6^{\circ}$ C?
- 4. Were samples cooled on ice upon transfer to laboratory representative?
- 5. Were samples refrigerated upon transfer to laboratory representative?
- 6. Were sample containers received intact?
- 7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?
- 8. Were samples accompanied by a Chain of Custody document?
- 9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?
- 10. Did sample container labels agree with Chain of Custody document?
- 11. Were samples received within method-specific holding times?

Yes

Π

 $\mathbf{\nabla}$ 

 $\square$ 

 $\checkmark$ 

 $\checkmark$ 

 $\checkmark$ 

 $\checkmark$ 

No

 $\checkmark$ 

 $\Box$ 

 $\checkmark$ 

 $\square$ 

 $\checkmark$ 

N/A

 $\checkmark$ 

SB73033-	<b>01</b> 01			3) La 11	<u>Project #</u> 99		<u>Matrix</u> Sludge		Collection Date/Time 09-Jul-13 14:00		<u>Received</u> 11-Jul-13		
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert
Volatile Or	rganic Compounds												
	VOC Extraction	Lab extracted		N/A			1	VOC Soil Extraction	12-Jul-13	12-Jul-13	DJB	1316473	In The state
	rganic Compounds by SW		R04			6.54							
Prepared t 67-64-1	by method SW846 5035A	< 0.500	<u>vel)</u> D	malla	0.500	<u>Init</u> 0.376	ial weight: 1 50	<u>14.99 g</u> SW846 8260C	15-Jul-13	17-Jul-13	naa	1316572	x x
107-13-1	Acetone	< 0.0500	D	mg/kg	0.0500	0.0448	50	300040 62000	10-Jul-13	" "	1100	1310372	. х
71-43-2	Acrylonitrile Benzene	< 0.0500	D	mg/kg mg/kg	0.0500	0.0448	50	an 2		н	31	я	x
75-27-4	Bromodichloromethane	< 0.0500	D	mg/kg	0.0500	0.0200	50	н		ĸ		u	x
75-25-2	Bromoform	< 0.0500	D	mg/kg	0.0500	0.0346	50				n	u	x
74-83-9	Bromomethane	< 0.100	D	10	0.100	0.0901	50						x
78-93-3	2-Butanone (MEK)		D	mg/kg	0.500	0.429	50	άn (		н	-	н	x
75-15-0	2-Butanone (MEK) Carbon disulfide	< 0.500	D	mg/kg			50				w	u	x
56-23-5		< 0.100	D	mg/kg	0.100	0.0715		н	'n	н		n	
	Carbon tetrachloride	< 0.0500		mg/kg	0.0500	0.0497	50 50	н					x x
108-90-7 75-00-3	Chlorobenzene	< 0.0500	D D	mg/kg	0.0500	0,0280	50		u	n	n	u	x
67-66-3	Chloroethane	< 0.100	D	mg/kg	0.100	0.0708	50	T .		ал И			x
	Chloroform	< 0.0500		mg/kg	0.0500	0.0245	50 50		u				
74-87-3	Chloromethane	< 0.100	D	mg/kg	0.100	0.0252	50	an a	u		u	u	x x
124-48-1	Dibromochloromethane	< 0.0500	D	mg/kg	0.0500	0.0240	50						x
95-50-1	1,2-Dichlorobenzene	< 0.0500	D	mg/kg	0.0500	0.0403	50	n	u		n	п	
541-73-1	1,3-Dichlorobenzene	< 0.0500	D	mg/kg	0.0500	0.0498	50			ï			X
106-46-7	1,4-Dichlorobenzene	< 0.0500	D	mg/kg	0.0500	0.0338	50		20			n	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.100	D	mg/kg	0.100	0.0844	50						Х
75-34-3	1,1-Dichloroethane	< 0.0500	D	mg/kg	0.0500	0.0489	50	•	н		"	п	х
107-06-2	1,2-Dichloroethane	< 0.0500	D	mg/kg	0.0500	0.0280	50	30.3	u		н	30.5	Х
75-35-4	1,1-Dichloroethene	< 0.0500	D	mg/kg	0.0500	0.0249	50	n	п	u	н		х
156-59-2	cis-1,2-Dichloroethene	< 0.0500	D	mg/kg	0.0500	0.0210	50		8 <b>1</b> 6		30	н	Х
156-60-5	trans-1,2-Dichloroethene	< 0.0500	D	mg/kg	0.0500	0.0415	50	u			н	8	х
78-87-5	1,2-Dichloropropane	< 0.0500	D	mg/kg	0.0500	0.0255	50	n i	п	*		ан:	х
10061-01-5	cis-1,3-Dichloropropene	< 0.0500	D	mg/kg	0.0500	0.0273	50	n	н	ű	H	u.	х
10061-02-6	trans-1,3-Dichloropropene	< 0.0500	D	mg/kg	0.0500	0.0142	50						х
100-41-4	Ethylbenzene	< 0.0500	D	mg/kg	0.0500	0.0305	50	н	3 <b>0</b> 3	8			х
591-78-6	2-Hexanone (MBK)	< 0.500	D	mg/kg	0.500	0.128	50	n	-11	п	u	н	х
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.500	D	mg/kg	0.500	0.163	50		đ <b>31</b> .	"		н	Х
75-09-2	Methylene chloride	< 0.100	D	mg/kg	0.100	0.0254	50		u	н	n.	н	х
100-42-5	Styrene	< 0.0500	D	mg/kg	0.0500	0.0370	50				u	W.	х
79-34-5	1,1,2,2-Tetrachloroethane	< 0.0500	D	mg/kg	0.0500	0.0380	50	u.	п	n		n	х
127-18-4	Tetrachloroethene	< 0.0500	D	mg/kg	0.0500	0.0286	50		э.			<b>8</b> 4	х
108-88-3	Toluene	< 0.0500	D	mg/kg	0.0500	0.0448	50	n			<b>N</b> .	u	х
71-55-6	1,1,1-Trichloroethane	< 0.0500	D	mg/kg	0.0500	0.0401	50		ж			.91	х
79-00-5	1,1,2-Trichloroethane	< 0.0500	D	mg/kg	0.0500	0.0430	50					н.	х
79-01-6	Trichloroethene	< 0.0500	D	mg/kg	0.0500	0.0383	50	в	н		н	н	х
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.0500	D	mg/kg	0,0500	0.0208	50	н	n	ų		n	х
75-01-4	Vinyl chloride	< 0.0500	D	mg/kg	0.0500	0.0469	50	н	u	н	н		х
	m,p-Xylene	< 0.100	D	mg/kg	0.100	0.0970	50	n		0	n	n	x
95-47-6	o-Xylene	< 0.0500	D	mg/kg	0.0500	0.0342	50		u	n.		au.	x

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2013010101 SB73033-0				<u>Client P</u> 99			<u>Matrix</u> Sludge		ction Date/ Jul-13 14:	17 B	1.1.1	ceived Jul-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cer
Volatile Org	ganic Compounds												
	anic Compounds by SW		R04										
Prepared by	y method SW846 5035A	Soil (high lev	<u>/el)</u>			<u>Init</u>	ial weight:	<u>14.99 g</u>					
Surrogate re	coveries:												
160-00-4	4-Bromofluorobenzene	88			70-13	0%		SW846 8260C	15-Jul-13	17-Jul-13	naa	1316572	
2037-26-5	Toluene-d8	106			70-13	0%				н	"	2	
7060-07-0	1,2-Dichloroethane-d4	108			70-13	0%				.0	"	"	
868-53-7	Dibromofluoromethane	109			70-13	0%				'n	11	"	
	anic Compounds	~	R04										
19.054446.0774	v method SW846 5035A	0.000			0 500		ial weight:	<u>14.99 g</u>	45 1 4 4 4		н		
	Acrolein	< 0.500	D	mg/kg	0.500	0.218	50		15-Jul-13 "			1316571	
	2-Chloroethylvinyl ether	< 0.500	D	mg/kg	0.500	0.130	50	u				11	
	Vinyl acetate	< 0.500	D	mg/kg	0.500	0.0650	50					u	
Surrogate re	coveries:												
	4-Bromofluorobenzene	96			70-13	80 %		u	u	н	и	*	
	Toluene-d8	101			70-13	0%			u	n	"	u	
868-53-7	Dibromofluoromethane	124			70-13	0%		н	30	÷ H.	n	и	
emivolatile	e Organic Compounds by (	GCMS											
	e Organic Compounds y method SW846 3550C		R05										
3-32-9	Acenaphthene	< 4.91	D	mg/kg	4.91	1.25	10	SW846 8270D	19-Jul-13	21-Jul-13	MSL	1317032	>
08-96-8	Acenaphthylene	< 4.91	D	mg/kg	4.91	1.36	10	n		u.	n		>
20-12-7	Anthracene	< 4.91	D	mg/kg	4.91	1.25	10	"	ан (	ι. Π	n	'n	>
6-55-3	Benzo (a) anthracene	< 4.91	D	mg/kg	4.91	1.31	10		n		u		>
0-32-8	Benzo (a) pyrene	< 4.91	D	mg/kg	4.91	1.34	10	n	in i	n,	•		>
05-99-2	Benzo (b) fluoranthene	< 4.91	D	mg/kg	4.91	1.07	10	n				9	>
91-24-2	Benzo (g,h,i) perylene	< 4.91	D	mg/kg	4.91	1.37	10		.0	Щ.	8	u	>
07-08-9	Benzo (k) fluoranthene	< 4.91	D	mg/kg	4.91	1.74	10		. <b>1</b>	ч			)
	Bis(2-chloroethoxy)metha ne	< 9.70	D	mg/kg	9.70	1.07	10	u	u	n		W	>
	Bis(2-chloroethyl)ether	< 4.91	D	mg/kg	4.91	1.18	10			n		u	×
	Bis(2-chloroisopropyl)ethe	< 4.91	D	mg/kg	4.91	1.25	10		ш	n		ж	)
	r												ć
17-81-7	Bis(2-ethylhexyl)phthalate	13.5	D	mg/kg	4.91	1.31	10	н	<b>u</b>	u		н	>
	4-Bromophenyl phenyl ether	< 9.70	D	mg/kg	9.70	1.22	10		ш	u	n	н	)
5-68-7	Butyl benzyl phthalate	< 9.70	D	mg/kg	9.70	1.24	10	<u>.</u>	H.	u	۳		)
6-74-8	Carbazole	< 4.91	D	mg/kg	4.91	4.01	10	ü		u		.0	)
9-50-7	4-Chloro-3-methylphenol	< 9.70	D	mg/kg	9.70	1.31	10	8	n	u.			)
06-47-8	4-Chloroaniline	< 4.91	D	mg/kg	4.91	2.68	10	.0	9 <b>0</b> 02			н	>
1-58-7	2-Chloronaphthalene	< 9.70	D	mg/kg	9.70	1.28	10		u				)
5-57-8	2-Chlorophenol	< 4.91	D	mg/kg	4.91	1.40	10	"	.01		и	н	)
	4-Chlorophenyl phenyl ether	< 9.70	D	mg/kg	9.70	1.11	10	"	n	<b>9</b> .		n	>
18-01-9	Chrysene	< 4.91	D	mg/kg	4.91	1.38	10		n	u		. <b>n</b> .:	>
3-70-3	Dibenzo (a,h) anthracene	< 4.91	D	mg/kg	4.91	1.27	10	п		2	u	n	)
32-64-9	Dibenzofuran	< 4.91	D	mg/kg	4.91	1.27	10	n		n			)
95-50-1	1,2-Dichlorobenzene	< 9.70	D	mg/kg	9.70	1.38	10	8	п	n		- 9	>
541-73-1	1,3-Dichlorobenzene	< 9.70	D	mg/kg	9.70	1.33	10				н	п	>

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Sample Id 20130101 SB73033				<u>Client P</u> 99	1940 - SOURA		<u>Matrix</u> Sludge		Collection Date/Time 09-Jul-13 14:00		S.	<u>ceived</u> -Jul-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolat	Semivolatile Organic Compounds by GCMS Semivolatile Organic Compounds Prepared by method SW846 3550C						0						
106-46-7	1,4-Dichlorobenzene	< 9.70	D	mg/kg	9.70	1.41	10	SW846 8270D	19-Jul-13	21-Jul-13	MSL	1317032	2 X
91-94-1	3,3'-Dichlorobenzidine	< 9.70	D	mg/kg	9.70	2,86	10	an dd	н	н	30		Х
120-83-2	2,4-Dichlorophenol	< 4.91	D	mg/kg	4.91	1.31	10		н	ji .			х
84-66-2	Diethyl phthalate	< 9.70	D	mg/kg	9.70	1.30	10			н	n		Х
131-11-3	Dimethyl phthalate	< 9.70	D	mg/kg	9.70	1.19	10	n	в		11	н	Х
105-67-9	2,4-Dimethylphenol	< 9.70	D	mg/kg	9.70	1.19	10	<b>n</b> .		н	n	(m)	х
84-74-2	Di-n-butyl phthalate	< 9.70	D	mg/kg	9.70	1.20	10	.0.	н		n		х
534-52-1	4,6-Dinitro-2-methylphenol	< 9.70	D	mg/kg	9.70	1.51	10	n	н		u		Х
51-28-5	2,4-Dinitrophenol	< 9.70	D	mg/kg	9.70	4.33	10				n		х
121-14-2	2,4-Dinitrotoluene	< 4.91	D	mg/kg	4.91	1.62	10		n	н	n.		Х
606-20-2	2,6-Dinitrotoluene	< 4.91	D	mg/kg	4,91	1.64	10	n					х
117-84-0	Di-n-octyl phthalate	< 9.70	D	mg/kg	9.70	1.24	10				11		х
206-44-0	Fluoranthene	< 4.91	D	mg/kg	4.91	1.37	10		3 <b>0</b>	н	31	9 <b>8</b> .2	Х
86-73-7	Fluorene	< 4.91	D	mg/kg	4.91	1.36	10	n	п		n		Х
118-74-1	Hexachlorobenzene	< 4.91	D	mg/kg	4.91	1.39	10		200	н	<b>.</b> n	n	х
87-68-3	Hexachlorobutadiene	< 4.91	D	mg/kg	4.91	1.23	10			и	n		х
77-47-4	Hexachlorocyclopentadien e	< 4.91	D	mg/kg	4.91	1.20	10	п	а <b>н</b>	î.	in i	аn <sup>с</sup>	х
67-72-1	Hexachloroethane	< 4.91	D	mg/kg	4.91	1.45	10				п.		Х
193-39-5	Indeno (1,2,3-cd) pyrene	< 4.91	D	mg/kg	4.91	1.36	10	н	н		U.	<b>.</b>	Х
78-59-1	Isophorone	< 4.91	D	mg/kg	4.91	1.10	10		н		u.	н	х
91-57-6	2-Methylnaphthalene	< 4.91	D	mg/kg	4.91	1.40	10	н	ា		an i	<b>1</b> 17	х
95-48-7	2-Methylphenol	< 9.70	D	mg/kg	9.70	1.20	10		n			н	Х
108-39-4, 106-44-5	3 & 4-Methylphenol	< 9.70	D	mg/kg	9.70	1.34	10	u X	80		9 <b>11</b> 2	an an	x
91-20-3	Naphthalene	< 4.91	D	mg/kg	4.91	1.37	10		н		n		Х
88-74-4	2-Nitroaniline	< 9.70	D	mg/kg	9.70	1.44	10		н	8	"	н	х
99-09-2	3-Nitroaniline	< 9.70	D	mg/kg	9.70	1.74	10				30.8		Х
100-01-6	4-Nitroaniline	< 4.91	D	mg/kg	4.91	1.44	10		u		n	u	Х
98-95-3	Nitrobenzene	< 4.91	D	mg/kg	4.91	1.20	10	**	30		n		Х
88-75-5	2-Nitrophenol	< 4.91	D	mg/kg	4.91	1.89	10	'n	н	ш	n	n	Х
100-02-7	4-Nitrophenol	< 38.8	D	mg/kg	38.8	2.18	10	u			3 <b>0</b> .2		Х
621-64-7	N-Nitrosodi-n-propylamine	< 4.91	D	mg/kg	4.91	1.21	10	**	n	н	n	**	Х
86-30-6	N-Nitrosodiphenylamine	< 9.70	D	mg/kg	9.70	1.25	10	u	а.		н	9	Х
87-86-5	Pentachlorophenol	< 9.70	D	mg/kg	9.70	1.46	10	u		в		u	Х
85-01-8	Phenanthrene	< 4.91	D	mg/kg	4.91	1.31	10		н	"	n	n	х
108-95-2	Phenol	< 9.70	D	mg/kg	9.70	1.28	10				n	n	х
129-00-0	Pyrene	< 4.91	D	mg/kg	4.91	1.19	10	ņ	н	R	u	u	Х
110-86-1	Pyridine	< 9.70	D	mg/kg	9.70	1.38	10	н	н		( <b>n</b> .)		Х
120-82-1	1,2,4-Trichlorobenzene	< 9.70	D	mg/kg	9.70	1.32	10	n		N.	u	n	Х
95-95-4	2,4,5-Trichlorophenol	< 9.70	D	mg/kg	9.70	1.13	10	n	n		.11		Х
88-06-2	2,4,6-Trichlorophenol	< 4.91	D	mg/kg	4.91	1.33	10				n		х
Surrogate i					a negati kati ngga kati kati kati kati kati kati kati kat	272						121	
321-60-8	2-Fluorobiphenyl	74			30-13				u	a 	u		
367-12-4	2-Fluorophenol	79			30-13	0%			, n	u	'n	m	

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Sample Identification 2013010101 SB73033-01				<u>Client Project #</u> 999		<u>Matrix</u> Sludge	Collection Date/Time 09-Jul-13 14:00			<u>Received</u> 11-Jul-13			
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolati	ile Organic Compounds by (	GCMS											
and a second second second second second second second second second second second second second second second	ile Organic Compounds by method SW846 3550C		R05										
4165-60-0	Nitrobenzene-d5	59			30-13	30 %		SW846 8270D	19-Jul-13	21-Jul-13	MSL	1317032	
4165-62-2	Phenol-d5	57			30-13	30 %		ñ		u.	u.		
1718-51-0	Terphenyl-dl4	90			30-13	30 %		u	8			11	
118-79-6	2,4,6-Tribromophenol	73			30-13	30 %			12 <b>.</b> .		щ	я	
Semivolati	ile Organic Compounds by C	ЭC											
	nated Biphenyls by method SW846 3550C												
12674-11-2	Aroclor-1016	< 0.0638		mg/kg	0.0638	0.0476	1	SW846 8082A	18-Jul-13	20-Jul-13	BLM	1316908	Х
11104-28-2	Aroclor-1221	< 0.0638		mg/kg	0.0638	0.0575	1		n	2 <b>0</b>	11		х
11141-16-5	Aroclor-1232	< 0.0638		mg/kg	0.0638	0.0409	1			ા		"	Х
53469-21-9	Aroclor-1242	< 0.0638		mg/kg	0.0638	0.0384	1			( <b>n</b> )			х
12672-29-6	Aroclor-1248	< 0.0638		mg/kg	0.0638	0.0332	1		н	8.M.	я	н	х
11097-69-1	Aroclor-1254	< 0.0638		mg/kg	0.0638	0.0532	1	п	н.		u		х
11096-82-5	Aroclor-1260	< 0.0638		mg/kg	0.0638	0.0395	1		30.0	я	u	"	х
Surrogate	recoveries:												
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	95			30-15	50 %			n				
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	90			30-15	50 %			u	n	u	u u	
2051-24-3	Decachlorobiphenyl (Sr)	100			30-15	50 %		9	и.	S.U.	н		
2051-24-3	Decachlorobiphenyl (Sr) [2C]	120			30-15	50 %			a)	n		"	

# Notes and Definitions

D	Data reported from a dilution
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QR5	RPD out of acceptance range.
R04	The Reporting Limits for this analysis are elevated due to sample foaming.
R05	Elevated Reporting Limits due to the presence of high levels of non-target analytes.
av.	

- dry Sample results reported on a dry weight basis
- NR Not Reported

RPD Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

<u>Method Detection Limit (MDL)</u>: The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

<u>Reportable Detection Limit (RDL)</u>: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification</u>: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by: Nicole Leja

Condition upon receipt	Ford Falor	DW = Drinking Water WW = Wastewater SW = Surface Water SL - Sludge X1 = X2 = X1 = X2 =	1=Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 2: 8=NaHSO <sub>4</sub> 9=De	Report To: Onondaga County Dept. W 7120 Henry Clay Blvd Liverpool, NY 13088 Telephone #: 315-435-5011	Spectrum Analytical,
Condition upon neceipt Ambient Iced	- Chini Ly	GW=Groundwater 0 = Oil S0 = Soil X3 = 2013010101 07/09/20	2=HCl 3=H <sub>2</sub> SO <sub>4</sub> 5=NaOH 9=Deionized Water 10=H <sub>3</sub> PO <sub>4</sub> 1	Report To: Onondaga County Dept. WEP Env. Lab 7120 Henry Clay Blvd Liverpool, NY 13088 Telephone #: 315-435-5011	Chain
Refrigerated	7-11-13 7-11-13 7/11/13	N Matrix	1 6=Ascorbic Acid 7	Invoice To: Onondaga County Dept. WEP Env. Lab 650 W. Hiawatha Blvd. Syracuse, NY 13204 Contract # 34512	Chain of Custody Record
9018 . Fax 413-789-4076 . www	Time 7:46 1740 2/00 2/00 2/00	# of Clear Glass # of Plastic EPA 8082 PP PCBs EPA 8260B PP(TCL) Volatile EPA 8270 PP(TCL) Semi-Vo	7=CH3OH	WEP Env. Lab	ecord
SollJar, Frozen 220 w.spretrum-analytical.com	Lemp Deg C EDD Format	Analyses State-specific reporting	List preserved code below // 2 OA/QC:Reporting Notes: *additional charges may apply	Site Name: Oak Orchard South Lagoon 630965-3C Identification 999 Sewer #: Type: Composite	Sb 13033 Special Handling Standard TAT - 7-10 Business days Rush TAT - Date Needed: > All TAT's subject to lab approval > Min. 24-hr notification needed for rushes > Samples disposed of after 60 days unless

.

# Method Number 702

NameEPA 8082 PP PCBsLab MatrixSpectrum SolidDescriptionPriority Pollutant Scan, Units:mg/kg dryLabSpectrum

# COMPOUNDS

i	Aroclor-1016
2	Aroclor-1221
3	Aroclor-1232
4	Aroclor-1242
5	Aroclor-1248
6	Aroclor-1254
7	Aroclor-1260

UNITS mg/kg dry mg/kg dry mg/kg dry

mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry

# 01/22/2013

Method Version 1

Method Number 703

Name	EPA 8260B PP(TCL) Volatiles
Lab Matrix	Spectrum Solid
Description	Priority Pollutant Scan, Units: mg/kg dry
Lab	Spectrum

#### .

	COMPOUNDS	<u>UNITS</u>
1	Acetone	mg/kg dry
2	Benzene	mg/kg dry
3	Bromodichloromethane	mg/kg dry
4	Bromoform	mg/kg dry
5	Bromomethane	mg/kg dry
6	2-Butanone (MEK)	mg/kg dry
7	Carbon disulfide	mg/kg dry
8	Carbon Tetrachloride	mg/kg dry
9	Chlorobenzene	mg/kg dry
10	Chloroethane	mg/kg dry
11	Chloroform	mg/kg dry
12	Chloromethane	mg/kg dry
13	Dibromochloromethane	mg/kg dry
14	1,1-Dichloroethane	mg/kg dry
15	1,2-Dichloroethane	mg/kg dry
16	1,1-Dichloroethene	mg/kg dry
17	1,2-Dichloroethene, Total	mg/kg dry
18	1,2-Dichloropropane	mg/kg dry
19	cis-1,3-Dichloropropene	mg/kg dry
20	trans-1,3-Dichloropropene	mg/kg dry
21	Ethylbenzene	mg/kg dry
22	2-Hexanone	mg/kg dry
23	Methylene Chloride	mg/kg dry
24	4-Methyl-2-Pentanone (MIBK)	mg/kg dry
25	Styrene	mg/kg dry
26	1,1,2,2-Tetrachloroethane	mg/kg dry
27	Tetrachloroethene	mg/kg dry
28	Toluene	mg/kg dry
29	1,1,1-Trichloroethane	mg/kg dry
30	1,1,2-Trichloroethane	mg/kg dry
31	Trichloroethene	mg/kg dry
32	Vinyl Chloride	mg/kg dry
33	Total Xylenes	mg/kg dry
34	Acrolein	mg/kg dry
35	Acrylonitrile	mg/kg dry
36	2-Chloroethylvinylether	mg/kg dry
37	Dichlorodifluoromethane	mg/kg dry
38	Trichlorofluoromethane	mg/kg dry
39	1,2-Dichlorobenzene	mg/kg dry
40	1,3-Dichlorobenzene	mg/kg dry
41	1,4-Dichlorobenzene	mg/kg dry
42	Vinyl Acetate	mg/kg dry

# Method Version 3

01/22/2013

# Method Number 704

NameEPA 8270 PP(TCL) Semi-VolLab MatrixSpectrum Solid

Description

Lab

Priority Pollutants, Units: mg/kg dry

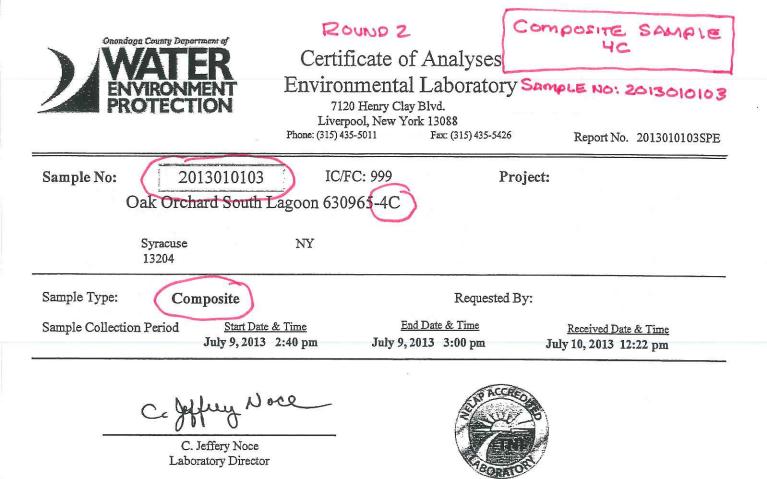
Spectrum

	COMPOUNDS	TINTETO
1	Acenaphthene	<u>UNITS</u> mg/kg dry
2	Acenaphthylene	mg/kg dry
3	Anthracene	mg/kg dry
4	Benzo (a) anthracene	mg/kg dry
5	Benzo (b) fluoranthene	mg/kg dry
6	Benzo (k) fluoranthene	mg/kg dry
7	Benzo (g,h,i) perylene	mg/kg dry
8	Benzo (a) pyrene	mg/kg dry
9	4-Bromophenyl phenyl ether	mg/kg dry
10	Butyl Benzyl Phthalate	mg/kg dry
11	Carbazole	mg/kg dry
12	4-Chloroaniline	mg/kg dry
13	bis(2-Chloroethoxy) methane	mg/kg dry
14	his (2-Chloroethyl) ether	mg/kg dry
15	bis (2-Chloroisopropyl) ether	mg/kg dry
16	4-Chloro-3-methylphenol	mg/kg dry
17	2-Chloronaphthalene	mg/kg dry
18	2-Chlorophenol	mg/kg dry
19	4-Chlorophenyl phenyl ether	mg/kg dry
20	Chrysene	mg/kg dry
21	Dibenz (a,h) anthracene	mg/kg dry
22	Dibenzofuran	mg/kg dry
23	Di-n-butyl phthalate	mg/kg dry
24	1,2-Dichlorobenzene	mg/kg dry
25	1,3-Dichlorobenzene	mg/kg dry
26	1,4-Dichlorobenzene	mg/kg dry
27	3,3-Dichlorobenzidine	mg/kg dry
28	2,4-Dichlorophenol	mg/kg dry
29	Diethyl phthalate	mg/kg dry
30	2,4-Dimethylphenol	mg/kg dry
31	Dimethyl phthalate	mg/kg dry
32	2,4-Dinitrophenol	mg/kg dry
33	2,4-Dinitrotoluene	mg/kg dry
34	2,6-Dinitrotoluene	mg/kg dry
35	Di-n-octyl phthalate	mg/kg dry
36	bis (2-Ethylhexyl) phthalate	mg/kg dry
37	Fluoranthene	mg/kg dry
38	Fluorene	mg/kg dry
39	Hexachlorobenzene	mg/kg dry
40	Hexachlorobutadiene	mg/kg dry
41	Hexachlorocyclopentadiene	mg/kg dry
42	Hexachloroethane	mg/kg dry
43	Indeno (1,2,3-c,d) pyrene	mg/kg dry
44	Isophorone	mg/kg dry

Method Version 1

Page 1 of 2

45	2-Methyl-4,6-dinitrophenol		mg/kg dry
46	2-Methyinaphthalene		mg/kg dry
47	2-Methylphenol (o-Cresol)		mg/kg dry
48	4-Methylphenol (p-Cresol)		mg/kg dry
49	Naphthalene		mg/kg dry
50	2-Nitroaniline		mg/kg dry
51	3-Nitroaniline		mg/kg dry
52	4-Nitroaniline		mg/kg dry
53	Nitrobenzene		mg/kg dry
54	2-Nitrophenol (o-Nitrophenol)		mg/kg dry
55	4-Nitrophenol		mg/kg dry
56	N-Nitrosodiphenylamine		mg/kg dry
57	N-Nitroso-di-n-propylamine		mg/kg dry
58	Pentachlorophenol		mg/kg dry
59	Phenanthrene		mg/kg dry
60	Phenol-C6H5OH		mg/kg dry
61	Pyrene		mg/kg dry
62	1,2,4-Trichlorobenzene	*	mg/kg dry
63	2,4,5-Trichlorophenol	,s	mg/kg dry
64	2,4,6-Trichlorophenol	10 10	mg/kg dry



New York ELAP ID# 10191

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the signature above has authorized the data contained in this report for release.

Onondaga County Department of WEP Environmental Laboratory holds certification in the State of New York for the analytes as indicated with an A in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes.

Onondaga County Department of WEP Environmental Laboratory is a New York State ELAP accredited laboratory and meets the NELAC testing standards. Use of the NELAC logo however does not insure that this environmental laboratory is currently accredited for the specified method or analyte indicated. This report may not be reproduced, except in full, without the approval from Onondaga County Dept of WEP.

Data Qualifier Flags

- N Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
- V Reported value is considered estimated due to variance from quality control or assurance criteria.
- U Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.
- P Unacceptable for field quality assurance criteria.
- X Reported value fails limnological or analytical reasonableness.

Result Codes: NC- Not Collected TNP - Test Not Performed NR - Not Required LA - Lab Accident EP - Error in Preservation Continuation of data for Report No. 2013010103 SPE

# Sample No: 2013010103

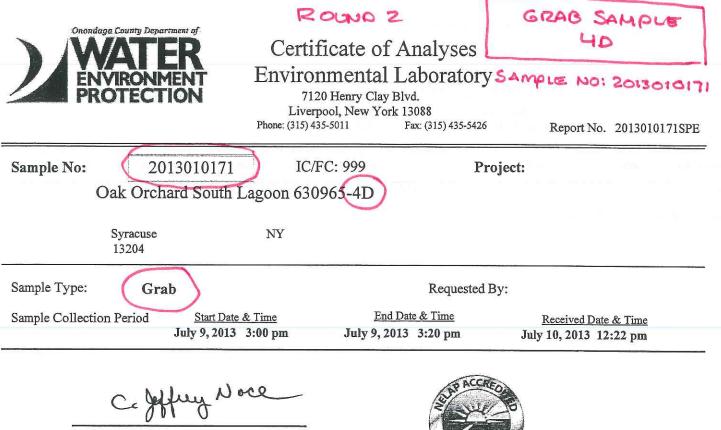
IC/FC: 999

# Oak Orchard South Lagoon 630965-4C

		<u>Start Date &amp; Time</u> July 9, 2013 2:40 pm Method	End Date & Time July 9, 2013 3:00 pm						
Parameter	Cert.		F	lesult	Flag	Tested On	Analyst	Prep On ]	Prep By
%TS	A	SM 18th Ed. (2540G)	6.4697	%		07/11/2013	KSTOC	07/11/2013	KSTOC
Ag	А	EPA SW 846 (6010B)	7.58	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
As	A	EPA SW846 (7060A)	0.538	mg/kg wet		07/16/2013	TPAUL	07/15/2013	CRICH
Ba	A	EPA 1994 (200.7)	70.0	mg/kg wet		07/25/2013	CSMAL	07/15/2013	CRICH
Cd	A	EPA SW 846 (6010B)	0.500	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Cr	Α	EPA SW 846 (6010B)	4.95	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Cu	A	EPA SW 846 (6010B)	61.0	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Hg	A	EPA SW 846 (7471A)	0.124	mg/kg wet		07/17/2013	TPAUL	07/15/2013	JBURN
Ni	Α	EPA SW 846 (6010B)		mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Pb	А	EPA SW 846 (6010B)		mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
Se	А	EPA SW846 (7740)		mg/kg wet		07/16/2013	TPAUL	07/15/2013	CRICH
Zn	Α	EPA SW 846 (6010B)	94.7	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH

Sample Remarks:

Metals



C. Jeffery Noce Laboratory Director



I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the signature above has authorized the data contained in this report for release.

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Data Qualifier Flags

- N Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
- V Reported value is considered estimated due to variance from quality control or assurance criteria.
- U Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.
- P Unacceptable for field quality assurance criteria.
- X Reported value fails limnological or analytical reasonableness.

Result Codes: NC- Not Collected TNP - Test Not Performed NR - Not Required LA - Lab Accident EP - Error in Preservation

Continuation of data for Report No. 2013010171 SPE IC/FC: 999 2013010171 Sample No: Oak Orchard South Lagoon 630965-4D End Date & Time Start Date & Time July 9, 2013 3:00 pm July 9, 2013 3:20 pm Prep On Prep By Method Flag Tested On Analyst Parameter Cert. Result JCAPI 07/10/2013 Density 1.037 g/mL Sample Remarks: Density

	Round 2	Composite Sample 4C										
Report Date:		☑ Final Report	7									
25-Jul-13 17:25		□ Re-Issued Report										
		□ Revised Report										
	SPECTRUM ANALYTICAL, INC.											
	Featuring HANIBAL TECHNOLOGY											
Laboratory Report												
Onondaga County Dept. WEP Env. Lab	Project: Oak O	Project: Oak Orchard South Lagoon										
7120 Henry Clay Blvd. Liverpool, NY 13088	Project #: 999	ind a south sugeon										
Attn: Jeff Noce	110 <b>J</b> CC #. 555											
Laboratory ID <u>Client Sample ID</u>	Matrix	Date Sampled Date Received										
SB73028-01 2013010104	Sludge	09-Jul-13 15:20 11-Jul-13 21:00										
I attest that the information contained within the report requirements for each method. These results relate on All applicable NELAC requirements have been met.		ed against the quality control										

Massachusetts # M-MA138/MA1110 Connecticut # PH-0777 Florida # E87600/E87936 Maine # MA138 New Hampshire # 2538 New Jersey # MA011/MA012 New York # 11393/11840 Pennsylvania # 68-04426/68-02924 Rhode Island # 98 USDA # S-51435



Authorized by:

Juiole Leja

Nicole Leja Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 11 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

### CASE NARRATIVE:

The samples were received 1.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Additional dilution factors may be required to keep analyte concentration within instrument calibration.

Method SW846 5035A is designed to use on samples containing low levels of VOCs, ranging from 0.5 to 200 ug/Kg. Target analytes that are less responsive to purge and trap may be present at concentrations over 200ug/Kg but may not be reportable in the methanol preserved vial (SW846 5030). This is the result of the inherent dilution factor required for the methanol preservation.

All volatile soil/product/solid samples should be collected in accordance method SW846 5035/5035A. Any sample with a result below 200ug/Kg that has not been collected in accordance with method 5035/5035A must be evaluated as potentially biased low.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

# SW846 8260C

# **Calibration:**

# 1307033

Analyte quantified by quadratic equation type calibration.

2-Hexanone (MBK) 4-Methyl-2-pentanone (MIBK) Acetone Bromoform cis-1,3-Dichloropropene Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

S307951-ICV1

### S307951-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,2,3-Trichloropropane (79%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 S308221-CCV1

### S308258-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

2-Chloroethylvinyl ether (72%)

# SW846 8260C

#### **Calibration:**

S308258-ICV1

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010104 S308330-CCV1

# Samples:

#### S308221-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromodichloromethane (20.3%) Ethylbenzene (20.6%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 2013010104

#### S308330-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2-Chloroethylvinyl ether (-27.3%)

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010104

SB73028-01 2013010104

The Reporting Limits for this analysis are elevated due to sample foaming.

# SW846 8270D

# **Calibration:**

### 1306076

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol

This affected the following samples:

S307211-ICV1

# S307211-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

4-Nitroaniline (126%) Benzidine (76%) Pentachloronitrobenzene (79%)

# SW846 8270D

### **Calibration:**

S307211-ICV1

This affected the following samples:

1317032-BLK1 1317032-BS1 1317032-DUP1 1317032-MS1 1317032-MSD1 2013010104 S308501-CCV1 S308590-CCV1

#### Laboratory Control Samples:

#### 1317032 BS

Benzoic acid percent recovery 26 (30-130) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013010104

# Spikes:

1317032-MS1 Source: SB73028-01

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

2,4-Dinitrophenol 4,6-Dinitro-2-methylphenol Aniline Bis(2-ethylhexyl)phthalate Hexachlorocyclopentadiene Hexachloroethane

#### 1317032-MSD1 Source: SB73028-01

RPD out of acceptance range.

4,6-Dinitro-2-methylphenol

The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

3-Nitroaniline 4-Chloroaniline

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

2,4-Dinitrophenol 4,6-Dinitro-2-methylphenol Benzidine Bis(2-ethylhexyl)phthalate Hexachlorocyclopentadiene Hexachloroethane Pyridine

## **Duplicates:**

1317032-DUP1 Source: SB73028-01

This laboratory report is not valid without an authorized signature on the cover page. \* Reportable Detection Limit

### SW846 8270D

#### **Duplicates:**

1317032-DUP1 Source: SB73028-01

RPD out of acceptance range.

Bis(2-ethylhexyl)phthalate

#### Samples:

S308501-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

4-Chloroaniline (-31.0%) 4-Nitrophenol (-22.2%) Aniline (-26.2%) Benzoic acid (-33.6%) Benzyl alcohol (-30.1%) Carbazole (-30.8%) N-Nitrosodimethylamine (-30.3%) Pyridine (-29.1%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Benzidine (-68.5%)

This affected the following samples:

1317032-BLK1 1317032-BS1

#### S308590-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Aniline (-25.4%) Benzoic acid (-36.3%) Benzyl alcohol (-30.5%) Carbazole (-34.4%) N-Nitrosodimethylamine (-38.1%) Pyridine (-34.8%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Benzidine (-53.4%)

This affected the following samples:

1317032-DUP1 1317032-MS1 1317032-MSD1 2013010104

#### Sample Acceptance Check Form

Client:	Onondaga County Dept. WEP Env. Lab
Project:	Oak Orchard South Lagoon / 999
Work Order:	SB73028
Sample(s) received on:	7/11/2013
Received by:	Vickie Knowles

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

- 1. Were custody seals present?
- 2. Were custody seals intact?
- 3. Were samples received at a temperature of  $\leq 6^{\circ}$ C?
- 4. Were samples cooled on ice upon transfer to laboratory representative?
- 5. Were samples refrigerated upon transfer to laboratory representative?
- 6. Were sample containers received intact?
- 7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?
- 8. Were samples accompanied by a Chain of Custody document?
- 9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?
- 10. Did sample container labels agree with Chain of Custody document?
- 11. Were samples received within method-specific holding times?

Yes		
	$\Box$	
$\mathbf{N}$		

<u>Sample Id</u> 20130101 SB73028-	04			<u>Client P</u> 99			<u>Matrix</u> Sludge	State and the second se	ction Date Jul-13 15:	12		<u>ceived</u> Jul-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile O	rganic Compounds		94900.										
volatile O	VOC Extraction	Lab extracted		N/A			1	VOC Soil Extraction	12-Jul-13	12-Jul-13	DJB	1316473	
	anic Compounds by SW846 8260		R04										
21	by method SW846 5035A					(1997)	al weight: 15.2						
67-64-1	Acetone	< 0.491	D	mg/kg	0.491	0.369	50	SW846 8260C	15-Jul-13	17-Jul-13	naa	1316572	Х
107-13-1	Acrylonitrile	< 0.0491	D	mg/kg	0.0491	0.0440	50						Х
71-43-2	Benzene	< 0.0491	D	mg/kg	0.0491	0.0258	50					1	Х
75-27-4	Bromodichloromethane	< 0.0491	D	mg/kg	0.0491	0.0186	50					0	Х
75-25-2	Bromoform	< 0.0491	D	mg/kg	0.0491	0.0339	50			п	u		Х
74-83-9	Bromomethane	< 0.0982	D	mg/kg	0.0982	0.0885	50			U.	"		Х
78-93-3	2-Butanone (MEK)	< 0.491	D	mg/kg	0.491	0.421	50						Х
75-15-0	Carbon disulfide	< 0.0982	D	mg/kg	0.0982	0.0702	50		,	W.	.0		Х
56-23-5	Carbon tetrachloride	< 0.0491	D	mg/kg	0.0491	0.0488	50	<b>1</b>			u		Х
108-90-7	Chlorobenzene	< 0.0491	D	mg/kg	0.0491	0.0275	50	•	(H)	Ш3	81	a .	Х
75-00-3	Chloroethane	< 0.0982	D	mg/kg	0.0982	0.0695	50	•		u.	"		х
67-66-3	Chloroform	< 0.0491	D	mg/kg	0.0491	0.0240	50		e	н	31		Х
74-87-3	Chloromethane	< 0.0982	D	mg/kg	0.0982	0.0247	50		•				Х
124-48-1	Dibromochloromethane	< 0.0491	D	mg/kg	0.0491	0.0236	50		200 X.	Ũč	n		х
95-50-1	1,2-Dichlorobenzene	< 0.0491	D	mg/kg	0.0491	0.0395	50						Х
541-73-1	1,3-Dichlorobenzene	< 0.0491	D	mg/kg	0.0491	0.0489	50		•	1	u	•	Х
106-46-7	1,4-Dichlorobenzene	< 0.0491	D	mg/kg	0.0491	0.0332	50		1 <b>.</b>	н.		3 <b>9</b> 37	Х
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.0982	D	mg/kg	0.0982	0.0829	50	×	н	ii) Ci	n		х
75-34-3	1,1-Dichloroethane	< 0.0491	D	mg/kg	0.0491	0.0480	50	н		H.	B		х
107-06-2	1,2-Dichloroethane	< 0.0491	D	mg/kg	0.0491	0.0275	50		5 <b>0</b> 2	u:			х
75-35-4	1,1-Dichloroethene	< 0.0491	D	mg/kg	0.0491	0.0245	50	1	и			340	Х
156-59-2	cis-1,2-Dichloroethene	< 0.0491	D	mg/kg	0.0491	0.0206	50		5 <b>1</b> S				х
156-60-5	trans-1,2-Dichloroethene	< 0.0491	D	mg/kg	0.0491	0.0408	50	x	и				х
78-87-5	1,2-Dichloropropane	< 0.0491	D	mg/kg	0.0491	0.0250	50	ï	н	5	п		х
10061-01-5	cis-1,3-Dichloropropene	< 0.0491	D	mg/kg	0.0491	0.0268	50		( <b>R</b> .)			( <b>n</b> )	х
10061-02-6	trans-1,3-Dichloropropene	< 0.0491	D	mg/kg	0.0491	0.0139	50		u			•	х
100-41-4	Ethylbenzene	< 0.0491	D	mg/kg	0.0491	0.0299	50		80 T			( <b>u</b> )	х
591-78-6	2-Hexanone (MBK)	< 0.491	D	mg/kg	0.491	0.125	50	x	н				х
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.491	D	mg/kg	0.491	0.160	50		8 <b>1</b> 3			п	х
75-09-2	Methylene chloride	< 0.0982	D	mg/kg	0.0982	0.0250	50		2 <b>0</b>		n		х
100-42-5	Styrene	< 0.0491	D	mg/kg	0.0491	0.0363	50	ï			n		х
79-34-5	1,1,2,2-Tetrachloroethane	< 0.0491	D	mg/kg	0.0491	0.0373	50	1				u	x
127-18-4	Tetrachloroethene	< 0.0491	D	mg/kg	0.0491	0.0281	50		6 <b>8</b> .5		n	a.	х
108-88-3	Toluene	< 0.0491	D	mg/kg	0.0491	0.0440	50						х
71-55-6	1,1,1-Trichloroethane	< 0.0491	D	mg/kg	0.0491	0.0393	50		5.0.5			n	x
79-00-5	1,1,2-Trichloroethane	< 0.0491	D	mg/kg	0.0491	0.0422	50				n		x
79-01-6	Trichloroethene	< 0.0491	D	mg/kg	0.0491	0.0376	50	,	2 <b>0</b> 2		"	U.	x
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.0491	D	mg/kg	0.0491	0.0204	50	1			u	и	x
75-01-4	Vinyl chloride	< 0.0491	D	mg/kg	0.0491	0.0461	50	ĩ			ñ	( <b>B</b> ))	х
179601-23-1	m,p-Xylene	< 0.0982	D	mg/kg	0.0982	0.0952	50	2			u		x
95-47-6	o-Xylene	< 0.0491	D	9.19	0.0491	0.0335	50						~

Sample Identification 2013010104 SB73028-01				<u>Client P</u> 99	9 <u>roject #</u> 19		<u>Matrix</u> Sludge		ection Date 9-Jul-13 15	0.000/020	Received 11-Jul-13		
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile O	rganic Compounds												
	anic Compounds by SW846 8260 by method SW846 5035A		R04 (el)			Initi	al weight: 15.2	<u>7 g</u>					
Surrogate rec	coveries:												
460-00-4	4-Bromofluorobenzene	90			70-13	0%		SW846 8260C	15-Jul-13	17-Jul-13	naa	1316572	
2037-26-5	Toluene-d8	92			70-13	0 %		•		9			
17060-07-0	1,2-Dichloroethane-d4	104			70-13	0%		ា	10		H.	30	
1868-53-7	Dibromofluoromethane	102			70-13	0 %		n			n		
Volatile Orga	anic Compounds		R04										
Prepared	by method SW846 5035A	Soil (high lev	<u>(el)</u>			Initi	al weight: 15.2	<u>7 q</u>					
110-75-8	2-Chloroethylvinyl ether	< 0.491	D	mg/kg	0.491	0.128	50		15-Jul-13		n	1316571	
Surrogate rec	coveries:												
460-00-4	4-Bromofluorobenzene	98			70-13	0 %		•	٠			•	
2037-26-5	Toluene-d8	88			70-13	0 %					ж	( <b>n</b> ):	
1868-53-7	Dibromofluoromethane	116			70-13	0 %							
Semivolat	ile Organic Compounds by (	GCMS											
	organic Compounds by method SW846 3550C												
83-32-9	Acenaphthene	< 0.501		mg/kg	0.501	0.127	1	SW846 8270D	19-Jul-13	22-Jul-13	JG	1317032	х
208-96-8	Acenaphthylene	< 0.501		mg/kg	0.501	0.139	1			8	20		х
120-12-7	Anthracene	< 0.501		mg/kg	0.501	0.128	1	n	0.003		<b>n</b> e -	30	х
56-55-3	Benzo (a) anthracene	< 0.501		mg/kg	0.501	0.134	1	2007. 2. <b>11</b> 755 -		x		B.	х
50-32-8	Benzo (a) pyrene	< 0.501		mg/kg	0.501	0.136	1		(A)	×		90	х
205-99-2	Benzo (b) fluoranthene	< 0.501		mg/kg	0.501	0.109	i i	1		2	ч		х
191-24-2	Benzo (g,h,i) perylene	< 0.501		mg/kg	0.501	0.139	1	μ	1	×		96 1	х
207-08-9	Benzo (k) fluoranthene	< 0.501		mg/kg	0.501	0.177	1	a a		x	n		х
111-91-1	Bis(2-chloroethoxy)metha ne	< 0.990		mg/kg	0.990	0.109	1				.u	5 <b>1</b> 3	Х
111-44-4	Bis(2-chloroethyl)ether	< 0.501		mg/kg	0.501	0.121	1			X			х
108-60- <b>1</b>	Bis(2-chloroisopropyl)ethe	< 0.501		mg/kg	0.501	0.127	1				an a	II.	Х
117-81-7	Bis(2-ethylhexyl)phthalate	1.55		mg/kg	0.501	0.133	1			3			х
101-55-3	4-Bromophenyl phenyl ether	< 0.990		mg/kg	0.990	0.125	1		( <b>a</b> (		<b>N</b> .:	а.	Х
85-68-7	Butyl benzyl phthalate	< 0.990		mg/kg	0.990	0.126	1	1	•		n		х
86-74-8	Carbazole	< 0.501		mg/kg	0.501	0.409	1	1	5 <b>8</b> 5			30.5	х
59-50-7	4-Chloro-3-methylphenol	< 0.990		mg/kg	0.990	0.134	1	1	٠	×		н	х
106-47-8	4-Chloroaniline	< 0.501		mg/kg	0.501	0.273	1	н	1000		<b>R</b> .		Х
91-58-7	2-Chloronaphthalene	< 0.990		mg/kg	0.990	0.131	1						х
95-57 <b>-8</b>	2-Chlorophenol	< 0.501		mg/kg	0.501	0.143	1		( <b>n</b> .)	,	"	3 <b>0</b> 3	Х
7005-72-3	4-Chlorophenyl phenyl ether	< 0.990		mg/kg	0.990	0.113	1	·		•		٠	Х
218-01-9	Chrysene	< 0.501		mg/kg	0.501	0.141	1		5 <b>H</b> 5		ņ	( <b>•</b> )	Х
53-70-3	Dibenzo (a,h) anthracene	< 0.501		mg/kg	0.501	0.129	1	×.		8		•	Х
132-64-9	Dibenzofuran	< 0.501		mg/kg	0.501	0.130	1	и				1	Х
95-50-1	1,2-Dichlorobenzene	< 0.990		mg/kg	0.990	0.140	٦	u	•		N	• (	Х
541-73-1	1,3-Dichlorobenzene	< 0.990		mg/kg	0.990	0.136	ĩ	H.		ж.	u		Х
106-46-7	1,4-Dichlorobenzene	< 0.990		mg/kg	0.990	0.144	1			8	"		Х
91-94-1	3,3'-Dichlorobenzidine	< 0.990		mg/kg	0.990	0.292	1	n	<b>a</b> 2	¥.	u	з	Х

20130101	dentification 104			Client P	5		<u>Matrix</u>		ection Date/			ceived	
SB73028	-01			99	99		Sludge	09	9-Jul-13 15:	20	11-	Jul-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolat	ile Organic Compounds by (	GCMS											
	Organic Compounds												
	by method SW846 3550C				2.22	2 729	4				10		
120-83-2	2,4-Dichlorophenol	< 0.501		mg/kg	0.501	0.134	1	SW846 8270D	19-Jul-13	22-Jul-13	JG "	1317032	X
84-66-2	Diethyl phthalate	< 0.990		mg/kg	0.990	0.132	1	-	-				Х
131-11-3	Dimethyl phthalate	< 0.990		mg/kg	0.990	0.121	1						X
105-67-9	2,4-Dimethylphenol	< 0.990		mg/kg	0.990	0.121	1	7					X
84-74-2	Di-n-butyl phthalate	< 0.990		mg/kg	0.990	0.123	1						X
534-52-1	4,6-Dinitro-2-methylphenol	< 0.990		mg/kg	0.990	0.154	1		, V				X
51-28-5	2,4-Dinitrophenol	< 0.990		mg/kg	0.990	0.442	1				ñ	-	Х
121-14-2	2,4-Dinitrotoluene	< 0.501		mg/kg	0.501	0.165	1				ň		Х
606-20-2	2,6-Dinitrotoluene	< 0.501		mg/kg	0.501	0.168	1						Х
117-84-0	Di-n-octyl phthalate	< 0.990		mg/kg	0.990	0.127	1		2 11				Х
206-44-0	Fluoranthene	< 0.501		mg/kg	0.501	0.140	1						Х
86-73-7	Fluorene	< 0.501		mg/kg	0.501	0.139	1				"		Х
118-74-1	Hexachlorobenzene	< 0.501		mg/kg	0.501	0.142	1		n	<b>B</b> .			Х
87-68-3	Hexachlorobutadiene	< 0.501		mg/kg	0.501	0.126	1				8		Х
77-47-4	Hexachlorocyclopentadien e	< 0.501		mg/kg	0.501	0.122	1		u		и		Х
67-72-1	Hexachloroethane	< 0.501		mg/kg	0.501	0.148	1	÷	,		n		х
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.501		mg/kg	0.501	0.139	1			н.			x
78-59-1	Isophorone	< 0.501		mg/kg	0.501	0.112	1			· ·	"	ũ	x
91-57-6	2-Methylnaphthalene	< 0.501		mg/kg	0.501	0.143	1		0				x
95-48-7	2-Methylphenol	< 0.990		mg/kg	0.990	0.122	1		п		u		x
108-39-4,	3 & 4-Methylphenol	< 0.990		mg/kg	0.990	0.122	1	н					x
106-44-5	o a i montriprionor	0.000		nightg	0.000	0.107							A
91-20-3	Naphthalene	< 0.501		mg/kg	0.501	0.140	1	1	0			,	Х
88-74-4	2-Nitroaniline	< 0.990		mg/kg	0.990	0.147	1	×	Т <b>и</b>		и	2	Х
99-09-2	3-Nitroaniline	< 0.990		mg/kg	0.990	0.177	1		u .				Х
100-01-6	4-Nitroaniline	< 0.501		mg/kg	0.501	0.147	1		n	n			Х
98-95-3	Nitrobenzene	< 0.501		mg/kg	0.501	0.123	1	,		u.	n	.1	Х
88-75-5	2-Nitrophenol	< 0.501		mg/kg	0.501	0.192	1					1	х
100-02-7	4-Nitrophenol	< 3.96		mg/kg	3.96	0.222	1			u		э	Х
621-64-7	N-Nitrosodi-n-propylamine	< 0.501		mg/kg	0.501	0.124	1			ii.	n	9	х
86-30-6	N-Nitrosodiphenylamine	< 0.990		mg/kg	0.990	0.128	1	30	( <b>U</b> ))	u		ся.	Х
87-86-5	Pentachlorophenol	< 0.990		mg/kg	0.990	0.149	1						х
85-01-8	Phenanthrene	< 0.501		mg/kg	0.501	0.134	1	н	a.		9	3	х
108-95-2	Phenol	< 0.990		mg/kg	0.990	0.130	1				u	3	х
129-00-0	Pyrene	< 0.501		mg/kg	0.501	0.121	1	я	н		u		Х
110-86-1	Pyridine	< 0.990		mg/kg	0.990	0.141	1		u.				х
120-82-1	1,2,4-Trichlorobenzene	< 0.990		mg/kg	0.990	0.135	1		30.3		н		х
95-95-4	2,4,5-Trichlorophenol	< 0.990		mg/kg	0.990	0.116	1		н		n		х
88-06-2	2,4,6-Trichlorophenol	< 0.501		mg/kg	0.501	0.136	9		<b>W</b>		"		х
Surrogate re	coveries:												
321-60-8	2-Fluorobiphenyl	63			30-13	80 %				n			
367-12-4	2-Fluorophenol	57			30-13				п	н		н	
4165-60-0	Nitrobenzene-d5	61			30-13							n	
	Phenol-d5	52			30-13								

\* Reportable Detection Limit

Sample Id 20130101 SB73028					<u>Project #</u> 99		<u>Matrix</u> Sludge		ection Date 9-Jul-13 15	82.520		<u>ceived</u> Jul-13	ł
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolat	ile Organic Compounds by	GCMS											
	organic Compounds by method SW846 3550C												
1718-51-0	Terphenyl-dl4	72			30-13	0 %		SW846 8270D	19-Jul-13	22-Jul-13	JG	1317032	
118-79-6	2,4,6-Tribromophenol	79			30-13	0 %		•	( <b>B</b> )		3 <b>41</b> 37		
Semivolat	ile Organic Compounds by	GC											
the second second second second second second second second second second second second second second second s	ated Biphenyls by method SW846 3550C												
12674-11-2	Aroclor-1016	< 0.0643		mg/kg	0.0643	0.0480	1	SW846 8082A	18-Jul-13	20-Jul-13	BLM	1316908	Х
11104-28-2	Aroclor-1221	< 0.0643		mg/kg	0.0643	0.0579	1		2.40				Х
11141-16-5	Aroclor-1232	< 0.0643		mg/kg	0.0643	0.0413	1				n.	1	х
53469-21-9	Aroclor-1242	< 0.0643		mg/kg	0.0643	0.0387	1			э	n		Х
12672-29-6	Aroclor-1248	< 0.0643		mg/kg	0.0643	0.0334	1			3			Х
11097-69-1	Aroclor-1254	< 0.0643		mg/kg	0.0643	0.0536	1					a.	х
11096-82-5	Aroclor-1260	< 0.0643		mg/kg	0.0643	0.0399	1				•		х
Surrogate red	overies:												
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	120			30-15	0 %					π	н	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	110			30-15	0 %		i i			Π	н.	
2051-24-3	Decachlorobiphenyl (Sr)	120			30-15	0 %							
2051-24-3	Decachlorobiphenyl (Sr) [2C]	125			30-15	0 %					8	80.) -	

### Notes and Definitions

D	Data reported from a dilution
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR5	RPD out of acceptance range.
R04	The Reporting Limits for this analysis are elevated due to sample foaming.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

<u>Method Detection Limit (MDL)</u>: The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

<u>Reportable Detection Limit (RDL)</u>: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification</u>: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by: Kimberly Wisk Nicole Leja

