

# Florida Department of Environmental Protection

Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767 Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary - Designee

NOTICE OF PERMIT

By E-Mail smccash@wasteservicesinc.com

In the matter of an Application for Permit by: Mr. Shawn McCash Omni Waste of Osceola County, LLC 1501 Omni Way St. Cloud, FL 34473

OCD-SW-07-0118

Osceola County – SW Oak Hammock Disposal, Phases 2 and 3, Class I Permit Application Nos. SC49-0199726-004 & SO49-0199726-005

Dear Mr. McCash:

Enclosed are Permit Numbers SC49-0199726-004 & SO49-0199726-005, to construct and operate the Oak Hammock Disposal, Phases 2 and 3, Class I landfill, issued under Section(s) 403.061(14) and 403.707, of the Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit under section 120.68 of the Florida Statutes, by the filing of a Notice of Appeal under rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this notice is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mirau Varfein

Vivian F. Garfein Director, Central District 3319 Maguire Boulevard, Suite 232 Orlando, FL 32803 407/894-7555

Date: March 22, 2007

"More Protection, Less Process" www.dep.state.fl.us FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

E williame March 22, 2007 Clerk Date

#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on March 22, 2007 to the listed persons.

E williame

Clerk

VFG/gc/ew

Enclosure

Copies furnished to: Richard Tedder, P.E. – DEP – Tallahassee Fred Wick – DEP – Tallahassee Frank Hornbrook – DEP – Tallahassee L. Kozlov, P.E. – DEP – Air Section Ayushman Gupta, P.E. – Geosyntec Consultants <u>agupta@geosyntec.com</u> Mark W. Halleen, P.E. <u>mhalleen@foth.com</u>

> "More Protection, Less Process" www.dep.state.fl.us



Permittee: Omni Waste of Osceola County, LLC 1501 Omni Way St. Cloud, FL 34773

# Florida Department of Environmental Protection

Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767 Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary

WACS Facility: 89455 Permit Numbers: SC49-0199726-004 & SO49-0199726-005 Expiration Date: 01/11/2012 County: Osceola Section 11, 13, 14, 17 & 18, Township 28 South, Range 32 East and 33 East Latitude28°03'32" North /Longitude 81°05'46" West Project: Oak Hammock Disposal, Phases 2 & 3, Class I

Attention: Mr. Shawn McCash

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-701, and 62-711. The above named permittee is hereby authorized to perform the work and operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

- To continue waste disposal operations in Oak Hammock Disposal, Phase 1.
- To construct and operate the Oak Hammock Disposal, Phases 2 and 3, Class I landfill. The present service area for the landfill is Osceola County, counties surrounding Osceola County, and counties adjoining the surrounding counties.
- The complete build-out of the facility will include 21 landfill cells with a footprint of approximately 264 acres within a property boundary of approximately 2,179 acres. The anticipated life of the complete facility is 10 to 15 years.
- This permit renewal application is to construct and operate Phase 2, which includes Cells 5, 6, and 7, and Phase 3, which includes Cells 8, 9, and 10. Cells 1 through 4 were constructed at Oak Hammock Disposal as part of Phase I development. Class I waste has been and/or is being currently deposited in Cells 1, 2, and 4. Cell 3 is currently accepting waste.
- Phase 2 includes Cells 5, 6, and 7, and has a footprint of approximately 36 acres. Phase 3 includes Cells 8, 9, and10, and has a footprint of approximately 34 acres. Other principal features of Phases 2 and 3 include expansion of the existing stormwater management system and relocation of the interim leachate storage facility. The existing leachate storage facility will be relocated to a permanent location adjacent to the administrative area during construction of Cell 8.
- Household waste, commercial waste, construction and demolition debris, and other waste classified as Class I waste may be disposed in the landfill. The waste will be from residential communities and commercial sources.

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- The Class I landfill is equipped with a double-composite liner system, which directs any liquid entering the landfill that may have contacted refuse to a leachate collection system (LCS). Collected leachate is pumped from the sumps into the leachate transmission line where it is conveyed to an on-site leachate storage facility, and periodically trucked to the St. Cloud wastewater treatment plant (WWTP) for treatment and disposal.
- A gas management system will be implemented to control odors and migration of methane.
- The facility has a Title V air permit #0970079-003-AV.
- The project incorporates a ground water and surface water monitoring plan.

LOCATION: The landfill is located approximately 6.5 miles south of Holopaw, on the west side of U. S. Highway 441, in eastern Osceola County, Florida.

#### **GENERAL CONDITIONS:**

- 1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes (F.S.). The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
- 4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- 6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup and auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- 7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
  - (a) Have access to and copy any records that must be kept under conditions of this permit;
  - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
  - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - (a) A description of and cause of noncompliance; and

(b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- 9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- 10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- 11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code (F.A.C.), as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
- 13. The permittee shall comply with the following:
  - (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring information) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - (c) Records of monitoring information shall include:
    - 1. the date, exact place, and time of sampling or measurements;
    - 2. the person responsible for performing the sampling or measurements;
    - 3. the dates analyses were performed;
    - 4. the person responsible for performing the analyses;
    - 5. the analytical techniques or methods used;
    - 6. the results of such analyses.
- 14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

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Attention: Mr. Shawn McCash

#### SPECIFIC CONDITIONS:

Note that time-sensitive specific conditions are summarized in Appendix B of this permit.

- 1. <u>Plans and Specifications</u>: Drawings, plans, documents and specifications submitted by the permittee, not attached hereto, but on file at the Central District office, are made a part of this permit. The documents are listed in Appendix A.
- 2. <u>Inspection Requirements</u>: A copy of the permit, with a complete copy of the permit application and engineering drawings, shall be kept on file at the landfill for inspection and review upon request.
- 3. <u>Other Permits</u>: This permit does not relieve the permittee from complying with any other appropriate stormwater, ERP, Title V/NSPS, or other permit requirements.
- 4. <u>Signs</u>: Signs indicating the name of the operating authority, traffic flow, hours of operation, charges for disposal and the types of wastes accepted shall be placed at all entrances to the site, Rule 62-701.500(11)(g), F.A.C.
- 5. <u>Site Access</u>: Access to the site shall be restricted by an effective barrier designed to prevent unauthorized entry and dumping, Rule 62-701.500(5), F.A.C.
- 6. <u>Litter, Dust & Fire Protection</u>: The landfill shall have litter control devices, dust controls, fire protection and fire-fighting facilities, Rule 62-701.500(11)(d), (e) and (f), F.A.C. Litter must be collected and litter control devices must be cleaned. All collected litter must be placed in the active cell for disposal.
- 7. <u>Safety Devices</u>: Safety devices shall be provided on equipment to shield and protect the operators from potential hazards during operation.
- 8. <u>Equipment Breakdown</u>: In the event of equipment malfunction, destruction, breakdown or other problems resulting in the permittee being temporarily unable to comply with any of the conditions of this permit, the permittee shall immediately notify the Department. The notification shall address the cause of the problem, corrective action, and what steps are being taken to prevent recurrence, as required by Rule 62-4.130, F.A.C.
- 9. <u>Effluent Discharge</u>: There shall be no discharge of liquid effluents or contaminated runoff to surface or ground water without prior approval from the Department.
- 10. <u>Surface Water Management</u>: All surface water runoff from the developed portions of the site shall be collected and treated to meet the requirements of Chapters 373 and 403, Florida Statutes (F.S.) prior to discharge off-site. The surface water management system shall prevent surface water flow into waste filled areas.
- 11. <u>Stormwater Leachate Contamination</u>: Stormwater that comes into contact with leachate shall be treated as leachate. Any leachate emanating from the landfill shall be collected and treated as necessary to meet the requirements of Chapters 62-302, 62-4 and 62-520, F.A.C., prior to discharge off-site, unless the leachate is transmitted to a permitted treatment facility.
- 12. <u>Stormwater Management System Maintenance</u>: The stormwater management system shall be maintained and visually inspected regularly, and shall be cleaned and maintained as necessary to allow for treatment and conveyance of stormwater according to the permitted engineering design.