Condition upon receipt:	Relinquished by	<u>Labild:</u> 73628.01	DW = Drinking Water WW = Wastewater SW = Surface Water SL - Sludge X1 = X2 =	1=Na2S2O3 3=D	Report To: Onondaga County Dept. W 7120 Henry Clay Blvd Liverpool, NY 13088 Telephone #: 315-435-5011	Spectrum Analytical, Inc.	
Ambjent	M Grand by:	Sample Id; Date / Time: 2013010104 07/09/2013 /5 <sup>-</sup> 20	r GW=Groundwater O = Oil r SO = Soil = X3 =	2=HCl 3=H <sub>2</sub> SO <sub>4</sub> 5=NaOH 6=Ast 9=Deionized Water 10=H <sub>3</sub> PO <sub>4</sub> 11=	EP Env. Lab	Chain of C	
Refrigerated DI-VOA Frozen		۲) # of A # of C # of P EPA 8082 PP PCI	VOA Vials Amber Glass Clear Glass Plastic <b>Bs</b>	6=Ascorbic Acid 7=CH <sub>3</sub> OH	Invoice To: Onondaga County Dept. WEP Env. Lab 650 W. Hiawatha Blvd. Syracuse, NY 13204 Contract # 34512	Chain of Custody Record	
Soil far Frozen 112 🖾	Temp Deg C:       EDD Format         Image: Deg C:       Image: Deg C:         Image: Deg C:	EPA 8260B PP(T(	_) Semi-Vo	List preserved code below	Site Name: Oak Orchard So Identification 999 Se Code: Se Type: Composite	<ul> <li>Standard TAT - 7-10 Business days</li> <li>Rush TAT - Date Needed:</li> <li>All TAT's subject to lab approval</li> <li>Min. 24-hr notification needed for rushes</li> <li>Samples disposed of after 60 days unless</li> </ul>	Specia
			State-specific reporting	QA/QC Reporting Notes: *additional charges may apply	Oak Orchard South Lagoon 630965-4C 999 Sewer #: mposite	led: approval eded for rushes er 60 days unless	Special Handling

Method Number 702

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Aroclor-1254

Aroclor-1260

	Name	EPA 8082 PP PCBs
	Lab Matrix	Spectrum Solid
	Description	Priority Pollutant Scan, Units:mg/kg dry
	Lab	Spectrum
	COMPOUNDS	UNITS
1	Aroclor-1016	mg/kg dry
2	Aroclor-1221	mg/kg dry
3	Aroclor-1232	mg/kg dry
4	Aroclor-1242	mg/kg dry
5	Aroclor-1248	mg/kg dry
100	2 2 CONSTRUCT	

Method Version 1

mg/kg dry

mg/kg dry

01/22/2013

### Method Number 703

#### Name

Lab

EPA 8260B PP(TCL) Volatiles Spectrum Solid

Description

Lab Matrix

Priority Pollutant Scan, Units: mg/kg dry

UNITS

Spectrum

## COMPOUNDS

	COMPOUNDS			<u>UNITS</u>
1	Acetone			mg/kg dry
2	Benzene			mg/kg dry
3	Bromodichloromethane			mg/kg dry
4	Bromoform			mg/kg dry
5	Bromomethane			mg/kg dry
6	2-Butanone (MEK)			mg/kg dry
7	Carbon disulfide			mg/kg dry
8	Carbon Tetrachloride			mg/kg dry
9	Chlorobenzene			mg/kg dry
10	Chloroethane		18	mg/kg dry
11	Chloroform		d <sup>ine</sup>	mg/kg dry
12	Chloromethane	÷.	10 10	mg/kg dry
13	Dibromochloromethane		n an	mg/kg dry
14	1,1-Dichloroethane			mg/kg dry
15	1,2-Dichloroethane			mg/kg dry
16	1,1-Dichloroethene			mg/kg dry
17	1,2-Dichloroethene, Total			mg/kg dry
18	1,2-Dichloropropane		1	mg/kg dry
19	cis-1,3-Dichloropropene			mg/kg dry
20	trans-1,3-Dichloropropene			mg/kg dry
21	Ethylbenzene			mg/kg dry
22	2-Hexanone			mg/kg dry
23	Methylene Chloride	20 R		mg/kg dry
24	4-Methyl-2-Pentanone (MIBK)			mg/kg dry
25	Styrene			mg/kg dry
26	1,1,2,2-Tetrachloroethane			mg/kg dry
27	Tetrachloroethene			mg/kg dry
28	Toluene			mg/kg dry
29	1,1,1-Trichloroethane			mg/kg dry
30	1,1,2-Trichloroethane			mg/kg dry
31	Trichloroethene		- <b>h</b>	mg/kg dry
32	Vinyl Chloride			mg/kg đry
33	Total Xylenes			mg/kg dry
34`	Acrolein			mg/kg dry
35	Acrylonitrile		8 I E	mg/kg dry
36	2-Chloroethylvinylether			mg/kg dry
37	Dichlorodifluoromethane	-10		mg/kg dry
38	Trichlorofluoromethane			m̀g/kg dry
39	1,2-Dichlorobenzene	×.	×	mg/kg dry
40	1,3-Dichlorobenzene			mg/kg dry
41	1,4-Dichlorobenzene	8 a 8		mg/kg dry
42	Vinyl Acetate			mg/kg dry

#### Method Version 3

01/22/2013

Method Number 704

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#### Name EPA 8270 PP(TCL) Semi-Vol Lab Matrix Spectrum Solid Description Priority Pollutants, Units: mg/kg dry Lab Spectrum **COMPOUNDS** UNITS Acenaphthene mg/kg dry Acenaphthylene mg/kg dry Anthracene mg/kg dry Benzo (a) anthracene mg/kg dry Benzo (b) fluoranthene mg/kg dry Benzo (k) fluoranthene mg/kg dry Benzo (g,h,i) perylene mg/kg dry Benzo (a) pyrene mg/kg dry 4-Bromophenyl phenyl ether mg/kg dry Butyl Benzyl Phthalate mg/kg dry Carbazole mg/kg dry 4-Chloroaniline mg/kg dry bis(2-Chloroethoxy) methane mg/kg dry bis (2-Chloroethyl) ether mg/kg dry bis (2-Chloroisopropyl) ether mg/kg dry 4-Chloro-3-methylphenol mg/kg dry 2-Chloronaphthalene mg/kg dry 2-Chlorophenol mg/kg dry 4-Chlorophenyl phenyl ether mg/kg dry Chrysene mg/kg dry Dibenz (a,h) anthracene mg/kg dry Dibenzofuran mg/kg dry Di-n-butyl phthalate mg/kg dry 1,2-Dichlorobenzene mg/kg dry 1,3-Dichlorobenzene mg/kg dry 1,4-Dichlorobenzene mg/kg dry 3,3-Dichlorobenzidine mg/kg dry 2,4-Dichlorophenol mg/kg dry Diethyl phthalate mg/kg dry 2,4-Dimethylphenol mg/kg dry Dimethyl phthalate mg/kg dry 2,4-Dinitrophenol mg/kg dry 2,4-Dinitrotoluene mg/kg dry 2,6-Dinitrotoluene mg/kg dry Di-n-octyl phthalate mg/kg dry bis (2-Ethylhexyl) phthalate mg/kg dry Fluoranthene mg/kg dry Fluorene mg/kg dry Hexachlorobenzene mg/kg dry Hexachlorobutadiene mg/kg dry Hexachlorocyclopentadiene mg/kg dry Hexachloroethane mg/kg dry Indeno (1,2,3-c,d) pyrene mg/kg dry

44 Isophorone

01/22/2013

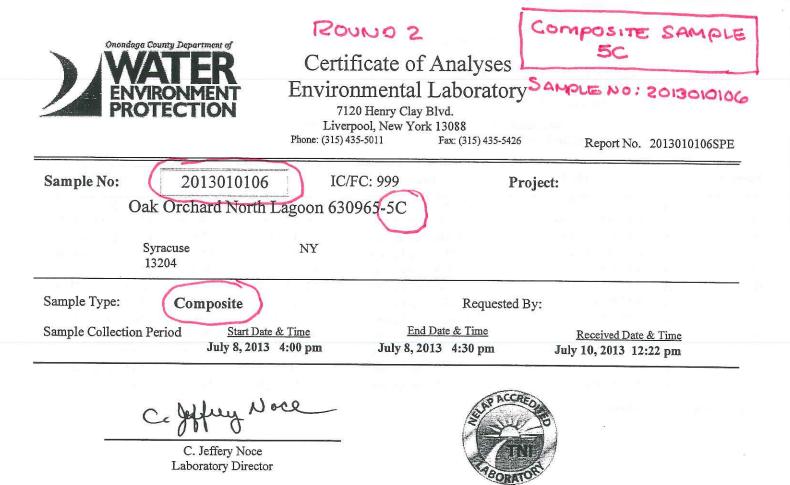
Method Version 1

Page 1 of 2

mg/kg dry

45	2-Methyl-4,6-dinitrophenol			mg/kg dry
46	2-Methylnaphthalene			mg/kg dry
47	2-Methylphenol (o-Cresol)			mg/kg dry
48	4-Methylphenol (p-Cresol)			mg/kg dry
49	Naphthalene			mg/kg dry
50	2-Nitroaniline			mg/kg dry
51	3-Nitroaniline			mg/kg dry
52	4-Nitroaniline			mg/kg dry
53	Nitrobenzene			mg/kg dry
54	2-Nitrophenol (o-Nitrophenol)			mg/kg dry
55	4-Nitrophenol			mg/kg dry
56	N-Nitrosodiphenylamine			mg/kg dry
57	N-Nitroso-di-n-propylamine			mg/kg dry
58	Pentachlorophenol			mg/kg dry
59	Phenanthrene			mg/kg dry
60	Phenol-C6H5OH			mg/kg dry
61	Pyrene			mg/kg dry
62	1,2,4-Trichlorobenzene		4	mg/kg dry
63	2,4,5-Trichlorophenol			mg/kg dry
64	2,4,6-Trichlorophenol	×.	520 No.	mg/kg dry

01/22/2013



New York ELAP ID# 10191

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the signature above has authorized the data contained in this report for release.

Onondaga County Department of WEP Environmental Laboratory holds certification in the State of New York for the analytes as indicated with an A in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes.

Onondaga County Department of WEP Environmental Laboratory is a New York State ELAP accredited laboratory and meets the NELAC testing standards. Use of the NELAC logo however does not insure that this environmental laboratory is currently accredited for the specified method or analyte indicated. This report may not be reproduced, except in full, without the approval from Onondaga County Dept of WEP.

Data Qualifier Flags

- N Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
- V Reported value is considered estimated due to variance from quality control or assurance criteria.
- U Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.
- P Unacceptable for field quality assurance criteria.

X - Reported value fails limnological or analytical reasonableness.

Result Codes: NC- Not Collected TNP - Test Not Performed NR - Not Required LA - Lab Accident EP - Error in Preservation Continuation of data for Report No. 2013010106 SPE

# Sample No: 2013010106 IC

IC/FC: 999

# Oak Orchard North Lagoon 630965-5C

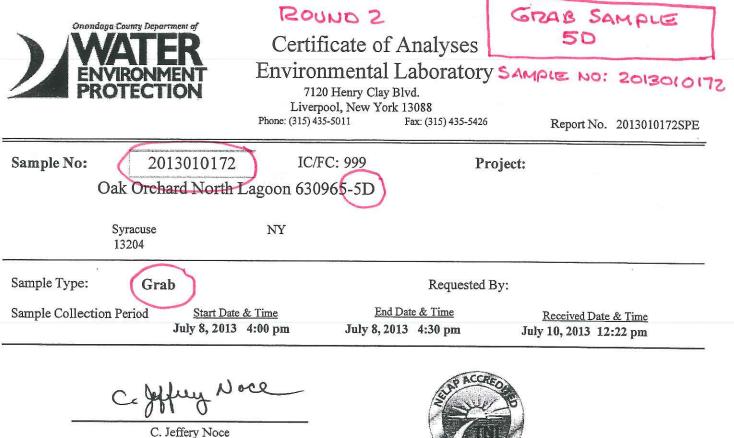
<u>Start Date & Time</u> July 8, 2013 4:00 pm End Date & Time July 8, 2013 4:30 pm

Parameter	Cert.	Method	F	lesult	Flag Tested On	Analyst	Prep On Prep By
%TS	A	SM 18th Ed. (2540G)	7.3660	%	07/11/2013	KSTOC	07/11/2013 KSTOC
Ag	Α	EPA SW 846 (6010B)	6.99	mg/kg wet	07/17/2013	JBURN	07/15/2013 CRICH
As	Α	EPA SW846 (7060A)	0.581	mg/kg wet	07/16/2013	TPAUL	07/15/2013 CRICH
Ba	Α	EPA 1994 (200.7)	85.4	mg/kg wet	07/25/2013	CSMAL	07/15/2013 CRICH
Cd	Α	EPA SW 846 (6010B)	0.419	mg/kg wet	07/17/2013	JBURN	07/15/2013 CRICH
Cr	A	EPA SW 846 (6010B)	5.33	mg/kg wet	07/17/2013	JBURN	07/15/2013 CRICH
Cu	А	EPA SW 846 (6010B)	57.1	mg/kg wet	07/17/2013	JBURN	07/15/2013 CRICH
Hg	Α	EPA SW 846 (7471A)	0.0853	mg/kg wet	07/17/2013	TPAUL	07/15/2013 JBURN
Ni	A	EPA SW 846 (6010B)	2.38	mg/kg wet	07/17/2013	JBURN	07/15/2013 CRICH
РЪ	Α	EPA SW 846 (6010B)		mg/kg wet	07/17/2013	JBURN	07/15/2013 CRICH
Se	A	EPA SW846 (7740)	0.350	mg/kg wet	07/16/2013	TPAUL	07/15/2013 CRICH
Zn	A	EPA SW 846 (6010B)	95.9	mg/kg wet	07/17/2013	JBURN	07/15/2013 CRICH

Sample Remarks:

Metals

Page 2 of 2



C. Jeffery Noce Laboratory Director

New York ELAP ID# 10191

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the signature above has authorized the data contained in this report for release.

Onondaga County Department of WEP Environmental Laboratory holds certification in the State of New York for the analytes as indicated with an A in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes.

Onondaga County Department of WEP Environmental Laboratory is a New York State ELAP accredited laboratory and meets the NELAC testing standards. Use of the NELAC logo however does not insure that this environmental laboratory is currently accredited for the specified method or analyte indicated. This report may not be reproduced, except in full, without the approval from Onondaga County Dept of WEP.

Data Qualifier Flags

- N Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
- V Reported value is considered estimated due to variance from quality control or assurance criteria.
- U Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.

P - Unacceptable for field quality assurance criteria.

X - Reported value fails limnological or analytical reasonableness.

Result Codes: NC- Not Collected TNP - Test Not Performed NR - Not Required LA - Lab Accident EP - Error in Preservation Continuation of data for Report No. 2013010172 SPE

Sample No: 2013010172 IC/FC: 999

# Oak Orchard North Lagoon 630965-5D

<u>Start Date & Time</u> July 8, 2013 4:00 pm End Date & Time July 8, 2013 4:30 pm

Parameter	Cert.	Method	R	esult	Flag	Tested On	Analyst	Prep On Prep By
Density			1.635	g/mL	1	07/10/2013	JCAPI	
Sample Remarks:		Density			ŝ			

Report Date:	ROUND 2	Composite SAMPLE 5C
24-Jul-13 14:36		□ Re-Issued Report
	こし	□ Revised Report
	SPECTRUM ANALYTICAL, INC. <i>Featuring</i> HANIBAL TECHNOLOGY	
	Laboratory Report	
Onondaga County Dept. WEP Env. Lab		
7120 Henry Clay Blvd.	Project: Oak O	rchard North Lagoon
Liverpool, NY 13088	Project #: 999	

Laboratory ID Client Sample ID SB73032-01

Attn: Jeff Noce

2013010107

Matrix Sludge

**Date Received** 11-Jul-13 21:00

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received. All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110 Connecticut # PH-0777 Florida # E87600/E87936 Maine # MA138 New Hampshire # 2538 New Jersey # MA011/MA012 New York # 11393/11840 Pennsylvania # 68-04426/68-02924 Rhode Island # 98 USDA # S-51435



Authorized by:

**Date Sampled** 

08-Jul-13 16:30

iole Leja

Nicole Leja Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 10 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report,



#### CASE NARRATIVE:

The samples were received 1.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Additional dilution factors may be required to keep analyte concentration within instrument calibration.

Method SW846 5035A is designed to use on samples containing low levels of VOCs, ranging from 0.5 to 200 ug/Kg. Target analytes that are less responsive to purge and trap may be present at concentrations over 200ug/Kg but may not be reportable in the methanol preserved vial (SW846 5030). This is the result of the inherent dilution factor required for the methanol preservation.

All volatile soil/product/solid samples should be collected in accordance method SW846 5035/5035A. Any sample with a result below 200ug/Kg that has not been collected in accordance with method 5035/5035A must be evaluated as potentially biased low.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

#### SW846 8260C

#### **Calibration:**

#### 1307033

Analyte quantified by quadratic equation type calibration.

2-Hexanone (MBK) 4-Methyl-2-pentanone (MIBK) Acetone Bromoform cis-1,3-Dichloropropene Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

S307951-ICV1

#### S307951-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,2,3-Trichloropropane (79%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 S308221-CCV1

#### S308258-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

2-Chloroethylvinyl ether (72%)

### SW846 8260C

#### **Calibration:**

S308258-ICV1

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010107 S308330-CCV1

#### Samples:

#### S308221-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromodichloromethane (20.3%) Ethylbenzene (20.6%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 2013010107

#### S308330-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2-Chloroethylvinyl ether (-27.3%)

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010107

SB73032-01 2013010107

The Reporting Limits for this analysis are elevated due to sample foaming.

#### SW846 8270D

#### **Calibration:**

#### 1306076

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol

This affected the following samples:

S307211-ICV1

#### S307211-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

4-Nitroaniline (126%) Benzidine (76%) Pentachloronitrobenzene (79%)

#### SW846 8270D

#### **Calibration:**

#### S307211-ICV1

This affected the following samples:

1317032-BLK1 1317032-BS1 2013010107 \$308501-CCV1 \$308590-CCV1 \$308656-CCV1

#### Laboratory Control Samples:

#### 1317032 BS

Benzoic acid percent recovery 26 (30-130) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013010107

#### Samples:

#### S308501-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

4-Chloroaniline (-31.0%) 4-Nitrophenol (-22.2%) Aniline (-26.2%) Benzoic acid (-33.6%) Benzyl alcohol (-30.1%) Carbazole (-30.8%) N-Nitrosodimethylamine (-30.3%) Pyridine (-29.1%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Benzidine (-68.5%)

#### This affected the following samples:

1317032-BLK1 1317032-BS1

#### S308656-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

3,3'-Dichlorobenzidine (41.6%)
4-Chloroaniline (-22.3%)
4-Nitrophenol (-22.6%)
Benzo (a) anthracene (20.3%)
Benzo (b) fluoranthene (22.3%)
Bis(2-chloroisopropyl)ether (-22.0%)
Pyridine (-27.3%)

This affected the following samples:

2013010107

#### Sample Acceptance Check Form

Client:	Onondaga County Dept. WEP Env. Lab
Project:	Oak Orchard North Lagoon / 999
Work Order:	SB73032
Sample(s) received on:	7/11/2013
Received by:	Vickie Knowles

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

- 1. Were custody seals present?
- 2. Were custody seals intact?
- 3. Were samples received at a temperature of  $\leq 6^{\circ}$ C?
- 4. Were samples cooled on ice upon transfer to laboratory representative?
- 5. Were samples refrigerated upon transfer to laboratory representative?
- 6. Were sample containers received intact?
- 7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?
- 8. Were samples accompanied by a Chain of Custody document?
- 9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?
- 10. Did sample container labels agree with Chain of Custody document?
- 11. Were samples received within method-specific holding times?

	_	
$\checkmark$		

Sample Id 20130101( SB73032-	13010107 373032-01			<u>Client Project #</u> 999			<u>Matrix</u> Sludge		Collection Date/Time 08-Jul-13 16:30		<u>Received</u> 11-Jul-13		
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Ceri
Volatila Or	ganic Compounds							ă	0		Ă		
Volatile Of	VOC Extraction	Lab extracted		N/A			1	VOC Soil Extraction	12-Jul-13	12-Jul-13	DJB	1316473	
and the second second second	ganic Compounds by SW by method SW846 5035A		R04 <u>/el)</u>			Init	ial weight:	16.11 g					
57-64-1	Acetone	< 0.466	D	mg/kg	0.466	0.350	50	SW846 8260C	15-Jul-13	17-Jul-13	naa	1316572	Х
107-13-1	Acrylonitrile	< 0.0466	D	mg/kg	0.0466	0.0417	50		н	'n			Х
71-43-2	Benzene	< 0.0466	D	mg/kg	0.0466	0.0244	50	u	n	u		н	х
75-27-4	Bromodichloromethane	< 0.0466	D	mg/kg	0.0466	0.0176	50		п	н	n		Х
75-25-2	Bromoform	< 0.0466	D	mg/kg	0.0466	0.0322	50	ü	Ű.	. <b>H</b> .	8		х
74-83-9	Bromomethane	< 0.0931	D	mg/kg	0.0931	0.0838	50						х
78-93-3	2-Butanone (MEK)	< 0.466	D	mg/kg	0.466	0.399	50	u.	.0	3 <b>.</b> 0	n		Х
75-15-0	Carbon disulfide	< 0.0931	D	mg/kg	0.0931	0.0665	50	n			u	n	Х
56-23-5	Carbon tetrachloride	< 0.0466	D	mg/kg	0.0466	0.0463	50			: 18):	ч	н	х
108-90-7	Chlorobenzene	< 0.0466	D	mg/kg	0.0466	0.0260	50		n	н	u		Х
75-00-3	Chloroethane	< 0.0931	D	mg/kg	0.0931	0.0659	50		n	:::::::::::::::::::::::::::::::::::::::	"		х
67-66-3	Chloroform	< 0.0466	D	mg/kg	0.0466	0.0228	50		u			н	Х
74-87-3	Chloromethane	< 0.0931	D	mg/kg	0.0931	0.0234	50		<b>3</b> 1 (	n	u I		х
124-48-1	Dibromochloromethane	< 0.0466	D	mg/kg	0.0466	0.0223	50				9		Х
95-50-1	1,2-Dichlorobenzene	< 0.0466	D	mg/kg	0.0466	0.0375	50		я				х
541-73-1	1,3-Dichlorobenzene	< 0.0466	D	mg/kg	0.0466	0.0463	50		u		u		х
106-46-7	1,4-Dichlorobenzene	< 0.0466	D	mg/kg	0.0466	0.0314	50		<b>u</b> 7	n.	ч	"	х
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.0931	D	mg/kg	0.0931	0.0785	50		u		**	u	х
75-34-3	1,1-Dichloroethane	< 0.0466	D	mg/kg	0.0466	0.0455	50		н.	0.002	u	n	Х
107-06-2	1,2-Dichloroethane	< 0.0466	D	mg/kg	0.0466	0.0260	50	<u>8</u>	n		u		х
75-35-4	1,1-Dichloroethene	< 0.0466	D	mg/kg	0.0466	0.0232	50		30.5		u .	"	Х
156-59-2	cis-1,2-Dichloroethene	< 0.0466	D	mg/kg	0.0466	0.0196	50		n	n	u		х
156-60-5	trans-1,2-Dichloroethene	< 0.0466	D	mg/kg	0.0466	0.0386	50		n	=: <b>n</b> :	11		Х
78-87-5	1,2-Dichloropropane	< 0.0466	D	mg/kg	0.0466	0.0237	50	ii	u		u		х
10061-01-5	cis-1,3-Dichloropropene	< 0.0466	D	mg/kg	0.0466	0.0254	50		u	i nô	ų		х
10061-02-6	trans-1,3-Dichloropropene	< 0.0466	D	mg/kg	0.0466	0.0132	50						х
100-41-4	Ethylbenzene	< 0.0466	D	mg/kg	0.0466	0.0284	50		п		ų		х
591-78-6	2-Hexanone (MBK)	< 0.466	D	mg/kg	0.466	0.119	50	ñ			u		х
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.466	D	mg/kg	0.466	0.151	50	п		<b>a</b>	9		х
75-09-2	Methylene chloride	< 0.0931	D	mg/kg	0.0931	0.0236	50		"		"	n	х
100-42-5	Styrene	< 0.0466	D	mg/kg	0.0466	0.0345	50		n		u.		х
79-34-5	1,1,2,2-Tetrachloroethane	< 0.0466	D	mg/kg	0.0466	0.0354	50	n	n			u	х
127-18-4	Tetrachloroethene	< 0.0466	D	mg/kg	0.0466	0.0266	50				ч		x
108-88-3	Toluene	< 0.0466	D	mg/kg	0.0466	0.0417	50		u		n	u	x
71-55-6	1,1,1-Trichloroethane	< 0.0466	D	mg/kg	0.0466	0.0373	50	и			5	u	х
79-00-5	1,1,2-Trichloroethane	< 0.0466	D	mg/kg	0.0466	0.0400	50	ũ.	n -	u		11	x
79-01-6	Trichloroethene	< 0.0466	D	mg/kg	0.0466	0.0357	50				. –		x
75-69-4	Trichlorofluoromethane (Freon 11)	< 0,0466	D	mg/kg	0.0466	0.0194	50	u	n	. <b>U</b> (	ĸ	u	x
75-01-4	Vinyl chloride	< 0.0466	D	mg/kg	0.0466	0.0437	50	и	ж	in:	н	1	Х
179601-23-1	m,p-Xylene	< 0.0931	D	mg/kg	0.0931	0.0903	50	u	n	u		u	х
95-47-6	o-Xylene	< 0.0466	D										• •

\* Reportable Detection Limit

Sample Id 20130101 SB73032-				<u>Client F</u> 99	P <u>roject #</u> 99		<u>Matrix</u> Sludge			Received 11-Jul-13			
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile O	rganic Compounds												
	rganic Compounds by SW by method SW846 5035A		R04 vel)			Init	ial weight:	16.11 a					
2		Con (mgn ic							E A				
Surrogate i 460-00-4	4-Bromofluorobenzene	86			70-13	0 %		SW846 8260C	15-Jul-13	17-Jul-13	naa	1316572	
2037-26-5	Toluene-d8	107			70-13			"	"				
17060-07-0	1,2-Dichloroethane-d4	117			70-13				30		0.		
1868-53-7	Dibromofluoromethane	115			70-13				н	u	n		
	rganic Compounds	170	R04										
	by method SW846 5035A	Soil (high lev				Init	ial weight:	<u>16.11 g</u>					
107-02-8	Acrolein	< 0.466	D	mg/kg	0.466	0.203	50		15-Jul-13	u	ж	1316571	
110-75-8	2-Chloroethylvinyl ether	< 0.466	D	mg/kg	0.466	0.121	50	Ň		н	n	u	
108-05-4	Vinyl acetate	< 0.466	D	mg/kg	0.466	0.0605	50	п	an a	н		м	
Surrogate i	recoveries:												
460-00-4	4-Bromofluorobenzene	94			70-13	0 %				ĸ	n	711	
2037-26-5	Toluene-d8	102			70-13			я		ц	n		
1868-53-7	Dibromofluoromethane	130			70-13					u	n		
	ile Organic Compounds by (												
	ile Organic Compounds by C	denio											
	by method SW846 3550C												
83-32-9	Acenaphthene	< 0.494		mg/kg	0.494	0.126	1	SW846 8270D	19-Jul-13	24-Jul-13	JG	1317032	X
208-96-8	Acenaphthylene	< 0.494		mg/kg	0.494	0.137	1	в	. Pi	н	90	n	Х
120-12-7	Anthracene	< 0.494		mg/kg	0.494	0.126	1	п				"	х
56-55-3	Benzo (a) anthracene	< 0.494		mg/kg	0.494	0.132	1	'n	ា	и	<b>.</b>	u	Х
50-32-8	Benzo (a) pyrene	< 0.494		mg/kg	0.494	0.134	1	ü		н		u	Х
205-99-2	Benzo (b) fluoranthene	< 0.494		mg/kg	0.494	0.107	1		n	"	: <b>N</b> 3	п	Х
191-24-2	Benzo (g,h,i) perylene	< 0.494		mg/kg	0.494	0.137	1	31	u		n	u	Х
207-08-9	Benzo (k) fluoranthene	< 0.494		mg/kg	0.494	0.175	1	<b></b>			100		Х
111-91-1	Bis(2-chloroethoxy)metha	< 0.976		mg/kg	0.976	0.107	1	8	.00		15	n	х
tanana uru ar	ne						640				.16	а	v
111-44-4	Bis(2-chloroethyl)ether	< 0.494		mg/kg	0.494	0.119	1	1			w		X
108-60-1	Bis(2-chloroisopropyl)ethe r	< 0.494		mg/kg	0.494	0.126	1					10.82	х
117-81-7	Bis(2-ethylhexyl)phthalate	< 0.494		mg/kg	0.494	0.131	1		au -	н	.0	н	Х
101-55-3	4-Bromophenyl phenyl ether	< 0.976		mg/kg	0.976	0.123	1	U					Х
85-68-7	Butyl benzyl phthalate	< 0.976		mg/kg	0.976	0.125	1		м				х
86-74-8	Carbazole	< 0.494		mg/kg	0.494	0.404	1					т	х
59-50-7	4-Chloro-3-methylphenol	< 0.976		mg/kg	0.976	0.132	1			- 9	n	n	х
106-47-8	4-Chloroaniline	< 0.494		mg/kg	0.494	0.270	1		u		n	n	х
91-58-7	2-Chloronaphthalene	< 0.976		mg/kg	0.976	0.129	1					н	х
95-57-8	2-Chlorophenol	< 0.494		mg/kg	0.494	0.141	1				n	n	х
7005-72-3	4-Chlorophenyl phenyl	< 0.976		mg/kg	0.976	0.112	1	"	ан.	n	an a	ાય	х
218-01-9	ether Chr/sene	< 0.494		mg/kg	0.494	0.139	1			9	n		х
53-70-3	Chrysene	< 0.494 < 0.494		mg/kg	0.494	0.139	1	u	ш	31			x
53-70-3 132-64-9	Dibenzo (a,h) anthracene				0.494	0.128	1	n				н	x
95-50-1	Dibenzofuran	< 0.494		mg/kg	0.976	0.120	1	n			н	n	X
	1,2-Dichlorobenzene	< 0.976		mg/kg				<b>i</b>		u			x
541-73-1	1,3-Dichlorobenzene	< 0.976		mg/kg	0.976	0.134	1						~

Sample Id 20130101	dentification 107	07 <u>Client Project # Matrix</u> <u>Collection Date/Time</u>				NUMBER 1963	Received						
SB73032	-01			99	99		Sludge	08	3-Jul-13 16:	30	11-Jul-13		
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolat	ile Organic Compounds by (	GCMS											
<u>Semivola</u>	tile Organic Compounds by method SW846 3550C												
106-46-7	1,4-Dichlorobenzene	< 0.976		mg/kg	0.976	0.142	1	SW846 8270D	19-Jul-13	24-Jul-13	JG	1317032	х
91-94-1	3,3'-Dichlorobenzidine	< 0.976		mg/kg	0.976	0.288	1	u			<b>. H</b>	u	х
120-83-2	2,4-Dichlorophenol	< 0.494		mg/kg	0.494	0.132	1			n.)		u	х
84-66-2	Diethyl phthalate	< 0.976		mg/kg	0.976	0.130	1	u		.0	.11	u	х
131-11-3	Dimethyl phthalate	< 0.976		mg/kg	0.976	0.119	1				u		х
105-67-9	2,4-Dimethylphenol	< 0.976		mg/kg	0.976	0.120	1			( <b>H</b> .)	н	н .	х
84-74-2	Di-n-butyl phthalate	< 0.976		mg/kg	0.976	0.121	1					u	х
534-52-1	4,6-Dinitro-2-methylphenol	< 0.976		mg/kg	0.976	0.152	1	<b></b>	п	.01	30	н	х
51-28-5	2,4-Dinitrophenol	< 0.976		mg/kg	0.976	0.436	1			n	u	u	x
121-14-2	2,4-Dinitrotoluene	< 0.494		mg/kg	0.494	0.163	1		н	п	u		х
606-20-2	2,6-Dinitrotoluene	< 0.494		mg/kg	0.494	0.166	1		"	n			х
117-84-0	Di-n-octyl phthalate	< 0.976		mg/kg	0.976	0.125	1			u	п	w	х
206-44-0	Fluoranthene	< 0.494		mg/kg	0.494	0.138	1				4	ñ	x
86-73-7	Fluorene	< 0.494		mg/kg	0.494	0.137	1	2002	"	н	<b>.</b>		х
118-74-1	Hexachlorobenzene	< 0.494		mg/kg	0.494	0.140	1		ñ	u			х
87-68-3	Hexachlorobutadiene	< 0.494		mg/kg	0.494	0.124	1		п		н.	n	х
77-47-4	Hexachlorocyclopentadien e	< 0.494		mg/kg	0.494	0.120	1		ü		и	ĸ	Х
67-72-1	Hexachloroethane	< 0.494		mg/kg	0.494	0.146	1	5 <b>10</b> 3	u	ju⊘	аr.		Х
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.494		mg/kg	0.494	0.137	1		u			n	х
78-59-1	Isophorone	< 0.494		mg/kg	0.494	0.111	1	- 10	в		а.	н	х
91-57-6	2-Methylnaphthalene	< 0.494		mg/kg	0.494	0.141	1		"	н	n		х
95-48-7	2-Methylphenol	< 0.976		mg/kg	0.976	0.120	1	<b>.</b>	ч	н			х
108-39-4, 106-44-5	3 & 4-Methylphenol	< 0.976		mg/kg	0.976	0.135	1		ũ		n	u	х
91-20-3	Naphthalene	< 0,494		mg/kg	0.494	0.138	1	3 <b>10</b> 3	2	ч	n		х
88-74-4	2-Nitroaniline	< 0.976		mg/kg	0.976	0.145	1		u		а <b>н</b> .	к	Х
99-09-2	3-Nitroaniline	< 0.976		mg/kg	0.976	0.175	1		8		н		х
100-01-6	4-Nitroaniline	< 0.494		mg/kg	0.494	0.145	1				н		х
98-95-3	Nitrobenzene	< 0.494		mg/kg	0.494	0.121	1		"	u	н		х
88-75-5	2-Nitrophenol	< 0.494		mg/kg	0.494	0.190	1	3.003	u	n.	н	н	Х
100-02-7	4-Nitrophenol	< 3.91		mg/kg	3.91	0.219	1		n		H	u.	х
621-64-7	N-Nitrosodi-n-propylamine	< 0.494		mg/kg	0.494	0.122	1	(1993)	н	п	н	"	х
86-30-6	N-Nitrosodiphenylamine	< 0.976		mg/kg	0.976	0.126	1		n		n	ű	x
87-86-5	Pentachlorophenol	< 0.976		mg/kg	0.976	0.147	1	3 <b>H</b>	u	n i	ा	н	х
85-01-8	Phenanthrene	< 0.494		mg/kg	0.494	0.132	1					ñ	х
108-95-2	Phenol	< 0.976		mg/kg	0.976	0.129	1		н		n	н	x
129-00-0	Pyrene	< 0.494		mg/kg	0.494	0.119	1	u.	"		H	u	x
110-86-1	Pyridine	< 0.976		mg/kg	0.976	0.139	1	u.	"	n		ņ.	х
120-82-1	1,2,4-Trichlorobenzene	< 0.976		mg/kg	0.976	0.133	1		n	'n	а.		х
95-95-4	2,4,5-Trichlorophenol	< 0.976		mg/kg	0.976	0.114	1	u.			n	n	x
88-06-2	2,4,6-Trichlorophenol	< 0.494		mg/kg	0.494	0.134	1	u	n		.u	н	x
Surrogate	recoveries:												
321-60-8	2-Fluorobiphenyl	63			30-13	0%						u	
367-12-4	2-Fluorophenol	53			30-13				п	н	n	u	
					00-10	- 10							

Sample Identification 2013010107 SB73032-01				<u>Client Project #</u> 999		<u>Matrix</u> Sludge	Collection Date/Time 08-Jul-13 16:30			<u>Received</u> 11-Jul-13			
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolati	ile Organic Compounds by G	GCMS											
	ile Organic Compounds by method SW846 3550C												
4165-60-0	Nitrobenzene-d5	61			30-13	0%		SW846 8270D	19-Jul-13	24-Jul-13	JG	1317032	
4165-62-2	Phenol-d5	48			30-13	0%		н	an:	"	36-0	.11	
1718-51-0	Terphenyl-dl4	78			30-13	0%			н	W	n	n	
118-79-6	2,4,6-Tribromophenol	70		30-130 %				n	н	н	<b>n</b> :	310	
Semivolatile Organic Compounds by GC													
	nated Biphenyls by method SW846 3550C												
12674-11-2	Aroclar-1016	< 0.0622		mg/kg	0.0622	0.0465	1	SW846 8082A	18-Jul-13	20-Jul-13	BLM	1316908	х
11104-28-2	Aroclor-1221	< 0.0622		mg/kg	0.0622	0.0561	1	n					х
11141-16-5	Aroclor-1232	< 0.0622		mg/kg	0.0622	0.0400	1				ай S	a.	х
53469-21-9	Aroclor-1242	< 0.0622		mg/kg	0.0622	0.0374	1	в	к				х
12672-29-6	Aroclor-1248	< 0.0622		mg/kg	0.0622	0.0324	1		н.,	8		н	х
11097-69-1	Aroclor-1254	< 0.0622		mg/kg	0.0622	0.0519	1	н	я		<b>30</b> .5	.0.	Х
11096-82-5	Aroclor-1260	< 0.0622		mg/kg	0.0622	0.0386	1		п	R	n		х
Surrogate i	recoveries:												
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	140			30-15	0%		n	n		u	n.	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	125		30-150 %				n	н	н	n	и	
2051-24-3	Decachlorobiphenyl (Sr)	125			30-15	0%		"	n				
2051-24-3	Decachlorobiphenyl (Sr) [2C]	75			30-15	0%		n	н	н	R		

#### Notes and Definitions

D	Data reported from a dilution
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QR5	RPD out of acceptance range.
R04	The Reporting Limits for this analysis are elevated due to sample foaming.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

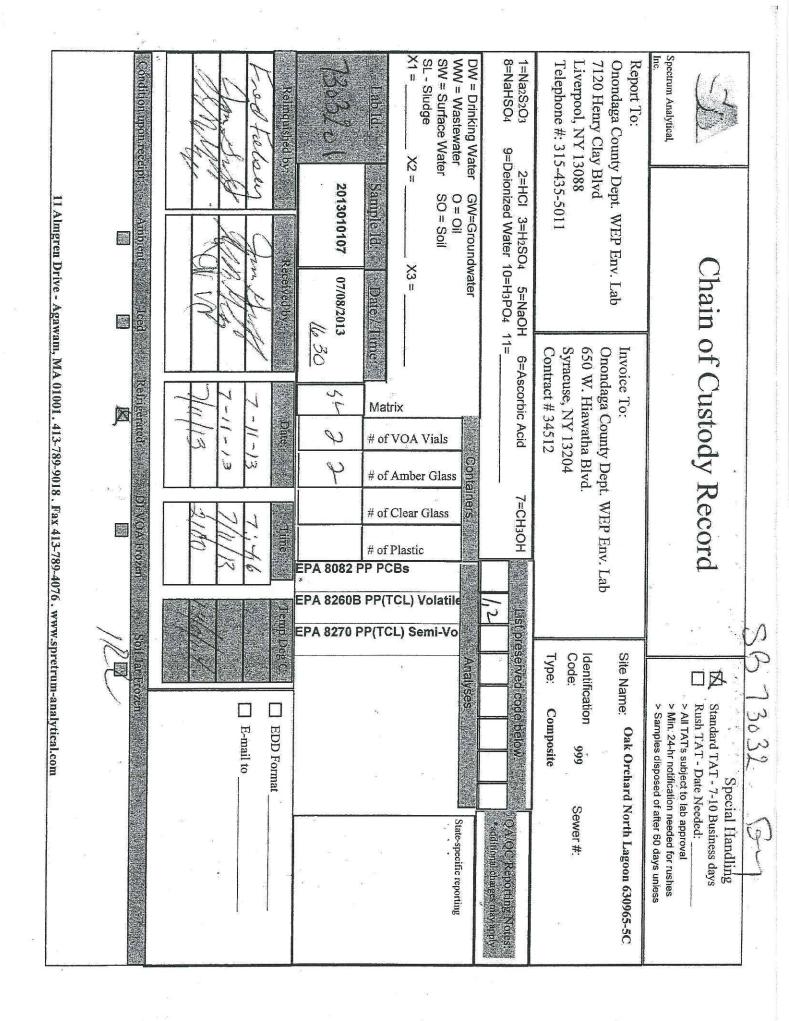
<u>Method Detection Limit (MDL)</u>: The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

<u>Reportable Detection Limit (RDL)</u>: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification:</u> The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by: Nicole Leja Rebecca Merz



Method Number 702

1

Name	EPA 8082 PP PCBs
Lab Matrix	Spectrum Solid
Description	Priority Pollutant Scan, Units:mg/kg dry
Lab	Spectrum
OUNDS	TINIT

# COMPOUNDS

- Aroclor-1016
- 2 Aroclor-1221
- 3 Aroclor-1232
- 4 Aroclor-1242
- 5 Aroclor-1248
- 6 Aroclor-1254
- 7 Aroclor-1260

UNITS mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry

mg/kg dry

## Method Number 703

	EPA 8260B PP(TCL) Volatiles
51 55	Spectrum Solid
is A	Priority Pollutant Scan, Units: mg/kg dry
0	Spectrum

Name

Lab

Lab Matrix Description

	COMPOUNDS		UNITS
1	Acetone		mg/kg dry
2	Benzene		mg/kg dry
3	Bromodichloromethane		mg/kg dry
4	Bromoform		mg/kg dry
5	Bromomethane	12	mg/kg dry
6	2-Butanone (MEK)		mg/kg dry
7	Carbon disulfide		mg/kg dry
8	Carbon Tetrachloride		mg/kg dry
9	Chlorobenzene		mg/kg dry
10	Chloroethane	151	mg/kg dry
11	Chloroform		mg/kg dry
12	Chloromethane		mg/kg dry
13	Dibromochloromethane	8 S	mg/kg dry
14	1,1-Dichloroethane		mg/kg dry
15	1,2-Dichloroethane		mg/kg dry
16	1,1-Dichloroethene		mg/kg dry
17	1,2-Dichloroethene, Total		mg/kg dry
18	1,2-Dichloropropane		mg/kg dry
19	cis-1,3-Dichloropropene		mg/kg dry
20	trans-1,3-Dichloropropene		mg/kg dry
21	Ethylbenzene		mg/kg dry
22	2-Hexanone		mg/kg dry
23	Methylene Chloride		mg/kg dry
24	4-Methyl-2-Pentanone (MIBK)		mg/kg dry
25	Styrene		mg/kg dry
26	1,1,2,2-Tetrachloroethane		mg/kg dry
27	Tetrachloroethene		mg/kg dry
28	Toluene		mg/kg dry
29	1,1,1-Trichloroethane		mg/kg dry
30	1,1,2-Trichloroethane		mg/kg dry
31	Trichloroethene	2	mg/kg dry
32	Vinyl Chloride		mg/kg dry
33	Total Xylenes		mg/kg dry
34	Acrolein		mg/kg dry
35	Acrylonitrile	-	mg/kg dry
36	2-Chloroethylvinylether		mg/kg dry
37	Dichlorodifluoromethane		mg/kg dry
38	Trichlorofluoromethane		mg/kg dry
39	1,2-Dichlorobenzene		mg/kg dry
40	1,3-Dichlorobenzene		mg/kg dry
41	1,4-Dichlorobenzene	2 19	mg/kg dry
42	Vinyl Acetate		mg/kg dry

Method Version 3

#### Method Number 704

#### Name

Lab

EPA 8270 PP(TCL) Semi-Vol Spectrum Solid

Lab Matrix Description

Priority Pollutants, Units: mg/kg dry

Spectrum

#### COMPOUNDS

Acenaphthene 1 2 Acenaphthylene 3 Anthracene 4 Benzo (a) anthracene 5 Benzo (b) fluoranthene Benzo (k) fluoranthene 6 7 Benzo (g,h,i) perylene 8 Benzo (a) pyrene 9 4-Bromophenyl phenyl ether 10 Butyl Benzyl Phthalate 11 Carbazole 12 4-Chloroaniline 13 bis(2-Chloroethoxy) methane 14 bis (2-Chloroethyl) ether 15 bis (2-Chloroisopropyl) ether 16 4-Chloro-3-methylphenol 17 2-Chloronaphthalene 18 2-Chlorophenol 19 4-Chlorophenyl phenyl ether 20 Chrysene 21 Dibenz (a,h) anthracene 22 Dibenzofuran 23 Di-n-butyl phthalate 24 1,2-Dichlorobenzene 25 1,3-Dichlorobenzene 26 1,4-Dichlorobenzene 27 3,3-Dichlorobenzidine 28 2,4-Dichlorophenol 29 Diethyl phthalate 30 2,4-Dimethylphenol 31 Dimethyl phthalate 32 2,4-Dinitrophenol 33 2,4-Dinitrotoluene 34 2,6-Dinitrotoluene 35 Di-n-octyl phthalate 36 bis (2-Ethylhexyl) phthalate 37 Fluoranthene 38 Fluorene 39 Hexachlorobenzene 40 Hexachlorobutadiene 41 Hexachlorocyclopentadiene 42 Hexachloroethane

43 Indeno (1,2,3-c,d) pyrene

44 Isophorone

Method Version 1

UNITS mg/kg dry

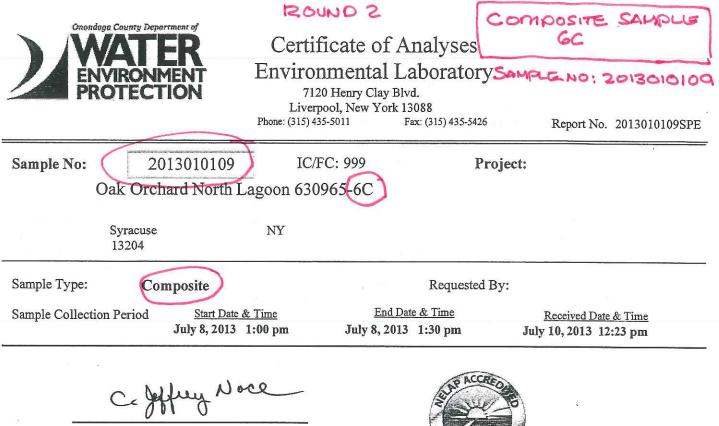
mg/kg dry

mg/kg dry

mg/kg dry

45	2-Methyl-4,6-dinitrophenol			mg/kg dry
46	2-Methylnaphthalene			mg/kg dry
47	2-Methylphenol (o-Cresol)			mg/kg dry
48	4-Methylphenol (p-Cresol)			mg/kg dry
49	Naphthalene			mg/kg dry
50	2-Nitroaniline	mg/kg dry		
51	3-Nitroaniline			mg/kg dry
52	4-Nitroaniline			mg/kg dry
53	Nitrobenzene			mg/kg dry
54	2-Nitrophenol (o-Nitrophenol)			mg/kg dry
55	4-Nitrophenol			mg/kg dry
56	N-Nitrosodiphenylamine			mg/kg dry
57	N-Nitroso-di-n-propylamine			mg/kg dry
58	Pentachlorophenol			mg/kg dry
59	Phenanthrene			mg/kg dry
60	Phenol-C6H5OH			mg/kg dry
61	Pyrene			mg/kg dry
62	1,2,4-Trichlorobenzene		¥.	mg/kg dry
63	2,4,5-Trichlorophenol		<i>.</i>	mg/kg dry
64	2,4,6-Trichlorophenol	1.	194	mg/kg dry

01/22/2013



C. Jeffery Noce Laboratory Director

VIA

New York ELAP ID# 10191

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the signature above has authorized the data contained in this report for release.

Onondaga County Department of WEP Environmental Laboratory holds certification in the State of New York for the analytes as indicated with an A in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes.

Onondaga County Department of WEP Environmental Laboratory is a New York State ELAP accredited laboratory and meets the NELAC testing standards. Use of the NELAC logo however does not insure that this environmental laboratory is currently accredited for the specified method or analyte indicated. This report may not be reproduced, except in full, without the approval from Onondaga County Dept of WEP.

Data Qualifier Flags

- N Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.
- V Reported value is considered estimated due to variance from quality control or assurance criteria.
- U Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes.
- P Unacceptable for field quality assurance criteria.
- X Reported value fails limnological or analytical reasonableness.

Result Codes: NC- Not Collected TNP - Test Not Performed NR - Not Required LA - Lab Accident

EP - Error in Preservation

## Sample No: 2013010109

IC/FC: 999

## Oak Orchard North Lagoon 630965-6C

<u>Start Date & Time</u> July 8, 2013 1:00 pm End Date & Time July 8, 2013 1:30 pm

A	SM 18th Ed. (2540G)					Analyst	52	Prep By
	Stri 1011 Lu. (23400)	11.5245	%		07/11/2013	KSTOC	07/11/2013	KSTOC
A	EPA SW 846 (6010B)	8.43	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
A	EPA SW846 (7060A)		1. The second second second second second second second second second second second second second second second		07/16/2013	TPAUL	07/15/2013	CRICH
A	EPA 1994 (200.7)	120	mg/kg wet		07/25/2013	CSMAL	07/15/2013	CRICH
A	EPA SW 846 (6010B)	0.820	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
A	EPA SW 846 (6010B)	8.32	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
A	EPA SW 846 (6010B)	97.1	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
A	EPA SW 846 (7471A)	0.130	mg/kg wet		07/17/2013	TPAUL	07/15/2013	JBURN
A	EPA SW 846 (6010B)	3.55	mg/kg wet		07/17/2013	JBURN	07/15/2013	CRICH
A	EPA SW 846 (6010B)				07/17/2013	JBURN	07/15/2013	CRICH
A	EPA SW846 (7740)				07/16/2013	TPAUL	07/15/2013	CRICH
A	EPA SW 846 (6010B)				07/17/2013	JBURN	07/15/2013	CRICH
	A A A A A A A A A	A       EPA SW846 (7060A)         A       EPA 1994 (200.7)         A       EPA SW 846 (6010B)         A       EPA SW 846 (6010B)	A       EPA SW846 (7060A)       0.605         A       EPA 1994 (200.7)       120         A       EPA SW 846 (6010B)       0.820         A       EPA SW 846 (6010B)       8.32         A       EPA SW 846 (6010B)       97.1         A       EPA SW 846 (6010B)       97.1         A       EPA SW 846 (6010B)       3.55         A       EPA SW 846 (6010B)       12.8         A       EPA SW 846 (6010B)       12.8         A       EPA SW 846 (6010B)       150	A       EPA SW846 (7060A)       0.605       mg/kg wet         A       EPA 1994 (200.7)       120       mg/kg wet         A       EPA SW 846 (6010B)       0.820       mg/kg wet         A       EPA SW 846 (6010B)       8.32       mg/kg wet         A       EPA SW 846 (6010B)       97.1       mg/kg wet         A       EPA SW 846 (6010B)       97.1       mg/kg wet         A       EPA SW 846 (6010B)       3.55       mg/kg wet         A       EPA SW 846 (6010B)       3.55       mg/kg wet         A       EPA SW 846 (6010B)       12.8       mg/kg wet         A       EPA SW 846 (7740)       0.410       mg/kg wet	A       EPA SW846 (7060A)       0.605       mg/kg wet         A       EPA 1994 (200.7)       120       mg/kg wet         A       EPA SW 846 (6010B)       0.820       mg/kg wet         A       EPA SW 846 (6010B)       8.32       mg/kg wet         A       EPA SW 846 (6010B)       97.1       mg/kg wet         A       EPA SW 846 (6010B)       97.1       mg/kg wet         A       EPA SW 846 (6010B)       3.55       mg/kg wet         A       EPA SW 846 (6010B)       3.55       mg/kg wet         A       EPA SW 846 (6010B)       12.8       mg/kg wet         A       EPA SW 846 (7740)       0.410       mg/kg wet	AEPA SW846 (7060A)0.605mg/kg wet07/16/2013AEPA 1994 (200.7)120mg/kg wet07/25/2013AEPA SW 846 (6010B)0.820mg/kg wet07/17/2013AEPA SW 846 (6010B)8.32mg/kg wet07/17/2013AEPA SW 846 (6010B)97.1mg/kg wet07/17/2013AEPA SW 846 (6010B)97.1mg/kg wet07/17/2013AEPA SW 846 (6010B)97.1mg/kg wet07/17/2013AEPA SW 846 (6010B)3.55mg/kg wet07/17/2013AEPA SW 846 (6010B)12.8mg/kg wet07/17/2013AEPA SW 846 (6010B)12.8mg/kg wet07/17/2013AEPA SW 846 (6010B)0.410mg/kg wet07/16/2013	AEPA SW846 (7060A)0.605mg/kg wet07/16/2013TPAULAEPA 1994 (200.7)120mg/kg wet07/25/2013CSMALAEPA SW 846 (6010B)0.820mg/kg wet07/17/2013JBURNAEPA SW 846 (6010B)8.32mg/kg wet07/17/2013JBURNAEPA SW 846 (6010B)97.1mg/kg wet07/17/2013JBURNAEPA SW 846 (6010B)97.1mg/kg wet07/17/2013JBURNAEPA SW 846 (6010B)97.1mg/kg wet07/17/2013JBURNAEPA SW 846 (6010B)3.55mg/kg wet07/17/2013JBURNAEPA SW 846 (6010B)12.8mg/kg wet07/17/2013JBURNAEPA SW 846 (6010B)12.8mg/kg wet07/17/2013JBURNAEPA SW 846 (6010B)0.410mg/kg wet07/16/2013TPAUL	AEPA SW846 (7060A)0.605mg/kg wet07/16/2013TPAUL07/15/2013AEPA 1994 (200.7)120mg/kg wet07/25/2013CSMAL07/15/2013AEPA SW 846 (6010B)0.820mg/kg wet07/17/2013JBURN07/15/2013AEPA SW 846 (6010B)8.32mg/kg wet07/17/2013JBURN07/15/2013AEPA SW 846 (6010B)97.1mg/kg wet07/17/2013JBURN07/15/2013AEPA SW 846 (6010B)97.1mg/kg wet07/17/2013JBURN07/15/2013AEPA SW 846 (6010B)97.1mg/kg wet07/17/2013JBURN07/15/2013AEPA SW 846 (6010B)3.55mg/kg wet07/17/2013JBURN07/15/2013AEPA SW 846 (6010B)12.8mg/kg wet07/17/2013JBURN07/15/2013AEPA SW 846 (6010B)12.8mg/kg wet07/17/2013JBURN07/15/2013AEPA SW 846 (7740)0.410mg/kg wet07/16/2013TPAUL07/15/2013

Sample Remarks:

Metals

Onondaga County Departm	ient of	Certificate of Analyses		GRAB SAMPLE GD			
ENVIRONME	NT En	vironmental 7120 Henry Clay	Laboratory Blvd.	SAMPLE NO:	2013010173		
	Phone	Liverpool, New Yor : (315) 435-5011	k 13088 Fax: (315) 435-5426	Report No	. )13010173		
Sample No: 20130	010173	IC/FC: 999	Pı	roject:			
Oak Orchard North Lagoon 630965-6D							
Syracuse 13204	NY						
Sample Type: Grab			Requested	By:			
Sampio Concentration 1	Start Date & Time 07/08/2013 15:00:	End Date & Time 07/08/2013 15:15:	Received I	Date: 07/10/2013			
<u>Parameter / Method</u> Density		<u>Result</u> TNP	<u>Flag T</u> 07/23/201	ested On / By 3 MFOWK	<u>Prep On / By</u>		
Sample Remarks: Densiity	not performed due to	o insufficient sample	volume. Less than	1 10 mL.			

I certify that to the best of my knowledge and belief, the data as reported is true and accurate. The Laboratory Director, or his designee, verified by the following signature has authorized the data contained in this report for release.

Coffiny Noce

C. Jeffery Noce Laboratory Director

Data Qualifier Flags

N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates. V - Reported value is considered estimated due to variance from quality control or assurance criteria. U - Indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes. P - Unacceptable for field quality assurance criteria.

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Result Codes: nc - not collected, tnp - test not performed, nr - not required, la - lab accident, ep - error in preservation

All Analysis Conducted According to NYS Certification Protocol NY Lab ID# 10191

Page 1 of 1

Printed: 07/25/2013

	2 OUND 2		GC SAMPLE
Report Date:		🗹 Final R	
24-Jul-13 14:57			ied Report d Report
	SPECTRUM ANALYTICAL, INC. <i>Featuring</i> HANIBAL TECHNOLOGY		
	Laboratory Report		
Onondaga County Dept. WEP Env. Lab			
7120 Henry Clay Blvd.	Project: Oak Orcha	rd North Lagoon	
Liverpool, NY 13088 Attn: Jeff Noce	Project #: 999		
Laboratory ID Client Sample ID	Matrix	Date Sampled	Date Received
SB73035-01 2013010110	Sludge	08-Jul-13 13:30	11-Jul-13 21:00
I attest that the information contained within th requirements for each method. These results re All applicable NELAC requirements have been		gainst the quality control	
Massachusetts # M-MA138/MA1110 Connecticut # PH-0777 Florida # E87600/E87936		Authorized by:	0 •

Nicole Leja Laboratory Director

Mucou

deja

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Maine # MA138

Rhode Island # 98 USDA # S-51435

New Hampshire # 2538 New Jersey # MA011/MA012 New York # 11393/11840

Pennsylvania # 68-04426/68-02924

Please note that this report contains 10 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.



### CASE NARRATIVE:

The samples were received 1.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/-1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Additional dilution factors may be required to keep analyte concentration within instrument calibration.

Method SW846 5035A is designed to use on samples containing low levels of VOCs, ranging from 0.5 to 200 ug/Kg. Target analytes that are less responsive to purge and trap may be present at concentrations over 200ug/Kg but may not be reportable in the methanol preserved vial (SW846 5030). This is the result of the inherent dilution factor required for the methanol preservation.

All volatile soil/product/solid samples should be collected in accordance method SW846 5035/5035A. Any sample with a result below 200ug/Kg that has not been collected in accordance with method 5035/5035A must be evaluated as potentially biased low.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

### SW846 8260C

### Calibration:

#### 1307033

Analyte quantified by quadratic equation type calibration.

2-Hexanone (MBK) 4-Methyl-2-pentanone (MIBK) Acetone Bromoform cis-1,3-Dichloropropene Dibromochloromethane trans-1,3-Dichloropropene

This affected the following samples:

S307951-ICV1

### S307951-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,2,3-Trichloropropane (79%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 S308221-CCV1

### S308258-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

2-Chloroethylvinyl ether (72%)

### SW846 8260C

### **Calibration:**

S308258-ICV1

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010110 S308330-CCV1

#### Samples:

### S308221-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromodichloromethane (20.3%) Ethylbenzene (20.6%)

This affected the following samples:

1316572-BLK1 1316572-BS1 1316572-BSD1 2013010110

#### S308330-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2-Chloroethylvinyl ether (-27.3%)

This affected the following samples:

1316571-BLK1 1316571-BS1 1316571-BSD1 2013010110

SB73035-01 2013010110

The Reporting Limits for this analysis are elevated due to sample foaming.