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- 13. <u>Zone of Discharge</u>: The zone of discharge for the facility shall be a three dimensional volume, defined in the vertical plane as extending from the top of the ground to the bottom of the screen of the deep surficial monitoring wells, and defined in the horizontal plane as extending 100 feet from the footprint of the waste disposal area or to the property boundary, whichever is less. Class G-II water quality standards must be met at the boundary of the zone of discharge in accordance with Rule 62-522.410, F.A.C.
- 14. <u>Monitoring Plan Implementation Schedule</u>: The Monitoring Plan Implementation Schedule (MPIS) attached as Exhibit I is made a part of this permit. All new wells shall be in place and sampled prior to placement of waste in the newly constructed cells. All new and existing wells shall be sampled semiannually, as required in the MPIS.
- 15. <u>Construction Quality Assurance</u>: The Construction Quality Assurance (CQA) Plan submitted with the permit application shall be followed for installing and testing the liner system and related components. The CQA engineer or the engineer's designee shall be on-site at all times during construction of the liner systems to monitor the construction activities including the preparation of the subgrade, placement of the GCL, primary and secondary liners, and the placement of the soil drainage layer over the primary liner to ensure the underlying geosynthetics are not damaged during construction.
- 16. <u>Liner Installation-Summary Report</u>: A professional engineer, licensed in Florida, shall supervise and evaluate the liner installation quality assurance/quality control program to ensure that the liner meets design specifications. Upon completion, the engineer shall submit a summary report to the Department, documenting complete conformity to the approved plans and specifications. This summary report shall include a documented control program of the liner installation, liner inspections, and the quality assurance/quality control testing procedures and laboratory analyses. This report shall be included with the certification required in Specific Condition 23 of this permit.
- 17. <u>Subgrade Preparation</u>: Prior to the liner installation, the subgrade shall be prepared to provide a firm, unyielding foundation. If necessary, the base shall be brought up to grade by placement and compaction of fill material. The fill material and subgrade shall not contain rocks, roots, debris, shells, or other materials that could penetrate the liner material.
- 18. <u>Liner</u>: The liner system consists of a double-composite liner. The liner system, from top to bottom, consists of: 2 foot thick protective soil layer, primary geocomposite drainage layer, 60-mil thick primary HDPE textured geomembrane, primary geosynthetic clay liner (GCL), secondary geocomposite drainage layer, 60-mil thick secondary HDPE textured geomembrane, secondary GCL, and compacted sub-grade.
- 19. <u>Liner Installation Department Notification</u>: Installation of the liner shall be performed by an experienced installer who has installed similar type materials. The permittee shall notify the Department at least 10 days prior to the commencement of liner installation work in any cell.
- 20. <u>GCL Installation Limitation</u>: The number of geosynthetic clay liner (GCL) panels that may be deployed in any one day shall be limited to the number that can be placed in a dry condition and covered by the HDPE while still dry. No installation or seaming of GCL under wet conditions shall be allowed. The CQA plan requires the owner's inspector to inspect the subgrade each day prior to placing the GCL.

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- 21. <u>Geomembrane Testing</u>: Non-destructive air pressure tests and/or vacuum test shall be conducted by the installer, under the direction of the CQA engineer or his designee, to test 100 percent of the field seams of the geomembrane. Destructive tests of the geomembrane field seams shall be in accordance with the approved CQA plan and at a frequency of no less than one destructive test sample every 500 linear feet of field seam.
- 22. <u>Construction Permit Renewal</u>: The construction shall reasonably conform to the plans and supporting documents submitted as part of the application. If construction cannot be completed before the expiration of this permit, the permittee must notify the Department, in writing, at least 60 days prior to the expiration of the construction permit and request a renewal of the construction permit.
- 23. <u>Certification</u>: After all significant initial construction has been completed, and prior to acceptance of any solid waste, the Engineer of Record shall submit a Certification of Construction Completion, DEP Form 62-701.900(2), then contact the Department to arrange for Department representatives to inspect the facility with the permittee, the engineer, and the proposed on-site facility operator. The certification must be done for each cell individually.
- <u>Construction Sequencing Plans</u>: The construction sequencing plans (including cells containing waste, cell under construction, owners operation area, and contractor laydown area) for proposed Phases 2 and 3 are presented on sheets 25 and 26 of the Renewal Permit Drawings, respectively (Reference No. 2 – Appendix A).
- 25. <u>Solid Waste Disposal</u>: Phases 2 and 3 of the landfill shall not receive solid waste until the leachate collection system is in place and functional, and Specific Conditions 14, 16, and 23 are satisfied.
- 26. <u>Liner Edge Identification</u>: The edge of the liner must be clearly and permanently outlined by permanent monuments or markers, so that solid waste is deposited at least 10 feet inside the edge of the liner. The location of monuments or markers shall be established by a Professional Surveyor and Mapper, licensed in Florida. The monuments or markers shall be of sufficient number to clearly define the liner edge, and shall be visible and easily identifiable to operation personnel and regulatory inspectors.
- 27. <u>Solid Waste Burning</u>: Burning of solid waste is prohibited except in accordance with Rule 62-701.300(3), F.A.C. Any fires at the landfill must be reported to the Department in accordance with the Operation Plan. Also, within five days, a letter explaining the cause, remedial action, and measures taken to prevent a recurrence must be sent to the Department.
- 28. <u>Improper Operations</u>: When the Department, after investigation, has good reason (such as complaints, questionable maintenance of equipment, or improper operations) to believe that any applicable standard contained in Chapter 62-701, F.A.C. or in this permit is being violated, it may require the landfill owner or operator of the source to identify the nature of the problem and to submit a report to the Department on the results of the investigation and corrective action taken to prevent its recurrence.
- 29. <u>Operation of Pollution Control Devices</u>: The leachate and stormwater control systems shall be properly operated, monitored and maintained (Rule 62-701.500, F.A.C.).

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- 30. <u>Leachate Collection and Removal System</u>: The primary leachate collection and removal system lying above the upper geomembrane shall be designed to limit the leachate head to one foot above the liner during routine landfill operations after placement of initial cover, except in sumps and leachate collection trenches, Rule 62-701.400(3)(c)1, F.A.C.
- 31. <u>Secondary Leachate Collection System</u>: The secondary leachate collection system must have a minimum hydraulic conductivity of 10 cm/sec and shall be designed to not allow the leachate head on the secondary geomembrane liner to exceed the thickness of the drainage layer, Rule 62-701.400(3)(c)2, F.A.C.
- 32. <u>Leachate Storage Tanks</u>: The integrity of the leachate storage tanks and containment facilities shall be checked weekly so that no leachate release to the soil will occur. The storage tanks and containment facilities shall be maintained and operated in accordance with Rule 62-701.400(6), F.A.C.
- 33. <u>Storage Tank, Inspection Records & Documentation of Repairs</u>: The permittee shall keep inspection records and documentation of repairs made to the leachate storage tank at the landfill site for the operational life of the leachate storage tank.
- 34. <u>Leachate Collection Pipes</u>: The leachate collection pipes shall be cleaned, on average, once every five years. Should there be any indication that collection and removal of leachate from the cell is not occurring as intended, more frequent cleaning and video inspection of the pipelines shall be performed as needed to restore original design conditions. Results of the collection system cleanings or inspections shall be made available to the Department upon request.
- 35. <u>Leachate Quantity</u>: Quantities of leachate collected by the leachate collection and removal system must be recorded in gallons per day from the leachate force main flow meter. Operators shall record daily flow amounts and data shall be included with the operating record, Rule 62-701.500(8)(f), F.A.C.
- 36. <u>Precipitation Records</u>: A recording rain gauge shall be operated and maintained to record precipitation at the landfill. Precipitation records shall be maintained and used by the permittee to compare with leachate generation rates, Rule 62-701.500(8)(g), F.A.C.
- 37. <u>Hazardous Wastes</u>: Any incidental hazardous wastes received in connection with operation of this facility must be disposed of in accordance with Rule 62-730, F.A.C.
- 38. <u>Control of Nuisance Conditions</u>: The permittee shall be responsible for the control of odors and fugitive particulates arising from this operation. Such controls shall prevent the creation of nuisance conditions that may arise from adverse odors and fugitive particulates and their effect on adjacent or nearby properties and users. The permittee shall immediately investigate any complaints received from the general public and, where warranted, take corrective action taken to abate the adverse odor or nuisance condition. The permittee will prepare a written report on each complaint describing the action taken to resolve the complaint, and submit the report to the Department within 10 days of receiving the complaint. If the complaint has not been resolved by that time, the permittee must prepare and submit an additional report no later than 10 days from the date of resolution.

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- 39. <u>Operation Plan</u>: An operation plan that meets the requirements of Rule 62-701.500(2), F.A.C. shall be kept at the landfill. All landfill operators and spotters shall be trained and knowledgeable about the plan.
- 40. <u>Initial Waste Placement</u>: The first layer of waste placed above the liner and leachate collection system shall be a minimum of four feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system.
- 41. <u>Initial Cover Stockpile</u>: An adequate supply of acceptable initial cover, as specified in the operation plan, shall be maintained at the landfill and be available at all times. All stockpiles shall be graded to minimize erosion potential. Silt fences or diversion berms shall be utilized around the stockpiles to control erosion.
- 42. <u>Waste Compaction & Working Face:</u> Except for the placement of the initial layer of waste, all solid waste shall be spread in layers of approximately two (2) feet in thickness and compacted to approximately one (1) foot in thickness, or as thin a layer as practical, before the next layer is applied, Rule 62-701.500(7)(a), F.A.C. All compacted solid waste shall be formed into cells with the working face and the side grades above land surface at a slope no greater than three feet horizontal to one foot vertical rise, Rule 62-701.500(7)(c), F.A.C. The working face shall be only large enough to efficiently accommodate vehicles discharging waste and to minimize the exposed area and the use of unnecessary cover material, Rule 62-701.500(7)(d), F.A.C.
- 43. <u>Initial Cover and Intermediate Cover</u>: Initial cover shall be applied at the end of each working day, except the working face may be covered with temporary cover if solid waste will be placed on it within 18 hours. If additional waste is to be deposited on the working face within 18 hours, the initial cover may consist of a temporary cover, such as tarpaulin, that may be removed prior to the placement of additional waste. An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion if final cover or an additional lift is not to be applied within 180 days of cell completion. All or part of the intermediate cover may be removed prior to placing additional waste or installing final cover, Rule 62-701.500(7)(f), F.A.C.
- 44. <u>Final Cover Top:</u> In descending order, the final cover system on the top (5 percent) slopes of the landfill shall consist of: 0.5-ft. thick vegetative layer, 1.5-ft. thick cap protective soil layer, 40-mil thick smooth polyethylene (PE) geomembrane, and 1-ft. thick (minimum) intermediate cover layer over the compacted waste.
- 45. <u>Final Cover Side Slopes:</u> The final cover system on the 4H:1V side slopes of the landfill from top to bottom shall consist of: 0.5-ft. thick vegetative layer, 1.5-ft. thick protective layer, a geocomposite drainage layer, a 40-mil thick textured PE geomembrane, and a 1-ft. thick (minimum) intermediate cover layer over the compacted waste.
- 46. <u>Erosion Minimization</u>: Erosion of the final cover system shall be minimized by final cover swales. The swales shall intercept sheet flow from the final cover system. The final cover swales shall direct the collected surface-water runoff to downchutes and the perimeter swale. A vegetative cover placed on the final cover slopes of the landfill will minimize erosion and reduce loss from the final cover system. The final cover system shall be periodically inspected and erosion damage or vegetative stress shall be repaired before significant erosion develops.

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- 47. <u>Side Slopes</u>: The side slopes shall not be steeper than 4 horizontal to 1 vertical and, when the final cover is installed, shall be sodded to minimize erosion.
- 48. <u>Final Cover Surface Gradient</u>: The top gradient of the final cover surface will have a gradient of 5 percent and shall take into consideration the effects of expected subsidence caused by settling and decomposition of the fill material to minimize ponding and erosion.
- 49. <u>Routine Maintenance</u>: Cracks or eroded sections in the surface of any filled and covered area shall be properly repaired, and a regular maintenance program shall be followed to eliminate pockets or depressions that may develop as refuse settles. The slopes and drainage structures shall be inspected at least monthly and after major storm events for evidence of settling, erosion, washout or siltation.
- 50. <u>Gas Monitoring</u>: The permittee shall implement a gas management system to comply with Rule 62-701.530, F.A.C. Monitoring for methane gas at the property boundary and within structures on the property shall be performed quarterly to determine the effectiveness of the gas migration controls. The gas monitoring results shall be reported as percent of the lower explosive limit (LEL), calibrated to methane, and shall be submitted to the Department within 30 days of receipt of data. If the gas monitoring results show that combustible gas concentrations exceed 25% of the LEL noted above, the permittee shall implement a Gas Remediation Plan as required in Rule 62-701.530(3)(a), F.A.C.
- 51. <u>Landfill Elevation</u>: The final (maximum) elevation of the Oak Hammock Disposal, Class I landfill, shall not exceed 178 feet NGVD.
- 52. <u>Operation Training Compliance:</u> The Oak Hammock Disposal, Class I landfill shall comply with Rule 62-701.320(15), F.A.C. - Operator training.
- 53. <u>Waste Report</u>: A waste report shall be submitted to the Department quarterly, Rule 62-701.500(4)(b), F.A.C. Waste reports shall include the quantity of each of the following:
  - Household waste Agricultural waste Commercial waste Incinerator by-pass waste Construction and demolition debris Industrial sludge Treated biomedical waste Yard Trash Industrial waste Ash residue Sewage sludge Water/air treatment sludges Waste tires

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SPECIFIC CONDITIONS:

All submittals in response to this specific condition shall be submitted to: Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, with a copy to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767. The reports shall be submitted no later than the 20th of January, April, July and October.

- 54. <u>Record Keeping</u>: The permittee shall comply with the record keeping requirements for a Class I landfill, Rule 62-701.500(13), F.A.C.
- 55. <u>Permit Deviations</u>: The Department shall be notified and approval shall be obtained prior to executing any substantial changes or revisions to the construction and operation authorized by this permit.
- 56. <u>Operation Permit Renewal</u>: An operation permit renewal must be submitted at least 60 days prior to the expiration date of this permit, Rule 62-4.090, F.A.C.
- 57. <u>Closure Permit Requirements</u>: At least 90 days prior to the date when wastes will no longer be accepted at the landfill, the owner or operator shall submit a closure permit application to the Department, Rule 62-701.600(3), F.A.C.
- 58. <u>Solid Waste Disposal Rate</u>: The average solid waste disposal rate for this source is 6,000 tons per day as stated in the application. Actual operating rates may vary depending upon business conditions.
- 59. <u>Financial Assurance, Phase I and Phase 2, Cell 5:</u> This permit authorizes disposal of waste in Phase 1 and Phase 2, Cell 5. The financial assurance mechanism shall be fully funded for all Phase I cells, and updated at least 60 days prior to accepting waste in Phase 2, Cell 5.
- 60. <u>Phased Financial Assurance Cell 6</u>: Before solid waste disposal can proceed in any other portion of the disposal area the permittee shall apply for a minor permit modification addressing the expansion area and receive approval from the Department. The modification must include updated closure and long-term care cost estimates and financial assurance that meet the requirements of Rule 62-701.630, F.A.C. The Department will not grant approval of the minor modification until final agency action is completed, construction is certified by the Engineer of Record, and the certification and financial assurance are accepted by the Department.
- 61. <u>Financial Responsibility</u>: The permittee shall maintain financial assurance in accordance with the requirements of Rule 62-701.630, F.A.C. Proof that the financial mechanisms are established and funded in accordance with Rule 62-701.630, F.A.C. and 40 CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, F.A.C. shall be submitted to the Department sixty (60) days prior to the acceptance of any solid waste at the facility. All submittals in response to this specific condition shall be sent to: Department of Environmental Protection, Financial Coordinator, Solid Waste Section, Twin Towers Office Building, 2600 Blair Stone Road, MS-4565, Tallahassee, Florida 32399-2400, with a copy to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

WACS Facility: 89455 Permit/Certification Numbers: SC49-0199726-004 & SO49-0199726-005 Expiration Date: 01/11/2012