### SW846 8270D

#### **Calibration:**

#### 1306076

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol

This affected the following samples:

S307211-ICV1

### S307211-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

4-Nitroaniline (126%) Benzidine (76%) Pentachloronitrobenzene (79%)

### SW846 8270D

### **Calibration:**

### S307211-ICV1

This affected the following samples:

1317032-BLK1 1317032-BS1 2013010110 S308501-CCV1 S308590-CCV1

### Laboratory Control Samples:

### 1317032 BS

Benzoic acid percent recovery 26 (30-130) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

2013010110

### Samples:

### S308501-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

4-Chloroaniline (-31.0%) 4-Nitrophenol (-22.2%) Aniline (-26.2%) Benzoic acid (-33.6%) Benzyl alcohol (-30.1%) Carbazole (-30.8%) N-Nitrosodimethylamine (-30.3%) Pyridine (-29.1%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Benzidine (-68.5%)

This affected the following samples:

1317032-BLK1 1317032-BS1

S308590-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Carbazole (-34.4%) Pyridine (-34.8%)

This affected the following samples:

2013010110

### Sample Acceptance Check Form

Client:	Onondaga County Dept. WEP Env. Lab
Project:	Oak Orchard North Lagoon / 999
Work Order:	SB73035
Sample(s) received on:	7/11/2013
Received by:	Vickie Knowles

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

- 1. Were custody seals present?
- 2. Were custody seals intact?
- 3. Were samples received at a temperature of  $\leq 6^{\circ}$ C?
- 4. Were samples cooled on ice upon transfer to laboratory representative?
- 5. Were samples refrigerated upon transfer to laboratory representative?
- 6. Were sample containers received intact?
- 7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?
- 8. Were samples accompanied by a Chain of Custody document?
- 9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?
- 10. Did sample container labels agree with Chain of Custody document?
- 11. Were samples received within method-specific holding times?

<u>Yes</u>		
<ul><li>I</li></ul>		
	$\Box$	
$\overline{\mathbf{A}}$		

201301011 SB73035-(				Client F			<u>Matrix</u> Sludge		ection Date. 8-Jul-13 13:			<u>ceived</u> Jul-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prenared	Analyzed	Analyst	Ratch	Ce
				0,1110	100		Dimitor	Active Acg.	x repared	11110019.000	- integrat	Duten	
Volatile Or	ganic Compounds VOC Extraction	Lab extracted		N/A			1	VOC Soil Extraction	12-Jul-13	12-Jul-13	DJB	1316473	\$
	ganic Compounds by SW by method SW846 5035A		R04 /el)			Init	ial weight: '	16.45 g					
67-64-1	Acetone	< 0.456	D	mg/kg	0.456	0.343	50	SW846 8260C	15-Jul-13	17-Jul-13	naa	1316572	2 X
107-13-1	Acrylonitrile	< 0.0456	D	mg/kg	0.0456	0.0408	50	ũ.		u			Х
71-43-2	Benzene	< 0.0456	D	mg/kg	0.0456	0.0239	50				n		х
75-27-4	Bromodichloromethane	< 0.0456	D	mg/kg	0.0456	0.0172	50				20.		Х
5-25-2	Bromoform	< 0.0456	D	mg/kg	0.0456	0.0315	50	e.			n	n	X
74-83-9	Bromomethane	< 0.0912	D	mg/kg	0.0912	0.0821	50			3 <b>0</b> 3	3.91	u.	х
78-93-3	2-Butanone (MEK)	< 0.456	D	mg/kg	0.456	0.391	50	ü	п	н	u		Х
5-15-0	Carbon disulfide	< 0.0912	D	mg/kg	0.0912	0.0652	50			н	u	и	X
6-23-5	Carbon tetrachloride	< 0.0456	D	mg/kg	0.0456	0.0453	50	u			N	н	×
08-90-7	Chlorobenzene	< 0.0456	D	mg/kg	0.0456	0.0255	50		8	30	n	н	×
5-00-3	Chloroethane	< 0.0912	D	mg/kg	0.0912	0.0646	50		0				>
7-66-3	Chloroform	< 0.0456	D	mg/kg	0.0456	0.0223	50	н	u	н	н		,
4-87-3	Chloromethane	< 0.0912	D	mg/kg	0.0912	0.0229	50		u			n	3
24-48-1	Dibromochloromethane	< 0.0456	D	mg/kg	0.0456	0.0219	50	и			u.	er	
5-50-1	1,2-Dichlorobenzene	< 0.0456	D	mg/kg	0.0456	0.0367	50		ņ		u	**	
41-73-1	1,3-Dichlorobenzene	< 0.0456	D	mg/kg	0.0456	0.0454	50	п	n	н		"	
06-46-7	1,4-Dichlorobenzene	< 0.0456	D	mg/kg	0.0456	0.0308	50	ü			u		
5-71-8	Dichlorodifluoromethane (Freon12)	< 0.0912	D	mg/kg	0.0912	0.0769	50	u		п	۰.	н	
5-34-3	1,1-Dichloroethane	< 0.0456	D	mg/kg	0.0456	0.0445	50	**		п	н	ï	2
07-06-2	1,2-Dichloroethane	< 0.0456	D	mg/kg	0.0456	0.0255	50	u	н	-11	и	н	
5-35-4	1,1-Dichloroethene	< 0.0456	D	mg/kg	0.0456	0.0227	50		n	u	R III	н	
56-59-2	cis-1,2-Dichloroethene	< 0.0456	D	mg/kg	0.0456	0.0191	50	н	u.	≊ <b>n</b>	в		
56-60-5	trans-1,2-Dichloroethene	< 0.0456	D	mg/kg	0.0456	0.0378	50			u	е. —	H	
8-87-5	1,2-Dichloropropane	< 0.0456	D	mg/kg	0.0456	0.0232	50	н	an c	a		"	
0061-01-5	cis-1,3-Dichloropropene	< 0.0456	D	mg/kg	0.0456	0.0248	50	и	u	n			
0061-02-6	trans-1,3-Dichloropropene	< 0.0456	D	mg/kg	0.0456	0.0129	50	н		ņ	н		
00-41-4	Ethylbenzene	< 0.0456	D	mg/kg	0.0456	0.0278	50	ï					
91-78-6	2-Hexanone (MBK)	< 0.456	D	mg/kg	0.456	0.116	50	н	<b>n</b>				
08-10-1	4-Methyl-2-pentanone (MIBK)	< 0.456	D	mg/kg	0.456	0.148	50	л	u ș	н			
5-09-2	Methylene chloride	< 0.0912	D	mg/kg	0.0912	0.0232	50	п		ñ	я П,		
00-42-5	Styrene	< 0.0456	D	mg/kg	0.0456	0.0337	50		n	ñ	u	**	
9-34-5	1,1,2,2-Tetrachloroethane	< 0.0456	D	mg/kg	0.0456	0.0347	50	n	п	2		n	
27-18-4	Tetrachloroethene	< 0.0456	D	mg/kg	0.0456	0.0261	50	u	n	ii.	н	u	
08-88-3	Toluene	< 0.0456	D	mg/kg	0.0456	0.0409	50	u	"	n		u	
1-55-6	1,1,1-Trichloroethane	< 0.0456	D	mg/kg	0.0456	0.0365	50		.00	u			
9-00-5	1,1,2-Trichloroethane	< 0.0456	D	mg/kg	0.0456	0.0392	50		n	"		n	
9-01-6	Trichloroethene	< 0.0456	D	mg/kg	0.0456	0.0349	50	н				30	
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.0456	D	mg/kg	0.0456	0.0190	50	u	n	u	R		
′5-01-4	Vinyl chloride	< 0.0456	D	mg/kg	0.0456	0.0428	50	•	n	ũ			
79601-23-1		< 0.0912	D	mg/kg	0.0912	0.0884	50		u				1000
95-47-6	o-Xylene	< 0.0456	D	mg/kg	0.0456	0.0311	50			u			1

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\* Reportable Detection Limit

20130101 SB73035-				11.54	<u>Project #</u> 99		<u>Matrix</u> Sludge		ection Date 3-Jul-13 13:			<u>ceived</u> Jul-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Ceri
Volatile O	rganic Compounds Irganic Compounds by SW by method SW846 5035A		R04			Init	ial weight:	16.45 g		.1			
100								<u> </u>					
Surrogate 1 460-00-4	4-Bromofluorobenzene	85			70-13	0.0%		SW846 8260C	15-Jul-13	17-Jul-13	naa	1316572	e
2037-26-5	Toluene-d8	104			70-13			"	то-оц-то и	и и	naa "	"	6
17060-07-0	1,2-Dichloroethane-d4	111			70-13			u	н	н		ň	
1868-53-7	Dibromofluoromethane	110			70-13				п	п	u		
	rganic Compounds	110	R04		70-70	0 /0							
	by method SW846 5035A	Soil (high lev				Init	ial weight:	<u>16.45 q</u>					
107-02-8	Acrolein	< 0.456	D	mg/kg	0.456	0.199	50	u	15-Jul-13		u	1316571	
110-75-8	2-Chloroethylvinyl ether	< 0.456	D	mg/kg	0.456	0.119	50	u					
108-05-4	Vinyl acetate	< 0.456	D	mg/kg	0.456	0.0593	50	U	3 <b>0</b> %	3 <b>B</b>	n	н	
Surrogate	recoveries:				80	<i>r</i>							
460-00-4	4-Bromofluorobenzene	93			70-13	0%		n	an S		н	н	
2037-26-5	Toluene-d8	100			70-13								
1868-53-7	Dibromofluoromethane	125			70-13				n	,n	ü	'n	
	ile Organic Compounds by (				70-70								
	tile Organic Compounds	GCMB											
	by method SW846 3550C												
83-32-9	Acenaphthene	< 0.900		mg/kg	0.900	0.229	1	SW846 8270D	19-Jul-13	22-Jul-13	JG	1317032	X
208-96-8	Acenaphthylene	< 0.900		mg/kg	0.900	0.249	1	N.	u	, m	el ii		х
120-12-7	Anthracene	< 0.900		mg/kg	0.900	0.229	1	,					х
56-55-3	Benzo (a) anthracene	< 0.900		mg/kg	0.900	0.241	1	н		<b>(B</b> )	u	.0	х
50-32-8	Benzo (a) pyrene	< 0.900		mg/kg	0.900	0.245	1	n					х
205-99-2	Benzo (b) fluoranthene	< 0.900		mg/kg	0.900	0.195	1	N.			u	.0	х
191-24-2	Benzo (g,h,i) perylene	< 0.900		mg/kg	0.900	0.250	1	0			u	n	х
207-08-9	Benzo (k) fluoranthene	< 0.900		mg/kg	0.900	0.319	1	н	30%	( <b>10</b> )	ч	н	х
111-91-1	Bis(2-chloroethoxy)metha	< 1.78		mg/kg	1.78	0.196	1	u	u	u	ü	in.	х
111-44-4	Bis(2-chloroethyl)ether	< 0.900		mg/kg	0,900	0.217	°1	5 <b>0</b> 0	п	(91)	**	"	Х
108-60-1	Bis(2-chloroisopropyl)ethe	< 0.900		mg/kg	0.900	0.229	1	, a	n	u	u	N.	Х
117-81-7	Bis(2-ethylhexyl)phthalate	< 0.900		mg/kg	0.900	0.239	1	<b>u</b>	н		n	n	х
101-55-3	4-Bromophenyl phenyl ether	< 1.78		mg/kg	1.78	0,224	1			н	"	"	Х
85-68-7	Butyl benzyl phthalate	< 1.78		mg/kg	1.78	0.227	1	н				U	Х
86-74-8	Carbazole	< 0.900		mg/kg	0.900	0.735	1	'n	'n	ă <b>n</b> ă	H	10	Х
59-50-7	4-Chloro-3-methylphenol	< 1.78		mg/kg	1.78	0.241	1	W	u		n	n	х
106-47-8	4-Chloroaniline	< 0.900		mg/kg	0.900	0.491	1	n			) <b>u</b>	2	Х
91-58-7	2-Chloronaphthalene	< 1.78		mg/kg	1.78	0.236	1			<b>. n</b> .	л.		х
95-57-8	2-Chlorophenol	< 0.900		mg/kg	0.900	0.257	1		u			8	х
7005-72-3	4-Chlorophenyl phenyl ether	< 1.78		mg/kg	1.78	0.203	1	5 <b>H</b>	"	н	<b>.</b> .	u	х
218-01-9	Chrysene	< 0.900		mg/kg	0.900	0.254	1	*	н	u	ι. N	u	Х
53-70-3	Dibenzo (a,h) anthracene	< 0.900		mg/kg	0.900	0.232	1		n	u	u	и	х
132-64-9	Dibenzofuran	< 0.900		mg/kg	0.900	0,233	1	n.	Ŗ	n	'n		Х
95-50-1	1,2-Dichlorobenzene	< 1.78		mg/kg	1.78	0.252	1	S <b>H</b> .	н	н	305	u	Х
541-73-1	1,3-Dichlorobenzene	< 1.78		mg/kg	1.78	0.244	1	н				11	х

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20130101	dentification 110			Client P	- 838		<u>Matrix</u>		ection Date	1.12	25	ceived	
SB73035	-01			99	99		Sludge	08	8-Jul-13 13:	:30	11-	Jul-13	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert
Semivolat	ile Organic Compounds by C	GCMS											
	tile Organic Compounds by method SW846 3550C												
106-46-7	1,4-Dichlorobenzene	< 1.78		mg/kg	1.78	0.258	1	SW846 8270D	19-Jul-13	22-Jul-13	JG	1317032	x
91-94-1	3,3'-Dichlorobenzidine	< 1.78		mg/kg	1.78	0.524	1	в	.0	2 <b>1</b> 8	n	n	х
120-83-2	2,4-Dichlorophenol	< 0.900		mg/kg	0.900	0.241	1			n			Х
84-66-2	Diethyl phthalate	< 1.78		mg/kg	1.78	0,238	1		<b>.11</b> %	5 <b>H</b>	11	п	х
131-11-3	Dimethyl phthalate	< 1.78		mg/kg	1.78	0.217	1				u		Х
105-67-9	2,4-Dimethylphenol	< 1.78		mg/kg	1.78	0.218	1	u		ា	u	n	Х
84-74-2	Di-n-butyl phthalate	< 1.78		mg/kg	1.78	0.220	1		u	u			х
534-52-1	4,6-Dinitro-2-methylphenol	< 1.78		mg/kg	1.78	0.277	1		а		n =	n	Х
51-28-5	2,4-Dinitrophenol	< 1.78		mg/kg	1.78	0.794	1	n		n			х
121-14-2	2,4-Dinitrotoluene	< 0.900		mg/kg	0.900	0.296	1		an a				Х
606-20-2	2,6-Dinitrotoluene	< 0.900		mg/kg	0.900	0.302	1	<u>n</u>		π		н	х
117-84-0	Di-n-octyl phthalate	< 1.78		mg/kg	1.78	0.228	1		5 <b>11</b> 12				Х
206-44-0	Fluoranthene	< 0.900		mg/kg	0.900	0.251	1	я		ü			х
86-73-7	Fluorene	< 0.900		mg/kg	0.900	0.250	1			ч	n		х
118-74-1	Hexachlorobenzene	< 0.900		mg/kg	0.900	0.255	1			u	31	н	х
87-68-3	Hexachlorobutadiene	< 0.900		mg/kg	0.900	0.226	1	2	.0	u	"	n	х
77-47-4	Hexachlorocyclopentadien e	< 0.900		mg/kg	0.900	0.219	1	<u>n</u>	.0	n	u	п	х
67-72-1	Hexachloroethane	< 0.900		mg/kg	0.900	0.266	1		-	u	u		Х
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.900		mg/kg	0.900	0.249	1		u	ñ		311	х
78-59-1	Isophorone	< 0.900		mg/kg	0.900	0.202	1	u	u	ĸ	п	u	х
91-57-6	2-Methylnaphthalene	< 0.900		mg/kg	0.900	0.257	1	u		ш	<b>10</b> 0		х
95-48-7	2-Methylphenol	< 1.78		mg/kg	1.78	0.219	1	31	n	п		я	Х
108-39-4, 106-44-5	3 & 4-Methylphenol	< 1.78		mg/kg	1.78	0.246	1	н	. 11		38.5	( <b>H</b> .)	х
91-20-3	Naphthalene	< 0.900		mg/kg	0.900	0.251	1			<u></u>	•		х
88-74-4	2-Nitroaniline	< 1.78		mg/kg	1.78	0.264	1		2. <b>H</b> .	н	н	ж	Х
99-09-2	3-Nitroaniline	< 1.78		mg/kg	1.78	0.319	1					н	Х
100-01-6	4-Nitroaniline	< 0.900		mg/kg	0.900	0.264	1	30	<b></b>	n	30%	8 <b>0</b> .3	Х
98-95-3	Nitrobenzene	< 0.900		mg/kg	0.900	0.220	1		н	n	n	n	Х
88-75-5	2-Nitrophenol	< 0.900		mg/kg	0.900	0.346	1	н	п	n	н		х
100-02-7	4-Nitrophenol	< 7.11		mg/kg	7.11	0.400	1	п	n	ü	n	н	Х
621-64-7	N-Nitrosodi-n-propylamine	< 0.900		mg/kg	0.900	0.222	1	<b>3</b> 1	н	n	n	•	Х
86-30-6	N-Nitrosodiphenylamine	< 1.78		mg/kg	1.78	0.230	1	н		n	n	u	х
87-86-5	Pentachlorophenol	< 1.78		mg/kg	1.78	0.267	1		<b>3</b> 11	п	и	<b>n</b>	Х
85-01-8	Phenanthrene	< 0.900		mg/kg	0.900	0.240	1			ü	9		Х
108-95-2	Phenol	< 1.78		mg/kg	1.78	0.234	1	н	્ય		н		х
129-00-0	Pyrene	< 0.900		mg/kg	0.900	0.217	1			ii ii	u		х
110-86-1	Pyridine	< 1.78		mg/kg	1.78	0.253	1	11	n	ņ	и		х
120-82-1	1,2,4-Trichlorobenzene	< 1.78		mg/kg	1.78	0.243	1	n	u.	"	n		х
95-95-4	2,4,5-Trichlorophenol	< 1.78		mg/kg	1.78	0.208	1	u	u	н	н		х
88-06-2	2,4,6-Trichlorophenol	< 0.900		mg/kg	0.900	0.245	1	<b>10</b>		п	3 <b>0</b> .5		х
Surrogate	recoveries:			N									
321-60-8	2-Fluorobiphenyl	60			30-13	80 %		н	× n	"	<b>n</b> )	n	
367-12-4	2-Fluorophenol	47			30-13	80 %			u	n			

This laboratory report is not valid without an authorized signature on the cover page.

Sample Ic 20130101 SB73035-				Project # 99		<u>Matrix</u> Sludge		ction Date	200	-0 10	<u>ceived</u> Jul-13	
CAS No.	Analyte(s)	Result Fla	ag Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolat	ile Organic Compounds by O tile Organic Compounds by method SW846 3550C	GCMS										
4165-60-0	Nitrobenzene-d5	54		30-13	80 %		SW846 8270D	19-Jul-13	22-Jul-13	JG	1317032	
4165-62-2	Phenol-d5	43	30-130 %							и		
1718-51-0	Terphenyl-dl4	78		30-13	80 %			н	n			
118-79-6	2,4,6-Tribromophenol	74		30-13	80 %			н				
Semivolati	ile Organic Compounds by (	<del>G</del> C										
	nated Biphenyls by method SW846 3550C											
12674-11-2	Aroclor-1016	< 0.0650	mg/kg	0.0650	0.0485	1	SW846 8082A	18-Jul-13	20-Jul-13	BLM	1316908	Х
11104-28-2	Aroclor-1221	< 0.0650	mg/kg	0.0650	0.0585	1		н.				Х
11141-16-5	Aroclor-1232	< 0.0650	mg/kg	0.0650	0.0417	1		м.	u		<b>. R</b> .2	Х
53469-21-9	Aroclor-1242	< 0.0650	mg/kg	0.0650	0.0391	1		п			н	Х
12672-29-6	Aroclor-1248	< 0.0650	mg/kg	0.0650	0.0338	1				н		х
11097-69-1	Aroclor-1254	< 0.0650	mg/kg	0.0650	0.0541	1			u.	R	н	Х
11096-82-5	Aroclor-1260	< 0.0650	mg/kg	0.0650	0.0403	1	<b>9</b>	u			n	х
Surrogate I	recoveries:											
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	110		30-15	i0 %		W	n	W			
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	105		30-15	i0 %		u	n.			R	
2051-24-3	Decachlorobiphenyl (Sr)	120		30-15	io %			n			ж	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	115		30-15	50 %		'n	u	u			

### **Notes and Definitions**

D	Data reported from a dilution
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QR5	RPD out of acceptance range.
R04	The Reporting Limits for this analysis are elevated due to sample foaming.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

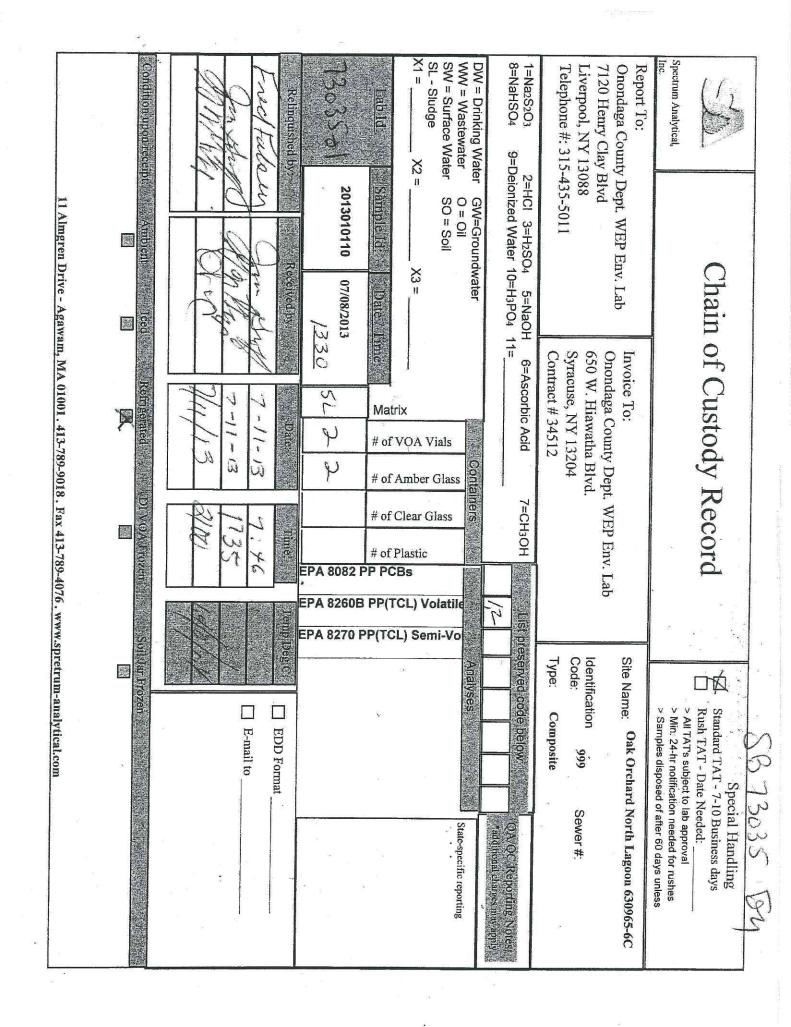
<u>Method Detection Limit (MDL)</u>: The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

<u>Reportable Detection Limit (RDL)</u>: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification</u>: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by: Nicole Leja Rebecca Merz



Method Number 702

1

### Name

Lab

Lab Matrix Description EPA 8082 PP PCBs Spectrum Solid Priority Pollutant Scan, Units:mg/kg dry

Spectrum

# COMPOUNDS

- Aroclor-1016
- Aroclor-1221
   Aroclor-1232
   Aroclor-1242
- 5 Aroclor-1248
- 6 Aroclor-1254
- 7 Aroclor-1260

UNITS mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry Method Version 1

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### Method Number 703

	2		

Lab Matrix

Description

EPA 8260B PP(TCL) Volatiles Spectrum Solid Priority Pollutant Scan, Units: mg/kg dry

Spectrum Lab

# COMPOUNDS

	COMPOUNDS	UNITS
1	Acetone +	mg/kg dry
2	Benzene	mg/kg dry
3	Bromodichloromethane	mg/kg dry
4	Bromoform	mg/kg dry
5	Bromomethane	mg/kg dry
6	2-Butanone (MEK)	mg/kg dry
7	Carbon disulfide	mg/kg dry
8	Carbon Tetrachloride	mg/kg dry
9	Chlorobenzene	mg/kg dry
10	Chloroethane	mg/kg dry
11	Chloroform	mg/kg dry
12	Chloromethane	mg/kg dry
13	Dibromochloromethane	mg/kg dry
14	1,1-Dichloroethane	mg/kg dry
15	1,2-Dichloroethane	mg/kg dry
16	1,1-Dichloroethene	mg/kg dry
17	1,2-Dichloroethene, Total	mg/kg dry
18	1,2-Dichloropropane	mg/kg dry
19	cis-1,3-Dichloropropene	mg/kg dry
20	trans-1,3-Dichloropropene	mg/kg dry
21	Ethylbenzene	mg/kg dry
22	2-Hexanone	mg/kg dry
23	Methylene Chloride	mg/kg dry
24	4-Methyl-2-Pentanone (MIBK)	mg/kg dry
25	Styrene	mg/kg dry
26	1,1,2,2-Tetrachloroethane	mg/kg dry
27	Tetrachloroethene	mg/kg dry
28	Toluene	mg/kg dry
29	1,1,1-Trichloroethane	mg/kg dry
30	1,1,2-Trichloroethane	mg/kg dry
31	Trichloroethene	mg/kg dry
32	Vinyl Chloride	mg/kg dry
33	Total Xylenes	mg/kg dry
34	Acrolein	mg/kg dry
35	Acrylonitrile	mg/kg dry
36	2-Chloroethylvinylether	mg/kg dry
37	Dichlorodifluoromethane	mg/kg dry
38	Trichlorofluoromethane	mg/kg dry
39	1,2-Dichlorobenzene	mg/kg dry
40	1,3-Dichlorobenzene	mg/kg dry
41	1,4-Dichlorobenzene	mg/kg dry
42	Vinyl Acetate	mg/kg dry

Method Version 3

Method Number 704

### Name

Lab

EPA 8270 PP(TCL) Semi-Vol Spectrum Solid

Lab Matrix Description

Priority Pollutants, Units: mg/kg dry

Spectrum

### COMPOUNDS

1 Acenaphthene 2 Acenaphthylene 3 Anthracene 4 Benzo (a) anthracene 5 Benzo (b) fluoranthene 6 Benzo (k) fluoranthene 7 Benzo (g,h,i) perylene 8 Benzo (a) pyrene 9 4-Bromophenyl phenyl ether 10 Butyl Benzyl Phthalate 11 Carbazole 12 4-Chloroaniline 13 bis(2-Chloroethoxy) methane 14 bis (2-Chloroethyl) ether 15 bis (2-Chloroisopropyl) ether 16 4-Chloro-3-methylphenol 17 2-Chloronaphthalene 18 2-Chlorophenol 19 4-Chlorophenyl phenyl ether 20 Chrysene 21 Dibenz (a,h) anthracene 22 Dibenzofuran 23 Di-n-butyl phthalate 24 1,2-Dichlorobenzene 25 1,3-Dichlorobenzene 26 1,4-Dichlorobenzene 27 3,3-Dichlorobenzidine 28 2,4-Dichlorophenol 29 Diethyl phthalate 30 2,4-Dimethylphenol 31 Dimethyl phthalate 32 2,4-Dinitrophenol 33 2,4-Dinitrotoluene 34 2,6-Dinitrotoluene 35 Di-n-octyl phthalate 36 bis (2-Ethylhexyl) phthalate 37 Fluoranthene 38 Fluorene 39 Hexachlorobenzene 40 Hexachlorobutadiene 41 Hexachlorocyclopentadiene 42 Hexachloroethane 43 Indeno (1,2,3-c,d) pyrene

44 Isophorone

Method Version 1

mg/kg dry mg/kg dry

mg/kg dry

UNITS

Page 1 of 2

45	2-Methyl-4,6-dinitrophenol			mg/kg dry
46	2-Methylnaphthalene			mg/kg dry
47	2-Methylphenol (o-Cresol)			mg/kg dry
48	4-Methylphenol (p-Cresol)			mg/kg dry
49	Naphthalene			mg/kg dry
50	2-Nitroaniline	-		mg/kg dry
51	3-Nitroaniline			mg/kg dry
52	4-Nitroaniline			mg/kg dry
53	Nitrobenzene			mg/kg dry
54	2-Nitrophenol (o-Nitrophenol)			mg/kg dry
55	4-Nitrophenol			mg/kg dry
56	N-Nitrosodiphenylamine			mg/kg dry
57	N-Nitroso-di-n-propylamine			mg/kg dry
58	Pentachlorophenol			mg/kg dry
59	Phenanthrene			mg/kg dry
60	Phenol-C6H5OH			mg/kg dry
61	Pyrene			mg/kg dry
62	1,2,4-Trichlorobenzene		8	mg/kg dry
63	2,4,5-Trichlorophenol		N	mg/kg dry
64	2,4,6-Trichlorophenol	сж.		mg/kg dry

01/22/2013

# APPENDICES TO SPECIAL PROJECT CONDITIONS

# APPENDIX C

Stormwater Pollution Prevention Plan (SWPPP) Report

# STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REPORT

FOR

# OAK ORCHARD WASTEWATER TREATMENT PLANT LAGOON CLEANING AND IMPROVEMENTS PROJECT

Town of Clay Onondaga County, New York

# **Owner/Operator:**

Onondaga County Department of Water Environment Protection 650 Hiawatha Blvd W. Syracuse, NY 13204

> **Published:** July 2013 Revised: February 2015

# **Prepared By:**



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### Appendix A

Exhibit 1: Miscellaneous Documentation

- a) EPA Sole Source Aquifer Map
- b) FEMA Flood Insurance Rate Maps
- c) National Wetland Inventory Map
- d) New York Nature Explorer Map
- e) New York State Aquifer Map
- f) NYSDEC Environmental Resource Map
- g) NYSDEC Stormwater Map
- h) New York State SHPO Map
- i) Soils Map
- j) Watershed Profile

Exhibit 2: Erosion Control Plans and Details

### References

 "OAK ORCHARD WASTEWATER TREATMENT PLAN LAGOON CLEANING AND IMPROVEMENTS PROJECT" Construction Documents Completed by CRA Infrastructure & Engineering, Inc.

# I. Introduction

The following Storm Water Pollution Prevention Plan (SWPPP) addresses the pollution prevention measures associated with the proposed improvements to the existing lagoons located at the Oak Orchard Wastewater Treatment Plant in the Town of Clay, Onondaga County, New York. The major project components include the removal of built up sediment within the lagoons, re-grading the interior slopes, and reconstructing the existing gravel access roads along the top of the outer berms.

Although the entire project area is approximately 9 acres, most of the disturbance occurs within the banks of the existing lagoons and does not require coverage under the New York State Pollutant Discharge Elimination System (SPDES) General Permit GP-0-10-001. Discharges from the lagoons are covered under the separately issued permit (NY0030317) for the wastewater treatment plant. Areas outside of the lagoon banks consist of approximately 0.87 acres of disturbance. According to Appendix B of the General Permit (GP), these areas do not require coverage under the GP because the disturbance area is less than 1 acre.

This SWPPP includes, but is not limited to this document with appendices, the Erosion and Sedimentation Control Plan and Details included in the Construction Drawings, all records of inspections and activities which are created during the course of the project, and other documents as may be included by reference to this SWPPP. Changes, modifications, revisions, additions, or deletions shall become part of the SWPPP as they occur.

This Plan was created with the guidance of the New York State Standards and Specifications for Erosion and Sediment Control, August 2005, (Bluebook) and the 2010 Storm Water Management Design Manual. The SWPPP will terminate when all disturbed areas are stabilized, permanent erosion and sedimentation controls installed, temporary erosion and sedimentation controls removed and all construction activities have ceased.

# II. Background Information

# A. Owner Information

Onondaga County Department of Water Environment Protection 650 Hiawatha Blvd W Syracuse, NY 13204-1194

# B. Project Description

The primary goals of the project as it relates to this SWPPP are to re-establish the lagoon interior slopes, remove existing vegetation within the lagoons, and re-construct the existing access roads along the top of the lagoon banks. In addition to the clearing and grading activities, and site piping modifications will be completed. In conjunction with the construction activities, a staging area will be installed at the south end of the lagoons that will be utilized throughout the project.

Note that storm water quality and quantity control is not required for this project because the lagoon discharge is covered under a separate permit (NY0030317) and the remaining construction activities result in less than an acre of disturbance. Additionally, the improvements do not add impervious surface area from what previously existed.

# 1. Existing Drainage and Land Use

The entire project is located within the Oak Orchard Wastewater Treatment Plant property, which is an Onondaga County owned and operated facility. The majority of the project is self-contained within the existing lagoon banks. There is an existing gravel drive located along the top of the lagoon banks and trees and brush have inundated the interior slopes of the lagoons. The existing drainage for the areas outside of the lagoon banks sheet flows to the Mud Creek, which is located just west of the existing lagoons. The existing drainage patterns will remain the same after completion of this project.

### 2. Site Limitations

# a) Slope

The project area generally slopes from the east to the west. The top of the lagoons is the high point of the project and the majority of the work is within the lagoons and will be self-contained. The access roads and temporary construction staging area sheet flows to the forested area adjacent to the Mud Creek.

# b) Soil Erodibility

There is potential for erosion both during and after construction. Special care with erosion control measures, both temporary and permanent, shall be installed during construction to ensure that erosion does not occur more frequently than under existing conditions.

# c) Depth to Bedrock

Bedrock is not anticipated to limit the project activities. Excavation will only occur to remove built up sediment to the depth of the original lagoon bottom. No significant excavations will occur as part of the project.

# d) Water Table

Groundwater is not anticipated during construction. The lagoons will be emptied prior to construction and are lined with clay to prevent infiltration and exfiltration.

# C. Potential Impacts to Historic and Natural Resources

Erosion, temporary construction, and excavation impacts are the primary ways that this project could potentially impact natural resources. The erosion control measures proposed for the site will mitigate these concerns. Potential impacts to specific natural resources and historically significant structures are discussed below.

- 1. Watershed
  - a. Any runoff from the project is either self-contained within the lagoons and will be treated with the lagoon water or will have minor sheet flow to the existing forested areas adjacent to the Mud Creek.
  - b. This project is located within the Oneida Watershed (USGS Cataloging Unit: 04140202), as shown on the watershed profile included as part of *Exhibit 1*. The watershed is within the Lake Ontario Drainage Basin.
- 2. Impaired Waters

The project does not directly discharge to a watercourse listed on the NYS 2012 Section 303d list of Impaired Waters, dated October 2012, Revised February 2013.

3. Total Maximum Daily Load Waterbodies

The project does not involve a watercourse that is on the Environmental Protection Agency (EPA) list of waterbodies having TMDL limits within the Seneca Watershed.

4. Municipal Separate Storm Sewer System (MS4)

The NYS DEC Stormwater Interactive Map shows that the project area is not within a designated MS4.

# 5. Aquifers

- a. The project is not located over a Federal Sole Source Aquifer according to the EPA Sole Source Aquifer Map.
- b. The project is not located over a Primary Water Supply Aquifer according to The NYS Primary Water Supply & Principal Aquifers Map.
- 6. Wetlands

There are no wetlands within the project area according to NYSDEC Environmental Resource Mapper utilizing the National Wetlands Inventory (NWI). A copy of the generated map is included as part of *Exhibit 1*. The existing site does lie within the 100 foot buffer zone from NYSDEC wetland BRE-17, but no wetlands will be disturbed as part of this project.

7. Floodplain

The entire project is not located within a flood plain, as determined from the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Town of Clay, New York, Onondaga County, Community Number 360573, panels 0020 C and 0025 C. A portion of the floodplain maps are included as part of *Exhibit 1*.

8. Stormwater Hotspot

This project is not classified as a Stormwater Hotspot, as it does not involve any land uses or activities listed in Table 4.3 of the SMDM.

# 9. Historic Information

According to the New York State Historic Preservation Office (SHPO), the project is not located within a listed historic district or archeological site. Although the project is within an archeologically sensitive area according to the SHPO map included as part of *Exhibit 1*, no construction activities are anticipated to adversely affect a historic or archeological artifact.

# IV. Pollution Prevention Measures

The primary goal of pollution prevention efforts during project construction is to control soil and pollutants that originate on the site and prevent them from flowing to surface waters. The purpose of this SWPPP is to provide guidelines for achieving that goal. A successful pollution prevention program also relies upon careful inspection and adjustments during the construction process in order to enhance its effectiveness.

Note that temporary stabilization of the project shall be employed to the fullest extent practical prior to freezing conditions. This shall include temporary seeding and establishment of vegetation wherever possible or other methods approved by the engineer or other authorized representative, such as rolled erosion control products.

# A. Erosion and Sedimentation Control

The areas of disturbance are to be minimized as much as practical and limited to the areas depicted on the project drawings. A copy of the erosion control plan sheets is included as part of *Exhibit 2*. A summary of the construction sequencing for erosion control features is as follows:

- a. Evaluate, mark and protect, with appropriate erosion control measures, important trees, associated rooting zones, and other existing site features designated to remain.
- b. Construct stabilized construction entrances and staging areas as depicted on the plans to capture mud and debris from construction vehicles before they enter the public highway.
  - Stabilize bare areas (entrances, construction routes, equipment areas) immediately as work takes place. Top these areas with gravel or maintain vegetative cover.
  - Sediment tracked onto public streets shall be removed or cleaned on a daily basis.
- c. Construct temporary erosion and sediment control measures (silt fencing, tree protection, etc.).
  - Silt fence material and installation must comply with the standard drawings and specifications.
  - Install silt fences based on appropriate spacing intervals. Decrease this interval as the slope increases. The area below the silt fence should be undisturbed ground.
- d. Remove and stockpile soil and vegetation from areas to be impacted by the construction activities. No organic debris shall be buried on site. The soil stockpile should be stabilized by seed, mulch, or other appropriate measures as soon as possible.
- e. Commence construction activities.
- f. Stabilize all disturbed areas as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. This requirement does not apply in the following instances:

- When the initiation of the stabilization measures by the 14<sup>th</sup> day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions. The stabilization measures shall be initiated as soon as practical.
- When construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, initiation of temporary stabilization measures is not required on that portion of the site.
- g. All erosion and sediment control features shall be maintained until establishment of a substantial stand of grass on all green areas, in accordance with the maintenance procedure. On acceptance of restoration by the owner, remove all temporary features.

# B. Other Pollution Prevention Controls

1. Dust and Mud Control

Construction traffic must enter and exit the site at the stabilized construction entrances as depicted on the plan sheets and in accordance with the New York State Department of Environmental Conservation (NYSDEC) Standards and Specifications for Erosion and Sediment Control (SSESC). The purpose is to trap dust and mud that would otherwise be carried off-site by construction traffic. Water trucks or other dust control agents may be used as needed during construction to reduce dust generated on the site. After construction, the site will be stabilized (as described elsewhere), which will reduce the potential for dust generation.

# 2. Solid Waste Disposal

No solid materials, including building materials, are allowed to be discharged from the site with storm water. All solid waste, including disposable materials incidental to the major construction activities, must be collected and placed in containers. The containers will be emptied as necessary by a contract trash disposal service and hauled away from the site. Substances that have the potential for pollution surface and/or groundwater must be controlled by whatever means necessary in order to ensure that they do not discharge from the site.

# 3. Sanitary Facilities

All personnel involved with construction activities must comply with state and local sanitary or septic system regulations. Temporary sanitary facilities shall be provided at the site throughout the construction phase. They must be utilized by all construction personnel and shall be serviced by a commercial operator.

# 4. Water Source

Non-storm water components of site discharge must be clean water. Water used for construction, which discharges from the site must originate from a public water supply or private well approved by the State Health Department. Water used for construction that does not originate from an approved public supply must not discharge from the site.

# 5. Concrete Waste from Concrete Ready-Mix Trucks

Discharge of excess or waste concrete and/or wash water from concrete trucks will be allowed on the construction site, but only in specifically designated diked areas prepared to prevent contact between the concrete an/or wash water and storm water that will be discharged from the site. Alternatively, waste concrete can be placed into forms to make riprap or other useful concrete products. The cured residue from the concrete washout diked areas shall be disposed in accordance with applicable state and federal regulations.

# 6. Fuel Tanks

Temporary on-site fuel tanks for construction vehicles shall meet all state and federal regulations. Tanks shall have approved spill containment with the capacity required by the applicable regulations. The tank shall be in sound condition free of rust or other damage, which might compromise containment. Hoses, valves, fittings, caps, filler nozzles, and associated hardware shall be maintained in proper working condition at all times.

# 7. Hazardous Waste Management and Spill Reporting

Any hazardous or potentially hazardous waste that is brought onto the construction site will be handled properly in order to reduce the potential for storm water pollution. All materials used on this construction site will be properly stored, handled and dispensed following any applicable label directions. Material Safety Data Sheets (MSDS) information will be kept on site for any and all applicable materials.

In the event of an accidental spill immediate action shall be taken by the General Contractor to contain and remove the spilled material. All hazardous materials shall be disposed of by the Contractor in the manner specified by local, state, and federal regulations and by the manufacturer of such products. As soon as possible, the spill shall be reported to the appropriate state and local agencies. As required under the provisions of the Clean Water Act, any spill or discharge entering the waters of the United States shall be properly reported.

Any spills of hazardous materials in quantities in excess of Reportable Quantities as defined by EPA or the State Agency regulations, shall be immediately reported to the EPA National Response Center (1-800-424-8802) and the NYSDEC Division of Environmental Remediation (NYS Spill Hotline, 1-800-457-7362). The reportable quantity for petroleum products is 5-gal. Refer to Exhibit 1.1-1 of the NYSDEC Division of Environmental Remediation Technical Field Guidance Spill Reporting and Initial Notification Requirements for hazardous materials spill reportable quantities and procedures.

In order to minimize the potential for a spill of hazardous materials to come in contact with storm water, the following steps will be implemented:

a. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning

solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) shall be stored in a secure location, under cover, when not in use.

- b. The minimum practical quantity of all such materials shall be kept on the job site and scheduled for delivery as close to time of use as practical.
- c. A spill control and containment kit (containing for example, absorbents, such as kitty liter or sawdust, acid neutralizing agents, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) shall be provided at the storage site.
- d. All of the product in a container shall be used before the container is disposed of. All such containers shall be triple rinsed, with water prior to disposal. The rinse water used in these containers shall be disposed of in a manner in compliance with state and federal regulations and shall not be allowed to mix with storm water discharges.
- e. All products shall be stored in and used from the original container with the original product label.
- f. All products shall be used in strict compliance with instructions on the product label.
- g. The disposal of excess or used products shall be in strict compliance with instructions on the product label.

# 8. Dewatering

Discharge of excess water from excavation activities will be allowed on the construction site, but only to specifically designated sediment capturing devices. In the event that the discharge water is contaminated, it shall be pumped to the head of the treatment plant during construction activities and be treated as wastewater in accordance with the Onondaga County Department of Water Environment Protection regulations. No contaminated discharge is allowed to leave the site with stormwater runoff or directly discharge to a stream that is higher than naturally occurring values. Dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of work under construction or completed. Dispose of water in a manner that avoids inconvenience to others.

In order to minimize the potential for erosion and sedimentation to occur, the following steps will be implemented:

- a. Design, furnish, install, test, operate, monitor, and maintain dewatering system of sufficient scope, size, and capacity to control ground-water flow into excavations and permit construction to proceed on dry, stable subgrades.
- b. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by dewatering operations.
- c. Maintain dewatering operations to ensure erosion control, stability of excavations and constructed slopes, that excavation does not flood, and that damage to subgrades and permanent structures is prevented.
- d. Prevent surface water from entering excavations by grading, dikes, or other means.
- e. Accomplish dewatering without damaging existing buildings adjacent to excavation.
- f. Promptly repair damages to adjacent facilities caused by dewatering operations.
- g. Remove dewatering system if no longer needed.

# **APPENDIX** A

# Exhibit 1: Miscellaneous Documentation

- a) EPA Sole Source Aquifer Map
- b) FEMA Flood Insurance Rate Maps
- c) National Wetland Inventory Map
- d) New York Nature Explorer Map
- e) New York State Aquifer Map
- f) NYSDEC Environmental Resource Map
- g) NYSDEC Stormwater Map
- h) New York State SHPO Map
- i) Soils Map
- j) Watershed Profile

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# Region 2 Water



You are here: EPA Home Region 2 Water

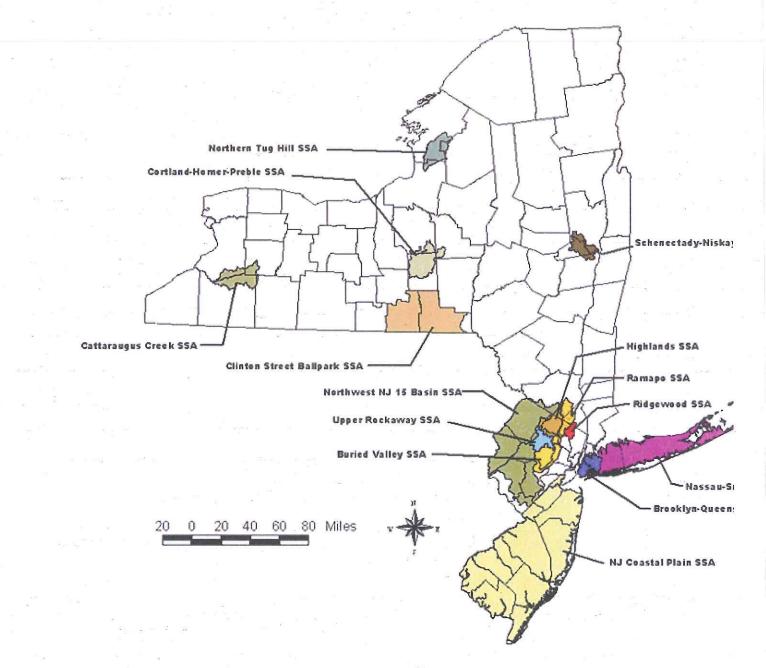
er Aquifers

# **Sole Source Aquifers**

Sole Source Aquifer designation is one tool to protect drinking water supplies in areas with few or no alternative sources to the ground water resource, and where if contamination occurred, using an alternative source would be extremely expensive. The designation protects an area's ground water resource by requiring EPA to review all proposed projects within the designated area that will receive federal financial assistance. All proposed projects receiving federal funds are subject to review to ensure they do not endanger the ground water source.

EPA defines a sole or principal source aquifer as one which supplies at least fifty percent (50%) of the drinking w the area overlying the aquifer. These areas can have no alternative drinking water source(s) which could physica economically supply all those who depend upon the aquifer for drinking water. For convenience, all designated sc source aquifers are referred to as "sole source aquifers" (SSA).

If you are interested in petitioning the EPA to make a designation, please consult the <u>Sole Source Aquifer Progra</u> <u>Guidance</u> or contact EPA for assistance.



# **DESIGNATED SOLE SOURCE AQUIFERS**

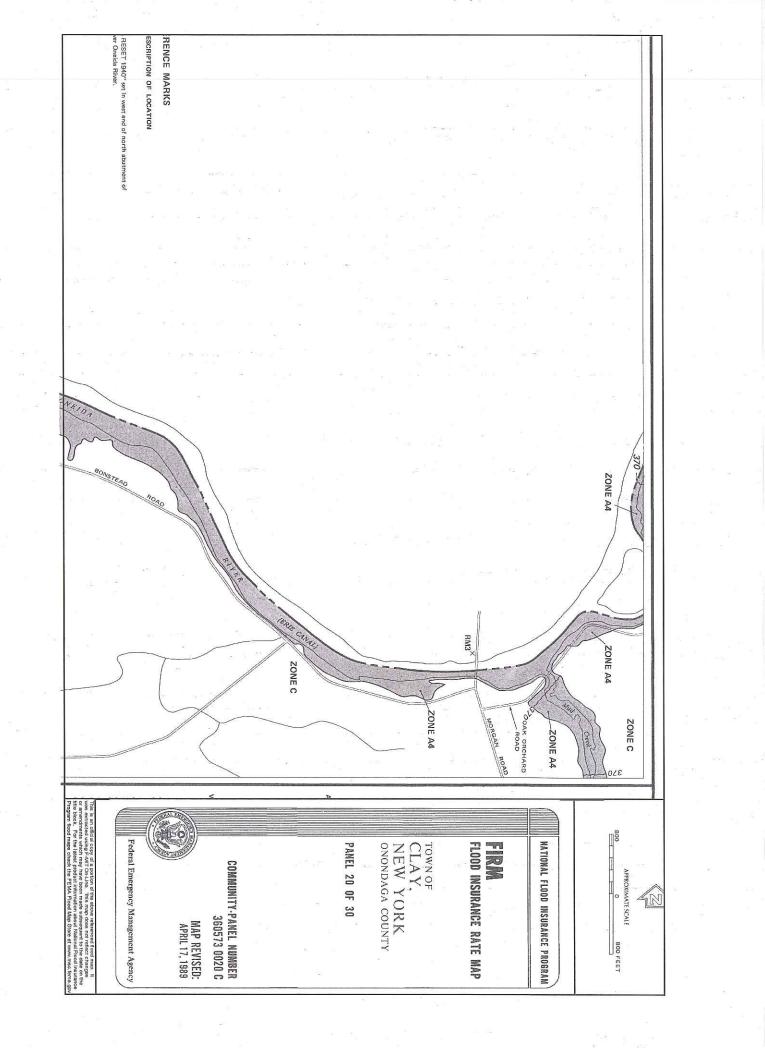
State	Name	Federal Register	Date	GI Ma
. NJ	Buried Valley Aquifers, Central Basin, Essex and Morris Counties	45 FR 30537	05/08/80	Ye
NJ	Upper Rockaway River Basin	49 FR 2946	01/24/84	Ye
NJ	Ridgewood Area Aquifers	49 FR 2943	01/24/84	Ye
	Highlands Aquifer System Passaic,Morris & Essex Co's NJ; Orange Co. NY	52 FR 37213	10/05/87	Ye
NJ/DE/PA	New Jersey Coastal Plain Aquifer System	53 FR 23791	06/24/88	Ye
NJ/NY	New Jersey Fifteen Basin Aquifers	53 FR 23685	06/23/88	Ye
NJ/NY	Ramapo River Basin Aquifer Systems	57 FR 39201	08/28/92	Ye
		43 FR		-

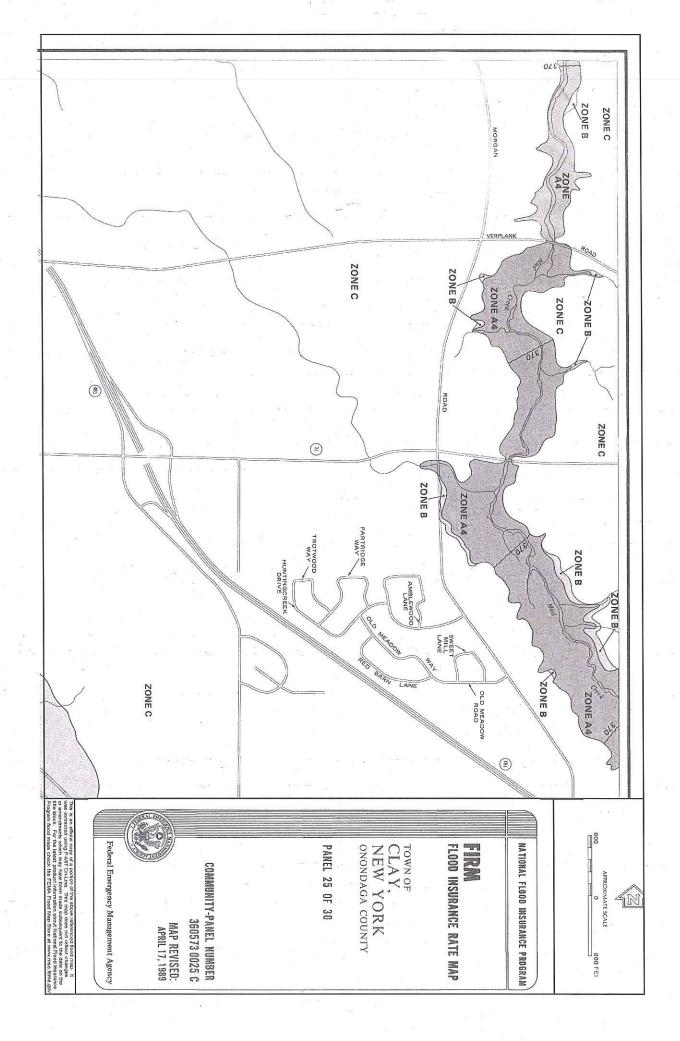
http://www.epa.gov/region02/water/aquifer/

Water | Region 2 | US EPA

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NY	Nassau/Suffolk Co., Long Island	26611 http://	06/21/78	l/regic
NY	Kings/Queens Counties	49 FR 2950	01/24/84	Ye
NY	Schenectady/Niskayuna	50 FR 2022	01/14/85	Ye
. NY	Clinton Street-Ballpark Valley Aquifer System, Broome and Tioga Co's	50 FR 2025	01/14/85	Ye
NY	Cattaraugus Creek Basin Aquifer, WY & Allegany Cos.	52 FR 36100	09/25/87	Ye
NY	Cortland-Homer-Preble Aquifer System	53 FR 22045	06/13/88	Ye
NY	Northern Tug Hill Glacial Aquifer	71 FR 64524	11/02/06	Ye







# New York Nature Explorer User Defined Results Report

Criteria: Selected Map Area

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n Name	Subgroup	Distribution Status	Year Last Documente	Protection Status State Federal	Conservatic State (	on R Glot
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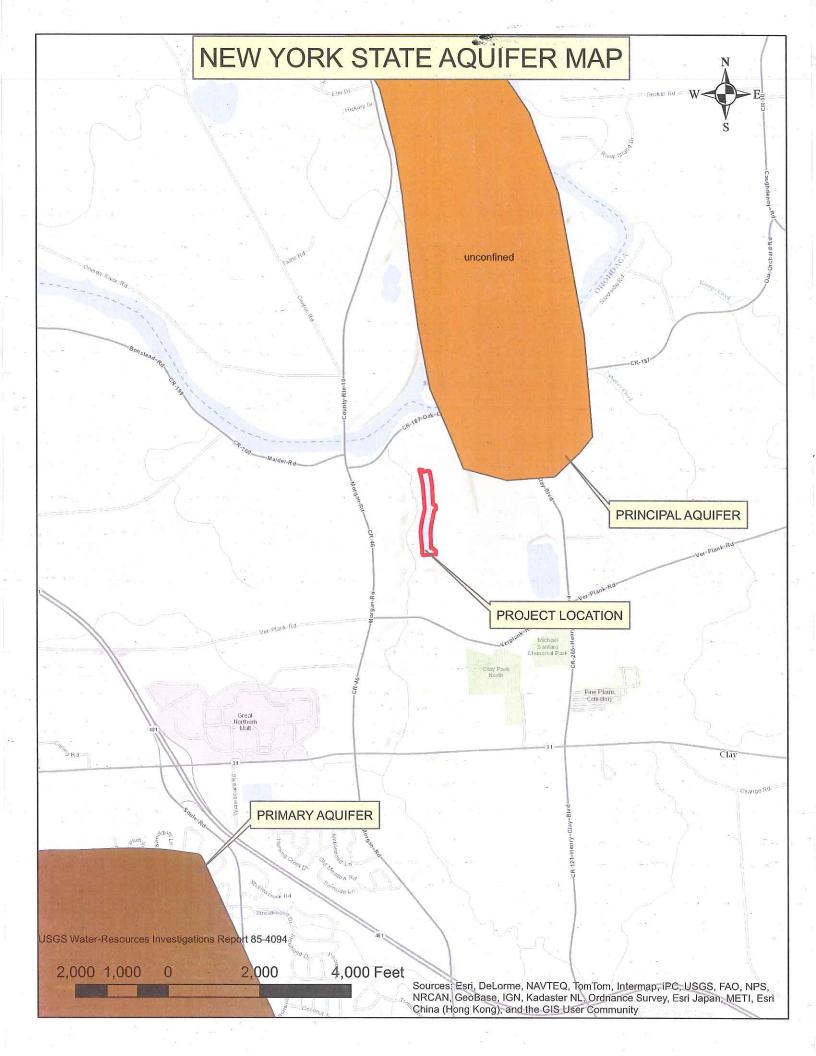
Little-leaf Tick-trefoil	Other Flowering Plants	Recently Confirmed	1991	Threatened	8 0	S2S3	G5	
Desmodium ciliare								

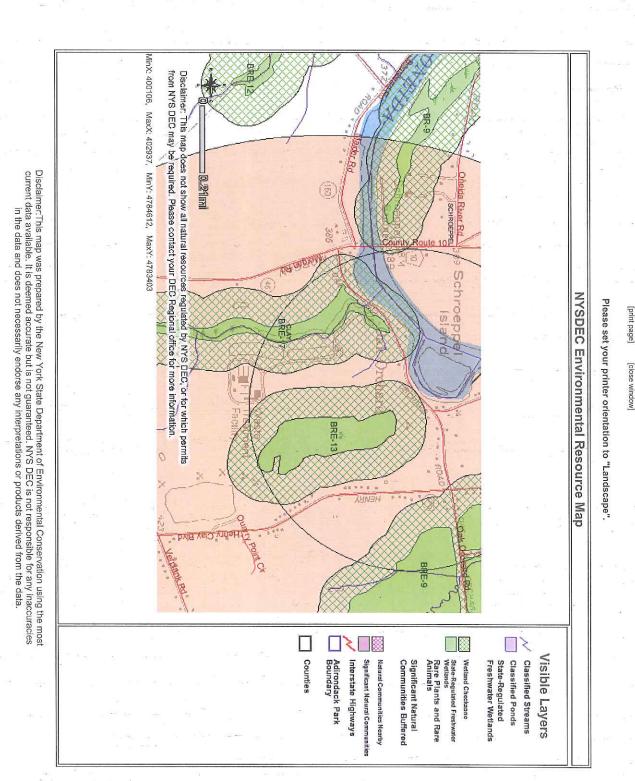
Note: Restricted plants and animals may also have also been documented in one or more of the Towns or Cities in which your user-defined area is located, but are not listed in these results. This application does not provide information at the level of Town or City on state-listed animals and on other sensitive animals and plants. A list of the restricted animals and plants documented at the corresponding county level can be obtained via the County link(s) on the original User Defined Search Results page. Any individual plant or animal on this county's restricted list may or may not occur in this particular user-defined area.