Attention: Mr. Shawn McCash

#### SPECIFIC CONDITIONS:

- 62. <u>Annual Cost Estimates and Financial Instrument Adjustments</u>: The permittee shall, in addition to annually adjusting the closure and long-term care cost estimates, adjust the financial assurance mechanism to reflect an increase in cost estimates. Cost estimate adjustments shall be in accordance with Rule 62-701.630(4), F.A.C. Instrument adjustments shall be in accordance with Rule 62-701.630, F.A.C. and 40 CFR Part 264, Subpart H as adopted by reference in Rule 62-701.630, F.A.C. Documentation of financial mechanism increases shall be submitted to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, Twin Towers Office Building, 2600 Blair Stone Road, MS-4565, Tallahassee, Florida 32399-2400. All estimate update submittals shall be sent to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.
- 63. <u>Prevention of Significant Deterioration (PSD) Requirements</u>: The landfill owner or operator is not required to obtain any air construction permit unless landfill construction or any modification is subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. A landfill for which construction or modification is subject to PSD requirements must make application to the Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, for an air construction permit and must obtain such permit prior to beginning any construction or modification.
- 64. <u>Title V Permit Requirements</u>: The landfill owner or operator is not required to obtain any air operating permit unless the landfill is required to obtain a Title V air operating permit (Title V permit) pursuant to Section 403.0872, F.S. A landfill is required to obtain a Title V permit if the landfill (or the total facility, if the landfill is contiguous or part of a larger facility) has the potential to emit 10 TPY of any hazardous air pollutant, 25 TPY of any combination of hazardous air pollutants or 100 TPY of any other regulated air pollutant. A landfill is also required to obtain a Title V permit if the maximum design capacity as defined in 40 CFR 60, Subpart WWW, is equal or greater than 2.5 million Megagrams or 2.5 million cubic meters. Title V permits must be applied for in accordance with the timing and content requirements of Rule 62-204.800, F.A.C. and Chapter 62-213, F.A.C. Title V applications shall be submitted to the Central District Air Program Administrator.
- 65. <u>40 CFR 60 Requirements</u>: The permittee shall comply with the applicable requirements of 40 CFR 60, Subparts WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. The permittee shall submit to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b).

ISSUED: March 22, 2007

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mirau A. Vasfein

Vivian F. Garfein Director, Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803

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#### FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

E williame March 22, 2007

Clerk

Date

# CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on March 22, 2007 to the listed persons.

E williame

Clerk

#### Appendix A

1. Renewal Permit Application To Construct And Operate Phases 2 and 3 Of The Oak Hammock Disposal Facility, Prepared by GeoSyntec Consultants, Tampa, Florida dated September 2006. Received and stamped September 12, 2006, Central District – DEP.

2. Oak Hammock Disposal Facility Phases 2 and 3 Renewal Permit Drawings dated September 2006. Received and stamped September 12, 2006, Central District – DEP.

3. Request For Additional Information from DEP – Central District, dated October 12, 2006.

4. Response to RAI #1 Renewal Permit Application Phases 2 and 3 Oak Hammock Disposal Facility, Prepared by GeoSyntec Consultants, Tampa, Florida dated November 2006. Received and stamped November 21, 2006, Central District – DEP.

Specific Condition	Requirement	Action	Due date
8	Equipment Breakdown	Notify the Department of equipment breakdown, malfunction, etc.	Immediately upon discovery
14	Monitoring Plan Implementation Schedule (MPIS)	Notify the Department if an exceedance is confirmed, or if the permittee chooses not to resample following an exceedance	Within 14 days of this finding
14	Monitoring Plan Implementation Schedule (MPIS)	Collect and analyze initial samples from groundwater monitoring well clusters MW-16, MW-17, MW-18, MW-19, MW-20, MW-21, MW-22 and MW-23	Before any waste is deposited in Cells 2 and 3
14	Monitoring Plan Implementation Schedule (MPIS)	Collect and analyze samples from the 69 groundwater monitoring wells	Semi-annually (May and November)
14	Monitoring Plan Implementation Schedule (MPIS)	Measure and report ground water levels in all wells, whether sampled or not	Semi-annually unless required more frequently by permit condition
14	Monitoring Plan Implementation Schedule (MPIS)	Measure and report ground water levels in all wells, whether sampled or not	Within a one day period
14	Monitoring Plan Implementation Schedule (MPIS)	Collect and analyze samples from the two (2) surface water monitoring sites	Semi-annually (May and November)
14	Monitoring Plan Implementation Schedule (MPIS)	Measure and report surface water elevations at sampling locations	On the same day as ground water levels in the wells. Semi-annually unless required more frequently by permit condition
14	Monitoring Plan Implementation Schedule (MPIS)	Measure and report surface water levels	Within a one day period
14	Monitoring Plan Implementation Schedule (MPIS)	Collect and analyze samples from leachate sample points L-1, L-2, L-3, L-4, L-5, L-6, L-7, L-8, L-9 and L-10	Annually (November)

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Specific Condition	Requirement	Action	Due date
14	Monitoring Plan Implementation Schedule (MPIS)	Collect and analyze samples from leachate sample points L-1, L-2, L-3, L-4, L-5, L-6, L-7, L-8, L-9 and L-10.	Monthly if the annual analysis indicated that a contaminant exceeds the regulatory level
14	Monitoring Plan Implementation Schedule (MPIS)	Commence installation of new monitoring well clusters MW-16, MW- 17, MW-18, MW-19, MW-20, MW-21, MW-22 and MW-23	Within 90 days from the data of permit issuance
14	Monitoring Plan Implementation Schedule (MPIS)	Notify the Department in writing if a monitoring well becomes damaged or inoperable	Within 7 days of discovery
14	Monitoring Plan Implementation Schedule (MPIS)	Submit proposed well construction design for new or replacement monitoring well design or placement	Prior to well installation
14	Monitoring Plan Implementation Schedule (MPIS)	Submit an abandonment plan for abandoning any well that is unsuitable for ground water monitoring	Prior to abandonment
14	Monitoring Plan Implementation Schedule (MPIS)	Notify the Department prior to the installation and/or sampling of any monitoring well(s)	At least fourteen (14) days prior to sampling
14	Monitoring Plan Implementation Schedule (MPIS)	Submit a drawing showing the location of all monitoring wells (active and abandoned), water bodies and waste filled areas	Within thirty (30) days following monitoring well installation
14	Monitoring Plan Implementation Schedule (MPIS)	Measure the total depth on all wells	At time of permit renewal

Specific Condition	Requirement	Action	Due date
14	Monitoring Plan Implementation Schedule (MPIS)	Submit Monitoring Reports	Within sixty (60) days of receipt of analysis from the laboratory
14	Monitoring Plan Implementation Schedule (MPIS)	Submit a ground water elevation contour map for each monitored aquifer zone	Semi-annually
14	Monitoring Plan Implementation Schedule (MPIS)	Submit a Biennial Technical Report	Every two years; the first report is due 30 days after the submittal of the monitoring data for the fourth ground water sampling event; subsequent reports are due 30 days after the submittal of the fourth sampling event following the previous biennial report
15	Construction Quality Assurance (CQA)	Follow the CQA Plan when installing and testing the liner system and related components	During liner construction
16	Liner Installation- Summary Report	Submit a Liner Installation-Summary Report, and include with the Certification in SC-23	Upon completion of liner installation work
19	Liner Installation- Department Notification	Notify the Department	At least 10 days prior to the commencement of liner installation work in any cell
22	Construction Permit Renewal (Permit expires on 01/11/2012)	Notify the Department, in writing, if construction cannot be completed before the expiration of this permit, and apply for renewal of the construction permit	At least 60 days prior to the expiration date of the construction permit (before 11/12/2011)

Specific Condition	Requirement	Action	Due date
23	Certification	Submit a Certification of Construction Completion certified by the Engineer of Record, then contact the Department to arrange for Department representatives to inspect the facility with the permittee, the engineer, and the proposed on-site facility operator.	After all significant initial construction has been completed, and prior to acceptance of any solid waste
27	Solid Waste Burning	Report to the Department fires at the facility	In accordance with the operation plan.
27	Solid Waste Burning	Submit a letter explaining the cause, remedial action, and measures to prevent recurrence of a fire incident	Within five (5) days of fire incident.
34	Leachate Collection Pipes	Clean the leachate collection pipes	Every five years
34	Leachate Collection Pipes	Clean and video-inspect the leachate collection system	More frequently than once every five years if leachate collection system fails to perform as designed
38	Control of Nuisance Conditions	Prepare and submit a written report on each warranted complaint describing the action to resolve the complaint	Within 10 days of receiving the complaint
38	Control of Nuisance Conditions	Submit an additional report if complaint has not been resolved within 10 days	No later than 10 days from the date of resolution

Specific Condition	Requirement	Action	Due date
43	Initial Cover and Intermediate Cover	Apply initial cover on the working face	At the end of each working day, unless solid waste will be placed on it within 18 hours
43	Initial Cover and Intermediate Cover	Apply intermediate cover	Within seven (7) days of cell completion if final cover or additional lift is not to be applied within 180 days of cell completion
50	Gas Monitoring	Submit Gas Monitoring Reports	Quarterly; within 30 days of receipt of data
53	Waste Report	Submit a waste report	Quarterly
55	Permit Deviations	Notify the Department of any substantial changes or revisions to the operation	Prior to executing any substantial changes or revisions to the operation
56	Operation Permit Renewal (Permit expires on 01/11/2012)	Submit an operation permit renewal application	At least 60 days prior to the expiration date of this permit (before 11/12/2011)
57	Closure Permit Requirements	Submit a closure permit application	At least 90 days prior to the date when wastes will no longer be accepted at the landfill
59	Financial Assurance, Phase 1 and Phase 2, Cell 5	Update the financial assurance mechanism	At least 60 days prior to accepting waste in Phase 2, Cell 5
60	Phased Financial Assurance - Cell 6	Apply for and receive a minor permit modification	Before solid waste is placed in Cell 6 for disposal
61	Financial Responsibility	Submit proof that the financial mechanisms are established and funded	Sixty (60) days prior to the acceptance of any solid waste at the facility

Specific Condition	Requirement	Action	Due date
62	Annual Cost Estimates and Financial Instrument Adjustments	Adjust the closure and long-term care cost estimates, and the financial assurance mechanism	Submit between January 1 and March 1 of each year; if using an escrow account submit between July 1 and September 1 of each year

# EXHIBIT I

#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

## WACS\_FACILITY: 89544

## MONITORING PLAN IMPLEMENTATION SCHEDULE (REVISED 03/01/07)

#### GENERAL

- 1. The permittee must initiate implementation of this Monitoring Plan within ninety (90) days from the date of permit issuance. [62-701.510(1)(b)&(c), 62-522.600(5), Florida Administrative Code (F.A.C.)]
- 2. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with Chapter 62-160 Florida Administrative Code (F.A.C.). Approved methods as published by the Department or as published in Standard Methods, ASTM, or EPA Methods shall be used. [62-701.510(2)(b), F.A.C.]
- 3. The organization collecting samples at this site must use the Field and Laboratory Standard Operating Procedures (DEP-SOP-001/01) in Chapter 62-160, F.A.C. Sampling personnel must have a copy of the SOP for purging and sampling in the field when sampling and must be knowledgeable of its contents, procedures, and forms. The laboratory designated to conduct the chemical analyses must be certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP). This Certification must be for the test method and analyte(s) that are reported. [62-160.210(1), 62-160.320(1), F.A.C.]

NOTE: DEP-SOP-001/01 can be accessed at: http://www.dep.state.fl.us/labs/ga/sops.htm

4. If, at any time, analyses detect parameters which are significantly above background water quality, or which are at levels above the Department's water quality standards or criteria specified in Chapter 62-520, F.A.C., in the detection wells or at the edge of the Zone of Discharge, the Permittee shall resample the wells within thirty (30) days after the sampling data are received, to confirm the data. Should the permittee choose not to resample, the Department will consider the water quality analysis as representative of current ground water conditions at the facility. If the data are confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department in writing within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring in accordance with Rule 62-701.510(7) F.A.C. [62-701.510(7)(a), F.A.C.]

#### GROUND WATER QUALITY MONITORING

5. The sixty-three (63) ground water monitoring wells designated for water quality testing are listed on **Attachment A** and are shown on **Attachment B**. The sixtynine (69) wells and piezometers for water level measurements are listed on **Attachment A** and shown on **Attachment B**. [62-701.510(3)(d)2 & 3, F.A.C.]

**NOTE:** Unless otherwise approved by the Department, wells with high turbidities must be remediated or reinstalled to reduce the turbidity value to less than 20 NTU prior to sample collection. Should any ground water sample exhibit

dissolved oxygen concentrations greater than 20% of oxygen saturation at the field measured temperature, the sampled well must be repurged then resampled as soon as an acceptable dissolved oxygen value has been attained unless it can be demonstrated that in situ ground water contains higher levels of dissolved oxygen. All water quality analyses will be performed on unfiltered samples unless approved by the Department.

- 6. Initial samples collected from ground water monitoring well clusters MW-16, MW-17, MW-18, MW-19, MW-20, MW-21, MW-22 and MW-23 shall be collected before any waste is deposited in Cells 2 and 3. The samples shall be analyzed for the list of Initial Ground Water Parameters on **Attachment D**. [62-701.510(6)(b)2, F.A.C.]
- 7. Semi-annual samples from the sixty-nine (69) ground water monitoring wells shall be collected in May and November. The samples shall be analyzed for the list of Semi-Annual Ground Water Parameters on **Attachment E**. [62-701.510(1)(a)2, 62-701.510(8)(a), F.A.C.]

Please confer with your consultant and analytical laboratory prior to sampling to ensure the analytical method is capable of achieving detection limits at or below the Ground Water Cleanup Target Levels (GCTLs) in Chapter 62-777, F.A.C. GCTLs are used as screening tools and interim guidelines for ground water minimum criteria until standards are promulgated. [62-701.510(6)(b)1 & 2, 62-701.510(6)(d) & (8)(a) & (d), F.A.C.]

8. Ground water levels in all wells, whether sampled or not, and all piezometers must be measured to the nearest 0.01 foot and reported semiannually unless required more frequently by permit condition. All water level measurements must be made within a one-day period. These measurements must be referenced to the National Geodetic Vertical Datum of 1929 (NGVD). [62-701.510(9)(a), F.A.C.]

#### SURFACE WATER MONITORING

- 9. The two (2) surface water sites included in this monitoring plan are SW-3 and SW-4. They are listed on Attachment A and shown on Attachment C. [62-701.510(4)(c), F.A.C.]
- 10. Semi-annual samples from the two (2) surface water monitoring sites shall be collected in May and November. The samples shall be analyzed for the list of Semi-Annual Surface Water Parameters on Attachment F. [62-701.510(6)(e) & (8)(b), F.A.C.]

Please confer with your consultant and analytical laboratory prior to sampling to ensure the analytical method is capable of achieving detection limits at or below the Surface Water Cleanup Target Levels (SCTLs) in Chapter 62-777, F.A.C. SCTLs are used as screening tools and interim guidelines for ground water minimum criteria until standards are promulgated.

11. Surface water elevations at sampling locations and must be measured to the nearest 0.01 foot on the same day as ground water levels in the wells and piezometers and reported semiannually unless required more frequently by permit condition. All water level measurements must be made within a one-day period. These measurements must be referenced to NGVD. [62-701.510(9)(a)8, F.A.C.]

#### LEACHATE QUALITY MONITORING

- 12. The sites designated for leachate quality testing are L-1, L-2, L-3, L-4, L-5, L-6, L-7, L-8, L-9 and L-10. The site is listed on **Attachment A** and shown on **Attachment B**. [62-701.510(5), F.A.C.]
- 13. Samples from the leachate monitoring site shall be collected annually in November. The samples shall be analyzed for the list of Annual Leachate Parameters on **Attachment G**. If the annual analysis indicates that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall initiate monthly sampling and analysis and shall notify the Department in writing. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule. [62-701.510(6)(c)1 & 2, F.A.C.]