This list only includes records of rare species and significant natural communities from the databases of the NY Natural Heritage Program. This list is not a definitive statement about the presence or absence of all plants and animals, including rare or state-listed species, or of all significant natural communities. For most areas, comprehensive field surveys have not been conducted, and this list should not be considered a substitute for on-site surveys.

New York State Department of Environmental Conservation

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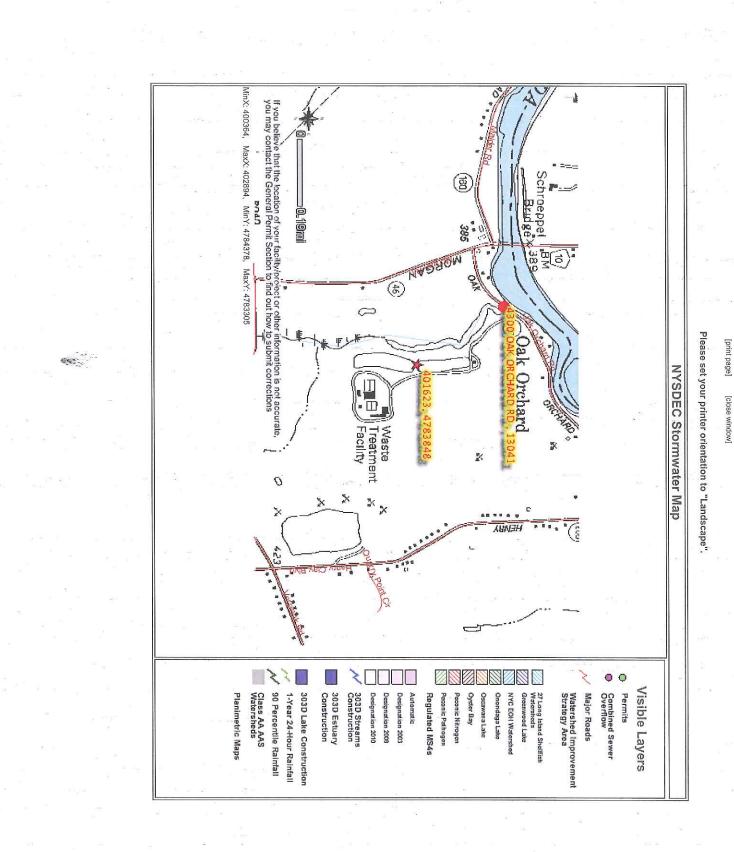


Map Output

Page 1 of 1

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Legend Background Maps (Scanned Quads)

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July 11, 2013

Disclaimer: This map was prepared by the New York State Parks, Recreation and Historic Preservation National Register Listing Internet Application. The information was compiled using the most current data available. It is deemed accurate, but is not guaranteed.

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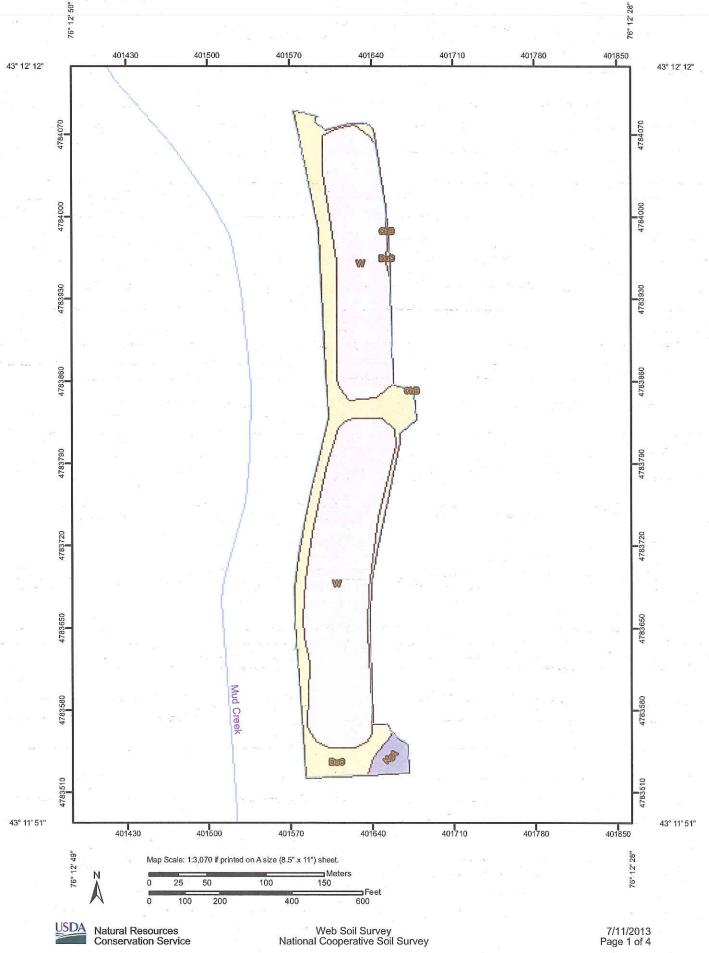
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7/11/2013

Hydrologic Soil Group—Onondaga County, New York



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AL AL
Soil Survey Area Survey Area Data:
Please rely on the bar scale on each map sheet for accurate map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: UTM Zone 18N NAD83 This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.
Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.
<b>MAP INFORMATION</b> Map Scale: 1:3,070 if printed on A size (8.5" × 11") sheet. The soil surveys that comprise your AOI were mapped at 1:20,000.

# Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
ChB	Collamer silt loam, 2 to 6 percent slopes	C/D	0.0	0.1%
DuC	Dunkirk silt loam, rolling	С	2.5	27.4%
NgA	Niagara silt loam, 0 to 4 percent slopes	C/D .	0.2	2.4%
W	Water	11 1	6.3	70.2%
Totals for Area of Inte	erest	9.0	100.0%	

# Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

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# **Rating Options**

Aggregation Method: Dominant Condition Component Percent Cutoff: None Specified Tie-break Rule: Higher



# Surf Your Watershed

Surf Your Watershed

You are here: EPA Home Water Wetlands, Oceans, & Watersheds Watersheds Oneida Watershed -- 04140202

Adopt Your Watershed

# Oneida Watershed -- 04140202

# Oneida

# Watershed Profile

Watershed Name: Oneida USGS Cataloging Unit: 04140202 NY 23th Congressional District NY 24th Congressional District NY 25th Congressional District

Citizen-based Groups at work in this watershed (Provided by Adopt your Watershed)

Water quality monitoring data from this watershed (Provided by STORET)

Environmental Websites Involving this Watershed

Assessments of Watershed Health

Impaired Water for this watershed

Assessed Waters by Watershed New York

Information provided by the United States Geological Survey (USGS) [EXIT Disclaimer

Stream Flow (Source: USGS) Science in Your Watershed Water use data (1985-2000): Information about the amount of water used and how it is used. Selected USGS Abstracts

# **Places Involving this Watershed**

Counties: Cortland Lewis Madison Oneida Onondaga <u>Oswego</u> National Estuary Programs: None States: New York Other Watersheds Upstream:

http://cfpub.epa.gov/surf/huc.cfm?huc code=04140202





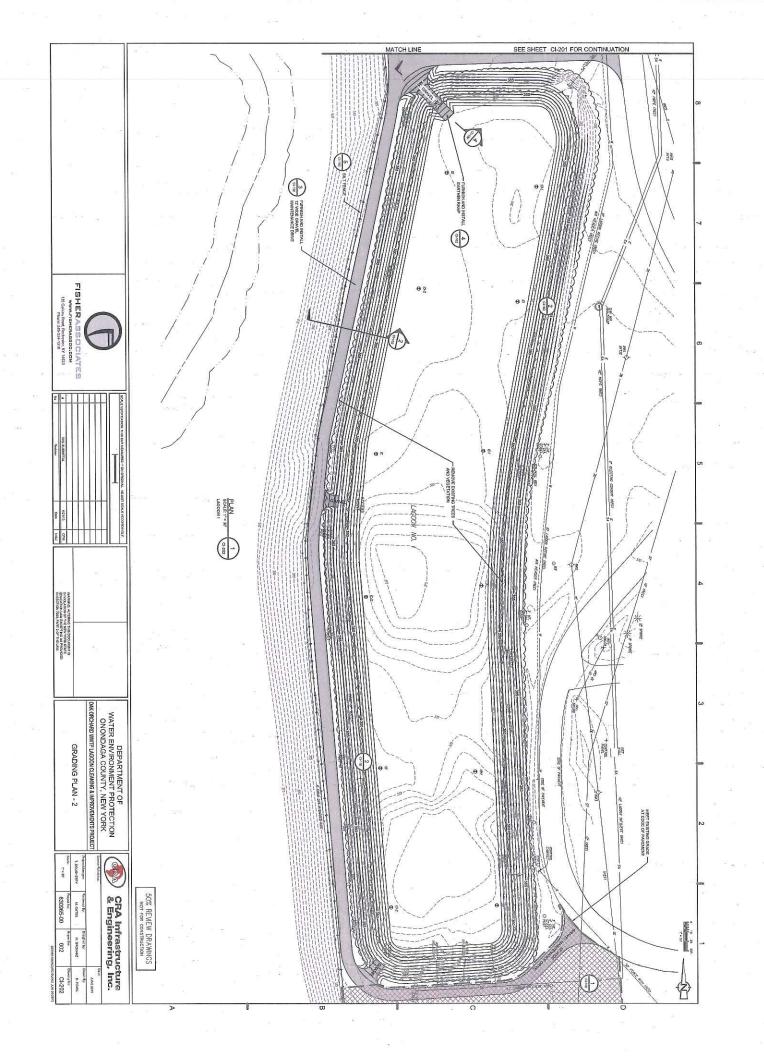
None Other Watersheds Downstream: Oswego

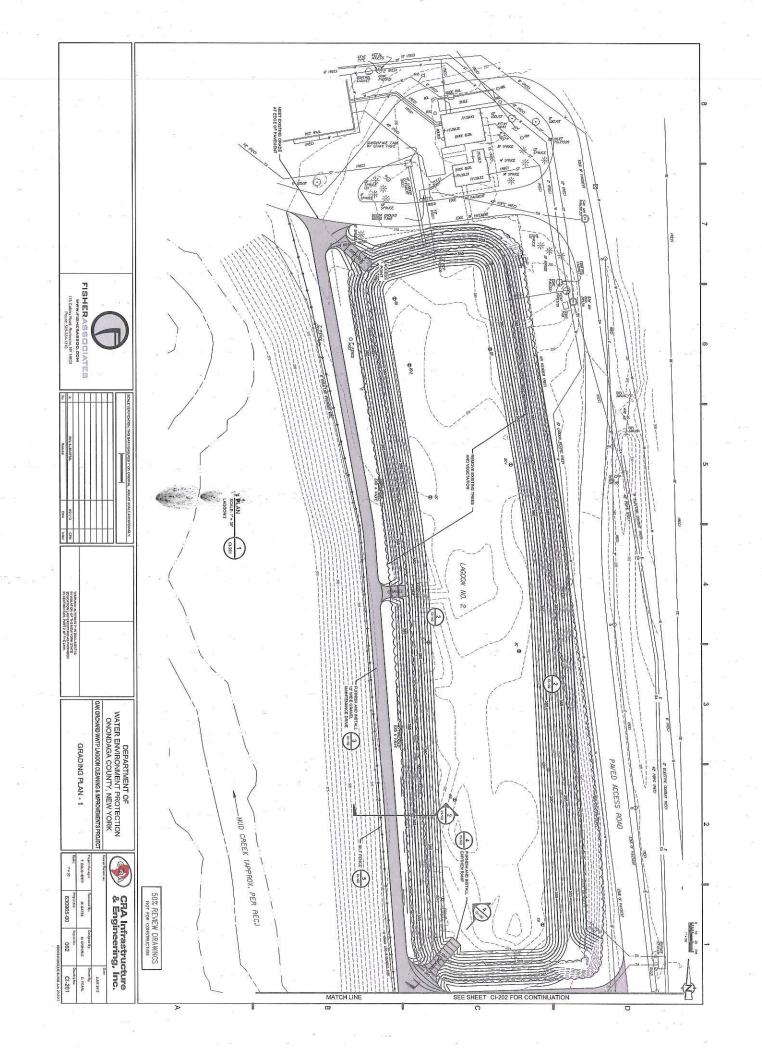
http://cfpub.epa.gov/surf/huc.cfm?huc\_code=04140202 Last updated on Friday, July 12, 2013

Visit the <u>Envirofacts Warehouse</u> to retrieve environmental information from EPA databases on <u>Air</u>, <u>Community Water Sources</u>, <u>Water Dischargers</u>, <u>Toxic Releases</u>, <u>Hazardous Waste</u>, and <u>Superfund Sites</u> Geographic searches include zip code, city, EPA Region, or county.

Disclaimer | Comments

Exhibit 2: Erosion Control Plans and Details





# STANDARD AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ENTRANCE



# **Definition**

A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area.

#### Purpose

The purpose of stabilized construction entrance is to reduce or eliminate the tracking of sediment onto public rights-ofway or streets.

# **Conditions Where Practice Applies**

A stabilized construction entrance shall be used at all points of construction ingress and egress.

#### **Design Criteria**

See Figure 5A.35 on page 5A.76 for details.

Aggregate Size: Use a matrix of 1-4 inch stone, or reclaimed or recycled concrete equivalent.

Thickness: Not less than six (6) inches.

Width: 12-foot minimum but not less than the full width of points where ingress or egress occurs. 24-foot minimum if there is only one access to the site.

Length: As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum would apply).

**Geotextile:** To be placed over the entire area to be covered with aggregate. Filter cloth will not be required on a singlefamily residence lot. Piping of surface water under entrance shall be provided as required. If piping is impossible, a mountable berm with 5:1 slopes will be permitted.

#### Criteria for Geotextile

The geotextile shall be woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals, hydro-carbons, mildew, rot resistant, and conform to the fabric properties as shown:

Fabric Properties <sup>3</sup>	Light Duty <sup>1</sup> Roads Grade Subgrade	Heavy Duty Haul Roads Rough Graded	2 Test Method
	Subgraue	Gladed	Methou
Grab Tensile Strength (lbs)	200	220	ASTM D1682
Elongation at Failure (%)	50	60	ASTM D1682
Mullen Brust Strength (lbs)	190	430	ASTM D3786
Puncture Strength (lbs)	40	125	ASTM D751 modified
Equivalent	40-80	40-80	US Std Sieve
Opening Size			CW-02215
Aggregate De	pth 6	10	

<sup>1</sup>Light Duty Road: Area sites that have been graded to subgrade and where most travel would be single axle vehicles and an occasional multiaxle truck. Acceptable materials are Trevira Spunbond 1115, Mirafi 100X, Typar 3401, or equivalent.

<sup>2</sup>Heavy Duty Road: Area sites with only rough grading, and where most travel would be multi-axle vehicles. Acceptable materials are Trevira Spunbond 1135, Mirafi 600X, or equivalent.

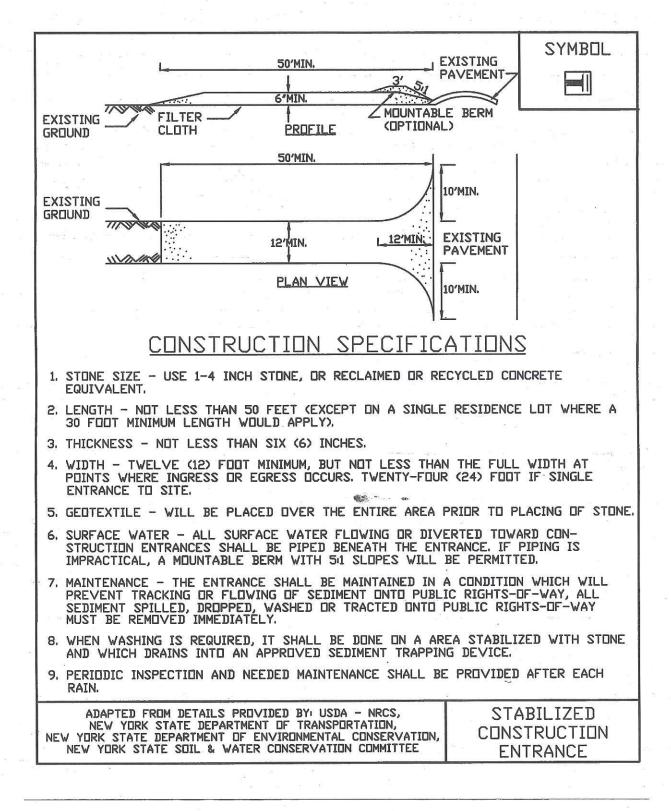
<sup>3</sup>Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

## Maintenance

The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately.

When necessary, wheels must be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.

# Figure 5A.35 Stabilized Construction Entrance



New York Standards and Specifications For Erosion and Sediment Control

# STANDARD AND SPECIFICATIONS FOR DUST CONTROL



#### **Definition**

The control of dust resulting from land-disturbing activities.

#### Purpose

To prevent surface and air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and traffic safety problems.

#### **Conditions Where Practice Applies**

On construction roads, access points, and other disturbed areas subject to surface dust movement and dust blowing where off-site damage may occur if dust is not controlled.

### **Design** Criteria

**Construction operations should be scheduled to minimize the amount of area disturbed at one time.** Buffer areas of vegetation should be left where practical. Temporary or permanent stabilization measures shall be installed. No specific design criteria is given; see construction specifications below for common methods of dust control.

Water quality must be considered when materials are selected for dust control. Where there is a potential for the material to wash off to a stream, ingredient information must be provided to the local permitting authority.

#### **Construction Specifications**

A. Non-driving Areas – These areas use products and materials applied or placed on soil surfaces to prevent airborne migration of soil particles.

**Vegetative Cover** – For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control (see Section 3).

Mulch (including gravel mulch) – Mulch offers a fast effective means of controlling dust. This can also include rolled erosion control blankets.

**Spray adhesives** – These are products generally composed of polymers in a liquid or solid form that are mixed with water to form an emulsion that is sprayed on the soil surface with typical hydroseeding equipment. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations for the specific soils on the site. In no case should the application of these adhesives be made on wet soils or if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators and others working with the material.

**B.** Driving Areas – These areas utilize water, polymer emulsions, and barriers to prevent dust movement from the traffic surface into the air.

**Sprinkling** – The site may be sprayed with water until the surface is wet. This is especially effective on haul roads and access routes.

**Polymer Additives** – These polymers are mixed with water and applied to the driving surface by a water truck with a gravity feed drip bar, spray bar or automated distributor truck. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations. Incorporation of the emulsion into the soil will be done to the appropriate depth based on expected traffic. Compaction after incorporation will be by vibratory roller to a minimum of 95%. The prepared surface shall be moist and no application of the polymer will be made if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators working with the material.

**Barriers** – Woven geotextiles can be placed on the driving surface to effectively reduce dust throw and particle migration on haul roads. Stone can also be used for construction roads for effective dust control.

Windbreak – A silt fence or similar barrier can control air currents at intervals equal to ten times the barrier height. Preserve existing wind barrier vegetation as much as practical.

All Stormwater Pollution Prevention Plans must contain the NYS DEC issued "Conditions for Use" and "Application Instructions" for any polymers used on the site. This information can be obtained from the NYS DEC website.

# Maintenance

Maintain dust control measures through dry weather periods until all disturbed areas are stabilized.

New York Standards and Specifications For Erosion and Sediment Control Page 5A.88

# STANDARD AND SPECIFICATIONS FOR MULCHING



## Definition

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface.

#### Purpose

The primary purpose is to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch is also used alone for temporary stabilization in nongrowing months.

#### **Conditions Where Practice Applies**

On soils subject to erosion and on new seedings and shrub plantings. Mulch is useful on soils with low infiltration rates by retarding runoff.

### **Criteria**

Site preparation prior to mulching requires the installation of necessary erosion control or water management practices and drainage systems.

Slope, grade and smooth the site to fit needs of selected mulch products.

Remove all undesirable stones and other debris to meet the needs of the anticipated land use and maintenance required.

Apply mulch after soil amendments and planting is accomplished or simultaneously if hydroseeding is used.

Select appropriate mulch material and application rate or material needs. Determine local availability.

Select appropriate mulch anchoring material.

NOTE: The best combination for grass/legume establishment is straw (cereal grain) mulch applied at 2 ton/ acre (90 lbs./1000sq.ft.) and anchored with wood fiber mulch (hydromulch) at 500 - 750 lbs./acre (11 - 17 lbs./1000 sq. ft.). The wood fiber mulch must be applied through a hydroseeder immediately after mulching.

		Julae		Water fais,	Naics, a	ind Uses	1.5	
Remarks	Used primarily around shrub and tree plantings and recreation trails to inhibit weed competition. Resistant to wind blowing. Decomposes slowly.	Apply with hydromulcher. No tie down required. Less erosion control provided than 2 tons of hay or straw.	Excellent mulch for short slopes and around plants and ornamentals. Use 2B where subject to traffic. (Approximately 2,000 lbs./cu. yd.). Frequently used over filter fabric for better weed control.	Use small grain straw where mulch is maintained for more than three months. Subject to wind blowing unless anchored. Most commonly used mulching material. Provides the best micro-environment for germinating seeds.	Use without additional mulch. Tie down as per manufacturers specifications. Good for center line of concentrated water flow.	Use without additional mulch. Excellent for seeding establishment. Tie down as per manufacturers specifications. Approximately 72 lbs./roll for excelsior with plastic on both sides. Use two sided plastic for centerline of waterways.	Coarser textured mulches may be more effective in reducing weed growth and wind erosion.	Designed to tolerate higher velocity water flow, centerlines of waterways, 60 sq. yds. per roll.
Depth of Application	2-7"	antin k	3"	cover about 90% surface			1-3"	* 
per Acre	10-20 tons	2,000 lbs.	405 cu. yds.	2 tons (100-120 bales)			134-402 cu. yds.	81 rolls
per 1000 Sq. Ft.	500-900 Ibs.	50 lbs.	9 cu. yds.	90-100 Ibs. 2-3 bales	48" x 50 yds. or 48" x 75 yds.	8" x 100" 2-sided plastic, 48" x 180" 1-sided plastic	3-9 cu. yds.	Most are 6.5 ft. x 3.5 ft.
Quality Standards	Air-dried. Free of objectionable coarse material	Made from natural wood usually with green dye and dispersing agent	Washed; Size 2B or 3A—1 1/2"	Air-dried; free of undesirable seeds & coarse materials	Undyed, unbleached plain weave. Warp 78 ends/yd., Weft 41 ends/ yd. 60-90 lbs./roll	Interlocking web of excelsior fibers with photodegradable plastic netting	Up to 3" pieces, moderately to highly stable	Photodegradable plastic net on one or two sides
Mulch Material	Wood chips or shavings	Wood fiber cellulose 1 (partly digested wood fibers)	Gravel, Crushed Stone or Slag	Hay or Straw	Jute twisted yarm	Excelsior wood fiber	Compost	Straw or coconut 1 fiber, or combination

# Table 3.7Guide to Mulch Materials, Rates, and Uses

New York Standards and Specifications For Erosion and Sediment Control Page 3.30

August 2005

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# Table 3.8Mulch Anchoring Guide

Anchoring Method or Material	Kind of Mulch to be Anchored	How to Apply
1. Peg and Twine	Hay or straw	After mulching, divide areas into blocks approximately 1 sq. yd. in size. Drive 4-6 pegs per block to within 2" to 3" of soil surface. Secure mulch to surface by stretching twine between pegs in criss-cross pattern on each block. Secure twine around each peg with 2 or more tight turns. Drive pegs flush with soil. Driving stakes into ground tightens the twine.
2. Mulch netting	Hay or straw	Staple the light-weight paper, jute, wood fiber, or plastic nettings to soil surface according to manufacturer's recommendations. Should be biodegradable. Most products are not suitable for foot traffic.
3. Wood cellulose fiber	Hay or straw	Apply with hydroseeder immediately after mulching. Use 500 lbs. wood fiber per acre. Some products contain an adhesive material ("tackifier"), possibly advantageous.
4. Mulch anchoring tool	Hay or straw	Apply mulch and pull a mulch anchoring tool (blunt, straight discs) over mulch as near to the contour as possible. Mulch material should be "tucked" into soil surface about 3".
5. Tackifier	Hay or straw	Mix and apply polymeric and gum tackifiers according to manufacturer's instructions. Avoid application during rain. A 24-hour curing period and a soil temperature higher than 45 <sup>0</sup> Fahrenheit are required.

# STANDARD AND SPECIFICATIONS FOR SILT FENCE



# **Definition**

A temporary barrier of geotextile fabric installed on the contours across a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil.

## Purpose

The purpose of a silt fence is to reduce runoff velocity and effect deposition of transported sediment load. Limits imposed by ultraviolet stability of the fabric will dictate the maximum period the silt fence may be used (approximately one year).

## **Conditions Where Practice Applies**

A silt fence may be used subject to the following conditions:

1. Maximum allowable slope lengths contributing runoff to a silt fence placed on a slope are:

Slope	Maximum
Steepness	Length (ft.)
2:1	25
3:1	50
4:1	75
5:1 or flatter	100

- 2. <u>Maximum drainage area for overland flow to a silt</u> <u>fence shall not exceed 1/4 acre per 100 feet of fence</u>, with maximum ponding depth of 1.5 feet behind the fence; and
- 3. Erosion would occur in the form of sheet erosion; and
- 4. There is no concentration of water flowing to the barrier.

# **Design** Criteria

Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff. All silt fences shall be placed as close to the areas as possible, but at least 10 feet from the toe of a slope to allow for maintenance and roll down. The area beyond the fence must be undisturbed or stabilized.

Sensitive areas to be protected by silt fence may need to be reinforced by using heavy wire fencing for added support to prevent collapse.

Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass. A detail of the silt fence shall be shown on the plan. See Figure 5A.8 on page 5A.21 for details.

## **Criteria for Silt Fence Materials**

1. Silt Fence Fabric: The fabric shall meet the following specifications unless otherwise approved by the appropriate erosion and sediment control plan approval authority. Such approval shall not constitute statewide acceptance.

	Fabric Properties	Minimum Acceptable Value	Test Method
	Grab Tensile Strength (lbs)	90	ASTM D1682
быса Бола	Elongation at Failure (%)	50	ASTM D1682

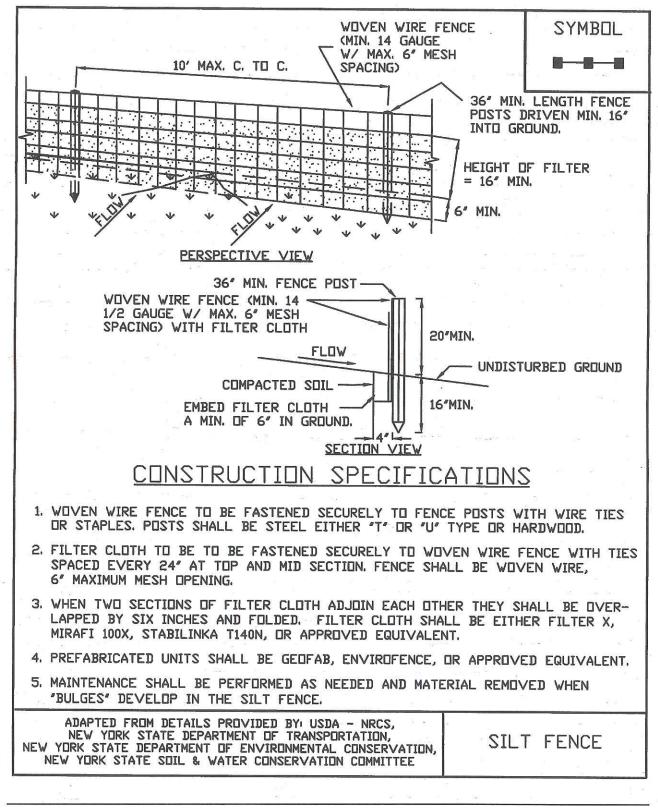
Mullen Burst	2 .		
Strength (PSI)	190	ASTM D3786	
Puncture Strength (lbs)	40	ASTM D751 (modified)	
Slurry Flow Rate		11 (a) (a) (b)	
(gal/min/sf)	0.3	5	
Equivalent Opening Size	40-80	US Std Sieve CW-02215	
Ultraviolet Radiation			
Stability (%)	90	ASTM G-26	

2. Fence Posts (for fabricated units): The length shall be a minimum of 36 inches long. Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.0 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot.

3. Wire Fence (for fabricated units): Wire fencing shall be a minimum 14 gage with a maximum 6 in. mesh opening, or as approved.

4. Prefabricated Units: Envirofence, Geofab, or approved equal, may be used in lieu of the above method providing the unit is installed per details shown in Figure 5A.8.

# Figure 5A.8 Silt Fence



August 2005

New York Standards and Specifications For Erosion and Sediment Control

# STANDARD AND SPECIFICATIONS FOR TOPSOILING



# Definition

Spreading a specified quality and quantity of topsoil materials on graded or constructed subsoil areas.

#### Purpose

To provide acceptable plant cover growing conditions, thereby reducing erosion; to reduce irrigation water needs; and to reduce the need for nitrogen fertilizer application.

## **Conditions Where Practice Applies**

Topsoil is applied to subsoils that are droughty (low available moisture for plants), stony, slowly permeable, salty or extremely acid. It is also used to backfill around shrub and tree transplants. This standard does not apply to wetland soils.

#### **Design** Criteria

1. Preserve existing topsoil in place where possible, thereby reducing the need for added topsoil.

2. Conserve by stockpiling topsoil and friable fine textured subsoils that must be stripped from the excavated site and applied after final grading where vegetation will be established.

3. Refer to USDA Soil Conservation Service (presently Natural Resource Conservation Service) soil surveys or soil interpretation record sheets for further soil texture information for selecting appropriate design topsoil depths.

#### **Site Preparation**

1. As needed, install erosion control practices such as diversions, channels, sediment traps, and stabilizing measures, or maintain if already installed.

2. Complete rough grading and final grade, allowing for depth of topsoil to be added.

3. Scarify all compact, slowly permeable, medium and fine textured subsoil areas. Scarify at approximately right angles to the slope direction in soil areas that are steeper than 5 percent. Areas that have been overly compacted shall be decompacted to a minimum depth of 12 inches with a deep ripper or chisel plow prior to topsoiling.

4. Remove refuse, woody plant parts, stones over 3 inches in diameter, and other litter.

#### **Topsoil Materials**

1. Topsoil shall have at least 6 percent by weight of fine textured stable organic material, and no greater than 20 percent. Muck soil shall not be considered topsoil.

2. Topsoil shall have not less than 20 percent fine textured material (passing the NO. 200 sieve) and not more than 15 percent clay.

3. Topsoil treated with soil sterilants or herbicides shall be so identified to the purchaser.

4. Topsoil shall be relatively free of stones over  $1 \frac{1}{2}$  inches in diameter, trash, noxious weeds such as nut sedge and quackgrass, and will have less than 10 percent gravel.

5. Topsoil containing soluble salts greater than 500 parts per million shall not be used.

#### Application and Grading

1. Topsoil shall be distributed to a uniform depth over the area. It shall not be placed when it is partly frozen, muddy, or on frozen slopes or over ice, snow, or standing water puddles.

2. Topsoil placed and graded on slopes steeper than 5 percent shall be promptly fertilized, seeded, mulched, and stabilized by "tracking" with suitable equipment.

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# 3. Apply topsoil in the following amounts:

Sit	te Conditions	Intended Use	Minimum Topsoil Depth
1.	Deep sand or	Mowed lawn	6 in.
	loamy sand	Tall legumes, unmowed	2 in.
		Tall grass, unmowed	1 in.
2.	Deep sandy loam	Mowed lawn	5 in.
	4	Tall legumes, unmowed	2 in.
		Tall grass, unmowed	none
3.	Six inches or	Mowed lawn	4 in.
	more: silt loam,	Tall legumes, unmowed	1 in.
	loam, or silt	Tall grass, unmowed	1 in.

# STANDARD AND SPECIFICATIONS FOR PROTECTING VEGETATION DURING CONSTRUCTION



## **Definition**

The protection of trees, shrubs, ground cover and other vegetation from damage by construction equipment.

#### Purpose

To preserve existing vegetation determined to be important for soil erosion control, water quality protection, shade, screening, buffers, wildlife habitat, wetland protection, and other values.

#### **Condition Where Practice Applies**

On planned construction sites where valued vegetation exists and needs to be preserved.

#### **Design** Criteria

- 1. Planning Considerations
  - A. Inventory:
    - Property boundaries, topography, vegetation and soils information should be gathered. Identify potentially high erosion areas, areas with tree windthrow potential, etc. A vegetative cover type map should be made on a copy of a topographic map which shows other natural and manmade features. Vegetation that is desirable to preserve because of its value for screening, shade, critical erosion control, endangered species, aesthetics, etc., should be identified and marked on the map.
    - Based upon this data, general statements should be prepared about the present condition, potential problem areas, and unique features of the property.

#### B. Planning:

- After engineering plans (plot maps) are prepared, another field review should take place and recommendations made for the vegetation to be saved. Minor adjustments in location of roads, dwellings, and utilities may be needed. Construction on steep slopes, erodible soils, wetlands, and streams should be avoided. Clearing limits should be delineated (See Section 2).
- 2) Areas to be seeded and planted should be identified. Remaining vegetation should blend with their surroundings and/or provide special function such as a filter strip, buffer zone, or screen.
- 3) Trees and shrubs of special seasonal interest, such as flowering dogwood, red maple, striped maple, serviceberry, or shadbush, and valuable potential shade trees should be identified and marked for special protective treatment as appropriate.
- Trees to be cut should be marked on the plans. If timber can be removed for salable products, a forester should be consulted for marketing advice.
- 5) Trees that may become a hazard to people, personal property, or utilities should be removed. These include trees that are weak-wooded, disease-prone, subject to windthrow, or those that have severely damaged root systems.
- 6) The vigor of remaining trees may be improved by a selective thinning. A forester should be consulted for implementing this practice.
- 2. Measures to Protect Vegetation
  - A. Limit soil placement over existing tree and shrub roots to a maximum of 3 inches. Soils with loamy texture and good structure should be used.
  - B. Use retaining walls and terraces to protect roots of trees and shrubs when grades are lowered. Lowered grades should start no closer than the dripline of the tree. For narrow-canopied trees and shrubs, the stem diameter in inches is converted to feet and doubled, such that a 10 inch tree should be protected to 20 feet.

- C. Trenching across tree root systems should be the same minimum distance from the trunk, as in "B". Tunnels under root systems for underground utilities should start 18 inches or deeper below the normal grounds surface. Tree roots which must be severed should be cut clean. Backfill material that will be in contact with the roots should be topsoil or a prepared planting soil mixture.
- D. Construct sturdy fences, or barriers, of wood, steel, or other protective material around valuable vegetation for protection from construction equipment. Place barriers far enough away from trees, but not less than the specifications in "B", so that tall equipment such as backhoes and dump trucks do not contact tree branches.
- E. Construction limits should be identified and clearly marked to exclude equipment.
- F. Avoid spills of oil/gas and other contaminants.
- G. Obstructive and broken branches should be pruned properly. The branch collar on all branches whether living or dead should not be damaged. The 3 or 4 cut method should be used on all branches larger than two inches at the cut. First cut about one-third the way through the underside of the limb (about 6-12 inches from the tree trunk). Then (approximately an inch further out) make a second cut through the limb from the upper side. When the branch is removed, there is no splintering of the main tree trunk. Remove the stub. If the branch is larger than 5-6 inches in diameter, use the four cut system. Cuts 1 and 2 remain the same and cut 3 should be from the underside of the limb, on the outside of the branch collar. Cut 4 should be from the top and in alignment with the 3rd cut. Cut 3 should be 1/4 to 1/3 the way through the limb. This will prevent the bark from peeling down the trunk. Do not paint the cut surface.
- H. Penalties for damage to valuable trees, shrubs, and herbaceous plants should be clearly spelled out in the contract.

# STANDARD AND SPECIFICATIONS FOR PORTABLE SEDIMENT TANK



# Definition

A sediment tank is a compartmented tank container to which sediment laden water is pumped to trap and retain the sediment

#### Purpose

To trap and retain sediment prior to pumping the water to drainageways, adjoining properties, and rights-of-way below the sediment tank site.

# **Conditions Where Practice Applies**

A sediment tank is to be used on sites where excavations are deep, and space is limited, such as urban construction, where direct discharge of sediment laden water to stream and storm drainage systems is to be avoided.

# <u>Design Criteria</u>

#### Location

The sediment tank shall be located for ease of clean-out and disposal of the trapped sediment, and to minimize the interference with construction activities and pedestrian traffic.

### Tank Size

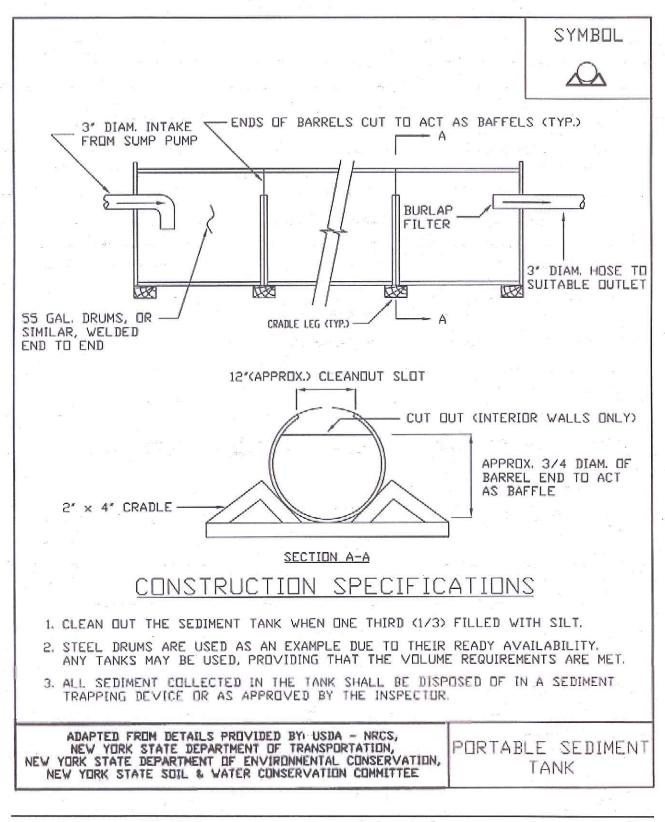
The following formula should be used in determining the storage volume of the sediment tank; pump discharge (G.P.M.) x 16 = Cubic Foot Storage.

An example of a typical sediment tank is shown on Figure 5A.22 on page 5A.48. Other container designs can be used if the storage volume is adequate and approval is obtained from the local approving agency. Commercially manufactured tanks are also available.

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# Figure 5A.22 Portable Sediment Tank



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# FISHERASSOCIATES

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# SECTION 1 - CONTRACTOR'S OBLIGATIONS

## G-1.01. Contractor's Work.

The Contractor shall furnish all labor, materials, installed equipment, tools, scaffolding, shoring, bracing, appliances and equipment necessary to properly and safely complete the work under the Contract, and within the time specified. He shall also provide all necessary machinery and plant for the proper and safe execution of the work under this Contract, and shall cover and protect the work from damage due to any cause whatsoever.

The Contractor alone shall be responsible for the safety, efficiency and adequacy of his plant, appliances and methods, for the performance of the work and for the supervision and performance of his personnel, subcontractors and vendors.

## G-1.02. Representations of Contractor.

The Contractor represents and warrants:

- A. That he is financially solvent and that he is experienced in and competent to perform the type of work or to furnish the plant, materials, supplies or equipment, to be so performed or furnished by him; and
- B. That he is familiar with all Federal, State, County and Municipal Laws, ordinances and regulations, which may in any way affect the work or those employed therein, including, but not limited to, any special acts relating to the work or to the project of which it is a part; and
- C. That such temporary and permanent work required by the Contract Documents as is to be done by him can be satisfactorily constructed and used for the purpose for which it is intended, and that such construction will not injure any person or damage any property; and
- D. That he has carefully examined the Contract Documents and the site of the work, and that, from his own investigations, he has satisfied himself as to the nature and location of the work, the character, quality and quantity of surface and sub-surface materials and structures likely to be encountered, the character of equipment and other facilities needed for the performance of the work, the general and local conditions, and all other materials which may in any way affect the work or its performance.

# G-1.03. Permits, Laws and Regulations.

Except as otherwise noted in the Special Project Conditions, the Contractor shall take out, at his own expense, all necessary permits from the County, State, Town, municipal or other public authorities; shall give all notices required by the laws or municipal ordinances and shall pay all fees and charges incidental to the due and lawful execution of the work done under this Contract. He shall keep himself fully informed of all laws, municipal ordinances, and regulations in any manner affecting those engaged or employed in the work, or the materials used in the work, or in any way affecting the conduct of the work, and of all orders, decrees and instructions of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency should be discovered in the Contract Documents in relation to any such permits, laws, ordinances, regulations, orders, decrees, or instructions, he shall forthwith report the same in writing to the Owner's Representative.

## SECTION 1 - CONTRACTOR'S OBLIGATIONS

The Contractor shall at all times observe and comply with and shall cause all his agents and employees to observe and comply with all such existing and future laws, ordinances, regulations, orders, decrees and instructions and the conditions of all permits.

## G-1.04. Contractor's Address.

Unless the Contractor notifies the Owner in writing to the contrary, the Contractor's address given in the Bid shall be the address to which official communications concerning the Contract shall be mailed or delivered. In addition, official communications may be personally delivered to the Contractor's on-site representative and such personally delivered communications shall have the same force and effect as those mailed or delivered to the Contractor's address.

## G-1.05. Emergency Calls.

The Contractor shall maintain telephone service twenty-four (24) hours a day, seven (7) days a week to responsible personnel who shall be in a position to dispatch personnel and machinery to any point on the work site in the event of an emergency and to clear conditions creating any hazard to life, limb or property.

The telephone number shall be supplied to the Owner's Representative not less than five (5) days prior to the commencement of work.

## G-1.06. Contractor's Agents, Superintendents and Foreman.

The Contractor shall at all times have a competent superintendent, foreman, or other representative on the work, who shall have full authority to act for the Contractor and to receive and execute orders from the Owner's Representative, and who shall receive shipments of material to the Contractor and who shall see that the work under the Contract is executed in accordance with the Contract Documents and the instructions of the Owner's Representatives thereunder. The Contractor shall be responsible for the acts of his agents, superintendents, and employees during the life of the Contract. The Contractor's authorized agent, superintendent or foreman shall not be replaced without prior written notification to the Owner, except under extraordinary circumstances.

Neither the Owner, the Owner's Representative or the Engineer will be responsible for the acts or omissions of the Contractor, or subcontractors, or any of his or their superintendents, supervisory staff, agents or employees.

# G-1.07. Contractor's Personnel.

The Contractor shall be solely responsible for the supervision, conduct and safety of his personnel.

The Contractor shall be solely responsible for ensuring that his personnel and his subcontractors' personnel are properly trained, equipped and certified if applicable, to perform the work and operate the required tools and equipment.

The Contractor shall restrict his personnel to only those areas of the facility necessary for the performance of the work of this contract. The Contractor shall instruct his personnel to observe extreme caution when working in the vicinity of mechanical equipment and open tankage. Personnel should be advised that equipment may start automatically and without warning or may be started from a remote

## SECTION 1 - CONTRACTOR'S OBLIGATIONS

location. The Contractor shall instruct his personnel on the hazards and precautions associated with sewage, sludges and chemicals, which may be present in the facility. Personnel should be cautioned that surfaces may be wet or slippery and that physical, chemical, electrical and biological hazards are present. The Contractor's personnel shall not operate or tamper with any valve or switches or other devices or equipment. The Contractor shall be solely responsible for any damage or disruption caused by his personnel.

## G-1.08. Safety and Accident Prevention.

The Contractor shall be responsible for complying with the requirements of all applicable Federal and State Occupational Safety and Health Act provisions and the requirements of any and all other laws, rules and regulations pertaining to employee health, safety and accident prevention.

The Contractor shall be solely responsible and liable for the safety and protection of all property and persons, both on the site of the work and adjacent thereto. The Contractor shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

If the work of this Contract requires entry into or activities within areas which are considered to be "confined spaces" or which may otherwise contain hazardous atmospheres, the Contractor shall be responsible for providing all necessary personnel instructions, monitoring and safety equipment, as required by all applicable codes and regulations. Such areas include, but are not limited to, any space containing sewage, sludge, chemicals, fuels or combustibles, poor ventilation or limited access.

If the work of the Contract involves excavation, the Contractor shall designate, and identify to the Owner's Representative, a "competent person" as defined in applicable OSHA Regulations concerning excavation and trench protection and safety. The Contractor's designated competent person shall be present at the site at all times during the performance of excavations and shall be solely responsible for the conduct of safe excavation in accordance with applicable OSHA Regulations.

If the cost for the work of this Contract is equal to or greater than \$250,000.00, the Contractor shall be responsible for ensuring that all personnel on the job site are certified as having completed the OSHA approved 10-hour course in construction safety and health. This shall include all subcontractors' personnel doing work for the Contractor on site.

Any accident involving personal injury requiring more than simple, on-site first aid or property damaged in excess of \$100 shall be reported by the Contractor's on-site representative to the Owner's Representative within 24 hours of occurrence, complete with all pertinent details.

Neither the Owner, the Owner's Representative, the Owner's Engineer or other consultants, agents or employees of the Owner shall have any duty, obligation or responsibility for supervising, directing, inspecting, monitoring, overseeing, enforcing or otherwise ensuring the Contractor's compliance with and performance of safety requirements or procedures. If the Owner's Representative happens to observe or become aware of a failure to comply with safety requirements or procedures by the Contractor, its employees or subcontractors, the Owner's Representative may, at his discretion, so notify the Contractor's on-site representative. If, in the judgement of the Owner's Representative, the observed failure to comply constitutes an immediate threat to persons or property, or prevents the Owner's Representative from safely gaining access to the work or otherwise performing his duties, the Owner's Representative may order the work stopped until the problem is rectified, and the Contractor, or subcontractor, shall immediately comply with such order. The

# SECTION 1 - CONTRACTOR'S OBLIGATIONS

Contractor shall have no claim for delay or damages against the Owner, nor shall the Contractor be entitled to an extension of contract time due to any work stoppage arising from the Contractor's failure to comply with safety requirements or procedures.

## G-1.09. Hazardous Communication Standard Compliance.

If applicable to the work of this Contract, pursuant to the requirements of the Hazardous Communication Standard, 29 CFR 1910.1200, prior to commencing the work of the Contract, the Owner's Representative will provide the Contractor with information concerning the County's Hazardous Communication Program, a list of hazardous substances known to be present in the work area, including suggested safety precautions that should be followed, an explanation of the County's hazardous labeling procedure and information on the availability of Material Safety Data Sheets. The Owner's Representative may also conduct the Contractor's Representative on a walk-through of the work area to identify specific hazards which may be present. The Contractor will be required to sign a statement acknowledging receipt of this information. The Contractor's employees will not be permitted to enter the site until this statement is signed.

The Contractor shall be responsible for informing and instructing his employees and subcontractors as to the County's Hazardous Communication Program and procedures and the existence of hazardous materials or conditions in the work area. The Contractor shall be responsible for providing his employees and subcontractors with all information and training required under, and otherwise complying with, OSHA's Hazardous Communication Standard, 29 CFR 1910.1200 and New York State's Toxic Substance Act, Labor Law Article 28.

The Contractor shall inform the Owner's Representative of any and all hazardous materials which the Contractor may cause to be present at the site and shall provide to the Owner's Representative Material Safety Data Sheets for any and all such materials at least 72 hours prior to the introduction of any such materials to the site.

The Contractor shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

The Contractor must submit a detailed work plan, including a sequence of operation (and/or installation), and detailed procedures for all work to be performed in hazardous areas, including but not limited to, work involving gas systems. The Contractor must submit this plan for approval by the County and Engineer within two weeks of the proposed start of work. The Contractor cannot proceed with work in hazardous areas without an approved work plan. Installation, purging if applicable, and testing, shall be in accordance with the requirements of the National Fire Protection Association (NFPA) standards.

## G-1.10. Patents.

The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the work or the incorporation in the work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the work and if to the actual knowledge of the Owner or the Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by the Owner in

### SECTION 1 - CONTRACTOR'S OBLIGATIONS

the Contract Documents. The Contractor shall indemnify, keep and save harmless the Owner from all liabilities, judgments, costs, damages and expenses which may in any way come against the Owner by reason of the use of any patented material, machinery, devices, equipment or processes furnished or used in the performance of the work under the Contract or by reason of the use of patented designs furnished by the Contractor and accepted by the Owner.

#### G-1.11. No Claims Against Individuals.

No claim whatsoever shall be made by the Contractor against any officer, agent or employee of the Owner for, or on account of anything done or omitted to be done in connection with the Contract.

#### G-1.12. Contractor's Title to Material.

The Contractor warrants that he has good title, free and clear, to all materials, supplies and equipment used by him in the work.

All materials and equipment incorporated in the work shall become the property of the Owner.

#### G-1.13. One-Year Guarantee.

All work of this Contract shall be guaranteed by the Contractor for a period of one (1) year.

For work taken under beneficial occupancy prior to issuance of a Certificate of Substantial Completion, the one-year guarantee period shall commence on the date of beneficial occupancy of that work, unless noted otherwise on the Notice of Beneficial Occupancy.

Otherwise, the one-year guarantee period shall commence with the date of Substantial Completion, as determined by the Owner, for all work accepted as substantially complete. Items of work which are uncompleted as of the date of Substantial Completion, or which subsequently become defective, shall be guaranteed for one (1) year from the date of their respective completion or correction.

Under this guarantee the Contractor agrees to promptly repair, replace or otherwise make good to the Owner's satisfaction, and at the Contractor's expense, any and all items of work of the contract which fail to perform in accordance with the Contract Documents, and also to make good any damage caused by such failure.

This guarantee is a part of the Contractor's obligations under this Contract and, as such, shall be covered by the Contractor's Performance Bond.

# G-1.14. Underground Utilities.

The information and data shown or indicated in the Contract Documents with respect to existing underground utilities at or contiguous to the site is based on information and data furnished to the Owner by the owners of such underground utilities, or by others. The Owner shall not be responsible for the accuracy or completeness of any such information or data.

The cost of all of the following will be included in the Contract Price, and the Contractor shall have full responsibility for: (i) reviewing and checking all such information and data shown or indicated in the Contract Documents, (ii) locating all underground utilities shown or indicated in the Contract Documents, (iii)

# SECTION 1 – CONTRACTOR'S OBLIGATIONS

coordination of the work with the owners of such underground utilities during construction, and (iv) the safety and protection of all such underground utilities and repairing any damage thereto resulting from the work."

#### SECTION 2 – ASSIGNMENT AND SUBCONTRACTS

#### G-2.01. Assignment.

The Contractor shall not assign, transfer, convey, or otherwise dispose of this Contract, or of his right, title or interest therein, or his power to execute such Contract, to any other person or corporation without the previous consent in writing of the Owner.

The provisions of this Section shall not hinder, prevent, or affect an assignment by the Contractor for the benefit of creditors made pursuant to law, nor is it intended to prohibit subcontracting a portion of the work of the Contract in accordance with the provisions of the law.

#### G-2.02. Subcontracts.

In the event that the Contractor desires to subcontract any part of the work, he shall first submit to the Owner a statement showing the character and amount of the work to be subcontracted and the party or parties to whom it is proposed to subcontract the same. If requested by the Owner, he shall also furnish a statement as to his or their experience, financial ability, or other qualifications for properly performing the work proposed to be subcontracted.

The proposed subcontractor shall not perform any work nor enter upon the site of the work until written approval has been granted by the Owner and acceptable Certificates of Insurance for the subcontractor have been submitted to the Owner.

Notwithstanding the Contractor's use of subcontractors, and the Owner's approval thereof, the Contractor shall be solely responsible for the satisfactory and entire completion of the work of the Contract in accordance with these Contract Documents and for the performance and conduct of his subcontractors. Any work performed by subcontractors which is determined by the Owner to be unacceptable shall be corrected or replaced at no additional cost to the Owner. In the event a subcontractor consistently fails or refuses to perform in accordance with the Contract Documents, the Owner may require the Contract to remove that subcontractor from the site and to complete the work by other acceptable means, at no additional cost to the Owner.

The Contractor shall be responsible for the coordination of all subcontractors engaged upon his work.

#### G-2.03. Subcontractor's Wage Rates.

In accordance with Article 8 - Section 220 of the New York State Labor Law, the New York State schedule of prevailing wages and supplements, as included in this Contract or as subsequently redetermined by the New York State Department of Labor, shall be specifically included in each and every subcontract, regardless of tier, awarded by the Contractor or his subcontractors.

Subcontractors, regardless of tier, shall provide to the Contractor a verified statement attesting that the subcontractor has received and reviewed the prevailing wage rate and supplement schedule and agreeing that it will pay its employees the applicable wages and will pay or provide the supplements specified therein. The Contractor shall submit to the Owner copies of all such verified statements.

The Owner will not reduce retainage or make final payment to the Contractor unless and until the Contractor has submitted to the Owner the verified statements concerning wage rates from each and every subcontractor, regardless of tier, utilized in the performance of the work of this Contract.

#### SECTION 2 – ASSIGNMENT AND SUBCONTRACTS

In the event it is determined by the New York State Commissioner of Labor that the wages and/or supplements of any employees of the Contractor's subcontractors, regardless of tier, have not been paid of provided pursuant to the appropriate schedule of wages and supplements, the Contractor shall be responsible for payment of such wages or supplements.

# SECTION 3 – OWNER'S REPRESENTATIVES

#### G-3.01. Owner.

The term "Owner", as used in these Contract Documents, shall refer to the County of Onondaga, New York. The Contract Agreement can be executed on behalf of the Owner only by the Onondaga County Executive. Similarly, changes to the Contract Documents subsequent to Contract execution can only be accomplished pursuant to a Change Order signed by the County Executive, in accordance with Section 5 of these General Provisions.

This Contract shall be administered on behalf of the Owner by the Onondaga County Department of Water Environment Protection, whose designated employees shall have the authority to act on behalf of the Owner and represent the Owner on all matters concerning this Contract, except changes thereto, as noted above.

#### G-3.02. Engineer.

The Materials and Performance (Technical) Specifications and Contract Drawings portions of these Contract Documents may have been prepared either by the Owner's in-house engineering personnel or by a consulting engineer or architect retained by the Owner under a separate contract. If the Owner utilized the services of a consulting engineer or architect, the name of the consulting engineer or architect will be shown on the cover of the Contract book and on each sheet of the Contract Drawings. Furthermore, the name, address and telephone number of the Owner's consulting engineer or architect, if any, will be indicated in the Special Project Conditions.

The term "Engineer," as used in these Contract Documents, shall refer to the Owner's consulting engineer or architect, if any. If no consulting engineer or architect was utilized by the Owner, the term "Engineer" shall refer to the Owner's in-house engineering personnel.

#### G-3.03. Owner's Representative.

Routine communication between the Owner and the Contractor shall be through the Owner's Representative. The Owner's Representative may be either an employee of the Owner or an employee of the Engineer, as designated in the Special Project Conditions. The designation of the Owner's Representative may be changed at any time by the Owner. Such a change in the designation of the Owner's Representative shall not be construed to be a change to the Contract Documents and shall not affect the validity or enforceability of the Contract Documents.

The Owner's Representative is not authorized to make changes in the Contract Documents, to direct or authorize the performance of extra work or to otherwise modify the Contract. Such changes can only be effected by a Change Order issued pursuant to Section 5 of these General Provisions.

#### G-3.04. Inspection of the Work.

Inspection of the work of this Contract will be performed by the Owner's Representative. The Owner's Representative is empowered by the Owner to determine the amount, quality, acceptability and fitness of all parts of the work, and to interpret the Contract Documents and any changes thereto, but this authority shall not give rise to any duty or responsibility of the Owner, the Owner's Representative or the Engineer to the Contractor, subcontractors or any of their agents or employees.

#### SECTION 3 – OWNER'S REPRESENTATIVES

Inspection services performed by the Owner pursuant to this Contract, whether of material or work, and whether performed prior to, during or after completion of construction, are performed solely for the purpose of determining general conformity of the work with the Contract Documents.

No matter how extensive the Owner's inspection services, neither the Owner, the Owner's Representative or Engineer will be responsible for the Contractor's failure to furnish materials or equipment or to perform the work of the Contract in accordance with the Contract Documents.

Nothing contained herein shall create, or be deemed to create: (1) any duty upon the Owner, the Owner's Representative, or the Engineer, to supervise or be responsible for construction means, methods, techniques, sequences or procedures or for safety precautions and programs followed or required to be followed by any Contractor or subcontractor or their employees or by any other persons at the job site; (2) any liability whatsoever by the Owner, the Owner's Representative or the Engineer to any employees or any contractor or subcontractor or to any other person; or (3) an acceptance of any of the work, except as provided for in Subsection G-6.07 (C).

#### G-3.05. No Waiver of Rights.

Neither the inspection by the Owner, nor any of its employees or agents, nor any order of the Owner for payment of money, nor any order, measurement or certificate by the Owner, nor payment for, nor acceptance of the whole or any part of the work by the Owner, nor any extension of time, nor any possession taken by the Owner or employees shall operate as a waiver of any provision of this Contract, or of any power herein reserved to the Owner or of any right to damage herein provided, nor shall any waiver of any breach of this Contract be held to be a waiver of any other subsequent breach. Neither the issuance of a Certificate of Substantial Completion, nor correction by the Owner of the Contractor's defective work will constitute an acceptance of any work that is not in accordance with the Contract Documents, or a release of the Contract shall be taken and constructed as cumulative; that is, in addition to each and every other remedy herein provided, the Owner shall have any and all equitable and legal remedies which he would in any case have.

#### SECTION 4 – TIME PROVISIONS

#### G-4.01. Commencement and Completion of Work.

The Contractor shall commence the work within the time specified in the Information for Bidders. Time being of the essence, the Contractor shall fully complete the work within the time specified in the Special Project Conditions.

#### G-4.02. Pre-construction Meeting.

Prior to the start of construction by the successful Bidder, a general information meeting shall be held with the Owner, Owner's Representative, Contractor, and any other interested parties designated by the Owner at a time and place to be designated by the Owner. The meeting shall cover general features of the Project and coordination of commencement of the work.

#### G-4.03. Progress and Coordination Meetings.

Periodically during the course of the Contract work the Owner's Representative may schedule progress and coordination meetings. The purpose of these meetings is to review the status of the work, update the Project Schedule, Coordinate the activities of the various parties and address questions and issues which may arise. Attendance at these meetings is a part of the work of this Contract and is mandatory. The Contractor shall be represented at these meetings by his designated Project Manager or Project Superintendent. Minutes of these meetings will be prepared by the Owner's Representative and distributed to all parties. These minutes shall become part of the official project documentation.

#### G-4.04. Rate of Progress.

The rate of progress shall be as nearly uniform as practicable and shall be such that all work under the Contract will be completed within the time specified, or before such later date to which the time of completion may have been extended by the Owner.

The Contractor shall, within ten days following the execution of this contract, prepare and submit to the Owner, for review, two copies of a practical and feasible work schedule. The schedule shall be in the form of a neat and legible bar graph and shall show the proposed starting dates and duration of all major components, tasks or activities included in the Contract. The schedule shall also indicate shop drawing submittal, delivery and installation dates for major or critical items of equipment or materials. If more than one prime contract is involved, the General Contractor's schedule shall take into account the work of the other Contractors and the other Contractors shall provide input to the General Contractor's schedule and shall review the compiled schedule for acceptance. After all prime contractors have reviewed and accepted the schedule prepared by the General Contractor, that schedule shall become the Project Schedule.

The General Contractor will be required to update the Project Schedule on a monthly basis.

The Contractor on each Contract shall adhere to the Project Schedule or any mutually acceptable changes thereto. In the event a Contractor does not adhere to the Project Schedule and causes other Contractors to be damaged, the Contractor causing the delay shall save the Owner harmless from all actions and charges of the other Contractors against the Owner caused by said delay.

#### SECTION 4 – TIME PROVISIONS

#### G-4.05. Charges For Delay.

It is hereby agreed that time is of the essence of the Contract and that the Owner will suffer damages from failure to complete the work in the time specified. When the work embraced in the Contract is not completed on or before the date specified for completion herein or on or before the later date to which the time of completion may have been extended by the Owner, the engineering and inspection expenses incurred by the Owner, upon the work from said date to the final date of completion of the work shall be charged to the Contractor and in addition, the Contractor shall be charged the per diem sum specified in the Information for Bidders for the same period or where no per diem sum is specified in the Information for Bidders, the Contractor shall be charged the sum of Two Hundred Dollars (\$200.00) per diem for the same period, said sums being not in the nature of a penalty, but a part of the consideration of the Contract as Liquidated Damages. The work will be deemed completed on the date of substantial completion in accordance with Section G-6.07 of the General Provisions.

The amounts of engineering and inspection expenses and Liquidated Damages shall be deducted from any monies due or to become due the Contractor.

#### G-4.06. Extension of Time.

See General Provisions Section 5 for procedures concerning Extension of Time.

# SECTION 5 - CHANGES

#### G-5.01. Owner's Changes in the Work.

- a. The Owner at any time without notice to any Surety may make changes in the work of the Contract by making alterations therein, by making additions thereto, or by omitting work therefrom, and no such action shall invalidate the Contract, relieve or release the Contractor from any guarantee under the Contract, affect the terms or validity of any bond, relieve or release any Surety, or constitute grounds for any claim by the Contractor for damages or loss of anticipated profits. All work required by such alterations, additions, or omissions shall be executed under the terms of the Contract.
- b. Other than in an emergency endangering life or property or pursuant to a Field Order, the Contractor shall not make any change in the work nor furnish any labor, equipment, materials, supplies, or other services in connection with any change except pursuant to, and after, receipt of a written authorization from the Owner in the form of a Modification Order. The Contractor shall not be entitled to any increase in the Contract price or extension of the Contract Time, and no claim therefor shall be valid, unless such written authorization has been so issued to the Contractor.
- c. The Owner's Representative may authorize minor changes in the work which do not alter the character, quantity, or cost of the work as a whole. These changes may be accomplished by a Field Order. The Contractor shall carry out such Field Orders promptly and without any adjustment of the Contract price or Contract time.

### G-5.02. Contractor's Claims.

Any claim for an increase in the Contract Price or extension of Contract Time made by the Contractor shall be based on written notice delivered to the Owner's Representative within fifteen (15) days of the occurrence of the event giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered to the Owner's Representative within forty-five (45) days of such occurrence, unless the Owner's Representative allows, in writing, an additional period of time for the Contractor to ascertain accurate cost data. The Contractor's failure to make notice of claim, or failure to make notice of amount of claim, within the time period stipulated herein shall render the claim invalid without further consideration or review and no increase in the Contract Price or Time shall be made on account of the claim.

### G-5.03. Adjustments in Contract Price.

Any increase or decrease in the Contract price resulting from changes in the work ordered by the Owner or claimed by the Contractor shall be determined as follows:

- a. By such applicable unit prices, if any, as set forth in the Contract; or
- b. If no such unit prices are so set forth, then by unit prices or by a lump sum mutually agreed upon by the Owner and the Contractor; such unit prices or lump sum being arrived at by estimates of reasonable value prepared in general conformance with the outline set forth in (c) below.

### SECTION 5 – CHANGES

- c. If no such unit prices are so set forth and if the parties cannot agree upon unit prices or a lump sum, then determination shall be made as the sum of the following amounts for all work necessary for the changes:
  - 1. Cost of all materials and equipment furnished and incorporated in the work, including extra costs of transportation and off-site storage and manufacturers' field services, if required. The Owner shall be credited for the value of any material or equipment furnished under the original contract and not used as a result of the change, or, at the Owner's option, the unused material or equipment may be turned over to the Owner. Changes in the contract price shall include the following supplemental costs:
    - i) The proportion of necessary transportation, travel, and subsistence expenses of the Contractor's employees incurred in the discharge of duties connected with the work.
    - ii) Deposits lost for causes other than negligence of the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable.
    - iii) Losses and damages (and related expenses) caused by damage to the work, not compensated by insurance or otherwise, sustained by the contractor in connection with the performance and furnishing of the work (except losses and damages within the deductible amounts of such property insurance in place), provided they have resulted from causes other than the negligence of the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of the Owner's Representative. No such losses, damages and expenses shall be included in the cost of the work for the purpose of determining the Contractor's fee. If, however, any such loss or damage requires reconstruction and the Contractor is placed in charge thereof, the Contractor shall be paid for services a fee proportionate to that stated in Subsection G-5.03(c)(7).
    - iv) The cost of utilities, fuel and sanitary facilities.
    - v) Minor expenses such as long distance telephone calls, telephone service at the site, and similar petty cash items in connection with the work.
    - vi) Cost of premiums for additional bonds and insurance required because of changes in the work."
  - 2. Wages paid to workers and foremen and wage supplements paid to labor organizations or directly to individuals in accordance with New York State Prevailing Wage Rate Schedule or labor union agreements, as applicable. No direct payment will be made for Contractor's personnel above the level of foreman or for field office or main office personnel. No direct payment will be made for engineering, drafting or surveying services or personnel, unless agreed to in advance by the Owner. No payment will be

#### SECTION 5 – CHANGES

made for the extra cost of performing work during overtime hours, unless agreed to in advance by the Owner.

3. Allowances for necessary use of suitable construction equipment, as agreed to in advance by the Owner's Representative, at rates agreed to in advance between the Contractor and the Owner's Representative. In the absence of said advance agreement by the Owner's Representative as to use and cost of equipment, the Owner shall not be obligated to pay for use of said equipment. (Agreement by the Owner's Representative as to the Contractor's use of equipment is for payment purposes only and shall not confer upon the Owner or the Owner's Representative any responsibility for the Contractor's means, methods, techniques, procedures, or the adequacy, sufficiency or safety of the equipment or the use thereof.)

The rate to be paid for equipment used shall be negotiated, generally based on the current rates listed in EquipmentWatch Rental Rate Blue Book for Construction Equipment ("The Blue book"). The number of hours to be paid for shall be the number of hours that the equipment is required to be present and available for immediate service at the site of the extra work. If the equipment is being used in the performance of both contract and extra work simultaneously, the number of hours paid for shall be the number of hours that the equipment is actually used in the performance of the extra work. No payment will be made for equipment which is not required to be available for immediate use at the site of the extra work, as determined by the Owner's Representative.

An hourly rate for fuel, lubrication and maintenance cost for each applicable item of equipment used on the extra work shall be agreed to in advance between the Contractor and the Owner's Representative. The number of hours for fuel/ maintenance to be paid for shall be the number of hours the equipment is actually required to be running in connection with the performance of the extra work. No direct payment will be made for vehicles or equipment used for support or maintenance, or for the cost of repairs to construction equipment. No direct payment will be made for the use of hand tools, small power tools or their accessories or appurtenances, ladders, scaffolds, safety equipment, personal protective equipment, reusable forms, surveying or control equipment, general supplies, administrative or personal vehicles or equipment, etc., unless agreed to in advance by the Owner's Representative.

- 4. Amounts paid to approved subcontractors by the Contractor for necessary work performed by subcontractors in connection with the change, as substantiated by receipted invoices and completed in accordance with these provisions.
- 5. Sales and use taxes paid by the Contractor, as required by law, but not for materials and equipment to be incorporated in the work, which would be exempt from sales tax in accordance with the provisions of this Contract.
- 6. Premiums or taxes paid by the Contractor for workmen's compensation and disability insurance, unemployment insurance, FICA tax and other payroll taxes as required by

#### SECTION 5 – CHANGES

law and premiums for liability insurance as required by this Contract, but only to the extent that such premiums and taxes are increased or decreased as a result of the change. In order to be reimbursed for increases in insurance premiums and taxes resulting from changes, the Contractor must submit documentation satisfactory to the Owner showing the method by which the Contractor's insurance premiums and taxes are computed for each and every kind of insurance and tax. No allowance for Overhead and Profit shall be applied to or made for insurance premiums and payroll taxes paid by the Contractor.

- 7. An allowance for the Contractor's combined overhead and profit, which shall be negotiated separately for each change, shall be designated as follows:
  - i) For changes in the contract scope that result in a net increase in contract price, the Contractor may add fifteen percent to the total cost of material, equipment, plant rentals and direct labor, as his only compensation for profit and overhead, except that the fifteen percent shall not be applied to the premium portion of overtime pay.
  - ii) For changes in the contract scope that result in a net decrease in contract price, an amount equal to five percent of such net decrease will be added to the Contractor's credit amount.`
  - iii) When one or more tiers of subcontractors perform work on the basis of cost of the work plus a fee, and no fixed fee is agreed upon, the subcontractor who actually performs or furnishes the work, at whatever tier, will be paid a fee of ten percent of the costs incurred by such subcontractor. Any higher tier subcontractor and the Contractor will each be paid a fee of five percent of the amount paid to the next lower tier subcontractor, except that the total of the fees paid to higher tier subcontractors and the Contractor combined shall not exceed fifteen percent of the cost plus fee of the subcontractor who actually performed or furnished the work.
  - iv) When any one change involves additions and deletions to the work, the allowance for overhead and profit shall be based on the net increase, if any, with respect to that change."

The Owner shall determine by which of the methods, a, b or c, the Contract Price will be adjusted for any change.

Regardless of the method used to determine the adjustment in Contract Price for any change, the Contractor will be required to submit evidence satisfactory to the Owner to substantiate each and every item of cost that constitutes the Contractor's proposal or claim. Examples of required documentation include, but are not limited to, receipted invoices for major items of materials or equipment actually used or deleted in the change, detailed bill of materials lists, daily time sheets showing labor and construction equipment time expended on the change, receipted invoices for subcontractors containing all the detailed cost accounting information called for herein, receipted invoices for equipment rental, certified payrolls, etc.

#### SECTION 5 - CHANGES

For changes paid in accordance with method c, above, the Contractor shall present time sheets showing labor and equipment classifications and hours and materials used each day in performance of the change to the Owner's Representative at the end of each day's work. If the Owner's Representative concurs with the charges made against the change, the Owner's Representative will sign the Contractor's daily time sheet. Work by subcontractors performed under method c shall be similarly verified by the Owner's Representative. The Owner reserves the right to not make payment for time and material charges not supported by a daily time sheet verified and signed by the Owner's Representative.

# G-5.04. Modification and Change Order Procedures.

Any change which will alter the Contract Documents or the nature, scope or quality of the work, regardless of whether or not an adjustment in Contract Price or Time will result, shall be initiated and accomplished in writing, in accordance with the procedures contained herein. It is expressly understood and agreed that the Owner reserves the final decision as to the need for and acceptability of changes and that only the Owner can authorize changes in the Contract. Should the Contractor proceed with the performance of extra work, including ordering materials therefore, without having first received a Modification Order, as described herein, the Owner reserves the right to refuse to compensate the Contractor for such extra work or any part thereof.

The following procedures shall be followed in processing changes to this Contract: (As hereinafter used, the word "modification" shall be synonymous with the word "change," and shall include extra work, deleted work, substitutions or any other deviation from the Contract Documents, whether or not an adjustment in Contract Price or Time will result.)

- a. In the case of modifications initiated by the Owner or Engineer, the Owner's Representative shall request from the Contractor, in writing, a proposal or estimate. This letter of request will include a description of the modification proposed, an explanation of why the modification is required and a statement as to the method of payment to be used (Time and Materials, Unit Price, Negotiated Price, Lump Sum, etc.).
- b. The Contractor shall submit to the Owner's Representative sufficient documentation showing the basis for the proposed modification amount. If lump sum, the Modification Order will at minimum show the estimated materials and labor breakdown so the Project Manager and Engineer can evaluate the proposed work and price. If the work in on a "time and material" basis, a record of the hourly and/or daily labor charges and materials charges shall be attached. If the Contractor's first proposal or subsequent proposals are rejected by the Project Manager and/or the Engineer, each proposal and rejection shall be included with the subsequent proposal documentation.

If a Modification Order is the result of a design change, a copy of the Engineer's stamped detail drawing and/or description will also be attached to the Modification Order.

c. Upon receipt of the Contractor's proposal, the Owner's Representative shall review the Contractor's proposal to determine if, in the Owner's Representative's judgment, the proposal is reasonable and acceptable. In the case of a claim by the Contractor for additional compensation for work already performed, the Owner's Representative shall determine the validity of the claim, and, if valid, verify the costs and/or quantities claimed.

# SECTION 5 - CHANGES

- d. When the nature and cost of the proposed or claimed modification is determined to be acceptable to all parties, and all applicable documentation has been submitted to the Owner, the Owner's Representative shall prepare a Modification Order. The Modification Order document shall include a brief description of the proposed modification, an explanation of why the modification is required, the agreed upon price and/or the specific method of payment to be used, and a list of all applicable backup material and documentation. This document will be submitted by the Owner's Representative to the Owner for the Owner's approval and signature. The approved Modification Order, bearing the signature of the Commissioner of the Department of Water Environment Protection will be forwarded to the Contractor by the Owner.
- e. Upon receipt of the approved Modification Order by the Contractor, the Contractor may proceed with the performance of the work described therein. However, the Contractor will not be paid for the modification until it has been satisfactorily performed and a formal Change Order, signed by the Onondaga County Executive, has been executed.
- f. All Modification Orders issued for a contract will be numbered serially beginning with the Number 1. After a substantial dollar value of modifications have been performed by the Contractor, the Owner's Representative shall prepare a formal Change Order. The Change Order document will identify, by number and description, the one or more modifications included in the Change Order and the agreed upon final cost or credit for each modification. For modifications where the final price is different from the approved proposed or estimated price contained in the Modification Order or where the adjustment in Contract Price is made pursuant to method 3.c, above, copies of detailed substantiation as the Owner or Engineer may require, shall be provided by the Contractor to the Engineer prior to the Engineer's preparation of the Change Order containing that modification.
- g. The Owner reserves the right to have all Change Orders reviewed by the Owner's attorney before the Change Order is presented to the Contractor for signature. After the original Change Order is executed by the Contractor and the Engineer, it will be submitted to the Owner for execution by the Commissioner and County Executive. After signing the Change Order, the Owner will make and distribute the required number of copies. No right to payment for changed, extra or claimed additional work shall accrue to the Contractor in the absence of a formal, fully executed Change Order signed by the Onondaga County Executive.

\*The Engineer's signature may not be required on a Change Order if, in the Owner's opinion, the Change Order does not affect the Contract Drawings or the Technical Specifications.

h. Payment of the executed Change Order will be made at the time of the Contractor's regular periodic estimate for work in place.

The only exception to the above procedures will be in case of an emergency situation endangering life, limb, property or public health or safety. In such cases, verbal directives may be used to accomplish immediate action. However, the written procedures described above must subsequently be initiated.

#### SECTION 5 – CHANGES

a. Unless specifically addressed otherwise on a case by case basis, Modification Orders and Change Orders issued under this Contract will not provide for any change in Contract Completion Time. Accordingly, requests for price proposals for modifications will include the following statement:

"This modification, if approved by the Owner, will not change the stipulated Contract Completion Time. Therefore, please include in your price proposal allowance for all direct, indirect and impact costs which may be necessary to complete the work of this proposed modification, and all other work of this Contract, within the stipulated Contract Completion Time."

b. The following language will be included on all Modification Orders (the letter, signed by the Owner, which establishes the price of the work and authorizes the Contractor to proceed):

"In accepting this authorization to proceed with the work of this modification, it is mutually agreed that the amounts provided for herein will be accepted by the Contractor as full compensation for all costs associated with this modification in the work, including all direct, indirect and impact costs which may be required to complete the work of this modification, and all other work of this Contract, within the stipulated Contract Completion Time. This modification does not change the Time of Completion of this Contract or the Contract Completion Date currently in effect."

c. The following language will be included on all Change Orders (the document which effects payment for one or more modifications and which is signed by both the Contractor and the Owner):

"In executing this Change Order, it is mutually agreed that the amounts provided herein will be accepted by the Contractor as full compensation for all costs associated with these changes in the work, including all direct, indirect and impact costs which may be required to complete these changes, and all other work of this Contract, including previously executed Change Orders, if any, within the stipulated Contract Completion Time. This Change Order does not change the Time of Completion of the Contract or the Contract Completion Date currently in effect."

#### G-5.06. Adjustment of Contract Time.

a. If the Contractor is obstructed or delayed in the prosecution or completion of the work by the neglect, delay or default of any other contractors for adjoining or contiguous work, or by any damage that may happen thereto, by the unusual action of the elements, or by the abandonment of the work by the employees in a general strike, the Contractor shall have no claim for damages against the Owner or Engineer for any such cause or delay, but the Contractor may in such case be entitled to an extension of time specified herein for the completion of the Work, provided, however, that claim for such extension of time be made by the Contractor in writing within thirty (30) calendar days from the time when such alleged cause for delay shall occur.

#### SECTION 5 - CHANGES

An application for an extension of time must set forth in detail the source and the nature of each alleged cause of delay in the completion of the Work, the date upon which each such cause of delay began and ended, and delay attributable to each of such causes. The Contractor shall, however, be entitled to an extension of time for such causes only for the number of calendar days of delay which the Owner may determine to be due solely to such causes, and then only if the Contractor shall have strictly complied with all of the requirements of this Section.

The Contractor shall not be entitled to receive a separate extension of time for each one of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the work as determined by the Owner irrespective of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault or omission of the Contractor or of his subcontractors or material men, and would of itself (irrespective of the concurrent causes) have delayed the Work, no extension of time will be allowed for the period of delay resulting from such act, fault or omission.

b. Where the Owner accepts an application by the Contractor for an extension of time and/or it is agreed that the Contractor is entitled to an extension of time, the Contract Completion Date shall be adjusted pursuant to a Time Extension Change Order, which shall be signed by the Owner and the Contractor and shall be in the following form and contain the following provisions:

#### EXTENSION OF TIME CHANGE ORDER

The Contract Completion Date is hereby changed to

In executing this Change Order, the OWNER And CONTRACTOR mutually agree as follows:

- 1. The extension of the Contract Time was requested by the CONTRACTOR and the new Contract Completion Date established herein is the date requested by the CONTRACTOR.
- 2. There will be no adjustment in the Contract Price as the result of this change in Contract Completion Date.
- 3. The CONTRACTOR waives any and all claims against the OWNER for any and all costs associated with delay in completion of the Contract until the new Contract Completion Date established herein.
- 4. The OWNER waives its right to recover Liquidated Damages or Engineering Costs from the CONTRACTOR, from the original Contract Completion Date to the new Date established herein.
- 5. The OWNER reserves its right to recover from the CONTRACTOR Liquidated Damages and Engineering and Inspection Costs for each and every day that the

### SECTION 5 - CHANGES

Contract remains uncompleted after the new Contract Completion Date established herein.

- 6. All other requirements and provisions of the Contract shall remain unchanged and in full force and effect, including Insurance, Bond and Guarantee Provisions, and the indemnification, defense and hold harmless provisions, and shall extend as necessary to cover the new Contract Time provided herein.
- c. The Contractor agrees that he has and will make no claim for damages against the Owner by reason of any act or omission to act by any other contractor or in connection with the Engineer's or Owner's acts or omissions to act in connection with such other contractor, but the Contractor shall have a right to recover such damages from the other contractors, under a provision similar to the following provision which has been or will be inserted in the Contract with such other contractors.

Should any other contractor, having or who shall hereafter have a contract with the Owner relating to the Project or in connection with the work on sites adjoining or adjacent to that on which the work covered by this Contract is to be performed, sustain any damage through any act or omission of the Contractor, the Contractor agrees to reimburse such other contractor for all such damages and he further agrees to defend, indemnify, and save harmless the Owner from all claims for such damages.

#### G-5.07. Payment of Claims and Disputed Amounts.

Payment of claims made by the Contractor, in accordance with Section G-5.02 above, will only be made by the Owner pursuant to a fully executed Change Order as described in Section G-5.04. In the absence of such a fully executed Change Order, the Owner shall not be obligated to pay any claim or disputed amount. No right shall accrue to the Contractor for interest or other compensation on any claim or disputed amount unless and until a formal Change Order is executed by the Onondaga County Executive.

The Contractor shall carry on the work and adhere to the progress schedule during all disputes or disagreements with the Owner. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted elsewhere in these Contract Documents or as the Owner and Contractor may otherwise agree in writing.

#### SECTION 6 - PAYMENTS

#### G-6.01. Estimated Quantities.

The Contractor agrees that the estimated quantities stated in the Bid are only for the purpose of comparing on a uniform basis, the bids offered for the work under the Contract, and said estimated quantities may not represent or approximate the quantities actually required to be used in the work. The Contractor further agrees that he is satisfied with and will at no time dispute the said estimated quantities as a means of comparing the bids.

In the event that the quantities of various items actually used are either higher or lower than the quantities stated in the Bid (except as allowed for below), the Contractor agrees that the applicable unit prices bid shall be used as the sole basis for computing payment. The Contractor will make no claim for lost overhead or profit or for other costs incurred as a result of deleted work, unused quantities or overrun quantities.

Where the quantity of any item of unit price work performed by the Contractor differs by more than twenty percent from the quantity stated in the bid and there is no corresponding adjustment with respect to any other item of work, and if the Contractor believes that he has incurred additional expense as a result thereof, the Contractor may make a claim for an increase in the Contract Price in accordance with Subsection G-5.03. Similarly, if the Owner's Representative believes that the Contractor under that item because the above variation limit has been exceeded, and if the Owner's Representative believes he is entitled to a credit as a result thereof, the Owner's Representative may make a claim for a decrease in the Contract Price in accordance with Subsection G-5.03.

In determining the amount of any increase or decrease in an item of unit price work, the adjusted unit price shall be applied as follows:

- (i) Quantity Overruns: The adjusted unit price shall be applied only to the difference between the total quantity of completed work and the calculated bid quantity at the variation limit.
- (ii) Quantity Underruns: The difference between the adjusted unit price and the original bid unit price shall be applied to the total quantity of work completed.

#### G-6.02. Prices.

The prices herein agreed to for the performance of the work shown and as specified and the furnishing of the materials and supplies shall be inclusive, that is, the said price shall include not only the doing of the work and the furnishing of said materials and supplies but also all labor, tools and other materials whether the same are required directly or indirectly unless otherwise specified.

Where work is to be measured for payment by units of length, area, volume or weight as stated in the Bid, only the net amount of work actually done, as it shall appear in the finished work and as measured only inside of the payment lines described in the Contract Documents, or as is ordered, shall be paid for, local customs to the contrary notwithstanding.

Where a lump sum price is bid for an item in the Bid, the lump sum price shall be for the work complete as described in the Item and shall include the cost of all equipment, materials, and labor, specified or

### SECTION 6 - PAYMENTS

implied, incidental to the work complete and ready for service and in accordance with the Contract Documents.

#### G-6.03. Breakdown of Lump Sum Items.

The Contractor shall within three weeks after award of the Contract prepare and submit to the Owner for approval, a breakdown of all lump sum bid prices contained in his Contract, with the total prices apportioned into component parts of the various types and categories of material and labor involved in each lump sum item. The approved breakdown will be used in the preparation of the current estimate.

#### G-6.04. Current Estimate and Payment.

The Contractor shall make an estimate each month for the Owners Representatives review of the value of the work done and materials incorporated in the work to the date of the estimate, including the amount complete of any fully executed change orders, provided the said monthly work exceeds One Thousand (\$1,000) dollars in value. The Owner will pay the Contractor on the basis of these estimates, less any amount previously paid to the Contractor and less the retained amount as hereafter described. The Owner shall retain five (5) percent of each estimate amount until substantial completion of all work covered by this Contract or designated part thereof.

Payment shall be made to the Contractor in accordance with established Onondaga County Comptroller procedures and upon submission of duly completed and approved County Claim Forms, which shall be prepared by the Owner's Representative and signed by the Contractor. The application for payment shall be submitted by the Contractor for review under a fully and accurately completed "Application and Certificate for Payment" form. Three (3) executed forms are required. The signed Claim form, with Current Estimate attached, will be submitted to the County Comptroller by the Department of Water Environment Protection for processing and issuance of a check. Checks will be mailed by the Comptroller to the address shown on the Claim Form. In order to be considered for payment, each submitted Claim Form shall include the Contractor's certification of payment to subcontractors, Form GP-001, appended to these General Provisions.

The Contractor may substitute negotiable Municipal Bonds for retainage, in accordance with New York State Municipal Law and Onondaga County Comptroller procedures. In order to be considered for payment, each submitted Claim Form shall include the Contractor's certification of payment to subcontractors (Form GP-001, included in the appendix to these General Provisions).

### G-6.05. Payment For Delivered Equipment and Materials.

The Owner may, at its sole option, include in the Current Estimate the value of selected equipment and non-perishable materials which have been approved and delivered to the site or to an approved off-site location within Onondaga County, New York, for incorporation in the work of this Contract. The value of such equipment and materials shall be determined based on invoices therefore submitted by the Contractor. Such equipment and materials shall be protected by the Contractor from loss or damage, shall be maintained by the Contractor in accordance with manufacturer's instructions and shall at all times be available for inspection by the Owner. The five percent (5%) retainage shall apply to the value of any stored equipment for which payment is made, in addition to the ten percent (10%) retainage for equipment manuals described in the General Specifications, Section S-038.

# SECTION 6 - PAYMENTS

At least twenty days before the date established for each progress estimate (but not more often than once a month), the Contractor shall submit to the Engineer for review an Application and Certificate for Payment. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another locations agreed to in writing, the Application and Certificate for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that the Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance.

# G-6.06. Owner's Right to Withhold Payments.

In addition to the retained amounts described in G-6.04, the Owner may withhold from the Contractor so much of any approved payments due him as may in the judgment of the Owner be necessary:

- 1. To assure the payment of any claims, liens or judgements then due and unpaid of any persons supplying labor or materials for the work;
- 2. To protect the Owner from loss due to defective or incomplete work not remedied;
- 3. To protect the Owner from loss due to injury to persons or damage to the work or property of other Contractors, subcontractors, or others caused by the act or neglect of the Contractor or any of his subcontractors; and
- 4. To compensate the Owner for the value of work which was deleted and for which a credit against the contract amount has not been agreed upon.

The Owner shall have the right as agent for the Contractor to apply any such amounts so withheld in such manner as the Owner may deem proper to satisfy such claims or to secure such protection. Such application of such money shall be deemed payments for the account of the Contractor.

The Owner will not pay, and the Contractor will make no claim for, interest on retained or withheld monies or on amounts in dispute or claimed as extra, in the absence of a fully executed change order therefore.

#### G-6.07. Beneficial Occupancy and Substantial Completion.

- A. For purposes of this Contract, the following definitions shall apply:
  - 1. Beneficial Occupancy: Use or occupancy of the work, or designated parts thereof, by the Owner, even though all of the Contract work, or designated part thereof, may not yet be substantially complete.
  - 2. Substantial Completion: Completion by the Contractor of all the work of the Contract, or designated part thereof, except for minor or incidental items, the existence of which will not affect or impede the Owner's full use of the work, as determined by the Owner's Representative.
- B. <u>Beneficial Occupancy</u>:

# SECTION 6 - PAYMENTS

The Owner reserves the right to use or occupy all or parts of the work at the Owner's sole discretion, and before the work or part thereof is substantially complete. However, unless specifically scheduled otherwise in the Special Project Conditions, or by prior agreement, the Owner shall not be required to use or occupy the work or any part thereof until all of it is substantially complete. Beneficial occupancy of the work or part thereof by the Owner shall not relieve the Contractor from completing all the work in accordance with the Contract Documents, or from other contractual obligations, and shall not prejudice the Owner in any way.

Work, or designated parts thereof, will be considered for beneficial occupancy in accordance with the following conditions and procedures, if scheduled or agreed upon:

- 1. Pipelines, drainage work, earth work, roadways and similar kinds of work not involving equipment or buildings will not be considered for beneficial occupancy until all required testing has been successfully completed and all record drawing and other documentation have been submitted to and accepted by the Owner.
- 2. Equipment or operating systems will not be considered for use under beneficial occupancy, and will not be considered substantially complete, until all of the conditions and requirements set forth in the General Specifications and the Special Project Conditions have been successfully and completely met.
- 3. Habitable structures or buildings will generally not be considered for beneficial occupancy until they are substantially complete.

In the event the Owner takes beneficial occupancy of the work or designated part thereof, the Owner's Representative shall prepare and issue to the Contractor a Notice of Beneficial Occupancy, clearly identifying the occupied work, the Contract value of the occupied work, the date of beneficial occupancy, the beginning and end dates of the guarantee period for the occupied work and the continuing responsibilities of the Owner and Contractor for operation, maintenance, utilities, security, insurance, etc. Generally, but not necessarily, the guarantee period for occupied work will commence on the date of beneficial occupancy of that work. Generally, but not necessarily, the retainage amount associated with occupied work will not be reduced until the work is substantially complete, as hereinafter described.

#### C. <u>Substantial Completion:</u>

When the Contractor has completed the work, or designated parts thereof, to a point that, in the opinion of the Contractor the work is substantially complete, the Contractor shall so notify the Owner's Representative in writing. However, unless specifically scheduled in the Special Project Conditions or agreed to in advance by the Owner, the Owner shall not be obligated to consider any part of the work for substantial completion until all of the work of the contract is substantially complete.

1. As soon as reasonably practical after receiving such notification, the Owner's Representative will inspect the work and thereafter advise the Contractor of any deficiencies or other impediments to determining the work to be substantially complete. Note that any such inspection and listing of impediments to substantial completion shall not be construed to be a "final inspection" or "punch list," unless specifically identified as such by the Owner's Representative.

# SECTION 6 – PAYMENTS

- 2. When the Owner's Representative determines that the work is, in fact, substantially complete, a final inspection involving all interested parties will be scheduled and conducted by the Owner's Representative. The Owner's operation and maintenance personnel may participate in this inspection or may perform their inspections separately. Following the inspection(s), the Owner's Representative will provide the Contractor with a compiled list of defective, deficient, incomplete or otherwise unacceptable work. This list is commonly referred to as a "punch list." The Owner's Representative will indicate on the punch list his opinion of the estimated cost of completing or correcting each of the items listed thereon.
- 3. After preparation of the punch list, the Owner's Representative will prepare and issue a Certificate of Substantial Completion. This document will clearly identify the parts of the work which are substantially complete, the value of the substantially completed work, including any fully executed change orders applicable thereto, the date of substantial completion, the beginning and end date of the guarantee period, and the continuing responsibilities of the parties for operation, maintenance, utilities, security, insurance, etc. The punch list will be attached to the Certificate of Substantial Completion and be made a part thereof. (The value of substantially completed work shall be determined from the bid items, or, if no applicable bid items exist, from the Contractor's approved lump sum breakdown.)

#### G-6.08. Payment at Substantial Completion (Final Payment).

After the Certificate of Substantial Completion is issued for the work, or designated part thereof, the Owner shall make a final payment to the Contractor for the substantially completed work. The amount of the final payment shall be for 100% of the value of the substantially completed work as stated in the Certificate of Substantial Completion, less all prior payments, less any charges for delay, less any amounts withheld pursuant to Section G-6.06 and less two (2) times the value of the punch list.

As a condition precedent to final payment and/or any reduction of retainage by the Owner, the Contractor shall submit the following items, in a form acceptable to the Owner, as the Owner may require:

- An affidavit by the Contractor stating that all claims, judgments and liens have been satisfied and that all vendors and laborers of the Contractor and all subcontractors have been paid in full (unless otherwise specifically noted.)
- Verified statements concerning wage rates from each and every subcontractor, regardless of tier, as described in Section G-2.03.
- A statement by the Contractor of the amounts known by the Contractor to be owed by subcontractors, regardless of tier, to the vendors and laborers of such subcontractors, or a statement that the Contractor has no knowledge of any such amounts owed by subcontractors.
- A statement by the Contractor's Surety that the Performance Bond and Labor and Material Payment Bond shall remain in force for the guarantee period.
- A statement by the Contractor's Surety that the Surety has no objection to the release of retained monies to the Contractor ("Consent of Surety.")

### SECTION 6 - PAYMENTS

- Renewal Certificates of Insurance showing that the Contractor's insurance shall remain in force during the guarantee period.
- Any and all other documentation required under the Contract and not previously approved by the Owner, such as roof bonds, equipment manuals, equipment certifications, record drawings, electrical interconnection data, etc.
- Releases from property owners and permitting authorities that all restoration and permit requirements have been satisfactorily completed.

All prior payments to the Contractor, including those based on quantities of work in place under unit price bid items and those relating to fully executed change orders shall be subject to correction by the final payment.

Included in the appendix to these General Provisions is a "Project Closeout/Final Payment Checklist". As a condition precedent to final payment and/or any reduction of retainage by the Owner, the Contractor must submit for review a fully and accurately completed Project Closeout/Final Payment Checklist.

#### G-6.09. Acceptance of Final Payment Constitutes Release.

The acceptance by the Contractor of the Final Payment shall be and shall operate as a release to the Owner of all claims and of all liability to the Contractor for all things done or furnished in connection with this work, and for every act and neglect of the Owner and others relating to or arising out of this work. No payment, however, final or otherwise, shall operate to release the Contractor or his sureties from any obligations under the Contract or the Performance Bond.

#### G-6.10. Completion of Punch List Work.

After all of the remaining items of work indicated on the punch list(s) are satisfactorily completed or corrected, the Owner will release the amount withheld for these items, upon submission of affidavits showing that all claims, liens, judgements, laborers, vendors and subcontractors have been paid in full or otherwise discharged. Partial releases of monies retained for punch list items will not be made. In the event the Contractor fails or refuses to satisfactorily complete or correct the remaining items of work within sixty calendar (60) days from the date of Final Payment, the Owner reserves the right to have the work completed or corrected by others and to deduct the cost thereof from monies otherwise due the Contractor.

#### G-6.11. Remedial Restoration.

If the Contract contains a bid item for Remedial Restoration, the amount bid for that item will be retained by the Owner in accordance with the payment item description for that item, and in addition to any other retainages or withholdings.

# <u>SECTION 7 – TERMINATION OF CONTRACT</u>

#### G-7.01. Owner's Right to Stop Work or Terminate Contract for Cause.

- If (a) The Contractor shall be adjudged bankrupt or insolvent or make an assignment for the benefit of creditors or make a voluntary petition in bankruptcy, or
  - (b) A receiver or liquidator shall be appointed for the Contractor or for any of his property and shall not be dismissed within 20 days after such appointment, or the proceedings in connection therewith shall not be stayed on appeal within the said 20 days, or
  - (c) The Contractor shall refuse or fail to supply enough properly skilled workmen or proper materials, or equipment, or perform consistently acceptable work, or
  - (d) The Contractor shall refuse or fail to commence work or to prosecute the work or any part thereof with such diligence as will insure its completion within the period herein specified (or any duly authorized extension thereof) or shall fail to complete the work within said period or abandon the work, or
  - (e) The Contractor shall fail to make prompt payment to persons supplying labor or materials for the work, or
  - (f) The Contractor shall fail or refuse to regard laws, ordinances or the instructions of the Owner or the Owner's Representative or otherwise be guilty of a substantial violation of any provision of this Contract, then, and in any such event, the Owner, without prejudice to any other rights or remedy it may have, may, by seven (7) days' notice to the Contractor, terminate the employment of the Contractor and his right to proceed, either as to the entire work or (at the option of the Owner) as to any portion thereof, and may take possession of the work and complete the work by contract or otherwise as the Owner may deem expedient, and/or exercise any other right or remedy available to the Owner under the circumstances.

In such case the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the compensation to be paid the Contractor hereunder shall exceed the expense of so completing the work (including compensation for additional managerial, administrative and inspection services and any damages for delay), such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor and his sureties shall be liable to the Owner for such excess.

If the right of the Contractor to proceed with the work is so terminated, the Owner may take possession of and utilize in completing the work such materials, appliances, supplies, plant and equipment as may be on the site of the work and necessary therefor. If the Owner does not so terminate the right of the Contractor to proceed, the contractor shall continue the work.

#### G-7.02. Termination for Convenience.

The Owner may terminate the contract for its convenience and without cause upon fourteen (14) days notice to the Contractor. Upon receipt of such notice, the Contractor shall immediately cease progressing the work, and shall secure the work and the site as directed by the Owner's Representative. The Owner will compensate

# SECTION 7 – TERMINATION OF CONTRACT

the Contractor for the value of the work acceptably performed up to the date of termination and for such other costs as may be mutually agreed upon.

#### SECTION 8 – MISCELLANEOUS PROVISIONS

#### G-8.01. Provisions Required By Law Deemed Inserted.

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise, any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

#### G-8.02. Unlawful Provisions Deemed Stricken.

If this Contract contains any unlawful provision not an essential part of the Contract and which shall not appear to have been a controlling or material inducement to the making thereof, such provision shall be deemed of no effect, and shall, upon notice by either party, be deemed stricken from the Contract without affecting the binding force of the remainder.

#### G-8.03. Reuse of Documents.

The Contractor, and any subcontractor or supplier or other person or organization performing or furnishing any of the work under a direct or indirect contract with the Owner:

- (i) Shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of the Engineer or Engineer's consultant; and
- (ii) Shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the project or any other project without written consent of the Owner and Engineer and specific written verification or adaptation by the Engineer.

#### G-8.04. Request for Information (RFI).

Each Contractor is responsible for all aspects of the Contract Documents (Drawings, Specifications) that pertain to their specific Contract. In the event that there is confusion in scope of work to be completed by the Contractor or discrepancies between the Drawings and Specifications, the Contractor shall submit a written Request for Information (RFI) to the Engineer for clarification. The Engineer shall review the RFI and provide a written response to the Contractor. The Engineer's response to the RFI shall not necessarily result in a change to the contract amount or extension to the contract schedule. In the event that the Engineer's response to the RFI does result in a change to the contract amount or contract schedule shall be made between the Contractor and the Engineer and Owner, and a modification and change order shall be issued in accordance with Section 5 – Changes of the General Provisions.

# APPENDIX TO GENERAL PROVISIONS

# Appendix A

Certification of Subcontractor Payment Status (Form GP-001)

Application and Certificate for Payment

Project Closeout/Final Payment Checklist

# CERTIFICATION OF SUBCONTRACTOR PAYMENT STATUS

I,		as	of		
in	making a	application for the issuance	of a partial payment unc	der Application for Payment	
No	o on	the project known as		do state that:	
[	]	No Subcontractor or sup	oplier has been used on t	his project.	
[	] Each subcontractor and supplier used on this project during this payment period shall be paid for work performed or materials supplied to this project from the proceeds of this partial payment in accordance with the contractual arrangements between the Contractor and the subcontractor or supplier.				
[	]	Ũ		will not be paid for work	

[ ] The following subcontractors and suppliers will not be paid for work performed or materials supplied to this project from the proceeds of this partial payment because a dispute exists between the Contractor and the subcontractor or supplier.

(subcontractor or supplier)

(subcontractor or supplier)

(subcontractor or supplier)

I certify that the foregoing statements made by me are true. I am aware that willfully submitting a false or fraudulent statement is punishable by law.

[Name and Title]

Notary Public

Dated:\_\_\_\_\_

Dated:\_\_\_\_\_

FORM GP-001

# **OCDWEP - APPLICATION AND CERTIFICATE FOR PAYMENT**

TO:	County of Onondaga Onondaga County Department of Water Environment Protection 650 Hiawatha Boulevard West Syracuse, New York 13204-1194	PROJECT:	APPLICATION NO.: PERIOD TO: PROJECT NOS.:	Distribution To: OWNER CONSTRUCTION MANAGER DESIGN ENGINEER CONTRACTOR		
FROM:	(CONTRACTOR)		CONTRACT DATE:			
CONTRAC	T FOR:	VIA CONSTRUCTION MANAGE VIA DESIGN ENGINEER:	R:			
Application	<b>TOR'S APPLICATION FOR PAYMENT</b> is made for payment, as shown below, in with the Contract. Continuation sheet is attached.	the Work covered Documents, that all	contractor certifies that to the best of the Contra by this Application for Payment has been con I amounts have been paid by the Contractor for ed and payments received from the Owner, and t	npleted in accordance with the Contract Work for which previous Certificates for		
1. ORIGIN	AL CONTRACT SUM\$	CONTRACTOR:				
2. Net Cha	inge By Change Orders\$\$			Date:		
3. CONTR	ACT SUM TO DATE (line 1+2)\$			Date:		
4. TOTAL	COMPLETED & STORED TO DATE\$	In accordance with	CERTIFICATE FOR PAYMENT In accordance with the Contract Documents, based on on-site observations and the data comprising the in accordance with the Contract Documents, based on on-site observations and the data comprising the			
5. RETAIN a	IAGE: % of Completed Work \$	knowledge, informa accordance with th	application, the Construction Manager and the Design Engineer certify to the Owner that to the best of their knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.			
b	% of Stored Material \$		ED	\$		
Total F	Retainage (Line 5a + 5b) \$	(Attach explanation	ED	applied for. Initial all figures on this		
6. TOTAL	EARNED LESS RETAINAGE\$					
7. LESS P	REVIOUS CERTIFICATES FOR PAYMENT\$					
8. CURRE	NT PAYMENT DUE\$			Date:		
9. BALAN	CE TO FINISH, INCLUDING RETAINAGE	DESIGN ENGINEE				
(Line 3 I	ess Line 6) \$	This Certificate is no	ot negotiable. The AMOUNT CERTIFIED is pay and acceptance of payment are without prejudic			
Total Chan previous m	DRDER SUMMARY     Additions     Deductions       ges approved in onths by Owner:     \$     \$       wed this Month:     \$     \$	recommendation an	ANCE y accepts this payment application form from the certification from the Construction Manager ar . The Owner agrees the Contractor is due the t	nd the Design Engineer in connection with		
		OWNER:				
	TOTALS \$	 By:		Date:		

# ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION

650 Hiawatha Boulevard West • Syracuse, New York 13204-1194 315/435-2260 Phone • 315/435-5023 FAX



JOANNE M. MAHONEY, County Execut TOM RHOADS, P.E., Commissioner

# PROJECT CLOSEOUT/FINAL PAYMENT CHECKLIST

Project:	
Contractor	
Contract No.	Original Contract Amount:
	Change Order(s) Amount:
	Final Contract Amount:

# CONSTRUCTION:

\_ Issue Certificate of Beneficial Occupancy after the following has been accepted:

- **□** Equipment, piping, electrical, and other applicable testing has been completed.
- □ Manufacturer's certified start-up reports.
- □ Control, alarm and telemetry systems.
- □ Painting and labeling.
- □ Final cleaning.
- □ Record drawings and electrical interconnection data.
- **□** Equipment operation and maintenance manuals.
- Owner's training.
- □ Spare parts, tools and accessories.
- **□** Equipment performance periods have been completed.
- □ Warranties and guarantees.
- □ Underwriters Laboratories<sup>®</sup> and other approved code inspections reports.
- Onondaga County Plumbing approved code inspections reports.
- Onondaga County Building approved code inspections reports.
- □ Confirmation that temporary utilities have been terminated and payment satisfied. If applicable, that permanent service has been transferred to OCDWEP.

Issue Certificate of Substantial Completion after the following:

- Contractor shall request in writing.
- □ Issue punch list at two times the value, with certificate to Contractor.

Issue Final Payment at 100 % after review or receiving the following:

- Contractor shall submit final payment application including all Change Orders.
- **\Box** General Provisions, G-6.06 Owner's Right to Withhold Payment (Items 1 4).

- □ An affidavit by the Contractor stating that all claims, judgments and liens have been satisfied and that all vendors and laborers of the Contractor and all subcontractors have been paid in full (unless otherwise specifically noted).
- □ Verified statements concerning wage rates from each and every subcontractor, regardless of tier, as described in Section G-2.03.
  - a) Prime Contractor's Labor Certification (NYS Labor Law Section 220).
  - b) Sub-Contractor's Labor Certification (NYS Labor Law Section 220).
- □ A statement by the Contractor of the amounts known by the Contractor to be owed by subcontractors, regardless of tier, to the vendors and laborers of such subcontractors, or a statement that the Contractor has no knowledge of any such amounts owed by subcontractors.
  - a) Contractor's/sub-contractor's Affidavit of payment of Debts and Claims (AIA Document G706).
  - b) Contractor's/sub-contractor's Affidavit of Release of Liens (AIA Document G706A).
- □ A statement by the Contractor's Surety that the Performance Bond and Labor and Material Payment Bond shall remain in force for the guarantee period.
- □ A statement by the Contractor's Surety that the Surety has no objection to the release of retained monies to the Contractor "Consent of Surety" (AIA Document G707).
- □ Renewal Certificates of Insurance showing that the Contractor's insurance shall remain in force during the guarantee period.
- □ Any and all other documentation required under the Contract and not previously approved by the Owner, such as roof bonds, equipment manuals, equipment certifications, record drawings, electrical interconnection data, etc.
- □ Releases from property owners and permitting authorities that all restoration and permit requirements have been satisfactorily completed.

Confirmation that all MBE/WBE & Labor Law requirements have been filled

- **Confirmation in writing from Onondaga County Human Rights Commission.**
- □ Received all M/WBE Monthly Utilization Reports (Form G).
- **□** Received all Monthly Employment Utilization Reports (Form I).
- □ Received all certified payrolls.
- **□** Received all copies of cancelled checks issued to subcontractors and suppliers.

\_\_\_County Claim Vouchers – contract for final payment, straight claim for release of retainage.

- □ Punch list completed.
- □ Submit affidavits showing all claims, liens, judgements, labors, vendors and subcontractors have been paid in full or otherwise discharged.
- □ Release retainage: partial release of monies for punch list items will not be made.

 Potential Outstanding Balances and Claims

 Contractor
 Contract Value
 Change Orders
 Paid to Date

Contractor	Contract Value	Change Orders	Paid to Date	Balance (incl. Retainage)	Retainage

Attach justifications as applicable.

# ADMINISTRATION:

BOND ACT

- □ Approved project commencement and completion dates
- □ Municipal Agency and contact information
- **□** Report preparer's name and contact information
- **G** Summary of Activity
  - a) Narrative description of work accomplished
  - b) Identify any changes to Work Plan
- □ Major problems encountered and how they were resolved
- Expenditure summary report
- □ Signed State Aid Voucher
- □ Signed Self-Certification Form
- □ Final inspection by NYSDEC

\_ EPA

- □ Final Financial Status Report (SF-269A)
- □ Final Request for Reimbursement (SF-270)
- □ Final MBE/WBE Utilization report (5700-52A)

EFC

- □ Certification by the engineer that construction is in accordance with the approved plans and specifications or approved amendments thereto.
- □ Certificate of an authorized officer stating that the Financed Project has been completed in accordance with the Project Financing and Loan Agreement.

#### S-001. Intent of Contract Documents

The intent of the Contract Documents is to provide for the work herein outlined to be complete in every detail for the purpose designated and the Contractor hereby agrees to furnish everything necessary for such construction, notwithstanding any omission in the Contract Documents.

The Contract Documents comprise the entire agreement between the Owner and the Contractor concerning the work. The Contract Documents are complementary; what is called for by one is binding as if called for by all. The Contract Documents will be construed and governed in accordance with the laws of the State of New York.

All parts of the Contract Documents, including all drawings and all specification sections, apply to all Contractors on the project, as applicable to the work of the respective Contract. For example, the electrical specifications sections shall apply to equipment furnished by the General, Heating and Ventilating and Plumbing Contractors; piping, excavation and concrete specifications shall apply to Electrical, Heating and Ventilating and Plumbing Contractors, etc.

The mention of any specific duty or liability of the Contractor in any part of the Contract Documents shall not be construed as a limitation or restriction upon any general liability or duty imposed upon the Contractor by the Contract Documents, said reference to any specific duty or liability being merely for purposes of explanation.

The locations, character, and many details of the work are shown on the Contract Drawings. The work shall be constructed in accordance with these Drawings, and such other drawings as may be furnished from time to time by the Engineer. Should a dimension or detail be omitted, the Contractor shall request an interpretation from the Owner's Representative in writing.

Any error or discrepancy in the Contract Drawings or Specifications discovered by the Contractor shall be brought to the attention of the Owner's Representative by the Contractor before proceeding with the work affected by such error or discrepancy so that the error or discrepancy can be rectified.

Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement thereto, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity or discrepancy between the provisions of the Contract Documents and:

- (i) the provisions of standards, specifications, manuals, codes or instructions (whether or not specifically incorporated by reference in the Contract Documents); or
- (ii) the provisions of laws or regulations applicable to the performance of the work, unless such an interpretation of the provisions of the Contract Documents would result in violation of such law or regulation.

No provision of any such standard, specification, manual, code or instruction shall be effective to change the duties and responsibilities of the Owner, Owner's Representative, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to the Owner, Owner's Representative, Engineer, or any of their consultants, agents, or employees any duty or authority to supervise or direct the furnishing or performance of the work or any duty or authority to undertake responsibility inconsistent with any of the provisions of the Contract Documents.

#### S-002. Precedence of Contract Documents

Conflicts or discrepancies among the Contract Documents, as defined in Article 4 of the Agreement and further described in Paragraph S-001 of the General Specifications, shall be resolved in the following order of priority:

- i) The Agreement and any addendum;
- ii) Amendments, revisions or change orders of later date take precedence over those of earlier dates;
- iii) The Special Project Conditions;
- iv) The General Provisions;
- v) The General Specifications;
- vi) Drawings and Technical Specifications Drawings govern Specifications for quantity and location, Specifications govern Drawings for quality and performance. In the event of ambiguity in quantity and quality, the greater quantity and better quality shall govern.
- vii) Figured dimensions govern scale dimensions, and large scale Drawings govern small scale Drawings;
- viii) The Bid;
- ix) The Information for Bidders;
- x) The Definition of Terms; and
- xi) The Advertisement.

If a conflict or discrepancy cannot be resolved through the above order of priority, the conflict or discrepancy shall be directed to the Owner and Construction Project Manager for final resolution.

#### S-003. Published Standards and Specifications

References in the Contract Documents to published regulations, specifications, codes or standards of private and governmental technical societies and agencies shall mean the latest edition of the referenced publication. Where referred to in these Contract Documents, published regulations, specifications, codes or standards shall be followed or complied with as if they were incorporated herein in their entirety, as applicable to the work of this Contract and to the extent that they do not conflict with specific requirements contained in these Contract Documents.

#### S-004. Care and Protection of Work

From the commencement until the completion of the work, the Contractor shall be solely responsible for the care of the work covered by the Contract and for the materials, supplies and equipment delivered at the site intended to be used in the work; and all injury or damage to the same from whatever

cause, shall be made good at the Contractor's expense before the final payment is made. The Contractor shall provide suitable means of protection for and shall protect all materials intended to be used in the work, all work in progress, and all completed work. The Contractor shall take all necessary precautions to prevent injury or damage to the work by flood, fire, freezing or from inclemencies of the weather.

#### S-005. Collateral Work

The Owner may execute the project by awarding other contracts, the work under which will proceed simultaneously with the execution of this Contract. Such collateral work will be identified in the Special Project Conditions. The Contractor shall coordinate his operations with those of other Contractors. Cooperation will be required in the arrangement for the storage of materials and in the detailed execution of the work. The Contractor, including his subcontractors, shall keep himself informed of the progress and the detail work of other Contractors and shall notify the Owner immediately of lack of progress or defective workmanship on the part of other Contractors, where such delay or such defective workmanship will interfere with his own operations. Failure of a Contractor to keep informed of the work progressing on the site, and failure to give notice of lack of progress or defective workmanship by others shall be construed as acceptance by him of the status of the work as being satisfactory for proper coordination with his own work.

The Contractor shall afford each other contractor who is a party to such other contracts proper and safe access to the site, a reasonable opportunity for the introduction and storage of materials and equipment, and the proper execution of such other work. The Contractor shall properly connect and coordinate the work with the other contractors. Unless otherwise provided in the Contract Documents, the Contractor shall do all cutting, fitting and patching of the work that may be required to make its several parts come together properly and integrate with such other work. The Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of the Owner's Representative and the others whose work will be affected. The duties and responsibilities of the Contractor under this paragraph are for the benefit of such other contractors to the extent that there are comparable provisions for the benefit of the Contractor in said direct contracts between the Owner and such other contractors.

#### S-006. Access to Work

The Owner, the Owner's Representative, his Engineers, Inspectors, Agents and other employees, shall for any purpose, and any other parties who may enter into contracts with the Owner for doing work within the territory covered by this Contract shall, for all purposes which may be required by their contracts, have access to the work and the premises used by the Contractor, and the Contractor shall provide safe and proper facilities therefore.

#### S-007. Covering of Underground Work - Authorization of Owner

No backfilling or covering of underground work shall be done without authorization by the Owner's Representative. Any work covered without such authorization shall be uncovered, to such extent as directed, or removed and replaced by the Contractor at his expense. If work is ordered stopped, no more work shall be done until such order is withdrawn.

#### S-008. Work in Inclement Weather

Work which is subject to damage by inclement weather or extremes of temperature shall not be performed during such weather or if such weather is imminent unless approved protective measures are in place. The Contractor shall provide all means and methods necessary to protect vulnerable work from damage due to weather and shall replace any work damaged by weather, at no additional cost to the Owner.

#### S-009. Working Hours

Unless arranged for in advance and approved by the New York State Department of Labor and the Owner, working hours shall be eight (8) hours per day, five (5) days per week, during daylight hours on weekdays only, except in the event of emergency. The Contractor shall be responsible for complying with all applicable Federal and State Labor Standards and Requirements.

#### S-010. Disruption of Owner's Operations

The Contractor shall notify the Owner a minimum of 48 hours in advance of any work, which may affect or disrupt the operation of the existing facilities.

#### S-011. Equipment/Process Isolation

Any work by the Contractor which requires the mechanical or electrical isolation of an existing piece of equipment, process or system shall be coordinated with the Owner's Representative. Any and all isolation of electrical or mechanical equipment or process shall be accomplished in strict accordance with applicable codes and standards and the Owner's lock-out/tag-out procedures.

#### S-012. Lines, Grades and Elevations and Restoration of Survey Markings

The Owner shall provide at least one (1) benchmark in the vicinity of the work for vertical control and shall provide manhole centerlines, corners or base line hubs, as applicable, for horizontal control. The Contractor shall provide reasonable notice and opportunity to establish control points to be provided by the Owner and shall coordinate his operations accordingly.

From the control points provided by the Owner, the Contractor shall be responsible for providing construction surveys as necessary and to construct the work in accordance with the lines, grades and elevations shown on the Contract Drawings.

The accuracy of the Contractor's survey work and calculations is the sole responsibility of the Contractor. The Owner's Representative reserves the right to inspect or check any of the Contractor's survey work and calculations, and the Contractor shall not claim added compensation for any delay occasioned by such checking, nor for any corrective work which may be required as the result of the Contractor's errors. However, the Owner's Representative shall not be obligated to check the Contractor's survey work and the Owner's failure to check the Contractor's survey work shall not relieve the Contractor of his responsibility to construct the work in accordance with the Contract Drawings.

It shall be the responsibility of the Contractor to locate and flag all existing property corner markers and survey monuments.

Markers shall be flagged and the adjacent property owners shown their locations. Only iron or steel markers or other material with magnetic properties may be used to re-establish property corners.

All survey monuments that are to be preserved and protected in place shall be fenced and flagged against disturbance or destruction.

Property corner markers, survey monuments, frames, covers, etc., disturbed or moved by the Contractor's operation shall be located, restored, set and replaced by a licensed land surveyor hired by the Contractor at his own expense. Restoration of the property corner markers or survey monuments shall be certified by said surveyor on a map prepared by him, which shows the work accomplished. One copy of the map shall be given to the property owner and one copy given to the Owner via the Engineer. Where the right-of-way has been changed, the property corner markers shall be placed at the new right-of-way line. All of the above-described work shall be paid for by the Contractor and provided to the Owner, at no additional cost to the Owner.

#### S-013. Shop Drawings

Information, including samples, describing in detail all work, materials and equipment to be furnished under the Contract, shall be submitted for review. This information, regardless of form, shall be called "shop drawings."

Shop Drawings shall be submitted sufficiently in advance of the work to permit proper review, including time for necessary revisions and resubmittals. Delay to the work caused by late submission of shop drawings shall be the responsibility of the Contractor making such late submission.

The Owner shall not be obligated to accept or pay for work, materials or equipment furnished in the absence of reviewed shop drawings.

Before submitting each shop drawing, the Contractor shall have determined and verified:

- (i) all field measurements, quantities, and specific performance criteria;
- (ii) all materials with respect to intended use, fabrication, shipping, handling, and storage requirements pertaining to the performance of the work; and
- (iii) all information relative to the Contractor's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.

At the time of each submission, the Contractor shall give the Owner specific written notice of any variations that the submitted shop drawing may have from the requirements of the Contract Documents. Such notice shall be in a written communication separate from the submittal. The Contractor shall also identify on each shop drawing the specific variation.

Shop drawings shall be separately submitted by specific specification section and/or drawing. Shop drawings shall be stamped, checked and signed by the Contractor for compliance with the Contract Documents. The Contractor's stamp shall also note the date, name of the Project, contract number, submittal number, and the reference specification section and/or drawing number. Eight (8) copies of shop drawings shall be submitted, with (2) reviewed copies returned to the Contractor.

Shop drawings shall present complete and accurate information relative to all working dimensions, equipment weights, assembly and sectional views; all the necessary details pertaining to coordinating the work of the Contract; lists of materials and finishes; parts lists and the description thereof; lists of spare parts and tools where such parts or tools are required; no-scale control diagrams for control wiring and control piping; and any other items of information that are required to demonstrate detail compliance with the Contract Documents and to coordinate the work with other Contractors.