#### MONITORING WELL REQUIREMENTS

- 14. Installation of new monitoring well clusters MW-16, MW-17, MW-18, MW-19, MW-20, MW-21, MW-22 and MW-23 shall commence within ninety (90) days from the date of permit issuance. [62-701.510(1)(b) & (c), 62-522.600(5), F.A.C.]
- 15. If a monitoring well or piezometer becomes damaged or inoperable, the Permittee shall notify the Department in writing within seven (7) days. The written report shall describe what problem has occurred and the remedial measures that have been taken to prevent a recurrence. The Department can require the replacement of inoperable monitoring wells or piezometers. [62-4.070(3), F.A.C.]
- 16. New or replacement monitoring well design or placement must be approved by the Department. Proposed well construction details based on site-specific borings must be submitted with all supporting data (grain size distribution analyses, in-situ hydraulic conductivity testing, depth to water, etc.) for Department approval prior to well installation. Use of hollow stem auger equipment is recommended. Other drilling methods must be approved by the Department prior to well installation. [62-522.600(3), F.A.C.]
- 17. All wells and piezometers shall be clearly and permanently labeled and the well site maintained so that the well is visible at all times. Protective barriers must be installed at all wells that may be subject to damage by heavy equipment or traffic. [62-701.510(3)(d)2, F.A.C.]

18. An abandonment plan for abandoning any well that is unsuitable for ground water monitoring or for any piezometer must be approved by the Department prior to abandonment. [62-701.510(3)(d)5, F.A.C.]

# **REPORTING REQUIREMENTS**

### GENERAL

- 19. The Department must be notified in writing at least fourteen (14) days prior to the installation and/or sampling of any monitoring well(s). [62-701.510(9)(a), F.A.C.]
- 20. One paper copy of Attachment H, Monitoring Well Completion Report Form, must be submitted to the Department within thirty (30) days after installation of new monitoring well clusters MW-16, MW-17, MW-18, MW-19, MW-20, MW-21, MW-22 and MW-23. <u>NOTE:</u> the top of casing elevation of each well, to an accuracy of 0.01 feet, and the latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, with an accuracy of 15 feet, must be determined and certified by a Florida Licensed Surveyor and Mapper and provided on the form. In addition, as built well construction diagrams and soil boring logs that cover the entire depth of the monitoring well(s) must be submitted to the Department. [62-701.510(3)(d)1, 62-532.410, 62-4.070(3), F.A.C.]
- 21. A drawing must be submitted within thirty (30) days following monitoring well installation showing the location of all monitoring wells (active and abandoned), water bodies and waste filled areas. The location of features on the drawing must be horizontally and vertically located by standard surveying techniques. The drawing shall include all monitoring well locations, each monitoring well name and identification (WACS) number, the top of casing, pad elevation, permanent benchmark(s) and/or corner monument marker(s) referenced to NGVD with an accuracy of 0.01 feet. The latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, with an accuracy of 15 feet, must be determined and provided on the drawing. The survey shall be conducted and certified by a Florida Licensed Surveyor and Mapper [701.510(1)(c), 62-701.510(3)(d) 1, F.A.C.]
- 22. A total depth measurement must be made on all wells at time of permit renewal. This measurement is to be reported as total apparent depth below ground surface and should be compared to the original total depth of the well. [62-701.510(1)(c), F.A.C.]

## INITIAL, ANNUAL AND SEMI-ANNUAL

23. Required monitoring reports must be submitted to the Department within sixty (60) days of receipt of analysis from the laboratory. There are two options for submitting water quality data, paper or electronic. [62-701.730(4)(b), 62-4.070(3), *F.A.C.*]

Paper Only Reporting: One (1) copy of the monitoring report shall be submitted at the required time. The report shall include documents as listed in Table 1.

Electronic Laboratory Analysis Reporting: One (1) copy of the paper portion of a monitoring report shall be submitted at the required time along with the disc containing the water quality data as listed in Table 1. The data required on the disc is listed on <u>ftp://ftp.dep.state.fl.us/pub/labs/lds/validator/validator\_fields.pdf</u>.

To decrease the need for resubmittal you may evaluate data prior to submittal at <a href="http://www.floridadep.org/labs/software/index.htm">http://www.floridadep.org/labs/software/index.htm</a>.

A sample text file may be viewed at http://www.floridadep.org/labs/software/docs/sampledata.txt

Interpretative documents such as exceedance recommendations and/or contour maps must be certified by a professional licensed in state of Florida whose expertise is related to the document.

Documents	Paper report	Electronic Report*
Sampling notification	Paper or electronic	Paper or electronic
Cover letter	Paper	Paper
Summary of exceedences and recommendations	Paper	Paper
Ground water contour maps	Paper	Paper
Survey drawings	Paper	Paper
Lab certification report form (Attachment I)	Paper	Paper
Field data sheets/sampling logs (Attachment J)	Paper	Paper
Chain of custody	Paper	Paper
Water levels -water elevation table	Paper	Paper
Total depth measurements	Paper	Paper
Lab quality control report	Paper	Paper
Lab data sheets	Paper	Not applicable**
DEP parameters report forms	Paper	Not applicable**
Lab data in Excel tab-delimited format compatible with Validator, plus the same spread sheet in pdf form	Not applicable	Electronic

#### Table 1. Reporting Requirements

\*Electronic Compact disc media readable by a Microsoft Windows computer

\*\*The tab-delimited text file on the disc replaced these documents

- 24. Water levels in all monitoring wells, whether sampled or not, all piezometers and all surface water sites must be measured to the nearest 0.01 foot and reported semi-annually unless required more frequently by permit condition. All water level measurements must be made within a one-day period. These measurements should be reported in a table that includes well or surface water point name, date water level measured, measuring point elevation referenced to NGVD, depth to water and calculated water level elevation referenced to NGVD. [62-701.510(9)(a)8, F.A.C.]
- 25. A ground water elevation contour map for each monitored aquifer zone must be submitted semi-annually to the Department. Ground water elevation contour map(s) should include monitoring well and piezometer locations, ground water elevation at each monitoring well or piezometer location referenced to NGVD, a bar scale, ground water contour interval, date of measurement and ground water

flow direction. The map(s) must incorporate adjacent and on-site surface water elevations where appropriate. These maps shall be signed and sealed pursuant to Florida Statutes (F.S.) Chapters 471 and 492 which require that documents requiring the practice of professional engineering or professional geology, as described in Chapter 471 or 492, F.S., be signed and sealed by the professional(s) who prepared or approved them. This certification must be made by a licensed professional who is able to demonstrate competence in this subject area. [62-701.510(9)(a)9, F.A.C.]

#### BIENNIAL

- 26. One copy of a technical report shall be submitted to the Department every two years, and shall be updated at the time of permit renewal. The first report is due 30 days after the submittal of the monitoring data for the fourth ground water sampling event. Subsequent reports are due 30 days after the submittal of the fourth sampling event following the previous biennial report. The report shall summarize and interpret the water quality data and water level measurements collected during the past four years. The report shall contain, at a minimum, the following:
  - a. Tabular and graphical displays of any data that shows that a monitoring parameter has been detected, including hydrographs for all monitoring wells.
  - b. Trend analyses of any monitoring parameters detected.
  - c. Comparisons among shallow, middle, and deep zone wells.
  - d. Comparison between upgradient and downgradient wells.
  - e. Correlation between related parameters such as total dissolved solids and specific conductance.
  - f. Discussion of erratic and/or poorly correlated data.
  - g. An interpretation of the ground water contour maps, including an evaluation of ground water flow rates.
  - h. An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

This report must be signed and sealed pursuant to Florida Statutes (F.S.) Chapters 471 and 492 which require that documents requiring the practice of professional engineering or professional geology, as described in Chapter 471 or 492, F.S., be signed and sealed by the professional(s) who prepared or approved them. This certification must be made by a licensed professional who is able to demonstrate competence in the subject area(s) addressed within the sealed document. [62-701.510(9)(b), F.A.C.]

# List of Attachments

2. 3. 3. 2. 4 a.

Attachment A - Well List

Attachment B – Ground Water Monitoring Wells Map

Attachment C – Surface Water Monitoring Map

Attachment D - Initial Ground Water Parameters

Attachment E - Semi-annual Ground Water Parameters

Attachment F - Semi-annual Surface Water Parameters

Attachment G – Annual Leachate Parameters

Attachment H - Monitoring Well Completion Form

Attachment I - Ground Water Monitoring Report Form

Attachment J - Water Sampling Form

# ATTACHMENT A OAK HAMMOCK DISPOSAL, CLASS I LANDFILL WACS\_FACILITY: 89544 MONITORING SITES

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MONITORING SITE_NUM	WACS_ WELL	WELL_ TYPE	ZONE/LOCATION MONITORED	GW/SW CLASS	WACS REPORT TYPE
GROUND WATER					
MW-1A	19900	PZ	UPPER SURFICIAL	<u>G-II</u>	WATER ELEV
MW-1B	<u>19901</u>	PZ	INTERMEDIATE SURIFICAL	<u>G-II</u>	WATER ELEV
MW-1C	19902	PZ	DEEP SURFICIAL	<u>G-II</u>	WATER ELEV
MW-2A	19903	BG		<u>G-II</u>	<u>SEMGW</u>
MW-2B	19904	BG	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
MW-2C	<u>19905</u>	BG	DEEP SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-3A	19906	BG	UPPER SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-3B	<u>19907</u>	BG	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
MW-3C	19908	BG	DEEP SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-4A	19909	BG	UPPER SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-4B	19910	BG	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
MW-4C	<u>19911</u>	BG	DEEP SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-5A	19912	BG	UPPER SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-5B	19913	BG	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
MW-5C	19914	BG	DEEP SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-6A	19915	PZ	UPPER SURFICIAL	<u>G-II</u>	WATER ELEV
MW-6B	<u>19916</u>	<u>PZ</u>	INTERMEDIATE SURIFICAL	<u>G-II</u>	WATER ELEV
MW-6C	19917	PZ	DEEP SURFICIAL	<u>G-II</u>	WATER ELEV
MW-7A	<u>19918</u>	DE	UPPER SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-7B	<u>19919</u>	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
MW-7C	<u>19920</u>	DE	DEEP SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-8A	19921	DE	UPPER SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-8B	19922	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
MW-8C	19923	DE	DEEP SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
<u>MW-9A</u>	19924	DE		<u>G-II</u>	SEMGW
MW-9B	19925	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
MW-9C	19926	DE	DEEP SURFICIAL	<u>G-II</u>	SEMGW
<u>MW-10A</u>	<u>19927</u>	DE	UPPER SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-10B	19928	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
MW-10C	19929	DE		<u>G-II</u>	<u>SEMGW</u> 03/01/0

# ATTACHMENT A OAK HAMMOCK DISPOSAL, CLASS I LANDFILL WACS\_FACILITY: 89544 MONITORING SITES

MONITORING SITE_NUM	WACS_ WELL	WELL_ TYPE	ZONE/LOCATION MONITORED	GW/SW CLASS	
MW-11A	19930	DE	UPPER SURFICIAL	<u>G-II</u>	SEMGW
<u>MW-11B</u>	19931	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
<u>MW-11C</u>	19932	DE	DEEP SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
<u>MW-12A</u>	<u>19933</u>	DE	UPPER SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-12B	19934	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
<u>MW-12C</u>	19935	DE	DEEP SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
<u>MW-13A</u>	19936	DE	UPPER SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
<u>MW-13B</u>	19937	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
MW-13C	19938	DE	DEEP SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
*MW-14A	19939	DE	UPPER SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
*MW-14B	19940	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
*MW-14C	19941	DE	DEEP SURFICIAL	<u>G-II</u>	SEMGW
*MW-15A	19942	_DE		<u>G-II</u>	<u>SEMGW</u>
*MW-15B	19943	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>SEMGW</u>
*MW-15C	19944	DE	DEEP SURFICIAL	<u>G-II</u>	<u>SEMGW</u>
MW-16A	22342	DE		<u>G-II</u>	INTGW/SEMGW
<u>MW-16B</u>	22343	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	INTGW/SEMGW
MW-16C	22344	DE	DEEP SURFICIAL	<u>G-II</u>	INTGW/SEMGW
<u>MW-17A</u>	22345	DE		<u>G-II</u>	INTGW/SEMGW
<u>MW-17B</u>	22346	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	INTGW/SEMGW
MW-17C	22347	DE	DEEP SURFICIAL	<u>G-II</u>	INTGW/SEMGW
MW-18A	22348	DE		<u>G-II</u>	INTGW/SEMGW
<u>MW-18B</u>	22349	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	INTGW/SEMGW
MW-18C	22350	DE		<u>G-II</u>	INTGW/SEMGW
<u>MW-19A</u>	22351	DE		<u>G-II</u>	INTGW/SEMGW
<u>MW-19B</u>	22352	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	INTGW/SEMGW
<u>MW-19C</u>	22353	DE	DEEP SURFICIAL	<u>G-II</u>	INTGW/SEMGW
<u>MW-20A</u>	22354	DE		<u>G-II</u>	INTGW/SEMGW
MW-20B	22355	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	INTGW/SEMGW
MW-20C	22356	DE	DEEP SURFICIAL	<u>G-II</u>	INTGW/SEMGW
MW-21A	22357	DE		<u>G-II</u>	INTGW/SEMGW
<u>MW-21B</u>	22358	DE	INTERMEDIATE SURIFICAL	<u>G-II</u>	<u>INTGW/SEMGW</u> 03/01/07

# ATTACHMENT A OAK HAMMOCK DISPOSAL, CLASS I LANDFILL WACS\_FACILITY: 89544 MONITORING SITES

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MONITORING SITE_NUM	WACS_ WELL	WELL_ TYPE	ZONE/LOCATION MONITORED	GW/SW CLASS	WACS REPORT TYPE
MW-21C	22359	DE	DEEP SURFICIAL	<u>G-II</u>	INTGW/SEMGW
MW-22A	22360	BG	UPPER SURFICIAL	<u>G-II</u>	INTGW/SEMGW
MW-22B	22361	BG	INTERMEDIATE SURIFICAL	<u>G-II</u>	INTGW/SEMGW
MW-22C	22362	BG	DEEP SURFICIAL	<u>G-II</u>	INTGW/SEMGW
MW-23A	22363	BG	UPPER SURFICIAL	<u>G-II</u>	INTGW/SEMGW
MW-23B	22364	BG	INTERMEDIATE SURIFICAL	<u>G-II</u>	INTGW/SEMGW
MW-23C	22365	BG	DEEP SURFICIAL	<u>G-II</u>	INTGW/SEMGW

\* To be abandoned prior to filling Cells 2 and 3

# SURFACE WATER

SW-3	19945	<u>CO</u>	DOWN STREAM ON BULL CREE	K SW-IIIF	<u>SEMSW</u>
SW-4	19946	BG	UP STREAM NW OF SITE	<u>SW-IIIF</u>	<u>SEMSW</u>

# LEACHATE

<u>L-1</u>	19947	CO	CELL 1 PRIMARY RISER	LC	<u>ANNLC</u>
<u>L-2</u>	19948	<u></u>	CELL 2 PRIMARY RISER	LC	<u>ANNLC</u>
<u>L-3</u>	19949	<u> </u>	CELL 3 PRIMARY RISER	LC	<u>ANNLC</u>
<u>L-4</u>	19950	<u> </u>	CELL 4 PRIMARY RISER	LC	<u>ANNLC</u>
<u>L-5</u>	22369	<u></u>	CELL 5 PRIMARY RISER	LC	<u>ANNLC</u>
L-6	22370	<u> </u>	CELL 6 PRIMARY RISER	LC	ANNLC
<u>L-7</u>	22371	<u> </u>	CELL 7 PRIMARY RISER	LC	ANNLC
L-8	22372	<u> </u>	CELL 8 PRIMARY RISER	LC	<u>ANNLC</u>
<u>L-9</u>	33273	<u> </u>	CELL 9 PRIMARY RISER	LC	<u>ANNLC</u>
<u>L-10</u>	22374	<u> </u>	CELL 10 PRIMARY RISER	LC	ANNLC