If called for in the applicable Technical Specifications or if specifically requested by the Engineer, shop drawing submittals for operating or process equipment (e.g., pumps, blowers, compressors, etc.) shall be accompanied by a certification from the equipment manufacturer that the offered equipment meets or exceeds specified requirements at the specified operating conditions. Certified performance curves or test data shall also be submitted, as applicable. For equipment, such as pumps, which is controlled or driven by equipment furnished by other manufacturers, such as variable frequency drives, the driven equipment (pump) manufacturer shall certify that the drive equipment technical information has been reviewed and the drive equipment is suitable for and compatible with the driven equipment, and vice versa.

Shop drawings are reviewed only for the purpose of determining whether or not items proposed to be furnished by the Contractor are in substantial conformity with the requirements of the Contract Documents. Notwithstanding the review of shop drawings, the Contractor is responsible for the accuracy and completeness of such drawings, for the satisfactory operation and performance of the furnished material or equipment and for its complete and proper installation.

The Contractor shall be aware that the Owner incurs a cost for review of shop drawings, including those for equivalent, substitute or alternate products. The Owner will provide only two (2) reviews of shop drawings for any one item of equipment or material. If more than two (2) reviews are required by the Engineer to determine acceptability of any one item of equipment or material, the Owner reserves the right to recover the cost of such additional reviews from the Contractor as a deduct from the Contract Amount.

After shop drawings are accepted by the Engineer, the items described in the accepted shop drawings shall be furnished exactly as described. In the event a manufacturer changes the design of an item subsequent to the acceptance of the shop drawing describing that item, and the change results in additional cost being incurred by the Owner or other Contractors on the project, the Contractor providing the item shall bear such cost.

Detailed procedures for submission of shop drawings shall be established at the Preconstruction Meeting.

# S-014. Layout and Coordination Drawings

The Contract Drawings do not necessarily contain all the details necessary to perform the work. Where applicable or required, these details shall be provided by the Contractor in the form of layout or coordination drawings. In addition to shop drawings, the Contractor, and any applicable subcontractors, shall prepare and submit to the Engineer for review, coordination and layout drawings in sufficient detail to fully describe the work to be performed. Such drawings would include, but not be limited to, pipe laying schedules, pipe fabrication, support and restraint details, pipe, duct and conduit routings, equipment layout and mounting details, concrete placing schedules, reinforcing steel details, structural steel fabrication and erection details, etc.

On multiple prime contract projects, the coordination and layout drawings shall be prepared by the respective Contractors on common base drawings of the same scale so that interferences and conflicts can be readily identified. The Engineer shall review these drawings and attempt to resolve conflicts by consulting with the involved Contractors. If any Contractor installs work prior to submitting an acceptable layout or coordination drawing, and that work is found to be in conflict with another Contractor's work, the Contractor who installed the conflicting work shall bear all costs of resolving the conflict.

#### S-015. Record Drawings

As a part of the work of this Contract, record drawings shall be prepared and maintained by the Contractor and shall show the precise, as-built locations of all buried, imbedded or concealed piping or conduit, including piping or conduit fixtures, fittings and accessories, and other buried features installed by the Contractor. Piping, conduit, or other architectural, structural and mechanical features shall also be shown on the record drawings. The contractor shall affix their identification stamp on the record drawings along with the label "Record Drawings." This labeling shall be done for each page of drawings, just above the Engineer's Title Block. Upon Substantial Completion of the Contract, and as a condition of reduction of retainage, the Contractor shall deliver one (1) complete, accurate and legible set of record drawings to the Owner's Representative.

During construction, the Contractor shall keep one set of the Contract Drawings at the project site on which he shall regularly update and show all changes in, or directly associated with, the work under his contract. Such changes shall be neatly and clearly marked on the drawings using colored ink or pencil, and the entire set of drawings shall be kept current on a day-to-day basis in concert with the progress of the work. Where applicable, the change marked on a drawing is to carry the notation "per Change Order No.\_\_\_\_", or similar reference which cites the reason for the change. The day-to-day construction record drawings shall be made available to the Engineer and/or Owner for review upon request.

The following items are examples of some of the types of changes, which could occur and are to be recorded by the Contractor.

- 1. Change in location of project components.
- 2. Change in elevation of project components.
- 3. Change in slope of piping system, or of pitched surfaces.
- 4. Change in materials, such as pipe materials.
- 5. Change in topographical contours of finished earth surfaces.
- 6. Change in elevation of finished grades, streets, etc.
- 7. Additions to project.
- 8. Elimination of a project component.
- 9. Relocation of existing underground utilities made necessary because of interference with project components.

- 10. Unforeseen modifications made to existing structures made necessary by requirements of the work.
- 11. Relocation of equipment.
- 12. Changes in mechanical trades components (electrical, heating and ventilating, plumbing).

In addition, the record drawings shall show the precise as-built locations of all buried, imbedded or concealed piping or conduit, including piping or conduit fixtures, fittings and accessories and other buried features installed by the Contractor.

In addition to the above requirements, the Contractor shall have a record measurement survey performed by a New York State licensed Land Surveyor. This survey shall include rim elevations of all new manholes and structures, invert elevation of pipes at manholes and structures, and length of all new pipe as measured between centers of manholes or structures, as well as angles between centerlines of pipes and tie distances, from all utility frames and covers installed by the Contractor to a minimum of three fixed objects, with sketches and notes, as appropriate. All measurements shall be made to the nearest 0.01 foot. This information shall be marked and shown on a separate record set of Drawings with each marked up drawing stamped, signed and dated by a New York State licensed Land Surveyor, then submit all of the drawings to the Engineer.

The Owner retains the right to withhold a portion of progress payments to the Contractor if dayto-day record drawings are not kept current in accordance with this section.

Upon substantial completion of the Contract, and as a condition of reduction of retainage, the Contractor (each Contract) shall deliver one (1) complete, accurate and legible set of record drawings and record measurement survey drawings to the Engineer for transmittal by the Engineer to the Owner. The Certificate of Substantial Completion will not be issued until both sets of record drawings (day-to-day construction and survey record sets) have been received by the Engineer.

#### S-016. Material, Equipment and Workmanship

All equipment and materials furnished under the Contract of like type, furnished under one Contract shall be the product of one manufacturer, unless otherwise specified.

All materials and equipment furnished or incorporated in the work shall be new, unused, of the best quality, especially adapted for the service required and whenever the characteristics of any materials are not particularly specified, such materials shall be used as is customary in first class work of a nature for which the material is employed.

All work shall be completed in a first class manner by qualified and skilled tradesmen.

All materials, equipment and workmanship shall be subject to inspection and testing by the Owner's Representative, including work already completed but not yet finally accepted. No work shall be covered or otherwise concealed without the Owner's Representative being afforded an opportunity to inspect same.

Equipment shall be furnished complete with all appurtenances, accessories, tools and spare parts, as specified, and shall be installed in accordance with manufacturer's instructions. All items, supplies and

materials necessary for initial startup and operation of the equipment, including lubricants, shall be furnished by the Contractor.

The Contractor shall furnish the services of qualified manufacturer's representatives to adjust and start-up the equipment and to instruct Owner's personnel on its operation and maintenance.

All equipment shall be furnished by manufacturers who shall have at least three years experience in the design, production, assembly and field service of the equipment of like type, size and capacity.

#### S-017. Equivalent Product and Substitutions

Whenever definite reference is made in the Contract Documents to any particular brand name for an item of equipment or material, it is to be understood that any equivalent product complying with the requirements of the Contract Documents, as determined by the Engineer, will be acceptable, unless otherwise specified.

Consideration of equal, substitute or alternate equipment, systems or materials from those specified will be made only after the Contract is awarded. The Engineer will be the judge of equivalence, based on shop drawings or other information as the Engineer may require, and as provided by the Contractor.

Any revisions to the Contract Drawings or to the design of the project necessary to accommodate an equivalent, substitute or alternate product offered by the Contractor and accepted by the Engineer shall be made by the Engineer. The cost of such revisions shall be borne by the Contractor as a deduct from the Contract Amount.

On projects involving more than one prime Contractor, any changes to the work of other prime Contractors required to accommodate or coordinate with an equivalent product shall be borne by the Contractor providing the equivalent product.

In addition to the requirements described above, requests for substitutions shall be made in accordance with the procedures set forth in Appendix A to the General Specifications and Section 1346 – Substitutions of the Technical Specifications.

#### S-018. Delivery and Storage of Materials and Equipment

Materials and equipment, including Contractor's equipment and tools, shall be delivered and stored on site in such a manner as to not block access to public or private property, disrupt Owner's access for operation or maintenance of the facility or interfere with safety access or equipment.

Equipment and materials stored on site shall be protected by the Contractor from loss or damage, shall be maintained by the Contractor in accordance with manufacturer's instructions and shall at all times be available for inspection by the Owner's Representative.

Unless stated otherwise in the Special Project Conditions, the Owner has no indoor space available for storage of material or equipment.

The Contractor shall provide facilities for safe and secure storage of all equipment and materials, and for protection from the elements and extremes of heat or cold, in accordance with manufacturers' recommendations. The Contractor shall be responsible for maintenance of stored or inactive equipment in accordance with manufacturer's recommendations.

The location of the Contractor's on-site storage facilities shall be coordinated with the Owner. The Contractor shall be responsible for unloading and moving materials and equipment and shall not assume that the Owner has equipment available for that purpose.

Prior to delivery to the site of any material listed as toxic or hazardous, the Contractor shall submit to the Owner one (1) copy of the Material Safety Data Sheet (MSDS) for the material. In addition, one (1) copy of the MSDS for each item of material shall be prominently posted on the outside of the storage area in a manner, which protects the sheets from the weather.

The Contractor shall maintain the storage area, and any other area where materials are being used, in a safe, orderly, neat and clean condition. Materials shall be kept in their original containers until ready for immediate use and shall be segregated. Containers shall be kept covered and only approved containers shall be used for storage, transport, mixing or cleaning. Empty containers shall be disposed of off-site on a regular basis. Cleaning materials and dirty rags shall not be permitted to accumulate on site or in the storage area.

#### S-019. Material Testing

The Owner shall provide and pay for field and laboratory testing of installed or placed materials, such as concrete, soils and granular materials, pavement, etc. to determine compliance with the specifications for the in-place characteristics of such materials. The Owner's testing service shall be certified for the type of testing to be performed and all testing shall be in accordance with current standards. The Contractor may provide his own testing at his expense, but the Owner's testing service shall be the sole basis for determining acceptability of materials or compliance with the specifications.

The Contractor shall provide reasonable (24-hour minimum) notice to the Owner's Representative of the Contractor's intent to place concrete or perform other work requiring field testing so that the testing can be arranged. The Contractor shall coordinate his operations with the needs of the testing personnel and shall provide access to the work or material as required by the testing personnel.

If the Contractor fails to provide adequate notice to the Owner's Representative of the Contractor's intent to place material requiring field testing, and as a result thereof the Owner's Representative is unable to arrange for the testing to accommodate the Contractor's schedule, the Owner's Representative may require that the proposed work be deferred or rescheduled until the required testing services are available. The Contractor shall make no claim for damages or delay as a result of any such deferral or rescheduling, or otherwise in connection with or arising from testing by the Owner or the Owner's testing services.

In the event that initial testing indicates the placed material does not comply with the specifications, the Owner may arrange for retesting or additional testing by the Owner's testing service. If the retesting or additional testing confirms that the material does not meet the specifications, the cost of the retesting, additional testing, or subsequent testing of replacement material shall be charged to the Contractor.

The testing paid for by the Owner shall not include testing or analysis of materials for preinstallation approval, such as concrete mix designs or granular materials gradations soil analysis or proctors. These types of testing or analytical services shall be provided by the Contractor.

Any specialized testing of manufactured materials or equipment, such as pipe certifications, steel certifications, pump certifications, etc. shall be provided by the Contractor or the manufacturer of the material or equipment.

#### S-020. Old Materials

All materials removed from old construction and all materials or articles of value found in the excavation or on the site of the work shall be brought to the attention of the Owner's Representative, and if he shall so order, shall be the property of the Owner, and shall be carefully preserved for future use. If not claimed by the Owner, such material or articles shall be removed and disposed of by the Contractor at his own expense.

#### S-021. Disposal of Spoil

Unless otherwise noted, any and all spoil or excess material resulting from Contractor's excavations shall be disposed of off site at the Contractor's expense. All costs associated with spoil disposal shall be included in applicable payment items, and no separate or additional payment will be made therefore. Spoil shall be disposed of in accordance with applicable federal or state regulations at sites approved for such disposal by applicable federal or state agencies. The Contractor shall be responsible for locating and providing access to such approved disposal sites and for obtaining required approvals from applicable agencies.

#### S-022. Cleaning

On completion of the Contract, all pipelines, buildings and other structures shall be left clean and free from obstructions. All rubbish, refuse, unused materials, Contractor's equipment and tools shall be removed and the site shall be left in a neat and orderly condition for use. All equipment shall be cleaned and left in a clean and new appearing condition.

Floors shall be left broom clean and finished surfaces shall be free of marks, soil, scratches, dents, etc. Damage to finished surfaces shall be repaired to the Owner's satisfaction prior to final acceptance.

#### S-023. Ground Available to Contractor

The Contractor shall confine his operations to such portions of the property of the Owner, and to the rights-of-way or easements acquired for the work as shown. Private property adjacent to the work shall not be entered upon or used by the Contractor for any purpose whatsoever without the written consent of the owner thereof. The Contractor shall provide at his expense for all additional lands required for temporary construction facilities, storage of materials and equipment or access to the work not otherwise provided by the Owner.

All work in connection with the Contract within or bordering on private or public property shall be conducted in such manner as will cause the minimum inconvenience and disturbance to it. No excavated materials or supplies of any kind shall be stored on private or public premises without the Owner's consent, and all walks and driveways shall be kept open to uninterrupted passage.

#### S-024. Protection, Security and Maintenance of Site

The Contractor shall be responsible for protecting and securing the site of the work from trespass, entry, malicious mischief and vandalism and shall erect and maintain fences, lights, barricades, signs or

other devices as necessary to warn the public of hazards and secure the site from accidental or unauthorized entry. On a multi prime contract project, the General Contractor shall be responsible for providing the means and methods for maintaining site protection and security.

The Contractor shall maintain the site in a safe, neat and orderly condition and shall promptly remove on a regular basis and at his expense all dirt, rubbish and debris resulting from his operation. Prior to removal, rubbish shall be placed and stored in approved containers, such as "dumpsters," provided by the Contractor. The Owner's facilities shall not be used. On-site burning or burying of rubbish will not be permitted. On a multi prime contract project, each prime contractor shall be responsible for maintaining their respective work areas, cleanup and removals.

The Contractor shall not load nor permit any part of any structure associated with the work to be loaded in any manner that will endanger the structure, nor shall the Contractor subject any part of the work or adjacent property to stresses or pressures that will endanger it.

The Contractor is responsible for ensuring the safety of the site for the Contractor's personnel, owner's representatives, other officials and the general public. Barricades, fencing, cones, barrels and equipment shall be maintained in a safe manner. Hazard warning lights shall be placed and continuously maintained to alert drivers and pedestrians to the construction site after dark. The Contractor shall provide trained personnel to control traffic any time vehicles or equipment are moved on or off the site.

The Contractor shall also continuously maintain the site to prevent and/or remove any and all litter, mud, dirt, and loose materials from the site and adjacent areas. Streets shall be maintained in a clean, non-muddy, non-dusty condition by sweeping and/or water cleaning on a daily basis.

#### S-025. Protection and Restoration of Existing Structures, Facilities and Features

The Contractor shall, at his own cost and expense, sustain in their places and permanently protect from direct or indirect injury any and all utilities, structures and property in the vicinity of his work, whether over or underground, or which appear within the trench or excavations, and the Contractor shall assume all costs and expenses for direct or indirect damage which may be occasioned by injury to any of them.

The Contractor shall contact Dig Safely New York at 1-800-962-7962 and notify the proper utility companies at least seventy-two (72) hours before construction is started adjacent to utilities.

If the work of this Contract involves excavation on sites of existing treatment plants or pump stations owned by the Owner, prior to performing such excavation, the Contractor shall notify the Owner's Representative so that the Owner's internal underground facilities protection procedures may be implemented. Under this procedure, the Owner's personnel will mark or identify on-site underground facilities, such as pipes, wires or conduits, which may be in or near the area of the Contractor's proposed excavation. In the event the Contractor fails to provide such prior notification, or fails to provide reasonable and sufficient time for the Owner's personnel to research and identify possible conflicts, or fails to observe and protect identified underground facilities, and such facilities are damaged or destroyed by the Contractor's operations, the Contractor shall be responsible for any and all direct, indirect or consequential costs incurred by the Owner as a result of such failure. Furthermore, in such event, the Owner's Representative may order the Contractor to make immediate permanent or temporary repairs of damaged facilities, at the Contractor's sole expense, as directed by the Owner and to the Owner's satisfaction, or the Owner may elect to have the repairs performed by others, with the cost thereof to be borne by the Contractor and deducted from monies otherwise due the Contractor.

All trees, shrubs and the like at the construction site shall be preserved and protected by the Contractor, except those that are specifically indicated to be removed at no additional cost to the Owner.

The Contractor shall protect adjacent and other property from damage and shall repair and restore to the satisfaction of the Owner any and all existing facilities, structures, equipment, surfaces, finishes or other features, which may become damaged or disturbed as a result of the work of this Contract or the activity of his personnel. The Contractor shall not load nor permit any part of any existing structure to be loaded in any manner that will endanger the structure, nor shall the Contractor subject any part of adjacent properties to stresses or pressures that will endanger them.

The Contractor shall replace all pavement, driveways, fences, shrubs, lawns, trees, and any other public or private property damaged as a result of the work performed under this Contract. All such replacement shall be done in accordance with the applicable specifications and no separate or extra payment will be made unless specifically provided for in the Payment Items. In all cases, said replacement shall be at least equal to the original conditions.

The Contractor shall contact, in writing, the Gas Main Owner 72 hours prior to exposing these facilities. The Contractor shall not expose any listed or located gas main unless a representative of the Gas Main Owner is contacted and has the opportunity to be present during the work.

- 1. No work shall take place in the proximity of gas mains until the facilities are located and marked. These locations and markings shall be protected and maintained by the Contractor throughout the construction duration.
- 2. When working in the general vicinity of gas mains, extreme care shall be taken. All excavation within 3 feet of the mains shall be done by hand in order to protect the pipe and its corrosion control wrapping.
- 3. All rules and regulations for the safety and protection of personnel and gas mains shall be adhered to while work is being performed in the vicinity of gas mains, included but not limited to the NYS Department of Labor Industrial Code No. 53.
- 4. Gas Main Owner may provide their own special protection for exposed gas mains. The Contractor shall cooperate with and provide safe access for Gas Main Owner's personnel in installation of such protection.

Address of the Gas Main Owner is as follows:

Consumer Adviser Electric/Gas Sales & Services Niagara Mohawk Power Corporation/ 300 Erie Boulevard West Syracuse, NY 13202

The Contractor shall notify the Engineer of his 1) contacts of Gas Main Owner prior to exposing mains; and 2) schedule for Gas Main Owner's personnel to be on site; not less than 48 hours prior to exposing gas mains.

#### S-026. Existing Features Found Different

When any existing surface or subsurface feature is found to be materially different than represented by the Contract Documents or than could have been observed prior to bidding, the Contractor shall immediately notify the Owner prior to disturbing the feature. Any change in the Contract Documents necessitated by the conditions found different shall be accomplished in accordance with the Changes Section of the General Provisions.

Any claims arising out of the conditions found different shall be administered in accordance with Subsection G-5.02 of the General Provisions.

a. Asbestos, PCB's, Petroleum, Hazardous Waste, Mercury, or Radioactive Material

The Owner shall be responsible for any pre-existing asbestos, PCB's, petroleum, hazardous waste, mercury, or radioactive material uncovered or revealed at the site which was not shown or indicated in the drawings or specifications or identified in the Contract Documents to be within the scope of the work and which may present a substantial danger to persons or property exposed thereto in connection with the work at the site. The Owner shall not be responsible for any such materials brought to or generated at the site by the Contractor, suppliers or anyone else for whom the Contractor is responsible.

If a hazardous condition is encountered, the Contractor shall immediately: (a) stop all work in connection with such hazardous condition and in any area affected thereby, and (b) notify the Owner (and thereafter confirm such notice in writing). The Owner will either have the hazardous condition remediated by a third party under the Owner's direction, or direct the Contractor to remediate the hazardous condition under a change order in accordance with Section 5 of the General Provisions.

If the Owner elects to contract with a third party under the Owner's direction:

- (i) The Contractor shall not be required to resume work in connection with such hazardous condition or in any such affected area until after the Owner has obtained any required permits related thereto and delivered to the Contractor special written notice: (a) specifying that such condition and any affected area is or has been rendered suitable for the resumption of work, or (b) specifying any special conditions under which such work may be resumed by the Contractor. If the Owner and Contractor cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of such work stoppage or such special conditions under which the work is agreed by the Contractor to be resumed, either party may make a claim therefore as provided in Section 5 of the General Provisions.
- (ii) If after receipt of such special written notice the Contractor does not agree to resume such work based on a reasonable belief it is unsafe, or does not agree to resume such work under such special conditions, then the Owner may order such portion of the work that is in connection with such hazardous condition or in such affected area to be deleted from the work. If the Owner and Contractor cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of deleting such portion of the work, then either party may make a claim therefore as provided in Section 5 of the General Provisions.

(iii) To the fullest extent permitted by laws and regulations, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, and the officers, directors, employees, agents, and other subcontractors of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from such hazardous condition, provided that: (a) any such claim, cost, loss or damage is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself), including the loss of use resulting there from, and (b) nothing in this subparagraph shall obligate the Owner to indemnify any person or entity from and against the consequences of that person's or entity's own negligence.

If the Owner directs the Contractor to remediate the hazardous condition under a change order, the work shall be performed in accordance the technical specifications contained in these contract documents or as included in the change order documentation."

#### S-027. Pollution Control and Purchase and Use of Recycled Products

The Contractor shall be responsible for preventing the discharge or release of pollutants to the environment, including the air, land (soil), surface water or ground water.

The Contractor shall not permit pollutants, such as chemicals, solvents, fuels, lubricants, sewage, contaminated, silt-laden or heated water or other deleterious poisonous, toxic or oxygen-demanding substances to leach or flow into the ground or into surface or ground waters or into storm or sanitary sewers. The Contractor is responsible for providing all means and methods necessary to prevent or control erosion of disturbed areas and to prevent the discharge to, or creation of, sediments or turbidity in surface waters. The Contractor shall comply with all laws, rules or regulations of all local, New York State or Federal agencies concerning pollution control and protection of the environment. The Contractor shall be responsible for defending and indemnifying the Owner from and against any enforcement actions arising from the Contractor's failures to prevent pollution or to comply with applicable laws, rules and regulations, and shall pay any fines, penalties or judgments arising there from.

Onondaga County policy dictates that the use and purchase of mercury containing equipment shall be minimized to the greatest extent possible. Therefore, wherever a feasible alternative exists, the contractor shall specify mercury free equipment. Examples of common products for which mercury free alternatives shall be specified, include, but are not limited to, thermostats, level float/switches, tilt switches, high-intensity discharge (HID) lighting fixtures, manometers, vacuum gauges, and flow gauges. Fluorescent lighting fixtures are acceptable under this policy. Whenever the installation of mercury containing equipment or devices (other than fluorescent lighting fixtures) is necessary, said equipment shall be clearly marked with appropriate signage stating "Contains Mercury."

It is County policy to actively pursue the purchase of products that are manufactured from recycled materials for backfill or components of construction projects undertaken by the County. Where recycled products are of equal value and equal or less costs, the recycled product shall be chosen. The Contractor shall make every effort to adhere to this policy, and shall document such efforts.

#### S-028. Maintenance of Flow

The Contractor shall, at his expense, provide for and maintain the flow of all sanitary sewers, storm sewers, drainage ways, watercourses, house services and other similar facilities encountered during the course of the work. No pipe or channel shall be permanently blocked, plugged, cut or otherwise interrupted without the written permission of the Owner's Representative, regardless of the apparent condition, appearance or status thereof.

Sewage shall not be pumped or discharged onto the ground or allowed to flow into storm sewers, drainage ways or surface waters.

The Contractor shall not permit soil, sediments or pollutants, surface water or ground water to enter any active sanitary or combined sewer. Before any new sewer is connected to the existing, inservice sewer system, the new sewer shall be inspected by the Owner's Representative and any and all foreign materials removed there from by the Contractor.

#### S-029. Maintenance of Utilities

Utilities, including water, sewer, electricity, telephone, gas, alarm services, cable TV, etc. serving private or public users shall be maintained as continuously as possible. Prior to any planned or expected necessary interruption of a utility, the owner of the utility and the utility customer shall be given reasonable notice (preferably 72 hours) of such interruption. The interrupted utility shall be restored and returned to service by the Contractor or by the utility's owner as soon as possible after the interruption. In any case, utilities serving occupied residences shall not be interrupted prior to 9:00 A.M. and shall be restored by 4:00 P.M. every day. If the utility cannot be restored by 4:00 P.M., the Contractor shall, at his expense, make alternate arrangements to provide the utility service to the residence.

Interruptions of utilities serving commercial or industrial establishments or public or institutional facilities shall be coordinated 72 hours in advance with the owner thereof to minimize the effect of the interruption on the operation of the establishment or facility.

Affected fire departments or dispatchers shall be notified of any interruption of service to fire hydrants, sprinkler systems or alarm systems.

Utilities shall be restored to the satisfaction of the Owner thereof and in accordance with all applicable codes, rules and regulations. Unless noted otherwise in the Special Conditions, the Contractor shall bear all costs of maintaining or restoring utilities, whether the work thereof is performed by the Contractor or the utility owner. Utility owners may reserve the right to perform maintenance and/or restoration of their respective facilities with their own forces and to charge the Contractor the cost thereof.

#### S-030. Work by Utilities

The Contractor shall coordinate and cooperate with public or private utility owners in protecting or relocating their facilities, whether the utility's work is in connection with the work of this Contract or otherwise. The Contractor shall provide access across his work to utility owners as required by the utility owner for the performance of work or inspection.

#### S-031. Maintenance of Traffic

The Contractor shall be responsible for providing all necessary means and methods to maintain safe and orderly vehicular and pedestrian travel through and around the work area. The Contractor shall provide flagmen, lights, signs, barricades, detours, temporary roadways or walkways or other devices or facilities as required by the owner of the roadway on which travel may be obstructed as the result of the Contractor's operations. As a minimum, all traffic warning and control methods and devices shall be designed, constructed, placed and installed in accordance with the <u>Manual of Uniform Traffic Control Devices</u>, current edition.

If a traffic maintenance plan is included in the Contract Drawings, the Contractor shall furnish, install and maintain all facilities necessary to implement the plan and shall in all ways comply with the plan as to coordination, approvals, location and timing. Whether or not a traffic maintenance plan is specified, the Contractor may be required to meet with appropriate officials to develop or modify a plan, and any such plan shall be implemented at the Contractor's expense.

Local police and emergency services, DPW's and school dispatchers shall be notified by the Contractor prior to each day's operations if such operations will disrupt traffic in any manner.

Any interruptions of access to public or private property shall be coordinated with the property owner and shall be of absolute minimum essential duration. If required by the property owner, the Contractor shall provide alternate means of access, at no additional cost.

#### S-032. Utilities Used by Contractor

The Contractor shall be responsible for obtaining and paying for any utility services required by him in connection with the performance of the work of his contract, including telephone, water and electrical services. If the work of the contract is within existing facilities owned by the Owner, and required utilities are available within the facility, the Contractor may use the services to the extent necessary to perform the work and the cost of such services shall not be charged to the Contractor. In no case, however, will the Contractor be permitted to use existing utilities if such use will disrupt the continued, reliable operation and maintenance of the facility. The Contractor shall bear all costs associated with delivering the required utility services from existing points of availability to the site of the work and shall restore to the satisfaction of the Owner any existing systems disturbed as a result of his use thereof. Any connections made by the Contractor to utility systems shall be in accordance with all applicable codes and standards, shall be arranged to prevent disruption or damage to the facility or hazard to personnel and shall be approved by the Owner in advance. The Contractor shall be responsible for providing OSHA-approved extension cords and ground fault circuit interrupters where required.

#### S-033. Temporary Facilities

The Contractor shall be responsible for providing and maintaining all temporary facilities necessary for the proper, safe and efficient performance of the work and for the safety, health and welfare of personnel. The following temporary facilities shall be provided, as required or applicable to the work:

- A. Heat, ventilation, lighting and water.
  - (1) Prior to beneficial occupancy of a building or a system or equipment within a building, the Contractor shall provide facilities to maintain an inside temperature of at least 45°F, unless

higher temperatures are required for performance of work, such as painting, as recommended by material or equipment manufacturers.

- (2) After beneficial occupancy of a building or equipment or systems within a building, inside temperatures shall be maintained at 60°F minimum.
- (3) Ventilation shall at all times be provided as required to maintain safe working conditions, in accordance with applicable regulations and material manufacturer's recommendations. After beneficial occupancy, ventilation shall be provided as required by applicable codes and standards.
- (4) Installed heating, ventilating and lighting equipment may be used if agreed to by the Owner and if that equipment and the systems serving that equipment have been taken under beneficial occupancy by the Owner. Otherwise, the Contractor shall furnish, install and maintain all required equipment. Any installed or permanent equipment used by the Contractor to provide temporary services shall be cleaned or restored by the Contractor to the satisfaction of the Owner prior to substantial completion.
- (5) All electrical equipment and installations shall be in accordance with applicable codes, standards and regulations.
- (6) The Owner will pay for utilities consumed for temporary heat, light, ventilation and water if available in an existing facility, in accordance with S-032. Otherwise, the Contractor shall provide all utility services and fuel.
- B. Sanitary facilities for use by Contractor's personnel, in sufficient numbers, placed and maintained in accordance with applicable codes and standards. The Owner's facilities shall not be used by Contractor's personnel.
- C. Facilities to secure the site, enclose buildings or structures and protect the work and personnel. The Contractor shall provide construction locks on all new doors and gates. Prior to beneficial occupancy, the Contractor shall remove construction locks and furnish and install permanent locks keyed to the Owner's standard keying system. Openings and drop-offs shall be barricaded, secured or protected in accordance with applicable regulations.
- D. Facilities to access the work, such as snow removal, roadways, ladders, scaffolds, etc. Temporary roadways shall be removed and disturbed areas restored by the Contractor prior to substantial completion. Ladders, scaffolds and similar devices shall be furnished, placed, erected and maintained in accordance with applicable regulations.
- E. Storage and field office facilities for the Contractor's use.
- F. Field office facilities for use by Owner's Representative, if called for elsewhere in the Contract Documents.
- G. Any other temporary facilities called for elsewhere in the Contract Documents.

On a project on which there are multiple prime contractors, the General Contractor shall provide items A, B, C and F, above, including any electrical work associated therewith, for the use of all

contractors on the site. Snow removal shall be provided by the General Contractor. Other temporary facilities shall be provided, maintained and removed by the respective contractor requiring such facilities.

# S-034. Hangers, Supports and Restraints

The Contractor shall be responsible for providing suitable hangers, supports and restraints for all piping and equipment furnished under the Contract, whether shown on the Contract Drawings or not. Unless shown or specified otherwise in the Contract Documents, hangers, supports and restraints shall be furnished and installed in accordance with all applicable codes and standards. All hardware shall be specifically designed for the application intended and shall be of a materials or finish which will prevent corrosion in the in-service atmosphere in which it is located. Shop Drawing information on proposed hangers, supports and restraints, whether manufactured, or fabricated, shall be provided.

#### S-035. Chases, Openings, Sleeves, Inserts, Embedded Items

Where there is more than one Contractor on a project, the General Contractor shall install in new floors, walls, roofs and other structures constructed by him all sleeves, inserts, chases, openings, etc. to accommodate his own work and the work of other Contractors. The sleeves, inserts, anchors or other embedded or built-in items shall be furnished by the Contractor needing the item to the General Contractor, and installed in the new construction by the General Contractor. Embedded pipes and conduits and their appurtenances shall be installed in the new construction by the Contractor to give other Contractors reasonable notice as to when items provided by other Contractors are required to be placed in the work.

Each Contractor shall be responsible for confirming or providing the locations and sizes of openings required for his work and shall provide layout drawings as necessary to modify or supplement the Contract Drawings and to provide direction to the General Contractor. The work shall be scheduled and coordinated by all parties to allow reasonable time to prepare layout drawings and locate required openings. Any cost caused by defective, ill-timed, mislocated or missing work shall be borne by the Contractor responsible therefor. No Contractor shall alter the work of any other Contractor without the consent of the Owner's Representative and the other Contractor involved.

Where sleeves, inserts, chases or openings are required in existing floors, walls, roofs or other structures, they shall be provided by the Contractor requiring those items to accommodate that Contractor's work. Patching, finishing or sealing around pipes, ducts or conduits shall be by the Contractor installing the pipe, duct or conduit in the opening or sleeve.

#### S-036. Labeling

A. Wire Labeling.

All wires, including those in shop fabricated equipment as well as field wiring, shall be labeled with approved, pre-printed, wrap-around labels made for the purpose. Labels shall be affixed to wires at each and every point of termination. Wire labeling designations shall correspond with terminations shown on wiring diagrams and in Electrical Interconnection Data forms.

# B. Equipment and Control Labeling.

All items of equipment shall be provided with prominent labels clearly identifying the equipment by name and number (e.g., Sludge Transfer Pump No. 2, Power Roof Exhauster #1; Unit Heater No. 3). Disconnects, switches, controls or control panels shall be similarly labeled to

correspond to the equipment to which they pertain. Electrical panels and equipment, such as lighting panels, transformers, and motor control centers, shall be labeled to correspond with their designations on record drawings and/or Electrical Interconnection Data Sheets. Operating control devices (e.g., switches) and indicators mounted on or in control panels shall be clearly labeled as to function, using nomenclature consistent with the operating instructions for the equipment controlled. Cubicles of motor control centers, and the devices mounted therein, shall be labeled.

Labels shall be engraved, laminated plastic, engraved metal with contrasting lettering or other approved means. Labels shall be rigidly secured with rivets, screws or permanent adhesive. Labels shall be provided by the Contractor who furnished the equipment or device.

#### C. Electrical Conduit Labeling.

All electrical conduit, including rigid conduit, flexible conduit, plastic or plastic coated conduit and electrical metallic tubing (EMT), shall be field labeled with the appropriate conduit designation or identification, as shown or scheduled in the Contract Documents or on approved shop drawings or layout drawings. Labels shall be placed at each end of each conduit run, at any and all intermediate junction boxes, panels, fixtures, enclosures or other devices and at the point where conduit emerges from concealment, burial or embedment. In unfinished spaces or where conduit is not to be painted and is exposed, the labeling shall be accomplished with indelible marker pen or paint, neatly hand lettered on the exterior surface of the conduit so that the label is readily visible and readable. Where conduit is not exposed, the conduit inside the panel or box to which the conduit is connected. In finished spaces where conduit is exposed or where conduit is to be painted, the conduit shall be labeled using embossed or stamped, metal (aluminum or brass) bands, at least halfinch wide, rigidly and permanently attached to the exterior surface of the conduit so that the label is readily visible and readable.

# D. Pipe Labeling.

All piping, which is not buried or embedded, shall be painted in accordance with the Owner's standard color-coding system. Piping shall also be provided with approved, permanently attached, durable labels, which identify pipe contents and normal direction of flow. Labels shall be placed on piping at intervals of not more than 15 feet, where pipes emerge from embedment and at changes in direction.

#### S-037. Electrical Interconnection Data

Any Contractor performing field wiring, either directly or by subcontract, shall provide detailed interconnection data for all equipment field wired as part of that Contractor's work. The required information shall be entered by the Contractor's personnel, at the time the terminations are made, on the form entitled "Electrical Interconnection Data" included herein with Appendix A. Blank copies of this form will be furnished by the Owner's Representative to the Contractor for the Contractor's use. It is the intent of this requirement that each and every field termination on the project be represented by a line entry on an Electrical Interconnection Data form.

A separate Electrical Interconnection Data form (consisting of multiple pages, if necessary) shall be completed for each and every separate enclosure, fixture, panel, box or device containing field wire terminations, without exception. A separate form shall be completed even in the simplest case of an

enclosure or box containing only a single toggle switch, push button, lamp, etc., and even if the completed form for that enclosure contains only one or two line entries.

In the heading of the form, the Contractor performing the wiring shall enter the description (e.g., MCC #1, Flow Meter Control Panel, Remote Stop-lockout for Recycle Pump #1, Light Panel #1, Raw Sewage Pump #1 Drive, etc.) and location (e.g., northeast corner of control room, top of stair at south end of Gallery #2, ceiling of conference room, end of walkway at Aeration Tank #1, etc.) of the enclosure or device which is the subject of that particular form. The name(s) of the Contractor's employee(s) actually doing the work in that enclosure and completing the form shall be indicated on the line "Prepared By." All information called for in the body of the form shall be entered on the form by the Contractor's personnel actually doing the work. In the body of the form, on the left side, under the heading "This Equipment/Device," the function (e.g., Drive power, speed control signal, control power, on-off indication, stop/lock out, thermostat control, lighting, etc.) and the factory or field applied terminal numbers or designations on the device(s) or leads in the enclosure shall be entered. The field-applied wire label number and color of the wire actually connected to the terminal or lead shall be entered in the respective columns under "Field Termination." The number or designation of the conduit connected to the enclosure and containing the respective conductors shall be entered in the column "Conduit Out." The nature and location of any and all intermediate splices or devices on the wire run shall be indicated in the column "Intermediate Devices, Junction Boxes, etc." Under the heading "Destination," the description and location of the device or equipment at the far end of the wire run shall be indicated, including the designation of the conduit connected to the remote enclosure and the terminal number or designation on the device or leads mounted in the enclosure. The field-applied wire label designation and wire color at the destination enclosure should be the same as those at the origination and as indicated on the left side of the form. If, however, there is a difference, the actual wire label designation and color shall be noted in the remarks column.

The completion of an Electrical Interconnection Data form for each and every field wired item of equipment or device is a part of the work of the Contractor performing the field wiring of that equipment or device and that Contractor is wholly responsible for the completeness and accuracy of the information contained therein. After field wire termination work has commenced, and as it progresses, the Contractor shall present the Electrical Interconnection Data forms to the Owner's Representative for review. Periodic, progress or monthly payment will not be released to the Contractor in the absence of properly completed, legible and accurate Electrical Interconnection Data forms covering all field wire terminations completed to the cutoff date of that payment.

The Contractor shall retain and safeguard the completed Electrical Interconnection Data forms until the work of the Contract is substantially complete, at which time all of the completed Electrical Interconnection Data forms shall be turned over by the Contractor to the Owner's Representative, who will transmit them to the Owner. The Contractor's retainage will not be reduced, as otherwise provided, until a complete set of properly completed, legible and accurate Electrical Interconnection Data forms has been accepted by the Owner.

#### S-038. Equipment Manufacturers' Manuals and Information

All equipment, devices or materials furnished by the Contractor as a part of the work of this Contract shall be accompanied by all information, instructions and data necessary for the proper and complete care, operation, maintenance and repair of the equipment, device or material by the Owner's personnel. The required information, instructions and data shall be prepared and compiled by the manufacturer of the equipment, device or material and shall hereinafter be referred to collectively as "equipment manuals."

In addition to any specific requirements of other sections of the Contract Documents, equipment manuals shall be required for any and all items containing moving parts, electric or electronic wiring or components, pneumatic or hydraulic devices or components, or requiring regular or special maintenance, cleaning or lubrication. In addition to major items of equipment, this requirement for submission of equipment manuals is intended to also apply to such items as locksets, door, gate and window hardware, finishes, carpeting and upholstery, furniture, electrical and lighting system components, fixtures and accessories, valves, piping system components, fixtures and accessories, etc.

Each equipment manual shall clearly and specifically identify the equipment or item, which is the subject of the manual, including, as applicable, the model name and number, size, serial number(s) and optional features or accessories actually included with the furnished equipment. Each equipment manual shall also include the following kinds of information, as applicable to the item, which is the subject of the manual:

- Table of Contents
- Theory of Operation, functional diagrams
- Design and Operating Specifications, criteria
- Recommended installation arrangement, locations, wiring, criteria, procedure, etc.
- Normal and emergency operating instructions, procedures and sequences for each possible mode of operation
- Normal operating parameters, indications, settings, adjustments, voltages, currents, etc.
- Troubleshooting procedures
- Preventative or routine maintenance requirements or recommendations
- Lubrication schedules, including lube points, frequency, quantity and type and brand name of recommended lubricants
- Parts layout, identification, assembly diagrams, including exploded views with parts referenced by name and/or number
- Parts lists of each assembly and subassembly showing part name, number, size, composition and quantity required, down to discrete components
- Recommended spare parts stocking lists
- Name, addresses and telephone numbers of factory authorized or recommended service representatives and parts suppliers
- Major overhaul or repair procedures including diagrams, measurements, clearances, tolerances, adjustment settings, alignment procedures, torque specs, etc.

- Wiring diagrams and schematics
- Elementary control diagrams
- One-line diagrams
- Interconnection data or diagrams for factory-wired components
- Alignment and calibration procedures, including original or factory settings and data
- Recommended or required special tools and maintenance, alignment, calibration or safety equipment
- Care and cleaning of finishes and paints used, colors, types
- Any other information necessary or recommended for the complete and proper operation, maintenance and repair of the equipment by the Owner's personnel

Where any item of equipment includes components or subassemblies manufactured by other than the equipment manufacturer, all-pertinent information for the subassemblies shall be included in the equipment manual prepared and compiled by the equipment manufacturer.

Information contained in an equipment manual which is not applicable to the specified item furnished under this Contract shall be clearly lined out or deleted.

Providing complete equipment manuals, as specified herein, for all equipment, devices or materials furnished under the Contract is a part of the work of this Contract and the Contractor is wholly responsible for obtaining acceptable equipment manuals from the equipment manufacturers and submitting them to the Engineer. Seven (7) copies of each equipment manual shall be submitted to the Engineer by the Contractor, which shall be transmitted to the Owner by the Engineer. If the O&M manuals are not approved in the first submittal, the Owner and Engineer will retain three (3) copies for future reference of revised submittals. O&M manuals shall be provided to the County by the sixty percent (60%) project completion milestone. In order to be acceptable, each copy of each equipment manual must be complete, as specified herein, legible, clearly reproduced, and appropriately partitioned by subject matter.

Over and above and in addition to any other retainages provided for in the Contract, ten percent (10%) of the value of equipment, devices or materials requiring equipment manuals shall be retained from payments otherwise due the Contractor until acceptable equipment manuals for the applicable items are received by the Owner. For the purpose of applying this retainage, equipment, device or material values shall be determined from actual invoices presented by the Contractor to the Engineer, or, in the absence of actual invoices, by an estimate of fair and reasonable value determined by the Engineer. The Contractor is advised to include this specification, entitled "Equipment Manufacturers' Manuals and Information," in all applicable purchase orders and to provide a similar retainage provision in all applicable purchase orders or purchase agreements.

Equipment manuals shall be submitted by the Contractor for review under cover of a fully and accurately completed "Equipment Manual Transmittal" form, as included as an appendix to the General

Specifications. Information submitted to satisfy the requirements or an equipment manual will not be accepted for review by the Owner if it is not accompanied by a fully completed Equipment Manual Transmittal.

The Contractor shall provide each approved O&M manual in electronic (650 MB CD-RW) Adobe PDF format.

#### S-039. Services of Manufacturer's Factory Representatives - Startup and Training

The services of manufacturer's factory representatives shall be provided by the Contractor at the times and for the duration and purposes stated in the various equipment specification sections and/or Special Project Conditions. The factory representatives provided shall be trained and fully qualified and capable of performing the services required. Factory representatives shall arrive at the site with all tools, instruments, equipment, documentation or other materials necessary to perform the required services.

Time spent in travel to the site shall not be applied toward the required duration of service. Time spent at the site if not properly prepared or equipped to perform the required service shall not be applied toward meeting the specified durations. For installation, initial operation, testing, startup and adjustment services, the durations shown in the equipment specification sections shall be considered minimums. Additional on-site time shall be provided at the Contractor's expense as necessary to assure that equipment is installed and operating correctly and in accordance with the specifications.

The Owner's personnel shall have the right to witness the activities of factory representatives during installation, testing, startup and adjustment. Furthermore, the Owner reserves the right to video tape, at its expense, the on-site activities of factory representatives, including training. Neither the Contractor nor the equipment supplier or manufacturer shall be entitled to any additional compensation as a result of the Owner's videotaping. It is understood that video taping, if performed, will be strictly for the Owner's use in training its employees and that the video tapes will not be made available by the Owner to any other party. The Owner will provide duplicate videotapes of representatives' activities, if requested by the respective supplier or manufacturer and at the supplier or manufacturer's expense.

Manufacturer's services for instruction and/or training of Owner's personnel shall be provided as specified in the various equipment specification sections and/or Special Conditions. The specified durations for training shall be over and above the time spent at the site for any other purposes. As noted above, time spent in travel shall not be applied toward the required duration of service.

At least two weeks prior to proposed training, the Contractor shall submit for the Owner's review and approval a training outline or lesson plan clearly indicating the subject matter duration of each segment and depth of detail proposed to be presented at the training session. No training shall be performed in the absence of a previously approved lesson plan or outline. Prior to scheduling training sessions, any and all equipment manuals, as specified elsewhere, shall be submitted to and approved by Owner. No training shall be performed in the absence of previously approved equipment manuals. Training which is provided that does not follow approved lesson plans or outlines, or where the manufacturer's representative is not properly prepared or qualified shall not be accepted by the Owner as meeting the training requirements.

Training shall be scheduled at least two (2) weeks in advance so as to provide the Owner an opportunity to adjust work schedules to permit all interested personnel to attend. If applicable to the particular training to be provided, the Owner can make its training room facilities available.

The Owner reserves the right to video tape all training sessions, as noted above.

# S-040. Beneficial Occupancy of Operating Equipment and Systems

# A. Conditions for Beneficial Occupancy

As stated in General Provisions Section G-6.07.B.2, equipment or operating systems will not be considered for use under beneficial occupancy until all of the following conditions have been successfully and completely met for the particular equipment or system:

- 1. A written Startup Report from the equipment manufacturer's authorized representative has been submitted to the Owner, certifying that the equipment has been properly installed, started, tested, adjusted, is performing in accordance with specified requirements and is ready for regular service. The Startup Report shall include measured operating parameters applicable to the equipment, such as current draw per phase, pressure, RPM, flow, temperature, etc.
- 2. All related control, alarm and telemetry systems are in place and functioning reliably.
- 3. Painting and labeling of equipment, piping, conduits, wiring and related devices have been acceptably completed.
- 4. The equipment area has been acceptably cleaned and all rubbish and debris removed.
- 5. Acceptable means have been provided for safe and efficient access to the equipment by the Owner's personnel for operation and maintenance, and all required environmental and housekeeping facilities are available (e.g., weather protection, ventilation, heat, light, water for washdown, alarms, platforms, ladders, etc.).
- 6. Record drawing information and electrical interconnection data submitted and approved.
- 7. Equipment manuals in the required number of copies submitted and approved, including electronic manuals and information.
- 8. Training of the Owner's personnel acceptably completed.
- 9. All required spare parts, tools and accessories turned over to the Owner. They shall be properly packaged and identified in individual packaging with typed labels indication building and location, descriptive equipment name, manufacturer, model serial numbers, part numbers, part names, and quantity.
- 10. The equipment performance period has been successfully completed.
- 11. At the time of Beneficial Occupancy of any facility by the Owner, where utility service is required (electrical, gas, water, telephone, etc.) all temporary services instituted and

necessary to the Contractor's operation shall be terminated and all outstanding bills paid by the Contractor to the applicable utility.

#### B. Equipment Performance Period

Unless otherwise specified in the Special Conditions or the Technical Specifications, each and every item of equipment shall be operated in service without failure for a "performance period" of fourteen (14) calendar days, as a condition for beneficial occupancy or substantial completion. For items of equipment, which are part of a system, all items of equipment in the system, including items furnished by other prime Contractors, must undergo the performance period simultaneously.

- 1. The performance period may not be commenced until after items A.1, A.2 and A.3 above have been completed.
- 2. The performance period shall be at least fourteen (14) days (or as otherwise specified) of continuous operation of the equipment or system without failure to perform or interruption due to equipment malfunction of any kind. For equipment, such as pumps, that may normally cycle on and off while in service, or equipment which is only utilized for parts of a day in normal service, the performance period is the overall in-service time, including normal off cycles.
- 3. If an item of equipment fails for any reason during the performance period, or fails to perform in accordance with the specifications during the performance period, the performance period shall start over from "zero" upon the Contractor correcting the problem.
- Unless specified in the Special Project Conditions, or previously agreed otherwise, the 4. Contractor shall be responsible for all operation and preventive, routine and corrective maintenance of equipment during the performance period, including responding to any alarms or failures during both normal working and non-working hours, 24 hours per day, seven days per week. If an item of equipment or a system develops a problem or fails during the performance period, the Contractor's designated representative will be notified by the Owner's Representative or Owner's operating personnel, and the Contractor shall immediately respond, troubleshoot and correct the problem or switch to a backup. The Contractor shall provide a legible, detailed, daily maintenance and operation log for all operating equipment, from the time the equipment is operational until Beneficial Occupancy. Documented data shall include date, equipment description, model number, serial number, hours of operation, and maintenance schedule. Logs shall be made available for the Owners and Engineers review. If, in the opinion of the Owner, the Contractor fails to respond in a timely and effective manner, and if such failure may damage other equipment or the facility or adversely affect the treatment process or service to the public, the Owner's personnel may respond and take necessary corrective action. The cost to the Owner of any such response and action shall be deducted from monies otherwise due the Contractor. However, the Owner shall not be obligated to respond, and such response or non-response by the Owner shall not relieve the Contractor from liability for damage to public or private property caused by an equipment failure during the performance period, or for making permanent repairs or corrections to the failed equipment. The Contractor shall not have nor make any claim against the Owner for actual or alleged damages to the equipment, the facility or public or private property due to the Owner's response or action or failure to respond or act.

- 5. The cost of utilities consumed during the performance period shall be borne by the Owner. The disposal of process related material, such as residuals or sludge, collected or generated during the performance period shall be by the Owner. Fuel, lubricants parts and chemicals used during the performance period shall be provided by the Contractor, unless otherwise specified or agreed to in advance.
- 6. When items A.4 through A.9 above have been successfully completed, <u>and</u> the specified performance period has been successfully completed, the designated equipment or system will be taken under beneficial occupancy by the Owner. At that time, the Owner's Representative will issue a Notice of Beneficial Occupancy, the Owner will assume full operation and maintenance responsibility for the equipment, and the guarantee period for that equipment will begin.
- C. Notwithstanding the above procedures for beneficial occupancy, the Owner shall not be obligated to take beneficial occupancy of any item of equipment or system, unless scheduled in the Special Conditions, until all the work of the Contract is substantially complete. To achieve substantial completion, all of the conditions for beneficial occupancy must be satisfied.

# S-041. Temporary Construction Fencing

The Contractor shall install and maintain, as necessary, temporary construction fencing to delineate construction areas from public usage areas for safety purposes. Temporary construction fencing shall be installed at any and all locations where it is necessary to restrict public access to the work area, storage and field office trailer areas, and any other potential hazards for safety reasons. Such fencing shall be 6-foot high metallic chain link, with posts and supports such to maintain fence in a vertical position without sagging. Fence shall be in place, complete and secured, prior to adjacent construction activity and shall be maintained throughout the work. The fence shall be removed when adjacent work has been completed.

#### S-042. Storage of Flammable or Explosive Materials On-Site

In no case shall the Contractor store any flammable or explosive materials at the project site, in excess of materials needed for work to be undertaken during the current working day. At the end of the working day, all such materials shall be removed from the project site and secured at an off-site location.

# APPENDIX TO GENERAL SPECIFICATIONS

# Appendix A

Equipment Manual Transmittal Form

Electrical Interconnection Data Form

Substitution Procedures and Application Form

# ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION

650 Hiawatha Boulevard West • Syracuse, New York 13204-1194 315/435-2260 Phone • 315/435-5023 FAX



JOANNE M. MAHONEY, County Executive TOM RHOADS, P.E., Commissioner

# EQUIPMENT MANUAL TRANSMITTAL

# PART A

- 1. Contract No. -
- 2. Contractor –
- 3. This is a shop drawing submitted to satisfy the requirements of an Equipment Manual

\_\_\_\_\_

- 4. This is an Equipment Manual
- 5. This is a resubmittal of information previously submitted and rejected.
- 6. Item of equipment \_\_\_\_
- 7. Manufacturer's Name\_\_\_\_\_
- 8. Manufacturer's Model No.
- 9. Vendor's or Sales Rep's Name\_\_\_\_\_
- 10. Specification Section Reference

11. This submittal describes a complete system, including all component parts, subassemblies and remotely located items which are part of the system, including items manufactured by others.

12. This submittal describes a component part or subassembly of larger piece of equipment or system, the name of which is \_\_\_\_\_\_

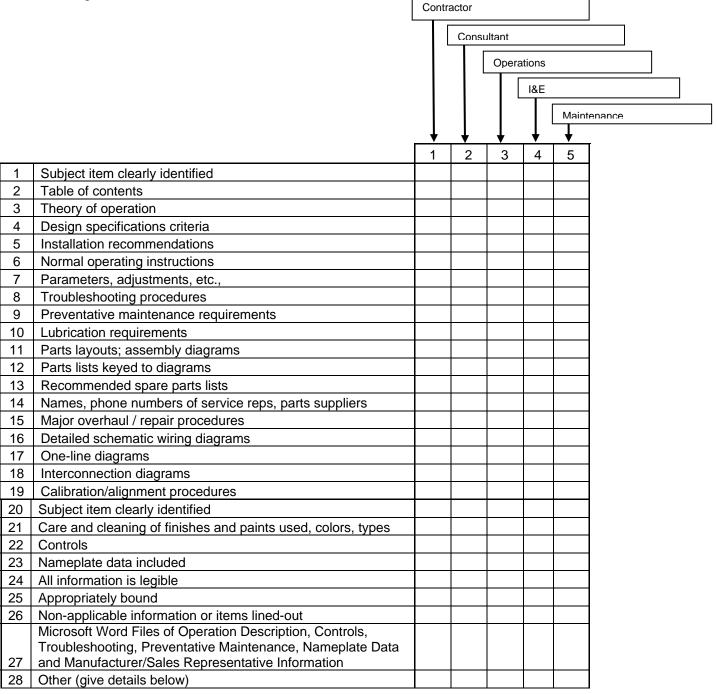
(Name of System)

# PART B

1. Submitted by	to		on	on		
	(Contractor)	(Consultant)		(Date)		
2. Submitted by Consultan	nt to WEP					
• Operations	Date					
• I/E	Date					
• Maintenance	Date					
PART C						
* Returned to Consultant			OK AS IS	RESUBMIT		
		(Nam	ne – Date)			
* Returned to Consultant			OK AS IS	RESUBMIT		
		(Nan	ne – Date)			
* Returned to Consultant	by Maintenance			OK AS IS	RESUBMIT	
		(Nam	e – Date)			

# PART D

The following information is included in this submittal;



Code:

Present And Acceptable

NA - Not Applicable/Not Required

0 Present But Not Acceptable

M – Missing and Required

Persons	Attesting	to	(Name	&	Date)	)
---------	-----------	----	-------	---	-------	---

to	on
(WEP Construction Inspector)	
	to (WEP Construction Inspector)

#### ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION 650 HIAWATHA BOULEVARD, WEST SYRACUSE, NEW YORK 13204-1194 (315) 435-2260

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#### **ELECTRICAL INTERCONNECTION DATA**

EQUIPMENT/DEVICE/ENC	LOSURE DES	SCRIPTION:					LOCATION:				
PROJECT:	CT: CONTRACTOR:										
					FIELD CHECKED BY (NAME & DATE): WEP REVIEWED (NAME & DATE):						
						APPROVED & ACCEPTED (DATE):					
This Equipment/Device			Intermediate Devices, Destination				Remarks				
Equipment Termin	ation	Field Ter	mination	Conduit		Conduit	Equipment or Device	Equipment			
Function	Term No.	Term No.	Color	Out	Locations, Term No's, Function	In	and Location	Term No.			

# SUBSTITUTIONS

- A. The Engineer will consider requests for Substitutes or "Or Equal" items after the Effective Date of the Owner-Contractor Agreement, and then, only within acceptable time constraints.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- C. A request constitutes a representation that the Contractor:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Will provide the same warranty for the Substitution as for specified product.
  - 3. Will coordinate installation and make changes to other Work, which may be required for the Work to be complete with no additional cost to the Owner.
  - 4. Waives claims for additional costs for time extension, which may subsequently become apparent.
  - 5. Will reimburse Owner the costs incurred by Owner for the review or redesign services by the Engineer, and for review by authorities when re-approval is required, if Engineer determines that the item of material or equipment proposed by the Contractor is a Substitute Item.
- D. Substitutions will not be considered when they are indicated or implied on a shop drawing or product data submittals without separate written request, or when acceptance will require revision to the Contract Documents.
- E. Substitution Submittal Procedure:
  - 1. Submit three (3) copies of Request for Substitution for consideration. Limit each request to one (1) proposed Substitution. Use Application for Substitute Item Form attached to this specification.
  - 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence.
  - 3. The Engineer will notify Contractor, in writing, of decision to accept or reject request.

# **APPLICATION FOR SUBSTITUTE ITEM**

Project	t Name:		
Project	t No:	Contract No:	
I.	In accordance with General Specification S-017, the following Product is submitted for consideration as a Substitution for the specified item:		
	Section:	Paragraph:	
Specif	ied Item:		
Propos	sed Substitute:		

# II. INSTRUCTIONS:

- a. Attach complete dimensional information and technical data, including laboratory tests, if applicable.
- b. Include complete information on changes to drawings and/or specifications which proposed Substitution will require for its proper installation.
- c. Submit with request all necessary samples and substantiating data that proposed Substitution will provide equal quality, performance and appearance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance. Differences in quality of materials and construction shall also be indicated.
- d. Attach an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of the proposed Substitution.
- III. The undersigned states that the following paragraphs, unless modified on attachments, are correct:
  - a. The proposed Substitution does not affect dimensions shown on Drawings.
  - b. The undersigned shall reimburse Owner the costs incurred by Owner for the review or redesign services by the Engineer, and for review by authorities when re-approval is required, if Engineer determines that the item of material or equipment proposed by the Contractor is a Substitute Item. Moreover, the undersigned will pay for changes to the project's design, including engineering design, detailing, and construction costs caused by the proposed Substitution.
  - c. The proposed Substitution will have no adverse effect on other prime contracts, the construction schedule, or specified warranty requirements. License fees and royalties, if any, will be paid by the undersigned.

- d. Maintenance and service parts will be locally available for the proposed Substitution.
- e. The proposed Substitution will have no effect on applicable codes.
- f. The manufacturer's guarantees or warranties of proposed product are equivalent to, or exceed, that of the specified item.
- IV. List of names and location of three similar projects on which proposed product was used, date of installation, and Engineer's name and phone number.

	Date of	Engineer's Name/
Name/Location Installation		Phone No.

### \* \* \* \* \*

# **CERTIFICATION**

The undersigned certifies that the proposed Substitution will meet or exceed the performance requirements of the specified item and that its basic function and quality are equal or superior to the specified item.

# **SUBMITTED BY**

(Signature)

(Typed Name)

(Company Name)

(Company Address)

Page 3 of 3

(Title)

(Phone)

(Date)

### CUTTING AND PATCHING

### PART 1 GENERAL

### 1.1 SECTION INCLUDES

A. Requirements and limitations for cutting and patching of work.

### 1.2 RELATED SECTIONS

- A. Individual Product Specification Sections:
  - 1. Cutting and patching incidental to the work of the Section.
  - 2. Advance notification to other sections of openings required in work of those sections.
  - 3. Limitations on cutting structural members.

### 1.3 SUBMITTALS

- A. Submit written request in advance of cutting or alteration which affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather exposed or moisture resistant element.
  - 3. Efficiency, maintenance, or safety of any operational element.
  - 4. Visual qualities of sight exposed elements.
  - 5. Work of OWNER or separate CONTRACTOR.

### B. Include in request:

- 1. Identification of Project.
- 2. Location and description of affected work.
- 3. Necessity for cutting or alteration.
- 4. Description of proposed work and Products to be used.
- 5. Alternatives to cutting and patching.
- 6. Effect on work of OWNER or separate CONTRACTOR.
- 7. Written permission of affected separate CONTRACTOR.

8. Date and time that work will be executed.

### PART 2 PRODUCTS

### 2.1 MATERIALS

- A. Primary Products: Those required for original installation.
- B. Product Substitution: For any proposed change in materials, submit request for substitution as described in the General Contract Conditions.

### PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Examine existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching.
- B. After uncovering existing work, assess conditions affecting performance of work.
- C. Beginning of cutting or patching means acceptance of existing conditions.

### 3.2 PREPARATION

- A. Provide temporary supports to ensure structural integrity of the work. Provide devices and methods to protect other portions of Project from damage.
- B. Provide protection from elements for areas which may be exposed by uncovering work.
- C. Maintain excavations free of water.

### 3.3 CUTTING

- A. Execute cutting and fitting, including excavation and fill, to complete the Work.
- B. Uncover work to install improperly sequenced work.
- C. Remove and replace defective or non-conforming work.
- D. Remove samples of installed work for testing as requested by the ENGINEER or OWNER.
- E. Provide openings in the work for penetration of mechanical and electrical work.
- F. Uncover work to provide for the inspection of the ENGINEER of covered work or inspection by regulatory agencies having jurisdiction.

- G. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight-exposed surfaces.
- H. Cut rigid materials using masonry saw or core drill. Pneumatic tools will not be allowed without prior approval of the ENGINEER.

# 3.4 PATCHING

- A. Restore all existing work to a state equal to that which it was in prior to cutting and restore new Work to standards of these Specifications.
- B. Execute patching to complement adjacent work.
- C. Fit products together to integrate with other work.
- D. Execute Work by methods to avoid damage to other work, and which will provide appropriate surfaces to receive patching and finishing.
- E. Employ original installer to perform patching for weather exposed and moisture resistant elements, and sight-exposed surfaces.
- F. Restore work with new products in accordance with requirements of the Contract Documents.
- G. Fit work to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. At penetrations for fire rated walls, partitions, ceiling or floor construction, completely seal voids with fire rated material, to full thickness of the penetrated element.
- I. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

### PROJECT COORDINATION

### PART 1 GENERAL

### 1.1 SECTION INCLUDES

- A. Coordination.
- 1.2 RELATED SECTIONS NOT USED

### 1.3 COORDINATION

- A. The CONTRACTOR shall be solely responsible for coordination of all of the Work. The CONTRACTOR shall supervise, direct, and cooperate fully with all Subcontractors, manufacturers, fabricators, suppliers, distributors, installers, testing agencies, and all others whose services, materials, or equipment are required to ensure completion of the Work within the Contract Time.
- B. The CONTRACTOR shall cooperate with and coordinate his work with the work of any other CONTRACTOR, utility service company, or employees of the OWNER performing additional work related to the Project at the Site or required to maintain operations.
- C. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate Work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas, unless indicated otherwise, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. The CONTRACTOR shall not be responsible for damage done by Contractors not under his jurisdiction. The CONTRACTOR will not be liable for any such loss or damage unless it is through the negligence of CONTRACTOR.
- G. The CONTRACTOR shall maintain sufficient competent personnel, drafting equipment and supplies at the Site for the purpose of preparing layout and coordination drawings. These drawings shall supplement the Contract Documents, and the Shop Drawings, as necessary to correlate the work of various trades. Where such drawings are to be prepared by the mechanical, electrical, or plumbing Subcontractors, CONTRACTOR will ensure that each Subcontractor maintains the required personnel and facilities at the Site.

- H. The CONTRACTOR shall also coordinate his work with the work of others to assure compliance with schedules.
- I. The CONTRACTOR shall attend and participate in all Project coordination or progress meetings and report on the progress of all Work and compliance with schedules.
- J. Coordinate completion and clean up of Work of separate sections in preparation for Substantial Completion.
- PART 2 PRODUCT NOT USED

### PART 3 EXECUTION

- 3.1 EXAMINATION
  - A. Verify that existing Site conditions and substrate surfaces are acceptable for subsequent work. Beginning new work means acceptance of existing conditions.
  - B. Verify that existing substrate is capable of structural attachment of new work being applied or attached.
  - C. Examine and verify specific conditions described in individual specification sections.
  - D. Verify that utility services are available, of the correct characteristics, and in the correct location.

### SUBMITTAL AND CORRESPONDENCE PROCEDURE

### PART 1 GENERAL

### 1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Proposed products list.
- D. Shop Drawings.
- E. Product data.
- F. Samples.
- G. Manufacturers' installation instructions.
- H. Manufacturers' certificates.
- 1.2 RELATED SECTIONS NOT USED

### 1.3 SUBMITTAL PROCEDURES

- A. Submittals of Shop Drawings, etc. shall be made to: CRA Infrastructure & Engineering, Inc., State Tower Building, Suite 220, 109 South Warren Street, Syracuse, NY 13202, Attention: Construction Administration Department. All submittals and drawings shall be in the English language.
- B. A letter of transmittal shall accompany each submission. If data for more than one Section of the Specifications are submitted, a separate transmittal letter shall accompany each Section submitted.
- C. All letters of transmittal shall be sent to CRA Infrastructure & Engineering, Inc. in duplicate. When requested, one (1) copy also shall be sent to the OWNER
- D. At the beginning of each letter of transmittal and each letter of inquiry, provide a reference heading indicating the following:
  - 1. OWNER's Name
  - 2. Project Name
  - 3. Contract Number

- 4. Transmittal Number
- 5. Section and Item Number
- E. All submittals for approval shall have an identifying title. The CONTRACTOR should have a rubber stamp made for affixing this title. The Section and Item number shall be completed in ink.
- F. All submittals shall bear the stamp of approval and signature of the CONTRACTOR as evidence that they have been reviewed by the CONTRACTOR. Submittals without this stamp of approval will not be reviewed by the ENGINEER and will be returned to the CONTRACTOR. The stamp shall contain the following minimum information:

CONTRACTOR		
Date:		
REFERENCE		
Item:		
SPECEFICATION		
Page No:		
Paragraph No:		
Drawing No:		
Location:		
Submittal No:		
Approved By:		

- G. A number shall be assigned to each submittal by the CONTRACTOR starting with No. 1 and thence numbered consecutively. Resubmittals shall be identified by the same number followed by the suffix "A" for the first resubmittal, the suffix "B" for the second resubmittal, etc.
- H. The CONTRACTOR shall submit to the ENGINEER a minimum of eight (8) copies and one (1) electronic PDF of each Shop Drawing. All Shop Drawings shall be emailed to the OWNER and ENGINEER. If file sizes are larger than 6 MB, then separate into multiple files/emails.
- I. After the ENGINEER completes his review, the submittal will be marked with one (1) of the following notations:
  - 1. Approved.
  - 2. Furnish as Corrected.
  - 3. Revise and Resubmit.
  - 4. Rejected.
- J. If a submittal is acceptable, it will be marked "Approved" or "Furnish as Corrected." Two (2) prints or copies of the submittal will be returned to the CONTRACTOR.
- K. Upon return of a submittal marked "Approved" or "Furnish as Corrected," the CONTRACTOR may order, ship, or fabricate the materials included on the submittal, provided it is in accordance with the corrections indicated. For extensive corrections or corrections of major importance affecting other items, the ENGINEER may require that the CONTRACTOR make the corrections indicated thereon and resubmit for a final review.
- L. If a submittal is unacceptable, two (2) copies will be returned to the CONTRACTOR with one of

the following notations:

- 1. "Revise and Resubmit."
- 2. "Rejected."
- M. Upon return of a submittal marked "Revise and Resubmit," the CONTRACTOR shall make the corrections indicated and repeat the initial approval procedure. The "Rejected" notation is used to indicate material or equipment that is not acceptable. Upon return of a submittal so marked, the CONTRACTOR shall repeat the initial approval procedure utilizing acceptable material or equipment.
- N. Submittals not bearing the ENGINEER's "Approved" notation shall not be issued to Subcontractors nor utilized for construction purposes. No work shall be performed or equipment installed without an "Approved" drawing or submittal.
- O. In the event the CONTRACTOR obtains the ENGINEER's approval for the use of equipment other than that which is shown or specified, the CONTRACTOR shall, at his own expense and using methods approved by the ENGINEER, make all changes to the Work, including structures, piping, electrical, equipment and controls, that may be necessary to accommodate this equipment.
- P. The ENGINEER will review and process all submittals promptly, but a reasonable time should be allowed for this, for the drawings being revised and resubmitted, and for time required to return the approved drawings to the CONTRACTOR.
- Q. It is the responsibility of the CONTRACTOR to review submittals made by suppliers and Subcontractors before transmitting them to the ENGINEER to assure proper coordination of the Work and to determine that each submittal is in accordance with the desires of the CONTRACTOR and that there is sufficient information about materials and equipment for the ENGINEER to determine compliance with the Drawings and Specifications. Incomplete or inadequate submittals will be returned for revision without review.

# 1.4 PROPOSED PRODUCTS LIST

- A. Within ten (10) days after the Notice of Award, submit list of major products proposed for use, with the name of the manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

# 1.5 SHOP DRAWINGS

- A. Submit for review within thirty (30) days of the Notice of Award. After review, produce copies and distribute in accordance with the SUBMITTAL PROCEDURES article above.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Prior to the Pre-construction meeting, the ENGINEER shall provide the CONTRACTOR with a

list of required Shop Drawings to be submitted. The CONTRACTOR shall return the list with the anticipated schedule submittal dates for the Shop Drawings at the Pre-construction meeting. Omission of any Shop Drawings from the list shall not relieve the CONTRACTOR from responsibility to submit all items for approval.

- D. Shop Drawings for components of systems shall be submitted as one (1) complete package, reviewed and coordinated by the CONTRACTOR, for all aspects of the system. Partial submittal packages will not be reviewed.
- E. If Shop Drawing submittals show variation from the requirements of the Contract because of standard shop practices or for other reasons, the CONTRACTOR shall make specific mention of such variation in a letter of transmittal.
- F. Shop Drawings shall be submitted well in advance of the need for the material or equipment for construction and with ample allowance for time required to make delivery of material or equipment after data covering such is approved. The CONTRACTOR shall assume the risk for all materials or equipment, which are fabricated or delivered prior to the approval of Shop Drawings. No materials or equipment will be permitted to be incorporated into the Work nor will such be included in monthly estimates until approval thereof has been obtained in the specified manner.
- G. Approval of Shop Drawings shall not relieve the CONTRACTOR from the responsibility of furnishing materials and equipment of proper dimension, size, quality, quantity, and all performance characteristics to efficiently perform the requirements and intent of the Contract Documents. Approval shall not relieve the CONTRACTOR from responsibility for errors of any sort on the Shop Drawings. Approval is intended only to assure conformance with the design concept of the Project and compliance with the information given in the Contract Documents. The CONTRACTOR is responsible for dimensions, which shall be confirmed and correlated at the Project Site. The CONTRACTOR is also responsible for information that pertains solely to the fabrication processes or to the technique of construction and for the coordination of the work of all trades.

# 1.6 PRODUCT DATA

- A. Submit the number of copies which the CONTRACTOR requires plus two (2) copies and one (1) electronic PDF which will be retained by the ENGINEER.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Work.
- C. Indicate Product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. After review, distribute in accordance with the Submittal Procedures article above.

# 1.7 SAMPLES

A. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

- B. Submit samples of finishes from the full range of the standard colors of the manufacturer, textures, and patterns for selection by the OWNER.
- C. Include identification on each sample, with full Project Information.
- D. Submit the number and size of samples specified in individual specification sections herein.
- E. Reviewed samples which may be used in the Work are indicated in individual Specification Sections.

### 1.8 MANUFACTURER INSTALLATION INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to the ENGINEER a minimum of three (3) bound documents and one (1) electronic PDF unless specified otherwise elsewhere. Submit a minimum of one (1) original copy.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

### 1.9 MANUFACTURER CERTIFICATES

- A. When specified in individual specification sections, submit certificate by manufacturer to ENGINEER a minimum of three (3) bound documents unless specified otherwise elsewhere. Submit a minimum of one (1) original copy.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on the material or product, but must be acceptable to the ENGINEER.
- PART 2 PRODUCTS NOT USED
- PART 3 EXECUTION NOT USED

### CONSTRUCTION PHOTOGRAPHS

### PART 1 GENERAL

- 1.1 SECTION INCLUDES
  - A. Photography.
  - B. Prints.
  - C. Digital Negatives.
  - D. Technique.
  - E. Submittals.

### 1.2 RELATED SECTIONS - NOT USED

### 1.3 PRECONSTRUCTION PHOTOGRAPHS

- A. It is the responsibility of the CONTRACTOR to take a sufficient number of preconstruction photographs and/or videotapes so as to resolve any disputes which may arise regarding the conditions prior to and subsequent to construction.
- B. If a dispute arises where no preconstruction photographs or videos were taken, the disputed area shall be restored to the satisfaction and approval of the ENGINEER.
- C. The CONTRACTOR shall furnish one set of color prints of the preconstruction photographs and one copy of each videotape to the ENGINEER, and must make others available for review in settling any disputes.
- D. The ENGINEER may take additional preconstruction photographs and videotapes which may be used to settle disputes, but will not be required to be made available to the CONTRACTOR.

### 1.4 PHOTOGRAPHY

- A. Provide digital photographs of the Site and construction throughout the progress of the Work produced by an experienced photographer, acceptable to the ENGINEER.
- B. Take photographs a minimum of once a month; take photographs whenever significant work is completed.

### 1.5 PRINTS

A. Full color; 2 prints of each photograph.

### B. Paper:

- 1. Brilliance: Glossy.
- 2. Texture: Smooth.
- C. Contrast Color: High.
- D. Size: Minimum size shall be 75 mm by 125 mm (3 inch by 5 inch), or as required by the photograph to view necessary details.
- E. Identify each print on the back. Identify name of the Project, Contract Number, Orientation of view, date and time of view, name and address of the photographer, and photographer's numbered identification of exposure.

### 1.6 NEGATIVES

A. Digital negatives shall be copied onto a CD(s) at the time of Project completion. One copy shall be given to the OWNER with the Project record documents. An identical copy shall be given to the ENGINEER within 10 days of Substantial Completion.

### 1.7 TECHNIQUE

- A. Provide factual presentation.
- B. Provide correct exposure and focus, high resolution and sharpness, maximum depth of field, and minimum distortion.

### 1.8 VIEWS

- A. Provide non-aerial photographs from 5 views at each specified time, until the Date of Substantial Completion.
- B. Consult with the ENGINEER for instructions on views required.

### 1.9 SUBMITTALS

- A. Deliver prints with each Application for Payment with a transmittal letter as specified in Section 01340 Submittal and Correspondence Procedure.
- PART 2 PRODUCTS NOT USED
- PART 3 EXECUTION NOT USED

### TEMPORARY CONTROLS

### PART 1 GENERAL

- 1.1 SECTION INCLUDES
  - A. Water control.
  - B. Dust control.
  - C. Erosion and sediment control.
  - D. Noise control.
  - E. Pest control.
  - F. Pollution control.
  - G. Rodent control.
- 1.2 RELATED SECTIONS
  - A. General Provisions.
  - B Section 01310 Project Coordinator.
- PART 2 PRODUCTS NOT USED

### PART 3 EXECUTION

### 3.1 WATER CONTROL

- A. Grade Site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect Site from puddling or running water. Provide water barriers as required to protect Site from soil erosion.

### 3.2 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into the atmosphere.

### 3.3 EROSION AND SEDIMENT CONTROL

- A. The areas of disturbance are to be minimized as much as practical and limited to the areas depicted on the Contract Drawings. Erosion control plan sheets are included in the Stormwater Pollution Prevention Plan (SWPPP) Report prepared for this project and included in Appendix C of the Special Project Conditions. A summary of the construction sequencing for erosion control features is as follows.
  - 1. Evaluate, mark and protect, with appropriate erosion control measures, important trees, associated rooting zones, and other existing site features designated to remain.
  - 2. Construct stabilized construction entrances and staging areas as depicted on the plans to capture mud and debris from construction vehicles before they enter the public highway. Stabilize bare areas (entrances, construction routes, equipment areas) immediately as work takes place. Top these areas with gravel or maintain vegetative cover. Sediment tracked onto public streets shall be removed or cleaned on a daily basis.
  - 3. Construct temporary erosion and sediment control measures (silt fencing, tree protection, etc.). Silt fence material and installation shall comply with the standard drawings and specifications. Install silt fences based on appropriate spacing intervals. Decrease the interval as the slope increases. The area below the silt fence shall be undisturbed ground.
  - 4. Remove and stockpile soil and vegetation from areas to be impacted by the construction activities. No organic debris shall be buried in site. The soil stockpile shall be stabilized by seed, mulch, or other appropriate measures as soon as possible.
  - 5. Commence construction activities.
  - 6. Stabilize all disturbed areas as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after construction activity in that portion of the site has temporarily or permanently ceased.
  - 7. All erosion and sediment control features shall be maintained until establishment of substantial stand of grass on all green areas. On acceptance of the restoration by the Owner, remove all temporary features.
- B. Plan and execute construction by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas. Prevent erosion and sedimentation.
- C. Minimize the amount of bare soil exposed at one time.
- D. Provide temporary measures such as berms, dikes, and drains, to prevent water flow.
- E. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

# 3.4 NOISE CONTROL

A. Provide methods, means, and facilities to minimize noise produced by construction operations.

- B. Vehicles and equipment of the CONTRACTOR shall be such as to minimize noise to the greatest degree practicable.
- C. Noise levels shall conform to the latest OSHA standards and in no case shall noise levels be permitted which interfere with the work of the OWNER or others.

# 3.5 PEST CONTROL

A. Provide methods, means, and facilities to prevent pests and insects if necessary.

### 3.6 POLLUTION CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- B. All equipment of the CONTRACTOR used during construction shall conform to all current federal, state and local laws and regulations.
- C. CONTRACTOR shall take whatever precautions are necessary to ensure that the sanitary quality of waterways is not impaired or the public health endangered.
- D. CONTRACTOR shall take whatever measures are necessary to prevent debris, removed concrete, mortar, or other excess or surplus materials from entering waterways.

### 3.7 RODENT CONTROL

A. Provide methods, means, and facilities to prevent rodents from accessing or invading premises.

### PERMITS

### PART 1 GENERAL

### 1.1 SECTION INCLUDES

- A. Construction Permits
- B. Fees and requirements

### 1.2 RELATED SECTIONS

- A. Special Project Conditions
- B. General Provisions
- PART 2 PRODUCTS NOT USED

### PART 3 EXECUTION

- 3.1 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PERMIT REQUIREMENTS
  - A. The CONTRACTOR's attention is called to the fact that construction activities disturbing soils, and the construction of public facilities must be carried out in accordance with the rules, permits, regulations, and requirements of NYSDEC.

# 3.2 STORMWATER POLLUTION PERVENTION PLAN (SWPPP)

- A. The CONTRACTOR's attention is directed to the Stormwater Pollution Prevention Plan (SWPPP) prepared for this project and included under Appendix "C" of the Special Project Conditions.
- B. The CONTRACTOR shall implement the work outlined under the SWPPP as necessary during the construction of the project. Changes and modifications to the SWPPP shall only be made when specifically authorized by the ENGINEER.
- C. All costs associated with implementation of the SWPPP requirements and associated activities shall be the responsibility of the CONTRACTOR and no separate payment will be made for this work.

# 3.3 GENERAL PERMIT REQUIREMENTS

A. The CONTRACTOR shall make himself aware of all regulations and costs involved for any and all work required by the various agencies or municipalities having jurisdiction of the working area. No additional payments shall be made for any requirements necessary including bonds, insurance, flagmen, night watchmen, traffic control, police, etc. The costs shall be included in the various unit prices and lump sum priced bid under the Project.

#### CLEANING

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. CONTRACTOR responsibilities for Project Site maintenance with respect to removal and disposal of debris.
- 1.2 RELATED SECTIONS
  - A. Special Project Conditions
  - B. General Provisions

### 1.3 GENERAL REQUIREMENTS

- A. Requirements of Regulatory Agencies:
  - 1. In addition to the requirements herein, maintain the cleanliness of the Work and surrounding premises within the Work limits so as to comply with federal, state, and local fire and safety laws, ordinances, codes and regulations.
  - 2. Comply with all federal, state and local anti-pollution laws, ordinances, codes, and regulations when disposing of waste materials, debris and rubbish.
- B. Scheduling of Cleaning and Disposal Operations
  - 1. Schedule cleaning and disposal operations so that dust, wash water, or other contaminants generated during such operations do not damage or mar painted or finished surfaces.
  - 2. Schedule cleaning and disposal operations to prevent accumulation of dust, dirt, debris, rubbish, and waste materials on or within the Work or on the premises surrounding the Work, within the Work limits.
- C. Waste Disposal
  - 1. Dispose of all waste materials, surplus materials, debris, and rubbish off the Project Site.
  - 2. Do not burn or bury rubbish and waste materials on the Project Site.
  - 3. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
  - 4. Do not discharge wastes into streams or waterways.

- D. Cleaning Materials
  - 1. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
  - 2. Use each type of cleaning material on only those surfaces recommended by the cleaning material manufacturer.
- PART 2 PRODUCTS NOT USED

### PART 3 EXECUTION

### 3.1 CLEANING

- A. During Construction Activities
  - 1. Keep the Work and surrounding premises within work limits free of accumulations of dirt, dust, waste materials, debris and rubbish.
  - 2. Keep dust generating areas wetted down.
  - 3. Provide suitable containers for storage of waste materials, debris, and rubbish until time of disposal.
  - 4. Regularly empty containers and remove trash and waste materials from the Site.
- B. When Construction Activity is Completed
  - 1. Remove and dispose of all excess or waste materials, debris, rubbish, concrete grit, wood pieces, dust, and dirt, etc. from the work area.
  - 2. Repair pavement, sod, and all other areas affected by construction operations to restore them to original condition or to minimum condition specified.
  - 3. Remove spatter, grease, stains, fingerprints, dirt, dust, labels, tags, packing materials, and other foreign items or substances from interior and exterior surfaces of equipment.
  - 4. Repair, patch and touch up chipped, scratched, dented or otherwise marred surfaces to match specified finish.
  - 5. Maintain cleaning until acceptance and occupation by OWNER.

### DEMOLITION

### PART 1 GENERAL

### 1.1 SECTION INCLUDES

- A. Removal of designated equipment and fixtures.
- B. Removal of designated construction.
- C. Disposal of materials.

### 1.2 RELATED SECTIONS

A. General Provisions.

### 1.3 SUBMITTALS

- A. Demolition Methods
  - 1. Submit for approval proposed means, methods, equipment, and operating sequences to be utilized for demolition. Include coordination for possible shut-off, capping, temporary services, continuation of utility services, and other applicable items to ensure no unanticipated interruption of the operations of the OWNER.
- B. Notification
  - 1. At least ten (10) business days prior to commencement of demolition, notify OWNER and ENGINEER in writing of the proposed schedule. Do not commence demolition without the written permission of the OWNER and ENGINEER.

### 1.4 REGULATORY REQUIREMENTS

- A. Conform to all applicable federal, state, and local laws and codes for demolition Work, dust control, and products requiring electrical power removal.
- B. Obtain any required permit(s) from regulatory authorities as necessary.
- C. Do not close or obstruct egress width to any building or Site exit.
- D. Do not disable or disrupt building fire or life safety systems without giving five (5) days prior written notice to the OWNER.
- E. Conform to procedures applicable when hazardous or contaminated materials are discovered.

### 1.5 SEQUENCE OF WORK

A. The CONTRACTOR shall submit a sequence of work for demolition activities as described in the General Provisions and Special Project Conditions, and as noted on the Contract Drawings.

### 1.6 SCHEDULING

- A. Schedule demolition Work to coincide with new construction.
- B. The CONTRACTOR shall coordinate the demolition Work with the OWNER.
- C. Carry out operations so as to avoid interference with operations and work in and near adjacent facilities.
- D. No shutdown of any kind shall occur without the written consent of the OWNER.

### 1.7 PROJECT CONDITIONS

- A. Cease operations immediately if the structure appears to be in danger and notify the ENGINEER. Do not resume operations until directed by the ENGINEER.
- B. If the CONTRACTOR believes that the location on which the current structure or apparatus being demolished is contaminated, based on casual visual observation or detection of atypical conditions, operations shall be ceased immediately at that location. The condition shall be brought to the attention of the ENGINEER. If it is determined that there is contamination at this Site, do not continue Work until directed by the ENGINEER.
  - 1. If so directed by the ENGINEER, the CONTRACTOR shall employ a testing lab to take samples for analyses and determination of the hazard. The testing laboratory shall include recommendations pertaining to the potential hazard of the sampled substances. All costs for this Work shall be in addition to the Contract Value.

### PART 2 PRODUCTS - NOT USED

### PART 3 EXECUTION

- 3.1 PREPARATION
  - A. Provide, erect, and maintain temporary barriers and security devices in accordance with this Specification.
  - B. Erect and maintain weatherproof closures for exterior openings.
  - C. Erect and maintain, as directed by the ENGINEER or as necessary, temporary partitions to prevent spread of dust, odors, and noise to permit continued OWNER occupancy.
  - D. Protect existing materials, structures, and equipment that are not to be demolished.

- E. Prevent movement of the structure; provide bracing and shoring. The CONTRACTOR shall take care to prevent any unexpected collapse of existing structures.
- F. Notify affected utility companies before starting Work and comply with their requirements.
- G. Mark the location and termination of all utilities.
- H. Provide appropriate temporary signage including signage for exit or building egress.

# 3.2 GENERAL

- A. Disconnect, remove, cap, and identify designated utilities in demolition areas.
- B. Demolish in an orderly and careful manner. Protect existing remaining structures, piping, valves, etc. from the demolition work.
- C. No materials shall be burned on Site.
- D. The use of explosives for demolition shall not be allowed.
- E. Conduct operations with minimum interference to Site access.
- F. Obtain written permission from adjacent property owners when demolition equipment will traverse, infringe upon, or limit access to their property.
- G. Incorporate provisions for sedimentation control during and after demolition, if applicable.
- H. Perform all demolition and removal Work to prevent damage or injury to adjacent structures, occupants thereof, and features which might result from falling debris or other causes and so as not to interfere with the use and free and safe passage to and from adjacent structures.
- I. Closing or obstructing of public roadways, sidewalks, and passageways adjacent to the Work by the placement or storage of materials shall not be permitted and all operations shall be conducted with a minimum interference to vehicular and/or pedestrian traffic on these ways.
- J. Erect and maintain barriers, lights, sidewalk sheds, and other necessary protective devices when applicable.
- K. Repair damage to facilities that are to remain or to any property belonging to the OWNER or occupants of adjacent facilities.

# 3.3 POLLUTION CONTROLS

- A. Use water sprinkling, temporary enclosures, and other suitable methods to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level. Comply with governing regulations pertaining to environmental protection.
  - 1. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, or pollution.

2. Clean adjacent structures, facilities, and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to conditions existing prior to the start of Work.

# 3.4 STRUCTURAL REMOVAL

- A. Remove structures to the limits indicated on the Contract Drawings. The removal of structures beyond those indicated limits shall be at the expense of the CONTRACTOR. Excess removal shall be reconstructed to the satisfaction of the ENGINEER, with no additional compensation to the CONTRACTOR.
- B. All concrete, brick, tile, concrete block, roofing materials, reinforcement, structural or miscellaneous metals, plaster, wire mesh, and other items contained in or upon the structure shall be removed and taken from the Site, unless otherwise approved by the ENGINEER.
- C. The surfaces of walls, floors, ceilings, or other areas that are exposed by any of the removals specified, indicated, or required and which will remain as architecturally finished surfaces shall be repaired and re-finished by the CONTRACTOR. Utilize the same or matching materials as the existing adjacent surface or as otherwise approved by the ENGINEER.
- D. Unless otherwise approved by the ENGINEER, building demolition shall proceed from the top of the structure to the ground. The CONTRACTOR shall complete demolition work above each floor or tier prior to disturbing the supporting members of the lower levels.
  - 1. Demolish concrete and masonry in small sections.
  - 2. Break-up and remove foundations, slabs-on-grade, housekeeping pads, pipe supports, thrust blocks, etc. unless otherwise indicated to remain.
  - 3. Carefully position demolition equipment so as not to impose excessive loads or undo stress on remaining walls, floors, or framing.
  - 4. Remove demolition refuse immediately so as not to impose excessive loads on floors, walls, or framing.
- E. If partial demolition of underground structures is indicated on the Contract Drawings, once removal of the designated foundation, wall, slabs, or structure is complete, the CONTRACTOR shall abandon-in-place the remaining portion and neatly backfill and grade the area. No structural steel and/or concrete structures shall remain exposed above grade.

# 3.5 MECHANICAL AND PIPING REMOVAL

- A. Mechanical removal shall consist of dismantling and removing of existing piping, valves, pumps, motors, equipment, and other appurtenances, such as gauges, instrument tubing, etc., as specified, indicated on the Contract Drawings, or required for the completion of the Work. It shall include cutting, capping, and plugging as required.
- B. Existing process, water, chemical, gas, fuel oil, and other piping shall be removed where required, indicated, and specified. Piping to be removed shall be purged of any existing materials and made safe prior to removal or capping. The substances drained shall be properly

disposed of by the CONTRACTOR. Where piping that is to be removed passes through existing walls that shall remain, the pipe shall be cut off and properly capped on each side of the wall/floor.

# 3.6 ELECTRICAL AND INSTRUMENTATION REMOVAL

- A. Electrical removal shall consist of the demolition of existing panelboards, motor control centers, control panels, motors, conduits and wires, exposed ground conductors, miscellaneous electrical devices, and all instrumentation as indicated, specified, or required to perform the Work.
- B. The CONTRACTOR shall verify the function of all wiring prior to disconnecting and removing it.
- C. All existing electrical equipment to be demolished shall be removed with such care as may be required to prevent unnecessary damage to remaining equipment and/or structures and to maintain OWNER operations. Any damage incurred shall be repaired.
- D. Motors shall be disconnected and removed where required, indicated, or specified. Motors not designated by the OWNER to be salvaged shall be removed from the Site and disposed of by the CONTRACTOR.
- E. Conduits and wires shall be abandoned in-place or removed where required, indicated, or specified. Abandoned conduits concealed in floor or ceiling slabs or in walls shall be cut flush with the slab or wall at the point of entrance. The conduits shall be suitably plugged and the area repaired in a flush, smooth, approved manner. Exposed conduits and their supports shall be disassembled and removed from the Site. Repair all areas of Work to prevent rust spots on exposed surfaces.

### 3.7 REFUSE REMOVAL, HANDLING, AND OWNERSHIP

- A. Any item that has been deemed salvageable and is to remain the property of the OWNER shall be carefully removed, so as not to be damaged, from the existing Work by the CONTRACTOR and shall be placed in an OWNER designated protected and secure location within the Site.
  - 1. If an item is to be retained by the OWNER and stored off-Site, it shall be so noted on the Contract Drawings. The CONTRACTOR shall include the costs associated with loading, securing, transporting, and unloading.
- B. Remove materials as the Work progresses. Upon completion of the Work, leave areas in a clean condition. All demolished materials shall be removed from the Site without delay.
- C. All materials, equipment, and debris shall be transported and disposed of in an appropriate manner at the expense of the CONTRACTOR and in compliance with all existing and governing laws and regulations.

### 3.8 ALTERATIONS AND CLOSINGS

A. Alterations shall conform to all applicable Specifications, the Contract Drawings, and the directions and approvals of the ENGINEER.

- B. Where alterations require cutting or drilling into existing floors, walls, and roofs, the holes shall be repaired in an approved manner. The CONTRACTOR shall repair such openings with the same or matching materials as the existing floor, wall, or roof or as otherwise approved by the ENGINEER.
- C. Openings in existing concrete slabs, ceilings, masonry walls, floors, and partitions shall be closed and sealed as indicated or otherwise directed by the ENGINEER. New work shall be keyed into the existing work in an acceptable manner. New reinforcing steel shall be welded to the existing reinforcing steel. Welding shall conform to AWS D12.1, Reinforcing Steel Welding Code. In general, use the same or matching materials as the existing adjacent surface. The finished closure shall be a smooth, tight, sealed, permanent closure acceptable to the ENGINEER.

# 3.9 CLEAN-UP

- A. Remove all temporary structures, barriers, and security devices upon completion of the Work.
- B. The CONTRACTOR shall remove from the Site all debris resulting from the demolition operations as it accumulates. Upon completion of the Work, all materials, equipment, waste, and debris of every sort shall be removed and premises shall be left, clean, neat, and orderly.

#### CLEARING AND GRUBBING

#### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

A. This section defines the minimum requirements to perform all clearing and grubbing activities included under the Work of this Contract.

#### 1.2 RELATED SECTIONS

- A. Section 02200 Excavation and Backfill
- B. Section 02210 Lagoon Cleaning and Restoration

#### 1.3 REFERENCE STANDARDS

A. Codes and Standards: State and local laws and code requirements shall govern the hauling and disposal of trees, shrubs, stumps, roots, rubbish, debris and other matter.

#### 1.4 QUALITY ASSURANCE

- A. Protection:
  - 1. Streets, roads, embankments, berms, adjacent property and other works and structures shall be protected throughout the entire Project. CONTRACTOR shall return to original condition, satisfactory to the ENGINEER, damaged facilities caused by the CONTRACTOR's operations.
  - 2. Trees, shrubs and grassed areas which are to remain shall be protected by fences, barricades, wrapping or other methods as shown, specified or approved by the ENGINEER. Equipment, stockpiles, etc. shall not be permitted within tree branch spread. Trees shall not be removed without approval of the ENGINEER unless shown on the Contract Drawings or specified herein.

### 1.5 GUARANTEE

A. CONTRACTOR shall guarantee that Work performed under this Section will not permanently damage trees, shrubs, turf or plants designated to remain, or other adjacent work or facilities. If damage resulting from CONTRACTOR's operations appears during the period up to 24 months after completion of the Project, he shall replace damaged items at no expense to OWNER.

### PART 2 PRODUCTS - NOT USED

### PART 3 EXECUTION

### 3.1 CLEARING AND GRUBBING

- A. Prior to execution of the work under this Section, the CONTRACTOR and the ENGINEER will examine the Site and agree upon the extent of Clearing and Grubbing required.
  - 1. In areas requiring extensive clearing and grubbing, agreement shall be on limits of the work. These limits shall not exceed the limits of the temporary and/or permanent easements shown on the Contract Drawings and shall be the minimum required for construction. Damage outside these limits caused by the CONTRACTOR's operations shall be corrected at the CONTRACTOR's expense.
- B. Except as noted below, CONTRACTOR shall remove from the Site and satisfactorily dispose of all trees, shrubs, stumps, roots, brush, masonry, rubbish, scrap, debris, pavement, curbs, fences and miscellaneous other structures not covered under other Sections of the Contract or otherwise required to permit construction of the work.
- C. Trees, stumps and other cleared and grubbed material shall be disposed of off Site. No cleared or grubbed material may be used in backfills or structural embankments.
- D. Burning on Site shall not be done unless approved by authorities having jurisdiction.
- E. All burning on the Site, will not be allowed on this project.
- F. Trees and shrubs shall be trimmed to avoid removal or damage to them. Trimmed or damaged trees shall be treated and repaired by persons with experience in this specialty who are approved by ENGINEER. Trees and shrubs intended to remain, which are damaged beyond repair or removed, shall be replaced by the CONTRACTOR at his expense.
- G. Control air pollution caused by dust and dirt, and comply with governing regulations.

# 3.2 TOPSOIL REMOVAL

- A. Topsoil is defined as friable clay loam surface soil found in a depth of not less than 4 inches. Topsoil shall be substantially free of subsoil, clay lumps, stones, and other objects over 2 inches in diameter, and without weeds, roots, and other objectionable material.
- B. Strip topsoil that is satisfactory to whatever depths are encountered, and in such manner as to prevent intermingling with the underlying subsoil or other objectionable material. Remove heavy growths of grass from areas before stripping.
  - 1. Where trees are shown or left standing, stop topsoil stripping a sufficient distance from such trees to prevent damage to the main root system.
- C. Stockpile topsoil in storage piles in areas shown, or where otherwise approved by ENGINEER. Construct storage piles to freely drain surface water. Cover storage piles if required to prevent windblown dust. Topsoil in excess of quantity required shall remain property of OWNER.

#### DEWATERING

### PART 1 GENERAL

### 1.1 SUMMARY

- A. This section includes dewatering necessary to remove snow, ice, surface water, and/or control other water infiltration in order that all excavation and construction is performed in the dry. The CONTRACTOR shall maintain and operate adequate surface and subsurface drainage methods to the satisfaction of the ENGINEER in order to keep the construction site dry and excavation side slopes and bottom stable such that all construction can proceed unhindered by saturation and degradation of the area in accordance with the plans and specifications and to the satisfaction of the ENGINEER.
- B. Dewatering work shall include all design installation, operation, maintenance, supervision, dismantling and removal from the Site, including proper Site restoration of dewatering systems required to perform the work as shown and specified herein.
- C. The required dewatering system shall be designed by a Professional Engineer licensed to practice engineering in New York State.

#### 1.2 GENERAL

- A. The CONTRACTOR must become familiar with the potential for precipitation, the Site conditions, and the subsurface conditions.
- B. The CONTRACTOR shall have on Site such equipment as pumps, hoses, etc., as necessary to deal with dewatering. Dewatering system(s) shall be properly designed and constructed to prevent removal of soil fines from the Site during dewatering operation. The CONTRACTOR shall monitor the dewatering system and should loss of fines be noted, water removal shall cease immediately and the ENGINEER notified. The CONTRACTOR shall modify the water removal methods as necessary to eliminate further loss of ground, and shall repair any such loss of ground to the satisfaction of the ENGINEER.
- C. If ponded water, from any source, surface or subsurface, accumulates or collects on prepared subgrades, in excavations, or on fill surfaces, the subgrade surfaces shall be excavated and replaced as directed by the ENGINEER, at no additional cost to the OWNER.

### 1.3 SUBMITTALS

- A. General: Submittals shall be made in accordance with Section 01340 of these specifications.
- B. Submit and review proposed dewatering methods with the ENGINEER prior to commencing dewatering operations.
- C. Submit proposed procedures and material specifications for all erosion control materials prior to commencing field activities.

### PART 2 PRODUCTS

#### 2.1 MATERIALS

- A. Straw bales, as required by the ENGINEER.
- B. Earth materials shall be as specified in Earthwork, Section 02300.
- C. Temporary Seeding as shown on the Contract Drawings.
- D. Dust Control shall consist of vegetative covers, sprinkling (water), barrier material (silt fence), mulch, and acrylic polymer, latex emulsion, or resin in water spray adhesives. All dust control shall be in accordance with 02300 Earthwork.

### PART 3 EXECUTION

### 3.1 SURFACE DRAINAGE

- A. Maintain and operate adequate surface drainage methods to keep the construction site dry and excavation side slopes and bottom stable such that all construction, as required, can proceed unhindered by saturation and degradation of the area.
- B. Surface water shall be controlled so that the stability of excavations and constructed slopes or bottoms are not adversely affected by water, erosion is prevented, and flooding of excavations does not occur.
- C. Surface water shall be intercepted and drained away from excavations to protect proposed bearing surfaces.
- D. Surface water shall not pond on subgrades, in excavations, or on fill.
- E. The design and installation of all surface water control features shall be as shown on the Contract Drawings unless otherwise directed by the ENGINEER.

### 3.2 SUBSURFACE DRAINAGE

- A. Prevent groundwater from flowing into excavations and trenches and from flooding prepared subgrades and excavations.
- B. Do not allow water to accumulate in excavations or trenches. Remove water from all excavations immediately to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to the stability of subgrades and foundations. Furnish and maintain pumps, sumps, suction and discharge piping systems, and other system components necessary to convey the water away from the Site.
- C. All pumps and water removal methods shall be designed, installed, and operated in a manner that does not result in loss of ground or removal of fines during operation. Should loss of fines be noted, water removal shall cease immediately and the ENGINEER notified. The CONTRACTOR shall modify the water removal methods as necessary to eliminate further loss of ground, and shall repair any such loss of ground to the satisfaction of the ENGINEER.

# 3.3 DISPOSAL OF SURFACE WATER AND GROUNDWATER

- A. Develop plans to properly collect and discharge surface water and groundwater.
- B. Dispose of all water removed from the excavation and Site in a manner that will not endanger public health, property or portions of the work under construction or completed. Dispose of water properly and in a manner that will not inconvenience others engaged in work at the Site and/or adjacent property owners.
- C. All water removed from excavations shall be conveyed in closed conduits or pipes, to appropriate discharge locations. Trenches or other excavations shall not be used for temporary drainage ditches for removal of accumulated surface water.
- D. Provide and maintain appropriate erosion and sediment controls in accordance with the Contract Drawings, and as directed by the ENGINEER.

### 3.4 RESTORATION

A. Remove and restore all temporary drainage devices, ditches, sumps, catch basins and drainage piping when no longer needed. All restoration shall be completed to the satisfaction of the ENGINEER.

#### SECTION 02250

#### LAGOON CLEANING EXCAVATION AND RESTORATION

#### PART 1 GENERAL

## 1.1 SECTION INCLUDES

- A. This Section of specifications includes all Work and Items necessary for the excavation, removal, dewatering, testing and disposal of materials and sediment present in the lagoons along with the final restoration of the lagoons at the Oak Orchard Wastewater Treatment Plant. The Work under this Section includes the following:
  - 1. Excavation.
  - 2. Disposal of removed materials.
  - 3. Dewatering and disposal of process water.
  - 4. Removal of piping and facilities at the lagoons.
  - 5. Testing of materials.
  - 6. Restoration and final grading of the sub-grade and lagoon liner.
  - 7. All temporary means needed to prevent discharge of sediment to watercourses because of dewatering systems or erosion.
- B. No classification of excavated materials will be made. Excavation includes all materials regardless of type, character, composition, moisture, or condition thereof.

#### 1.2 RELATED SECTIONS

- A. Section 02100 Clearing and Grubbing
- B. Section 02050 Demolition

### 1.3 QUALITY ASSURANCE

1. The services of an independent qualified testing laboratory shall be engaged by the CONTRACTOR to make tests and determine acceptability of the materials for disposal.

# 1.4 SUBMITTALS

- A. CONTRACTOR shall submit information regarding the following applicable items for approval:
  - 1. Detailed description of the proposed lagoon cleaning procedures and methods including materials and equipment used to remove materials and sediment from the lagoon and lagoon cleaning operations.
  - 2. Detailed description of sediment dewatering system including procedures for testing and transport of excess liquids from the dewatering process to OWNER's facilities.
  - 3. Detailed description and material specifications for clay liner repair and restoration.
  - 4. Certifications from landfill that will accept sediment removed from lagoons when applicable.
  - 5. Trucking licenses from approved material haulers.

# 1.5 REGULATORY REQUIREMENTS

- A. Permits and Regulations:
  - 1. The CONTRACTOR shall obtain all necessary permits and shall pay all associated costs for obtaining the permits necessary for removal, transport and disposal of all materials removed from the lagoons. The CONTRACTOR shall comply with all provisions of these permits at his own expense.
  - 2. The CONTRACTOR shall obtain permits required by local, state and federal agencies for discharging water from excavations.
  - 3. CONTRACTOR shall perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.
  - 4. The CONTRACTOR shall, in addition to items outlined above, obtain all additional permits, provide insurance, bonds and guarantees, and all else required by the governing authorities at his own expense. The CONTRACTOR's responsibility under this paragraph may include, but is not limited to the following:
    - a. Constructing and removing temporary facilities and structures.
    - b. Provide details of construction methods.
    - c. Reimbursing the applicable authority for any and all expenses incurred by them in connection with the Work.
    - d. Coordination of scheduling with the authority.
    - e. Necessary cleanup and restoration.

# PART 2 PRODUCTS

## 2.1 CLAY MATERIAL

- A. Clay material shall be obtained from an approved source and shall meet ASTM D2487 specification designation "CH", Class IVB, fat clay material.
- B. Material shall be free of unsuitable materials including frozen materials, trees, stumps, wood materials, or other deleterious materials.
- C. Clay materials and source shall be submitted to the ENGINEER for approval.

# PART 3 EXECUTION

# 3.1 GENERAL REQUIREMENTS

- A. In general, the work under this Section consists of the following:
  - 1. Removal of all material and sediment from the lagoons to an elevation 6 inches above the top of the existing clay liner or such elevation as indicated on the Drawings. Removal shall include all materials from bottom elevation of lagoon and along the side slopes of lagoons.
  - 2. Dewatering and/or conditioning of the removed materials to obtain a 20 percent minimum solids content or other solids content required for disposal.
  - 3. Collection, handling and disposal of liquids generated as a result of the lagoon cleaning operations.
  - 4. Additional Additional sampling and testing of the materials and liquids generated from the removal operations as necessary to meet the disposal site requirements.
  - 5. Loading, hauling, transportation and disposal of the removed materials and sediment to a NYSDEC Part 360 permitted non-hazardous solid waste landfill.
  - 6. Removal and disposal of existing piping and facilities at the lagoons as specified and as shown on the Contract Drawings.
  - 7. Restoration and replacement of lagoon clay liner where shown on the Drawings. The work also includes restoration and replacement of lagoon clay liner in areas damaged or disturbed during the removal operations, or as directed by the ENGINEER.
  - 8. Restoration and modifications to the lagoon embankments as shown and specified.
  - 9. Final site cleanup and restoration of areas damaged or disturbed during the removal operations.

## 3.2 REQUIREMENTS OF REGULATORY AGENCIES

A. The CONTRACTOR shall comply with all applicable federal, state and local laws and ordinances required for removal, transport and disposal of liquids and sediments generated from the work under this Project.

B. The CONTRACTOR shall be responsible to obtain all necessary permits for execution of the Work and will be responsible to pay all costs associated with obtaining the permits and meeting the requirements of the permits. Permits under this section may include transportation and disposal permits.

The CONTRACTOR shall obtain all required permits prior to the start of work and shall deliver a copy of each permit to the ENGINEER prior to starting the work on the Contract.

# 3.3 GRADES, LINES AND LEVELS

- A. The CONTRACTOR is responsible to establish and set all grades, lines and levels necessary for completion of the work under this Project. He shall establish and protect survey marks and grades at all times during the Project.
- B. The CONTRACTOR shall furnish all labor and materials necessary and proper for establishing and preserving all lines, marks and grades. He shall employ skilled survey personnel and shall furnish equipment necessary for completion of all necessary surveys, lines and grades.
- C. The ENGINEER may check any and all portions of the stake-out and survey work or notes made by the CONTRACTOR and any necessary correction to the work shall be immediately made. Such checking by the ENGINEER shall not relieve the CONTRACTOR of his responsibilities for the accuracy completeness of the work.

# 3.4 EXPLORATORY EXCAVATIONS AND TEST HOLES

- A. The existing lagoons to be cleaned under this Contract are compacted clay lined lagoons and embankments.
- B. Prior to the start of the excavation and lagoon cleaning operations, the CONTRACTOR shall excavate a minimum of ten (10) test holes in each lagoon, at locations determined by the ENGINEER to verify the elevation of the existing clay liner in the lagoons and embankments.
- C. This information shall be used to determine final grades and elevations for excavation and removal of materials.
- D. All costs associated with completion of test holes shall be included under the applicable bid items of the Contract.

## 3.5 SITE CONDITIONS

A. Existing Structures: Shown on the Contract Drawings are certain surface and underground structures adjacent to the Work. This information has been obtained from existing records. It is not guaranteed to be correct or complete and is shown for the convenience of the CONTRACTOR. CONTRACTOR shall explore in advance of the required excavation to determine the exact location of all structures. They shall be supported and protected from injury by the CONTRACTOR. If they are destroyed or damaged, they shall be restored immediately by the CONTRACTOR at his expense.

- B. Existing Utilities: Locate existing underground utilities in the areas of Work. If utilities are to remain in place, provide adequate means of protection during operations.
  - 1. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult the ENGINEER immediately for directions as to procedure. Cooperate with OWNER and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of utility owner.
  - 2. Do not interrupt existing utilities serving facilities occupied and used by OWNER or others, except when permitted in writing by ENGINEER and then only after acceptable temporary utility services have been provided and all affected customers of the utility notified of the proposed interruption.
  - 3. Demolish and completely remove from Site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off of services if lines are active.
  - 4. Protect, support, and maintain all utilities during the course of the work. Should any utilities be damaged, they shall be repaired or replaced in a manner satisfactory to the ENGINEER and the OWNER. All costs of repair or replacement shall be the responsibility of the CONTRACTOR.

# 3.6 CLEARING AND GRUBBING

A. The CONTRACTOR shall perform all clearing and grubbing operations necessary for completion of the Work. Where clearing and grubbing is required, it shall meet the specifications outlined in Section 02100.

## 3.7 DEWATERING AND DISPOSAL OF LIQUIDS

- A. Prior to the start of the excavation work on the Project, the OWNER will shut down the lagoons and lower the water levels using existing drainage facilities.
- B. The CONTRACTOR shall be advised that there may be standing water in the lagoons after the OWNER lowers the water levels. The CONTRACTOR shall furnish and operate dewatering and pumping systems to dewater the lagoons as necessary to complete the sediment removals and the associated lagoon modifications.
- C. Water and liquids removed from the dewatering operations may be pumped to the head of the plant for disposal both during initial dewatering operations and during sediment removal operations.
- D. The CONTRACTOR shall furnish, operate, and maintain all necessary collection systems, piping, pumps and other equipment required to complete the dewatering operations. The CONTRACTOR shall modify his equipment and procedures as necessary during dewatering operations as dictated by the Site conditions. All dewatering operations and disposal of liquids shall be approved by the ENGINEER and OWNER.
- E. The CONTRACTOR shall be responsible for all laboratory testing of liquids as may be required for disposal. If laboratory testing of the liquids are required to meet disposal requirements, the CONTRACTOR shall furnish the services of an independent testing laboratory to complete the

tests. No additional payment will be made to the CONTRACTOR when laboratory testing is ordered to be performed.

- F. The CONTRACTOR shall be advised that the wastewater treatment plant can only accept disposal liquids that do not exceed 1 percent solids. The maximum flow rates discharged from the dewatering operations shall be limited to the flow rates approved by the OWNER. The CONTRACTOR shall modify his dewatering operations when directed by the ENGINEER. The CONTRACTOR shall be advised that the OWNER may further limit the discharge rates from the Site at various times based on weather conditions and conditions at the wastewater plant.
- G. The CONTRACTOR shall provide all means and methods necessary to contain the liquids within the lagoon and collect the liquids for dewatering. Under no circumstances shall liquids generated from the dewatering operations be discharged to ditches, watercourses or other locations outside of the lagoon structures.

# 3.8 EXCAVATION AND DISPOSAL OF SEDIMENT

- A. The CONTRACTOR shall excavate, remove and dispose of all sediment and materials from the lagoons as described herein.
- B. The CONTRACTOR's attention is directed to Appendix "B" of the Special Project Conditions for sediment sampling results performed on the existing sediments from the lagoons. The test results are for informational purposes only and are representative of the sediment on the day the tests were taken. This information shall be used by the CONTRACTOR to determine proper transportation and disposal methods for the removed materials.

Any additional testing required for obtaining or complying with permits for transportation and disposal of the materials shall be performed by the CONTRACTOR. All costs associated with these tests will be the responsibility of the CONTRACTOR and included for payment under the appropriate bid items of the Contract.

- C. The CONTRACTOR is responsible for all means and methods used for the removal of the sediment from the lagoons; however, any methods used shall be approved by the ENGINEER. The CONTRACTOR's selection of equipment and methods used to remove the sediment from the lagoon shall take into account the construction of the existing lagoons to be cleaned, the size of available work areas, OWNER's operations in the area and any other factors which may affect the work under this Contract.
- D. The CONTRACTOR shall remove the sediment in the lagoons including the embankments to a depth that is 6 inches above the existing clay liner. If test holes indicate a variance in the elevation of the clay liner, the CONTRACTOR shall remove the sediment to such elevations as established by the ENGINEER. The CONTRACTOR shall use care when excavating and removing sediment from the lagoons so as not to over excavate to or below the clay liner. Any over excavation caused by the CONTRACTOR's operations may result in removal of sections of the clay liner.

In the event that the clay lining is damaged or disturbed during excavation operations, the lining shall be repaired with new clay materials as specified herein. Repairs shall not be made with disturbed materials. All repairs to the clay liners shall be the responsibility of the CONTRACTOR and shall be at his cost and expense. All repairs to the clay liner shall be approved by the ENGINEER.

The clay liner shall be repaired or replaced to the thickness of the existing liner but not less than 12-inch minimum thickness. The replacement clay liner shall be installed in a minimum of two lifts not exceeding 6-inches for each lift. Clay material shall be as specified in Item 2.1 of this section. Successive layers shall be compatible materials of similar moisture content. Underlying layer shall be scarified before placing the next layer to improve bonding of the layers. Material shall be compacted to 95 percent of maximum density determined by ASTM D-1557, using mechanical tamping devices. Final compaction of material shall have an in-place permeability of  $1 \times 10^{-7}$  CM/S.

The thickness of each layer, the compaction technique, and the moisture content of the clay in each layer shall be carefully controlled to achieve the required density and coefficient of permeability.

A Shop Drawing submittal is required to be submitted by the CONTRACTOR outlining materials, equipment and methods used to complete repairs to the clay liner.

- E. Excavation and removal of the sediment and materials in the lagoons shall include the removal of earth, sand, clay, gravel, sediment and all other materials encountered during the Work. No classification of materials will be made for measurement and payment under this Contract.
- F. CONTRACTOR shall provide on-Site dewatering of the sediment if required for disposal of materials. All sediment removed from the lagoons shall be transported and disposed of at an off- Site location furnished by the CONTRACTOR. The CONTRACTOR shall assume and hold ownership of all removed materials.
- G. All sediment removed from the lagoons for disposal shall be a minimum of 20 percent solids and no free moisture shall be evident in the sediment.

If the sediment removed is less than 20 percent solids, the CONTRACTOR shall process the sediment on Site to a concentration greater than 20 percent for disposal. The CONTRACTOR may elect to load and transport the sediment to an off-Site processing site for final processing prior to the disposal of the materials.

- H. As solids content requires, the CONTRACTOR shall provide on-Site dewatering units (filter press, belt press or centrifuge equipment) to provide on-Site dewatering of the sediment to meet the 20 percent minimum solids and passing paint filter test criteria. Dewatering units shall be fitted with all necessary equipment to make it a complete dewatering facility. Equipment shall include pumps, conditioning equipment, meters, chemicals, all other appurtenances necessary to dewater the sediment.
- I. All sediment and materials removed from the lagoons require disposal at a NYSDEC approved disposal site, all costs associated with transportation and disposal of the materials shall be the responsibility of the CONTRACTOR and no additional payment will be made for the work. Materials shall be dewatered to meet the 20 percent solids requirements outlined in this section. The CONTRACTOR shall submit information for approval for all NYSDEC approved disposal sites utilized by the CONTRACTOR under this Contract.
- J. Upon completion of the excavation and removal operations, the CONTRACTOR shall uniformly grade the bottom and embankments of the lagoons, including adjacent transition areas. Provide smooth subgrade surfaces with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.

K. The methods employed by the CONTRACTOR to load, haul and transport removed sediment and materials shall meet all permit requirements and laws and ordinances in effect at the time of hauling and transport. CONTRACTOR shall furnish bed liners, covers, sealed tank trucks, and any other equipment necessary to prevent sediment spillage or seepage during hauling and transport. The CONTRACTOR shall be responsible for all costs for cleanup of any spilled materials between the Project and disposal sites.

The CONTRACTOR shall coordinate his hauling and transport operations with the OWNER's operations. Any hauling operations by the CONTRACTOR shall be scheduled in advance with the OWNER and ENGINEER in order to avoid conflicts with the OWNER's operations. The OWNER will designate routes or roadways at the Oak Orchard Wastewater Treatment Plant site for the use by the CONTRACTOR.

# 3.9 WORK AREAS

A. The CONTRACTOR shall confine his work and operations to the limits of work areas designated by the OWNER for this Contract. Any damage resulting from work outside the limits of work areas shall be restored and shall be subject to approval by the ENGINEER.

# 3.10 MATERIAL STORAGE

- A. On-site storage of excavated materials and storage of materials for dewatering or processing shall be kept within the limits established by the OWNER.
- B. Stockpile excavated materials in approved areas until dewatered or processed for disposal. Place and shape piles for proper drainage. Locate and retain excavated materials away from excavations.
- C. Install liner material at stockpile areas to collect liquids from excavated material stoclpiles.
- D. Provide all necessary sediment and erosion control measures to contain the materials and sediment from escaping from the storage areas and protect materials from erosion and migration from storage area.

## 3.11 SITE RESTORATION

A. Upon completion of the Work under this Contract, restore site to pre-construction conditions in accordance with specifications Section 02921 - Topsoil and Seeding.

## 3.12 RESTORATION OF LAGOON EMBANKMENTS

A. Restoration of lagoon embankment shall be as shown on the drawings and included in Section 02300 of these specifications.

# 3.13 PIPING REMOVALS AND MODIFICATIONS

- A. CONTRACTOR shall complete all piping modifications to lagoons as shown on the Drawings and specified herein. The following piping removals and modifications are required under this Contract:
  - 1. Abandonment of the 10-inch, 8-inch and 6-inch galvanized feeder pipes in place around the perimeter of lagoon 1 and 2 and filling lines with flowable fill materials. Cutting and capping of piping where shown and specified.
  - 2. Removal and disposal of plastic header feeder pipes along with posts and brackets within lagoons 1 and 2.
  - 3. Removal and disposal of 4-inch feed lines through the embankment walls, cutting and capping piping as shown and required within lagoons 1 and 2.
  - 4. Removal and disposal of feeder tubes within lagoons 1 and 2.
  - 5. Removal and disposal of air aqua tubes at existing lagoon liner within lagoons 1 and 2.
- B. The work under the piping removal and modifications include all clearing, excavation and backfill, backfill materials, restoration of embankments and other areas damaged or disturbed during the piping removal and modification work.

## END OF SECTION

#### SECTION 02300

#### EARTHWORK

#### PART 1 GENERAL

#### 1.1 SUMMARY

A. This section specifies the embankment and backfilling requirements for the various components of this Project as shown on the Contract Drawings and as specified herein.

#### 1.2 DEFINITIONS

- A. Earth excavation is the removal of in-place overburden soils and fill materials using proper earth moving equipment. Earth materials shall include all soil deposits of any description both above and below groundwater levels. These may be naturally deposited or placed by previous construction operations.
- B. Fill placement, backfilling and embankment construction are the placement and compaction of earthen materials to construct and establish all necessary slopes, Site grading and drainage, piping and associated Site improvements.
- C. Authorized earth excavation is excavation of overburden soils, materials and rock to the excavation limits shown. It includes excavation of material considered unsuitable by the ENGINEER and other excavation as directed by the ENGINEER.
- D. Unauthorized excavation is excavation of soil and/or rock materials beyond the limits shown that are not authorized by the ENGINEER.
- E. Unsuitable material shall mean debris, frozen materials, topsoil, organic matter or peat, and other such soft or loose material which does not remain in position or stable when cut for excavation or which does not have sufficient bearing capacity to support the loads placed upon it without movement.
- F. Loose rock shall be shale, slate, soft sandstone, nested boulders or cobbles, boulders and such other soft rocks which are decomposed, stratified or shattered to an extent that modern power-driven equipment normally used for earth excavation will readily remove it.
- G. Solid rock shall include dolomite, limestone, hard sandstone, large boulders each more than one cubic yard in volume, and other rocks which cannot be removed by power-driven equipment normally used in earth excavation except those specifically named under the definition of loose rock.

# 1.3 JOB CONDITIONS

A. The location of above ground and underground facilities, where shown on the Contract Drawings, are approximate and are based on the surface exposure of such utilities and information provided by the OWNER. The Contract Drawings may not define all above ground or below ground utilities, structures, wells and other existing facilities at, or adjacent to the Project Site and work area. The CONTRACTOR shall identify, properly locate and protect all utilities, underground structures, above ground structures and appurtenances on, or adjacent to the Project Site. The CONTRACTOR shall verify the location of all existing utilities prior to excavating for new work.

- B. The sediment samples were taken on the dates indicated on the individual data sheets. Engineering judgment was exercised in extracting and analyzing the sediment samples. The sediment sample analytical data results are presented in good faith and are not intended as a substitute for personal investigation, independent interpretations, or judgment of the bidders.
- C. The CONTRACTOR shall remove all excess materials from the Site and dispose of them in accordance with applicable laws. The cost for removal shall be included in the amount bid. No additional payment will be made.
- D. The CONTRACTOR shall stockpile and maintain all excavated topsoil on Site until final Site quantities needed for Project completion are determined. Topsoil shall be processed to meet the material requirements of this specification prior to placement in the stockpile. Stockpiles shall be stabilized and seeded as required in the Project SWPPP and as shown on the plans.
- E. No frozen soil shall be placed during construction and no soil shall be placed on frozen soil.
- F. Access-Ways and Staging Areas
  - 1. The CONTRACTOR shall construct temporary access-ways as necessary to provide access to the work area.
  - 2. The CONTRACTOR shall remove all temporary access-ways when no longer needed, and restore the Site to conditions as directed and approved by the ENGINEER
- G. Dust Control
  - 1. The CONTRACTOR shall control dust in all work or occupied areas by sprinkling with potable water or by other methods in accordance with applicable laws and approved by the ENGINEER. Petroleum products shall not be utilized.
  - 2. Maintain dust control measures through dry periods until all disturbed areas are stabilized.
  - 3. Vegetative measures shall be used on all disturbed areas not subjected to traffic. No other form of dust control will be permitted for use on these areas.
  - 4. Sprinkling with water shall be used on haul roads and access routes, as required, until stone is applied.
  - 5. Barriers shall be used wherever practical to achieve dust control for a distance of up to 10 times the barrier height. Preserve existing wind barrier vegetation to the fullest extent practical.
  - 6. Mulch shall be used wherever practical, as it offers a fast effective means of controlling dust.
- H. No classification of excavated materials will be made. Excavation includes all materials regardless of type, character, composition, moisture or condition.

# 1.4 SUBMITTALS

- A. General: Submittals shall be made in accordance with Section 01340 of these specifications.
- B. The CONTRACTOR shall submit: proposed equipment; dust control procedures; off-Site material sources and test data showing that proposed material sources meet the specified requirements; earthwork procedures; material handling and stockpiling procedures; and locations, material placement procedures and quality control plans as required by the ENGINEER.
- C. Specific Submittals for Materials shall include:
  - 1. Samples: Submit samples as follows. Take the samples in the presence of the ENGINEER, and submit to the ENGINEER the laboratory test results for gradation, proctors and soundness tests, when required. These tests shall be performed in accordance with ASTM standards, shall be performed and signed by a certified soils laboratory, and shall be submitted as part of the original submittal. At a minimum the samples taken shall be of the following quantities:
    - a. Topsoil: 50 60 lb. (Two samples for each proposed source).
    - b. Common Earth Fill: 50 60 lb. (Two samples for each proposed source).
    - c. Subbase Course Type 2: 50 60 lb. (Two samples for each proposed source).
    - d. Select Granular Material: 50 60 lb. (Two samples for each proposed source).
    - e. Stone Bedding: 50 lb. (One sample for each proposed source).
    - f. Sand Backfill: (One sample for each proposed source).
  - 2. Quality Control Submittals:
    - a. Subbase Course Type 2, Select Granular Material, Stone Bedding, and Sand Bedding: Name and location of source and the DOT Source Number. If the material is not being taken from an approved DOT Source, the results of the gradation and soundness tests performed by an ASTM certified soils laboratory will be required.
    - b. Stone Fill (Rip-rap): Name and location of source and the DOT Source Number. If the material is not being taken from an approved DOT Source, the results of the gradation and soundness tests performed by an ASTM certified soils laboratory will be required.
    - c. Topsoil and Common Earth Fill: If the material is not being taken from on-Site, name and location of proposed source. Verification shall also be submitted that the materials are not from contaminated Sites or sources.
    - d. Excavation Procedure: Submit a layout drawing or detailed outline of intended excavation procedure for the ENGINEER information. This submittal will not relieve the CONTRACTOR of responsibility for the successful performance of intended excavation methods.

# PART 2 PRODUCTS

## 2.1 MATERIALS

- A. Topsoil for landscaped areas.
  - 1. Topsoil shall meet the material requirements of NYSDOT §713-01, Topsoil, and as required below. On-Site material shall be permitted in accordance with this specification. The CONTRACTOR shall import a sufficient amount of material to complete the work if there is not enough on-Site material to meet the Project requirements.
  - 2. Topsoil shall be free of refuse, snow, ice, any material toxic to plant growth, subsoil, woody vegetation and stumps, roots, brush, stones, clay lumps, and objects larger than 2 inches in greatest dimension. Sod and herbaceous growth such as grass and weeds need not be removed but shall be thoroughly broken up and mixed with the soil during handling operations.
  - 3. Topsoil shall meet the following requirements, and as approved by the ENGINEER:
    - a. The pH of the material shall be between 5.5 and 7.6.
    - b. The organic content shall be not less than 3 percent nor more than 20 percent.
    - c. It shall be well graded with a maximum particle size of 2 inches and with 20 percent to 85 percent by weight passing a No. 200 sieve.
- B. Common Earth Fill for general grading in landscape areas and trench backfill in non-pavement areas.
  - 1. Common Earth Fill shall be on-Site excavated material consisting of any natural inorganic soil (gravel, sand, silt and clay mixture), or manmade crusher run stone, or gravel and sand product, including mixtures thereof. No aggregate shall be larger than 4-inches in size.
  - 2. Determination of whether a specific material is suitable shall be made by the ENGINEER based on appropriate quality assurance test results provided by the CONTRACTOR. Fill shall be free of frozen material, boulders, trash, cinders, ashes, asphalt, and foreign debris. Material containing vegetation or significant organic matter, such as peat or organic silt, sod, ice, snow or other deleterious material, is not acceptable. Topsoil and organic silt may be used in landscaped areas and areas where overlying construction is not proposed.
  - 3. If the excavated material on-Site is suitable to the ENGINEER for backfilling purposes, it shall be used and the surplus properly disposed of.
- C. Lagoon Embankment Fill for use in constructing the lagoon embankment shall be comprised of glacial till soil with 40 to 70 percent fines content and shall be compacted in 8-inch lifts to 95 percent of maximum standard proctor density (as required by ASTM D698).
- D. Subbase Type 2 (Crusher Run Stone) for subbase under all pavements such as parking lots, walkways, and sidewalks.
  - 1. The material used shall be angular crusher-run stone as delivered unsorted from the crusher. The material shall be clean, well-graded, durable, and composed of rock pieces, chips and fines. The minimum size shall be sufficient to fill all voids between large stones when the material is compacted. The material shall conform to NYSDOT Specification 304, Type 2.

- 2. The material shall also meet the following material requirements.
  - a. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after 4 test cycles. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve shall not exceed 5.0.
  - b. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a 1/2-inch sieve shall consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than 3 times its least dimension.
- E. Run of Bank Gravel (Select Granular Fill) for undercuts up to Subbase courses.
  - 1. The material shall be a mixture of hard, durable stone and coarse sand, practically free from silt, clay, organic matter or other foreign matter. No gravel shall be used on this Project until acceptance is obtained from the ENGINEER and only gravel from approved sources shall be used.
  - 2. This material, referred to as "Run Of Bank" gravel or "R.O.B." gravel shall be well-graded conforming to NYSDOT Specification 304, Type 4.
  - 3. The material shall also meet the following material requirements.
    - a. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after 4 test cycles.
    - b. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve shall not exceed 5.0.
    - c. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a 1/2-inch sieve shall consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than 3 times its least dimension.
- F. Select Fill As specified in the Contract Drawings or as directed by the ENGINEER and as follows.

Type 1 is No. 1 Crusher Run Stone – NYSDOT Standard Specification Item No. 304.11: Hard durable limestone with the following gradation:

Sieve Size Designation	Percent Passing by Weight
3 Inch	100
2 Inch	90 - 100
1/4 Inch	30 - 65
No. 40	5 - 40
No. 200	0 - 10

Type 2 is No. 2 Crusher Run Stone – NYSDOT Standard Specification Item No. 304.12: Hard	
durable limestone with the following gradation:	

Sieve Size Designation	Percent Passing by Weight	
2 Inch	100	
1/4 Inch	25 - 60	
No. 40	5 - 40	
No. 200	0 - 10	

Type 3 is Run-of-Bank Gravel: Run-of-bank gravel or other approved granular material free from organic matter with a gradation:

Sieve Size Designation	Percent Passing by Weight	
1-1/2 Inch	100	
1/4 Inch	30 - 65	
No. 200	0 - 10	

Type 4 is Sand: Coarse sand having the following gradation:

Sieve Size Designation	Percent Passing by Weight	
3/8 Inch	100	
No. 4	90 - 100	
No. 8	80 - 100	
No. 16	50 - 85	
No. 30	25 - 60	
No. 50	10 - 30	
No. 100	2 - 10	

Type 5 is Controlled Density Fill (CDF): "K-Krete" with a compressive strength of 50 to 100 psi. Fly ash or other pozzolan-containing materials are not acceptable in the mix design. The consistency shall be suitable for pumping or flowing into the annular space between a casing pipe and the carrier pipe.

Type 6 is stone fill (fine) conforming to NYSDOT 620.02M standards having the following gradation:

Stone Size	Percent of Total Weight	
Smaller Than 7.9 Inches	90 - 100	
Larger Than 3 Inches	50 - 10	
Smaller Than 0.08 Inch	0 – 10	

Type 7 is No. 1 Washed Stone meeting the requirements of NYSDOT Standard Specification Section 703-02 for Coarse Aggregates. Hard durable limestone shall be used with the following gradation:

Sieve Size Designation	Percent Passing by Weight
1 Inch	100
1/2 Inch	90 - 100
1/4 Inch	0 – 15

Type 8 select fill:

Hard, durable, crushed limestone and having the following gradation:

Sieve Size Designation	Percent Passing by Weight	
11/2 Inch	100	
3/4 Inch	90 - 100	
1/2 Inch	60 - 90	
1/4 Inch	30 - 70	
No. 40	5 - 40	
No. 200	0 - 10	

Type 9 is ASTM No. 57 Crushed Stone: Hard durable limestone with the following gradation, in accordance with ASTM C33 (Class Designation 3S):

Sieve Size Designation	Percent Passing by Weight
1 1/2 Inch	100
1 Inch	95 – 100
1/2 Inch	25 - 65
No. 4	0 - 10
No. 8	0 - 5

- G. Stone Bedding (Pipe Bedding or Crushed Stone) for bedding of utility conduits, pipes, and mains, or for use as Select Granular Fill.
  - 1. The material used shall be clean, sound crushed stone of uniform quality. It shall be Type 7 #1 clean stone conforming to NYSDOT Item 703.0201.
- H. Stone Fill (Riprap) for protection of storm sewer outlets, channel outlets, and other areas susceptible to erosion.
  - 1. This material shall be well graded stone placed as protective material on stream-banks, in channels, and as specified on the Contract Drawings, or as required by the Qualified Professional for storm water pollution prevention. The material shall conform to NYSDOT Specification 620-2.02 and meet the gradation requirements of Figure 620-1 for Fine, Light, Medium, or Heavy Stone Fill, as specified on the Contract Drawings or as determined necessary by the ENGINEER.
- I. Sand Bedding for base and leveling course beneath unit pavers.
  - 1. This material shall comply with the material requirements of DOT Article 703-03 Mortar Sand and shall be meet the following gradation requirements:

Sieve Size	Percent Passing	
No. 4	100	
No. 8	95 - 100	
No. 50	10 - 40	
No. 100	0 - 15	

# 2.2 SOURCE OF MATERIALS

- A. All materials shall be provided by the CONTRACTOR from sources that demonstrate, through appropriate sampling and testing, that they can produce the materials as specified. On-Site excavated materials may be used for Topsoil, and Common Earth Fill providing these materials comply with the Contract requirements.
- B. Off-Site sources shall be identified to the ENGINEER for review and approval prior to delivery to and use at the Site. No materials shall be delivered or used until completion of the quality assurance and control testing and such materials are approved by the ENGINEER.

## PART 3 EXECUTION

# 3.1 LAYOUT

- A. The provisions of NYSDOT Standard Specification §203 shall apply to all earth excavation, filling and backfilling.
- B. The CONTRACTOR shall accurately locate and maintain location of all buildings, roads, utilities, other features, and advise the ENGINEER of any discrepancies prior to commencing work. The CONTRACTOR shall confirm underground facilities locations prior to excavating.
- C. Work shall be scheduled so the deepest elements are completed first when undermining of shallower elements could occur.

# 3.2 PROTECTION OF SUBGRADES AND FILL GRADES

- A. The subgrade soils may be sensitive to disturbance from construction activity and when in the presence of moisture. Water shall not be allowed to collect on earthen fill surfaces. The CONTRACTOR shall also properly drain and protect all grades.
- B. Failure of the CONTRACTOR to properly excavate and protect approved subgrades resulting in additional excavation and backfill to attain a suitable subgrade in accordance with these Specifications shall be at no cost to the OWNER.
- C. The CONTRACTOR shall maintain both work in progress and completed work until the construction is complete and accepted by the ENGINEER. Any erosion or degradation of the CONTRACTOR's work shall be repaired by the CONTRACTOR at no cost to the OWNER.

# 3.3 DEWATERING

A. Provide dewatering in accordance with Section 02240 - Dewatering.

# 3.4 EQUIPMENT

A. It is the responsibility of the CONTRACTOR to select, furnish and properly maintain equipment which will excavate and compact subgrade and fill materials uniformly to the required density.

## 3.5 EARTH EXCAVATION

- A. All excavation work shall be executed to the lines and grades shown on the Contract Drawings, unless directed otherwise by the ENGINEER. All excavation shall be performed in such a manner as to minimize disturbance and maintain stability of subgrade soils and slopes. Special care shall be taken not to disturb the bottom of excavations and proposed bearing elevations and surfaces. Excavation to the final subgrade levels must be done by methods that minimize traffic on or disturbance to the subgrade.
- B. The excavation equipment must be of such size and capacity sufficient to excavate the materials encountered and to the specified depths as shown.
- C. The CONTRACTOR shall be responsible at all times for safe and prudent excavation operations so as to protect the workmen, utilities, structures, and adjacent property. The CONTRACTOR shall perform all excavation in accordance with OSHA standards. The CONTRACTOR shall observe all applicable local, state and federal requirements and acquire all necessary permits.
- D. The CONTRACTOR shall bench or cut back excavated slopes, dewater and sheet, as necessary for stability, safety and protection of adjacent utilities, structures, and properties.
- E. All subgrades will be monitored and tested, at the CONTRACTOR's expense, as determined necessary by the ENGINEER and in accordance with special inspections required by Section 1704.7.1 to 1704.7.3 of the New York State Building Code. Site preparation shall include proof-rolling operations and evaluation of in-place density as described in the special inspections and as follows.

- 1. Notify the ENGINEER of the proposed date for beginning proof rolling at least 7 working days prior to commencing proof rolling.
- 2. The CONTRACTOR, at the direction of the ENGINEER, shall be required to proof roll subgrades. All proof rolling, if required, shall be done in the presence of the ENGINEER.
- 3. Proof roll the prepared subgrade surface with at least four (4) passes of a suitable compaction equipment; a vibratory drum compactor having a minimum unsprung drum weight of 7 tons or a vibratory roller operated in static mode weighing approximately 15 tons.
- 4. The proof rolling operations shall be observed by the ENGINEER. No materials or fill shall be placed by the CONTRACTOR until the subgrades are observed and tested by the ENGINEER in accordance with special inspections required by Section 1704.7.1 to 1704.7.3 of the New York State Building Code.
- 5. Subgrades in which soft or unsuitable materials are encountered that are not a result of CONTRACTOR's operations or failure to protect subgrades shall be undercut and backfilled with appropriate fill as directed by the ENGINEER and special inspection requirements.
- 6. Subgrades and slopes which have been damaged or degraded as a result of CONTRACTOR's activities, or failure of the CONTRACTOR to properly protect them shall be repaired at the CONTRACTOR's expense as directed by the ENGINEER and special inspection requirements.

# 3.6 FILLING AND BACKFILLING

- A. The CONTRACTOR shall not place fill or backfill until underlying subgrades have been observed and tested as required by the ENGINEER. Notify the ENGINEER at least 3 working days in advance of all phases of filling and backfilling operations for scheduling of testing.
- B. Materials shall be placed at the locations shown on the Contract Drawings, and as directed by the ENGINEER.
- C. Delivery and compaction of materials shall be made during the presence of the ENGINEER and shall be subject to its review. This inspection by no means absolves the CONTRACTOR from responsibility to properly compact and test as specified.
- D. Acceptance and/or rejection of materials placed and compacted shall be based upon in-place density test result requirements and other requirements as stated in these Specifications.

# 3.7 PLACEMENT AND COMPACTION

- A. Compaction density tests shall be performed for all types of materials used on this Project. Areas for testing will be randomly selected by the ENGINEER and can be in any construction area. Frequency of tests shall be as directed by the OWNER's representative.
- B. Methods and equipment proposed for compaction shall be selected by the CONTRACTOR and shall be subject to the prior approval of the ENGINEER. If compacting by rolling or operation of heavy equipment near structures and utilities, displacement of or injury to pipe and structures shall be avoided. Movement of in-place structures or pipe shall be at the CONTRACTOR's risk. Any pipe or structure damaged thereby shall be replaced or repaired as directed by the

ENGINEER at no additional cost.

- C. If compaction tests do not meet the specifications herein, the CONTRACTOR shall change his methods of operation and, or his backfill materials, until satisfactory test results are achieved and all such changes shall be at no additional cost to the OWNER.
- D. All fill shall be placed in lifts of generally uniform thickness and lifts shall be placed in a horizontal orientation.
- E. Moisture Control:
  - 1. Where fill or backfill must be moisture conditioned before compaction, uniformly apply water to the surface and to each layer of fill or backfill. Prevent ponding or other free water on surface subsequent to, and during compaction operations.
  - 2. Remove and replace, or scarify and air dry, soil that is too wet to permit compaction to specified density. Soil that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing, until moisture content is reduced to a value which will permit compaction to the percentage of maximum density specified.
- F. Inadequate compaction shall be cause for the ENGINEER to issue a stop work order to the CONTRACTOR.
  - 1. Topsoil
    - a. The CONTRACTOR shall scarify or till the surface of the subgrade to a depth of 4inches and moisten it before topsoil is placed to support bonding of the topsoil with the subsoil. Tillage by disking, harrowing, raking or other approved methods shall be accomplished in such a manner that depressions and ridges formed by tillage shall be parallel to the contours. Rocks and debris larger than 1-inch shall be removed by screening or other approved methods.
    - b. Topsoil in an unworkable condition due to excessive moisture, frost or other conditions shall not be placed until it is suitable for spreading. Topsoil shall be placed and spread on the designated area and graded to the minimum thickness specified in the specification sections referenced herein and on the Contract Drawings, unless otherwise directed by the ENGINEER. After the topsoil is spread, all large stiff clods, rocks, roots or other foreign matter shall be cleared and disposed of by the CONTRACTOR as approved so that the finished surface will be acceptable for subsequent compaction and seeding.
    - c. Topsoil shall be compacted sufficiently to avoid settlement in excess of 1 inch. However, compaction shall not exceed 85 percent of the maximum dry density, as determined by ASTM D1557.
  - 2. Common Earth Fill
    - a. Fill shall be placed in maximum loose lift thicknesses of 9-inches for compaction with heavy equipment or in maximum lifts of 6-inches where the use of hand compaction equipment is necessary. Lifts shall be placed in nearly horizontal orientation. Fill shall be compacted to a minimum of 90 percent of the maximum dry density, as determined by ASTM D1557, except under pavement or building areas where it shall be compacted to a minimum of 95 percent of the maximum dry density.

- b. Equipment used to compact fill must be compatible with the material type, lift thickness, and constraints posed by size and configuration of excavated area being filled.
- c. If a compacted layer fails to meet the specified percentage of maximum density, the layer shall be recompacted and will be retested. No additional material may be placed over a compacted layer until the specified density is achieved.
- 3. Subbase
  - a. Subbase shall be placed in maximum loose lift thicknesses of 9-inches for compaction with heavy equipment or in maximum lifts of 6-inches where the use of hand compaction equipment is necessary. Lifts shall be placed in nearly horizontal orientation. Subbase shall be compacted to a minimum of 95 percent of the maximum dry density, as determined by ASTM D1557.
  - b. Equipment used to compact subbase must be compatible with the material type, lift thickness, and constraints posed by size and configuration of excavated area being filled.
  - c. If a compacted layer fails to meet the specified percentage of maximum density, the layer shall be recompacted and will be retested. No additional material may be placed over a compacted layer until the specified density is achieved.
- 4. Select Granular Fill
  - a. Select fill shall be placed in maximum loose lift thicknesses of 9-inches for compaction with heavy equipment or in maximum lifts of 6-inches where the use of hand compaction equipment is necessary. Lifts shall be placed in nearly horizontal orientation. Fill shall be compacted to a minimum of 95 percent of the maximum dry density, as determined by ASTM D1557.
  - b. Equipment used to compact fill must be compatible with the material type, lift thickness, and constraints posed by size and configuration of excavated area being filled.
  - c. If a compacted layer fails to meet the specified percentage of maximum density, the layer shall be recompacted and will be retested. No additional material may be placed over a compacted layer until the specified density is achieved.
- 5. Stone Bedding
  - a. Bedding shall be placed in maximum loose lift thicknesses of 9-inches for compaction with heavy equipment or in maximum lifts of 6-inches where the use of hand compaction equipment is necessary. Lifts shall be placed in nearly horizontal orientation. Bedding fill shall be compacted to a minimum of 95 percent of the maximum dry density, as determined by ASTM D1557.
  - b. Equipment used to compact bedding must be compatible with the material type, lift thickness, and constraints posed by size and configuration of excavated area being filled.
  - c. If a compacted layer fails to meet the specified percentage of maximum density, the

layer shall be recompacted and will be retested. No additional material may be placed over a compacted layer until the specified density is achieved.

- 6. Stone Fill
  - a. Shall be placed as described in the NYSDOT Standard Specifications, latest edition, Section 620-3.02.
- 7. Sand Bedding
  - a. Sand bedding shall be placed in maximum loose lift thicknesses of 9-inches for compaction with heavy equipment or in maximum lifts of 6-inches where the use of hand compaction equipment is necessary. Lifts shall be placed in nearly horizontal orientation. Fill shall be compacted to a minimum of 95 percent of the maximum dry density, as determined by ASTM D1557.
  - b. Equipment used to compact fill must be compatible with the material type, lift thickness, and constraints posed by size and configuration of excavated area being filled.
  - c. If a compacted layer fails to meet the specified percentage of maximum density, the layer shall be recompacted and will be retested. No additional material may be placed over a compacted layer until the specified density is achieved.

# 3.8 QUALITY ASSURANCE AND CONTROL TESTING

- A. The CONTRACTOR will retain the services of a testing and inspection firm to complete the special inspections required by Section 1704.7.1 to 1704.7.3 of the New York State Building Code. The special inspector shall provide visual observations and document these observations in accordance with Section 1704.7.1 of the New York State Building Code for special inspection services necessary for subgrade preparation (1704.7.1). The qualifications of the individuals performing the special inspections will be in accordance with the requirements of the New York State Building Code.
- B. Services and quantities of testing, as specified herein, are approximate and provided for information. Additional testing may be required by the ENGINEER if in the opinion of the ENGINEER, substantial variation in the nature and consistency of the soil materials are observed during construction or if material sources change.

Test Number	Test Description
1	Natural Moisture Content (ASTM D-2216)
2	Grain Size Analysis (ASTM D-422)
3	Liquid and Plastic Limits (ASTM D-4318)
4	Moisture-Density Relationship (ASTM D-1557) or other appropriate test determined by the ENGINEER where material gradation does not permit use of ASTM D -1557
5	In-Place Density (ASTM D-1556 or ASTM D-2922)
6	Soil pH (ASTM D-2976)
7	Organic Content (ASTM D-2974)

C. The types of tests that are to be conducted include, but are not limited to:

# 3.9 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Transport surplus satisfactory soil to designated storage areas on OWNER's property. Stockpile or spread soil as directed by ENGINEER.
- B. Remove waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off OWNER's property.

# END OF SECTION

#### SECTION 02710

#### GEOTEXTILES FOR EXTERIOR IMPROVEMENTS

## PART 1 GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including general and supplemental conditions apply to this section.
- B. This section includes work that complements work in the following sections:
  - 1. Section 02240 Dewatering.
  - 2. Section 02300 Earthwork.

#### 1.2 SUMMARY

A. This section specifies the material and construction requirements for geosynthetics and geotextile.

# 1.3 SUBMITTALS

- A. CONTRACTOR shall submit proposed geo-textile fabric product data, including manufacturer's name, material specifications, and installation instructions. The CONTRACTOR shall also furnish a manufacturer's certificate stating that the material supplied conforms to the specifications.
- B. General: Submittals shall be made in accordance with Section 01340 of these specifications.

## 1.4 DELIVERY, STORAGE AND HANDLING

A. Geo-textiles shall be provided in rolls wrapped with protective covering to protect the fabric from sunlight, mud, dirt, dust, debris during transport and storage. The fabric shall be free of defects or flaws which significantly affect its physical properties. Each roll of fabric in the shipment shall be labeled with a number or symbol to identify the production run.

## PART 2 PRODUCTS

# 2.1 MATERIALS

- A. Geo-textile fabrics shall meet the requirements specified in the NYSDOT Materials Bureau Approved List April 2001, or most current issue, as specified below:
  - 1. Geo-textile fabric for undercut (UC) shall consist of a woven, polypropylene fabric as listed in the NYSDOT Approved List.

2. Woven geo-textile shall meet NYSDOT Strength Code No. 2. Acceptable manufacturers include ADS 9250, Cotech C-250, Mirafi 500X, or approved equal.

# PART 3 EXECUTION

## 3.1 INSTALLATION

- A. The following provision shall apply, except where in conflict with the manufacturer's recommendations.
- B. Geo-textile shall be installed at the location shown on the Drawings. Geo-textile fabrics shall be installed in accordance with: the procedures of NYSDOT §207-Geotextile; as shown on the Drawings; and the manufacturer's recommendations.
- C. Geo-textile may be joined by either sewing or overlapping as per the manufacturer's recommendations but, end and side laps shall not be less than 12-inches.
- D. The methods and materials for seaming or overlapping shall be subject to the approval of the Project Representative.
- E. Traffic or construction equipment will not be permitted on the geo-textile.
- F. The geo-textiles shall be placed and anchored on a prepared surface approved by the Project Representative. The fabric shall be laid loosely so that placement of the overlying materials shall not stretch or tear the geo-textile.
- G. At the time of installation, geo-textile shall be rejected if it has defects, rips, holes, flaws, deterioration or damage incurred during manufacture, transportation or storage.
- H. The fabric shall be protected at all times during construction from damage resulting from sunlight, excessive surface water, construction traffic, improper installation procedures, or any other condition which can result in damage to the fabric. Geo-textile found to be damaged as a result of improper construction procedures or inadequate protection, shall be replaced by the CONTRACTOR at no cost to the OWNER.

END OF SECTION

#### SECTION 02921

#### TOPSOIL AND SEEDING

## PART 1 GENERAL

# 1.1 SUMMARY

A. This Section includes topsoil, fertilizer, seed, mulch anchorage, and associated work.

## 1.2 SUBMITTALS

- A. In addition to those submittals identified in the General Conditions, the following items shall be submitted:
  - 1. The location of source and data for off-Site topsoil.
  - 2. Analysis of the seed.
  - 3. Should hydroseeder be used, the CONTRACTOR shall submit all data including material and application rates.

#### PART 2 PRODUCTS

# 2.1 MATERIALS

- A. Topsoil shall be unfrozen friable clayey loam free from clay lumps, stones, roots, sticks, stumps, brush or foreign objects.
- B. Fertilizer shall be a standard quality commercial carrier of available plant food elements. A complete prepared and packaged material containing a minimum of 10 percent nitrogen, 10 percent phosphoric acid and 10 percent potash.
  - 1. Each bag of fertilizer shall bear the manufacturer's guaranteed statement of analysis.
- C. Seed mixtures shall be of commercial stock of the current season's crop and shall be delivered in unopened containers bearing the guaranteed analysis of the mix.
  - 1. All seed shall meet the State standards of germination and purity.
- D. Seed Mixtures:

<u>Species</u>	<u>Lawn Areas</u> *	<u><b>Unmaintained Areas</b>*</u>
Kentucky Bluegrass	20	20
Creeping Red Fescue	40	20
Manhattan or Pennfine Ryegrass	40	60

E. Mulch shall be stalks of oats, wheat, rye or other approved crops which are free from noxious weeds.

## PART 3 EXECUTION

## 3.1 INSTALLATION

- A. The area to receive topsoil shall be graded to a depth of not less than 4-inches or as specified, below the proposed finished surface. If the depth of topsoil existing prior to construction was greater than 4-inches, the topsoil shall be replaced not less than the greater depth.
  - 1. All debris and inorganic material shall be removed and the surface loosened for a depth of 2-inches prior to the placing of the topsoil.
  - 2. The topsoil shall not be placed until the subgrade is in suitable condition and shall be free of excessive moisture and frost.
- B. Satisfactory topsoil removed from the excavations shall be placed on the prepared subgrade to the depth required.
  - 1. In the event the topsoil removed during excavation is unsatisfactory or inadequate to obtain the required finish grades, the CONTRACTOR shall furnish the required quantity of satisfactory topsoil from approved sources off-Site.
  - 2. All topsoil shall be free from stones, roots, sticks and other foreign substances and shall not be placed in a frozen or muddy condition.
  - 3. The finished surface shall conform to the lines and grades of the area before disturbed or as shown on the Contract Drawings. Any irregularities shall be corrected before the placement of fertilizer and seed.
- C. The fertilizer shall be applied uniformly at the rate of 20 pounds per 1,000 square feet.
  - 1. Following the application of the fertilizer and prior to application of the seed, the topsoil shall be scarified to a depth of at least 2-inches with a disc or other suitable method traveling across the slope if possible.
- D. When the topsoil surface has been fine graded, the seed mixture shall be uniformly applied upon the prepared surface with a mechanical spreader at a rate of not less than 10 pounds per 1,000 square feet.
  - 1. The seed shall be raked lightly into the surface and rolled with a light hand lawn roller.
  - 2. Seeding and mulching shall not be done during windy weather.
- E. The mulch shall be hand or machine spread to form a continuous blanket over the seed bed, approximately 2-inches uniform thickness at loose measurement. Excessive amounts or bunching of mulch will not be permitted.
  - 1. Mulch shall be anchored by an acceptable method.

- 2. Unless otherwise specified, mulch shall be left in place and allowed to disintegrate.
- 3. Any anchorage or mulch that has not disintegrated at time of first mowing shall be removed. Anchors may be removed or driven flush with ground surface.
- F. Seeded areas shall be watered as often as required to obtain germination and to obtain and maintain a satisfactory sod growth. Watering shall be in such a manner as to prevent washing out of seed.
- G. Hydroseeding may be accepted as an alternative method of applying fertilizer, seed and mulch. The CONTRACTOR shall submit all data regarding materials and application rates to the ENGINEER for review.

# 3.2 MAINTENANCE

- A. All lawn areas shall be mowed by the CONTRACTOR before the new grass reaches a height of 4-inches.
  - 1. Sewer and Water Line Projects
    - a. Following the establishment of a good stand of grass and the first mowing, the CONTRACTOR's obligation shall end except for the repair of settlement or damage.
  - 2. Plants and Similar Projects
    - a. The CONTRACTOR shall maintain the newly seeded areas in good condition until acceptance, including regular mowing to a height of 2-inches.

## END OF SECTION

# PAYMENT ITEM DESCRIPTIONS

The following Payment Item Descriptions are intended to generally describe the Scope of Work to be performed and paid for under each respective Payment Item, corresponding to the separate Payment Items in the Bid. The descriptions of work included are only the information and convenience in preparing the Bid and subsequent estimates. The descriptions are not intended to limit the Scope of Work to be performed under this Contract, which is fully described in the Contract Documents.

Unless specifically included in a particular Bid Item, all overhead and indirect costs including, but not limited to, insurance and bonds, supervision, office and field engineering, administration and management, obtaining permits, stakeout, shop drawings, attendance at meetings, coordination, project signs, field offices, storage facilities, security facilities, utilities, mobilization and demobilization, etc. are assumed to be distributed evenly over the various Payment Items. Unless specifically indicated otherwise in particular Payment Items, no separate payment will be made for such overhead and indirect costs.

## CONTRACT NO. 1 – GENERAL

## PAYMENT ITEMS

#### **SECTION 1 - LUMP SUM ITEMS**

## PI-1.01. Description

Under this section, the Contractor shall furnish all labor, materials and equipment required to perform and fully construct the work of the Lump Sum items in accordance with the Contract Documents; construct the structures, piping, and appurtenant facilities; furnish, install, test, meet the specified performance requirements, place into satisfactory operation, and maintain until final acceptance, the equipment, piping, structures and bypass pumping systems pertinent thereto; and shall fully complete the work of Lump Sum items, as shown, specified, encountered in the work, or scheduled.

The principal items of work scheduled herein are included under this Section. The work of this Section also includes all accessories, appurtenances, testing, start-up, restorations, and other work required to complete this Contract, except those related to the work of these items but specifically included under other payment item sections of this Contract or under other Contracts.

The schedules of the work which may be included have been shown solely for the convenience of the Owner, Engineer and Contractor, and do not necessarily include all of the items of work which are shown and specified and which are required under this Contract.

#### PI-1.02. Payment

Payment for the work of Lump Sum items will be made at the Contractor's Lump Sum prices stated in the Bid and in accordance with the approved lump sum bid price breakdowns.

Payment for the work of the Fixed Lump Sum items will be made at the Owner's Fixed Lump Sum prices stated in the Bid for each item with a Fixed Lump Sum designation. Payment for work of Fixed Lump Sum items will be made with the approved Fixed Lump Sum Bid price breakdowns.

Prior to performing work under each Fixed Maximum Lump Sum payment item, the Contractor shall inspect the work to be performed and develop a scope and budget for the work tasks identified under each Fixed Maximum Lump Sum item for review by the Engineer. Upon receiving the Engineer's authorization, the Contractor shall proceed with the work. Payment for each Fixed Maximum Lump Sum item shall be made on a time and materials basis in accordance with the General Provisions.

If, during the performance of the work identified in the authorized scope and budget for the Fixed Maximum Lump Sum items, the Contractor encounters an unforeseen condition, he shall immediately notify the Engineer and provide a scope and budget for the work necessary to rectify the conditions. The additional work to address such conditions shall be approved prior to advancing the work.

# CONTRACT NO. 1 – GENERAL

## PAYMENT ITEMS

## SECTION 1 - LUMP SUM ITEMS

## PI-1.03. Fixed Amount Price

A fixed amount price as identified on the Bid shall apply to the Fixed Lump Sum and the Fixed Maximum Lump Sum Items, and the Contractor's Bid Price shall equal this price. In the event the Bidder fails to conform to this requirement, the Engineer will revise the Bid proposal using the Fixed Lump Sum and the Fixed Maximum Lump Sum price that was violated by the Bidder.

# PI-1.04. No Payment

No payment will be made under this section for work performed by the Contractor to replace defective work, for rework, or for work not specified in the Contract Documents, ordered, or authorized by the Engineer. No payment will be made under this section for work related to the work of this section, which is specifically included under other Payment Items sections.

# PAYMENT ITEMS

# SECTION 1 - LUMP SUM ITEMS

## Item 1.1 – Mobilization

#### 1.1-01. Description

Under this Item, the Contractor shall furnish all labor, materials and equipment required to perform Mobilization of construction operations, including temporary facilities, as well as sanitary and other facilities as required by local or state regulations. The cost of required insurance, bonds, permits, work schedule and subsequent updates and any other initiation of the Contract work are also included in this Item.

#### 1.1-02. Work Included

The work for this Payment Item includes all labor, materials, and equipment necessary to perform all required Mobilization activities for the site as required for Contract No. 1 - General work and in accordance with the Contract Documents. This work includes, but is not limited to, the following items:

- Set up of the necessary general plant, including shops, storage areas, office and such sanitary and other temporary facilities as are required by local or state law or regulation.
- All required insurance and bonds.
- Initiation of the Contract work.
- Demobilization of all temporary facilities as described above. This shall include removal of trash and debris generated during the duration of this Project and restoration of all areas disturbed during mobilization to pre-mobilization conditions.
- Set-up and maintenance of site security and fencing.
- Set-up and maintenance of erosion control measures.
- Restoration of Contractor staging and lay down area for Contract No. 1. Work includes four (4) inches of new topsoil and seed over staging area identified on the Contract Documents

## 1.1-03. Related Work Not Included

The following items of work closely related to Mobilization are specifically not included under this Item:

• All Other Payment Items

# 1.1-04. Basis of Payment

Payment for this work of mobilization and demobilization will be at the Contractor's Lump Sum price as stated in the bid. A stipulated fixed maximum lump sum price as identified on the bid sheet, will apply to this payment item and the Contractor's bid price shall be equal to or lower than this price. In the event a bidder fails to conform to this requirement, the Engineer shall revise the Bid Form using the stipulated fixed maximum lump sum price that is included for this Payment Item. Payment to the Contractor shall not be made until they have completed five (5%) percent of the contract work. Five (5%) percent of the work shall be considered completed when the total of

# CONTRACT NO. 1 – GENERAL

## PAYMENT ITEMS

## SECTION 1 - LUMP SUM ITEMS

payments earned, as reflected by estimates of work done, not including the amount bid for this item nor payments for materials delivered to the site exceeds five (5%) percent of the total amount of the bid for this Contract. If requested by the Owner, the Contractor shall submit an itemized cost breakdown for mobilization costs for purposes of verifying work completed under this payment.

## PAYMENT ITEMS

## SECTION 1 - LUMP SUM ITEMS

## Item 1.2 - Lagoon 1 Cleaning and Rehabilitation

## 1.2-01. Description

Under this Item, the Contractor shall furnish all labor, materials and equipment required for Lagoon 1 cleaning and rehabilitation as specified in the Contract Documents, at the Oak Orchard WWTP facility.

## 1.2-02. Work Included

Work under this Item shall generally be comprised of furnishing all labor, materials, tool, and equipment to perform the Lagoon 1 cleaning and rehabilitation work. Additional required work and materials that is part of this Item includes, but is not limited to, the following items:

## • General

- Submittals
- All Special Project Conditions.
- Temporary shutdowns and bypass pumping and piping as required to maintain service.
- Protection of existing utilities and structures, temporary support and/or relocation of utilities, removal and replacement of fences, signs, structures, trees, or other items requiring to complete the work.
- Disposal of displaced materials adhering to applicable regulations.
- Cut and cap existing facilities to be abandoned.
- Lagoon Cleaning and Rehabilitation
  - Abandonment of 10-inch, 8-inch and 6-inch galvanized steel feeder pipes in place around perimeter of lagoon 1, filling of lines with flowable fill materials, and cutting and capping of piping.
  - Removal and disposal of plastic header feeder pipes along with posts and brackets within Lagoon 1.
  - Removal and disposal of 4-inch feed lines through lagoon embankment walls, cutting and capping piping, and restoration of lagoon clay liner and embankments in kind at pipe penetrations within Lagoon 1.
  - Removal and disposal of feeder tubes within Lagoon 1.
  - Removal and disposal of air-aqua tubes at existing lagoon liner within Lagoon 1.
  - All necessary soil erosion and sedimentation control including implementation of the soil erosion and sedimentation control plan (SWPPP) prepared for this project. Obtaining approval from the Engineer for any modifications to the SWPPP. Installation, maintenance (including sediment build-up), and removal of all sedimentation control devices.
  - Site clearing, cleaning, excavation and removal of sediment from the lagoon bottom, side slopes, structures and appurtenances to elevations shown and specified. Test holes necessary to identify clay liner elevations prior to sediment removal.

### PAYMENT ITEMS

#### SECTION 1 - LUMP SUM ITEMS

- Disconnection of electric supply, removal of lagoon aerators and anchor cables, and re-installation of aerators after completion of all lagoon cleaning operations.
- Sampling and testing requirements of materials, liquids and sediment generated from the removal operations.
- Processing and conditioning of sediment and liquids on site or at other locations, loading and transportation of the sediment materials, disposal of the materials as required.
- Obtaining required permits necessary for transportation and disposal of materials generated from the lagoon cleaning operations and all costs associated with meeting the requirements of the permits.
- All necessary dewatering operations including dewatering of lagoons necessary for performance of the work and disposal of liquids generated from dewatering operations at the site in accordance with laws or regulations.
- Providing back-up pumping units, temporary by-pass piping, fuel, and all else necessary to complete the dewatering operations under all existing and anticipated conditions.
- Restoration and repairs to clay liner and lagoon embankments damaged or disturbed during cleaning and construction operations. Restoration of all areas damaged or disturbed during cleaning and construction operations. Restoration of all areas damaged during the work under this Project.
- Protection of existing utilities and structures.
- All other work and Items included in the Contract Documents necessary to complete the Project as a whole and which is not specifically included under other Items of the Contract shall be included for payment under this Item.

### 1.2-03. Related Work Not Included

The following items of work related to Lagoon 1 cleaning and rehabilitation are specifically not included under this Item:

• All other payment items.

### 1.2-04. Basis of Payment

The Contract Drawings include plans, profiles and topography drawings of the existing lagoons and the materials and sediment contained within the lagoons. The Contractor shall make his own calculations of the quantities of sediment and materials contained within the lagoons that will be excavated and disposed of under this Item.

There will be no separate measurement or payment of the quantities of materials removed and disposed of under this Item.

Quantity to be paid for under this item shall be made on a Lump Sum basis in proportion to the amount of work completed. Payment for this item will be made at the Contractor's Lump Sum price as stated in the Bid Form. No payment will be made under this Item for work not shown, specified, scheduled, or specifically ordered by the Engineer.

## PAYMENT ITEMS

## SECTION 1 - LUMP SUM ITEMS

### Item 1.3 - Lagoon 2 Cleaning and Rehabilitation

## 1.3-01. Description

Under this Item, the Contractor shall furnish all labor, materials and equipment required for Lagoon 2 cleaning and rehabilitation as specified in the Contract Documents, at the Oak Orchard WWTP facility.

## 1.3-02. Work Included

Work under this Item shall generally be comprised of furnishing all labor, materials, tool, and equipment to perform the Lagoon 2 cleaning and rehabilitation work. Additional required work and materials that is part of this Item includes, but is not limited to, the following items:

- General
  - Submittals
  - All Special Project Conditions.
  - Temporary shutdowns and bypass pumping and piping as required to maintain service.
  - Protection of existing utilities and structures, temporary support and/or relocation of utilities, removal and replacement of fences, signs, structures, trees, or other items requiring to complete the work.
  - Disposal of displaced materials adhering to applicable regulations.
  - Cut and cap existing facilities to be abandoned.
- Lagoon Cleaning and Rehabilitation
  - Abandonment of 10-inch, 8-inch and 6-inch galvanized steel feeder pipes in place around perimeter of lagoon 1, filling of lines with flowable fill materials, and cutting and capping of piping.
  - Removal and disposal of plastic header feeder pipes along with posts and brackets within Lagoon 2.
  - Removal and disposal of 4-inch feed lines through lagoon embankment walls, cutting and capping piping, and restoration of lagoon clay liner and embankments in kind at pipe penetrations within Lagoon 2.
  - Removal and disposal of feeder tubes within Lagoon 2.
  - Removal and disposal of air-aqua tubes at existing lagoon liner within Lagoon 2.
  - All necessary soil erosion and sedimentation control including implementation of the soil erosion and sedimentation control plan (SWPPP) prepared for this project. Obtaining approval from the Engineer for any modifications to the SWPPP. Installation, maintenance (including sediment build-up), and removal of all sedimentation control devices.
  - Site clearing, cleaning, excavation and removal of sediment from the lagoon bottom, side slopes, structures and appurtenances to elevations shown and specified. Test holes necessary to identify clay liner elevations prior to sediment removal.

## PAYMENT ITEMS

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- Disconnection of electric supply, removal of lagoon aerators and anchor cables, and re-installation of aerators after completion of all lagoon cleaning operations.
- Sampling and testing requirements of materials, liquids and sediment generated from the removal operations.
- Processing and conditioning of sediment and liquids on site or at other locations, loading and transportation of the sediment materials, disposal of the materials as required.
- Obtaining required permits necessary for transportation and disposal of materials generated from the lagoon cleaning operations and all costs associated with meeting the requirements of the permits.
- All necessary dewatering operations including dewatering of lagoons necessary for performance of the work and disposal of liquids generated from dewatering operations at the site in accordance with laws or regulations.
- Providing back-up pumping units, temporary by-pass piping, fuel, and all else necessary to complete the dewatering operations under all existing and anticipated conditions.
- Restoration and repairs to clay liner and lagoon embankments damaged or disturbed during cleaning and construction operations. Restoration of all areas damaged or disturbed during cleaning and construction operations. Restoration of all areas damaged during the work under this Project.
- Protection of existing utilities and structures.
- All other work and Items included in the Contract Documents necessary to complete the Project as a whole and which is not specifically included under other Items of the Contract shall be included for payment under this Item.

## 1.3-03. Related Work Not Included

The following items of work related to Lagoon 2 cleaning and rehabilitation are specifically not included under this Item:

• All other payment items

### 1.3-04. Basis of Payment

The Contract Drawings include plans, profiles and topography drawings of the existing lagoons and the materials and sediment contained within the lagoons. The Contractor shall make his own calculations of the quantities of sediment and materials contained within the lagoons that will be excavated and disposed of under this Item.

There will be no separate measurement or payment of the quantities of materials removed and disposed of under this Item.

Quantity to be paid for under this item shall be made on a Lump Sum basis in proportion to the amount of work completed. Payment for this item will be made at the Contractor's Lump Sum

# PAYMENT ITEMS

## **SECTION 1 - LUMP SUM ITEMS**

price as stated in the Bid Form. No payment will be made under this Item for work not shown, specified, scheduled, or specifically ordered by the Engineer.

## PAYMENT ITEMS

## SECTION 1 - LUMP SUM ITEMS

## Item 1.4 - Lagoon Access Road Rehabilitation and Embankment Modifications

### 1.4-01. Description

Under this Item, the Contractor shall furnish all labor, materials and equipment required to complete the Lagoon Access Road Rehabilitation and Embankment Modifications, complete, as shown and specified in the Contract Documents, at the Oak Orchard WWTP facility.

## 1.4-02. Work Included

Work under this Item shall generally be comprised of furnishing all labor, materials, tool, and equipment to complete the Lagoon Access Road Rehabilitation and Embankment Modifications. Additional required work and materials that is part of this Item includes, but is not limited to, the following items:

- General
  - Submittals
  - All Special Project Conditions.
  - Protection of existing utilities and structures, temporary support and/or relocation of utilities, removal and replacement of fences, signs, structures, trees, or other items requiring to complete the work.
  - Disposal of displaced materials adhering to applicable regulations.
- Site Work
  - Provide, install and maintain necessary soil erosion and sedimentation control including implementation of the soil erosion and sedimentation control plan (SWPPP) prepared for this project. Obtaining approval from the Engineer for any modifications to the SWPPP.
  - All excavation and test pits.
  - Clearing and grubbing to the limits shown, specified and required to complete the work.
  - Dewatering of excavations as necessary.
  - Backfill materials and compaction.
  - Geotextile, filter fabric, rip-rap materials, stone materials for road construction.
  - Topsoil and vegetative cover.
  - Temporary and permanent landscaping and restoration associated with completion of the work.
  - All else necessary and required to complete the lagoon access road rehabilitation and embankment modifications, complete, as shown, specified and required.

## PAYMENT ITEMS

### SECTION 1 - LUMP SUM ITEMS

## 1.4-03. Related Work Not Included

The following items of work related to completion of the Lagoon Access Road Rehabilitation and Embankment Modifications are specifically not included under this Item:

• All other payment items

### 1.4-04. Basis of Payment

Payment under this Item will be made at the Contractor's lump sum price as stated in the Bid Form in proportion to the amount of work completed. No payment will be made under this Item for work not shown, specified or scheduled.

### SECTION 1 - LUMP SUM ITEMS

#### Item 1.5 – General Allowance

### 1.5-01. Description

Under this Item, the Contractor shall furnish all labor, materials and equipment required to rehabilitate and install miscellaneous modifications outside the scope specified in the Contract Documents. Under this Item, the Contractor will test, place into satisfactory operation, and maintain until final acceptance, the miscellaneous modifications as directed.

#### 1.5-02. Work Included

This allowance is included to cover the cost of additional work, outside the limits defined in the Contract Documents, to be performed as directed and agreed with the Owner and Engineer.

## 1.5-03. Related Work Not Included

The following items of work closely related to General Allowance are specifically not included under this Item:

• All other payment items

#### 1.5-04. Basis of Payment

Payment for this item will be made on a time and materials basis, not exceeding the Fixed Lump Sum price as stated in the Bid, for miscellaneous modifications as ordered by the Engineer. A Fixed Lump Sum price, as identified in the Bid Form, will apply to this Payment Item and the Contractor's Bid price shall equal this price. In the event that the Bidder fails to conform to this requirement, the Engineer shall revise the Bid Form using the Fixed Lump Sum price that is included for this Payment Item. No payment under this Item will be made for work not ordered by the Engineer.

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## **SECTION 2 - UNIT PRICE ITEMS**

### PI-2.01. Description

Under this section, the Contractor shall furnish all labor, materials and equipment required to perform and fully construct the work of unit price items, in the quantities, and to the lines, grades and elevations shown or specified, encountered in the work, or ordered by the Engineer.

The work of this section also includes all accessories, appurtenances, and other work required to complete this Contract, except those related to work of these items but specifically included under other Payment Item sections of this Contract.

The schedules of the work which may be included have been shown solely for the convenience of the Owner, Engineer, and Contractor, and do not necessarily include all of the items of work which are shown and specified and which are needed under this Contract.

### PI-2.02. Payment

Payment for the work of unit price items will be made at the Contractor's unit prices stated in the Bid for each item included under this section, as measured by the Contractor and verified by the Engineer in accordance with the Basis of Payment for each Payment.

### PI- 2.03. No Payment

No payment will be made under this section for work performed by the Contractor to replace defective work, for rework, or for work not specified in the Contract Documents or ordered by the Engineer. No payment will be made under for work related to the work of this section, which is specifically included under other payment items sections.

# <u>PI-2 -2</u> Bid Ref XXX

# CONTRACT NO. 1 – GENERAL

## PAYMENT ITEMS

# SECTION 2 - UNIT PRICE ITEMS

## Item 2.1 - Additional Excavation and Backfill

### 2.1-01. Description

Under this Item, the Contractor shall provide all necessary labor, tools, materials, and equipment required to perform additional excavation and backfill where specifically ordered and directed by the Engineer.

## 2.1-02. Work Included

Work under this Item shall generally be comprised of furnishing all labor, tools, materials, and equipment to perform additional excavation and backfill where specifically ordered and directed by the Engineer.

Included under this Item shall be all excavation and backfill outside the work limits and shall only be used when specifically ordered and directed by the Engineer.

The work shall include all sheeting, shoring, bracing, dewatering, removal and disposal of excess materials, backfilling and compaction as required to complete the work under this Item.

### 2.1-03. Related Work Not Included

The following items of work closely related to additional excavation and backfill are specifically not included under this Item:

- All other payment items.
- Unauthorized excavation or over excavation by the Contractor.

## 2.1-04. Basis of Payment

Measurement: The quantities of additional excavation and backfill paid for under this Item shall be the actual measured volume of additional excavation and backfill completed by the Contractor, where specifically ordered by the Engineer, outside the defined pay limits.

No measurement of quantities will be made where adjustments are required in the field due to the location of existing utilities, facilities or structures. This work shall be performed by the Contractor at no additional cost to the Owner and no measurement will be made under this Item.

Payment: No payment under this Item will be made for additional excavation and backfill not specifically ordered by the Engineer.

The unit price bid per cubic yard under this Item shall be full payment for all work necessary to complete the additional excavation and backfill where ordered and directed by the Engineer, and shall be full payment under this Item.

# <u>PI-2 -3</u> Bid Ref XXX

# CONTRACT NO. 1 – GENERAL

## PAYMENT ITEMS

# SECTION 2 - UNIT PRICE ITEMS

## Item 2.2 - Additional Select Backfill Material

## 2.2-01. Description

Under this Item, the Contractor shall provide all necessary labor, tools, materials, and equipment required to provide, deliver, place and compact additional select backfill material where specifically ordered and directed by the Engineer.

## 2.2-02. Work Included

Work under this Item shall generally be comprised of furnishing all labor, tools, materials, and equipment required to provide, deliver, place and compact additional select backfill material where specifically ordered and directed by the Engineer. Additional required work and materials that is part of this Item includes but is not limited to, the following:

- Submittals
- Compaction of select backfill materials
- Disposal of displaced materials

## 2.2-03. Related Work Not Included

The following items of work closely related to additional select backfill material are specifically not included under this Item:

- All other payment items
- Unauthorized excavation, or over excavation requiring select backfill (Contractor's own expense)

## 2.2-04. Basis of Payment

Measurement: Quantities paid for under this Item shall be the actual number of cubic yards of additional select backfill material furnished, installed and compacted, as measured in its placed condition, where specifically ordered and directed by the Engineer.

Payment: No payment under this Item will be made for additional select backfill material not specifically ordered and directed by the Engineer, and where included under other Items of the Contract. Payment under this Item shall be made at the unit price bid per cubic yard, which shall be full payment for the work under this Item.

# <u>PI-2 -4</u> Bid Ref XXX

# CONTRACT NO. 1 – GENERAL

## PAYMENT ITEMS

# SECTION 2 - UNIT PRICE ITEMS

## Item 2.3 - Repairs to Clay Liner in Lagoons

### 2.3-01. Description

Under this Item, the Contractor shall provide all labor, materials, tools, and equipment necessary to complete the repairs to clay liner in the lagoons, as specified herein and defined within the Contract Documents.

This Item will be used to repair damaged or missing areas of the clay liner as identified during the work, and at other areas where specifically ordered and directed by the Engineer.

## 2.3-02. Work Included

Work under this Item shall generally be comprised of furnishing all labor, tools, materials, and equipment to complete the repairs to clay liner in the lagoons. Additional required work and materials that is part of this Item includes but is not limited to, the following:

- Submittals
- Test excavations to determine the limits of clay liner repairs.
- Excavation, removal and off-site disposal of existing clay and other materials.
- Dewatering of excavations.
- Protection of existing clay liner in areas where repairs are not being performed.
- Protection of existing utilities, services and other items required to complete the work.
- Providing and installing replacement clay materials meeting the specifications.
- Compaction and finish grading of clay surfaces to match existing liner elevations.
- Restoration of clay surfaces.

### 2.3-03. Related Work Not Included

The following items of work closely related to repairs to clay liner in lagoons are specifically not included under this Item:

- All other payment items.
- Lagoon cleaning and rehabilitation.

### 2.3-04. Basis of Payment

Measurement: The quantity of repairs to clay liner in lagoons paid for under this Item shall be the actual area measured in square yards at the specified thickness, completed in place.

Payment: Payment under this Item shall be made at the unit price bid per square yard, which shall be full payment for the work under this Item.