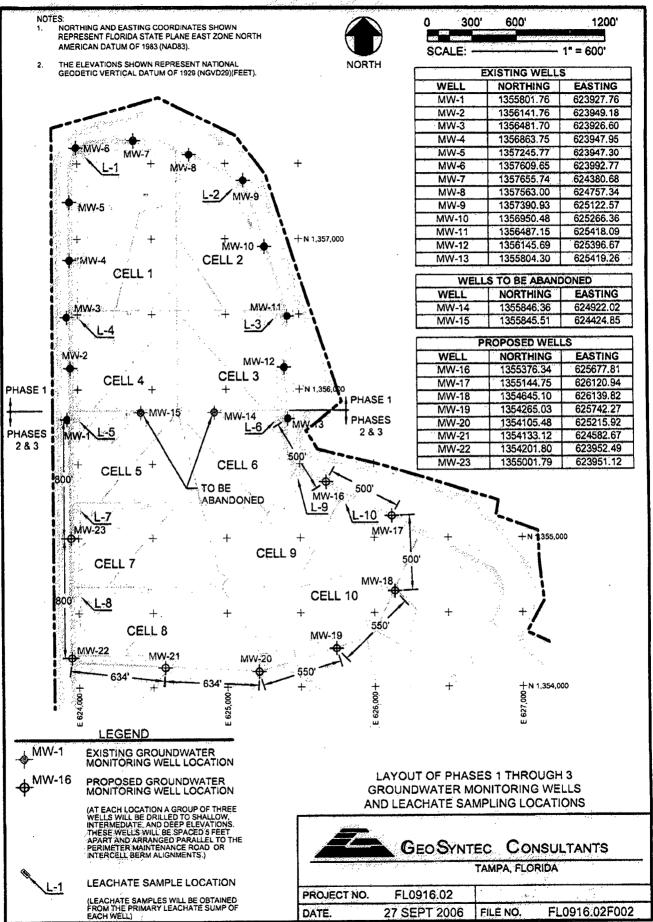
Well	Type Codes
(DG)	Downgradient
(SO)	Source

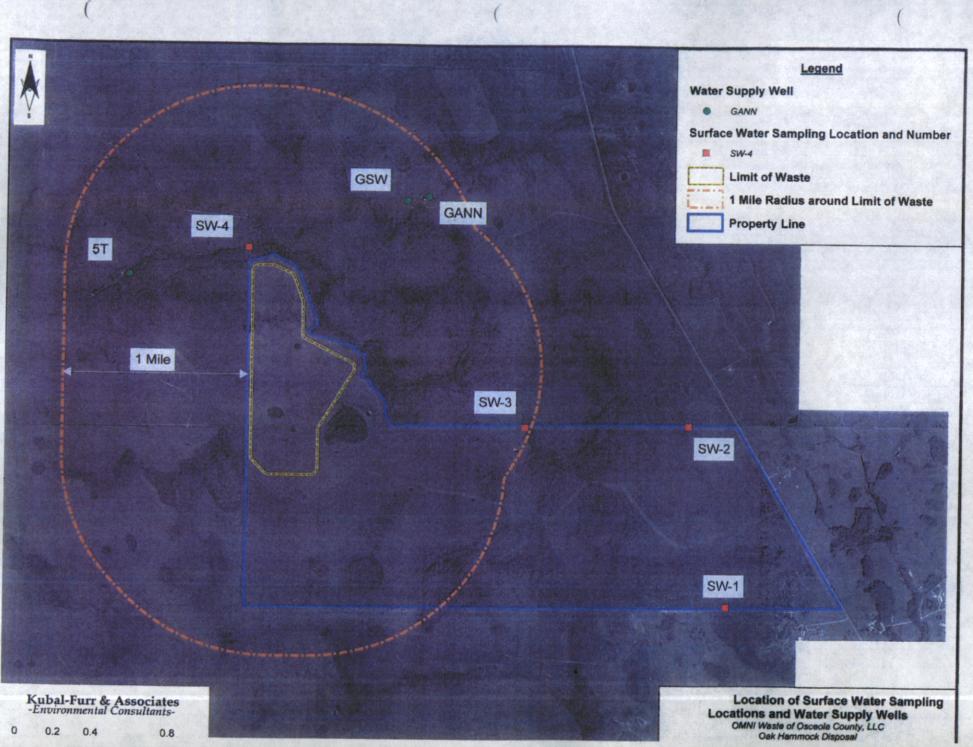
(AS) Assessment(IM) Intermediate(UP) Upgradient

(BG) Background(IW) Irrigation Well(WS) Water supply

(CO) Compliance (OT) Other

(DE) Detection (PZ)Piezometer





ATTACHMENT C

# ATTACHMENT D

# OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

# PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: INTGW Initial Ground Water Monitoring (Page 1 of 10)

WACS_	FACILITY <u>89544</u>	SAMPLING DATE/TIME								
WACS_	WELL	SAMPLING METHOD								
MONIT	ORING_SITE_NUM _	PERMITTED: (AS) Assessment (IW)Irrigation Well WELL TYPE (BG)Background (OT)Other								
Ground	water classification: G	<u> 3-11</u>	(CO) Compliance (PZ) Piezometer (DE) Detection (SO) Source							
	rged prior to Collection?(Y/N)	·			(D	G) Downgi I) Intermed	radient (UF	) Upgra	dient	
STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER	
082545	Water Elevation (NGVD)							Ft		
000010	Temperature (field)							deg C		
000299	Dissolved Oxygen (field)							Mg/L		
000406	pH (field)							STD		
000094	Spec. Conductance (field)							Umhos/cm		
082078	Turbidity (field)							NTU		
000610	Total Ammonia as N							Mg/L		
000940	Chlorides			r				Mg/L		
000720	Cyanide							Ug/L		
000620	Nitrate as N							Mg/L		
000745	Sulfide							Ug/L		
070300	Total Dissolved Solids							Mg/L		
	METALS									
001097	Antimony					•		Ug/L		
001002	Arsenic							Ug/L		
001007	Barium							Ug/L		
001012	Beryllium							Ug/L		
001027	Cadmium							Ug/L		
001034	Chromium							Ug/L		
001037	Cobalt							Ug/L		
001042	Copper							Ug/L		
001045	Iron							Ug/L		
001051	Lead							Ug/L		

Mercury

071900

Ug/L

# ATTACHMENT D

#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: INTGW Initial Ground Water Monitoring (Page 2 of 10)

WELL TYPE

WACS\_FACILITY 89544

SAMPLING DATE/TIME

WACS\_WELL \_\_\_\_\_

MONITORING\_SITE\_NUM \_\_\_\_\_

Ground water classification: <u>G-II</u>

Well Purged prior to Sample Collection? (Y/N) \_\_\_\_\_ SAMPLING METHOD

and the standard standard and standard standard standard standard standard standard standard standard standard

PERMITTED: \_\_\_ (AS) Assessment (IW) Irrigation Well

(BG) Background (OT) Other

(CO) Compliance (PZ) Piezometer

(DE) Detection (SO) Source

(DG) Downgradient (UP) Upgradient

(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
001067	Nickel							Ug/L	
001147	Selenium							Ug/L	
001077	Silver							Ug/L	
000929	Sodium							Mg/L	
001059	Thallium					•		Ug/L	
001102	Tin							Ug/L	
001087	Vanadium							Ug/L	
001092	Zinc							Ug/L	
1	ORGANICS			-					
034205	Acenaphthene							Ug/L	
034200	Acenaphthylene							Ug/L	
081552	Acetone							Ug/L	
076997	Acetonitrile; Methyl cyanide							Ug/L	
081553	Acetophenone							Ug/L	
073501	2-Acetylaminofluorene; 2-AAF							Ug/L	
034210	Acrolein							Ug/L	
034215	Acrylonitrile							Ug/L	
039330	Aldrin							Ug/L	
078109	Allyl chloride							Ug/L	
077581	4-Aminobiphenyl							Ug/L	
034220	Anthracene		,			· ·		Ug/L	
034030	Benzene							Ug/L	
034526	Benzo(a)anthracene							Ug/L	
034230	Benzo(b)fluoranthene							Ug/L	

DEP Form 62-522.900(2) Effective April 14, 1994

#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: INTGW Initial Ground Water Monitoring (Page 3 of 10)

WELL TYPE

WACS\_FACILITY 89544

SAMPLING DATE/TIME

PERMITTED: \_\_\_ (AS) Assessment (IW) Irrigation Well

WACS\_WELL \_\_\_\_\_

SAMPLING METHOD

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MONITORING\_SITE\_NUM \_\_\_\_\_

Ground water classification: G-II

Well Purged prior to Sample Collection? (Y/N) \_\_\_\_\_ (BG) Background (OT) Other
(CO) Compliance (PZ) Piezometer
(DE) Detection (SO) Source

(DG) Downgradient (UP) Upgradient

(IM) Intermediate (WS) Water supply

ivi) internediate (vv3) vvater supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
034242	Benzo(k)fluoranthene							Ug/L	
034247	Benzo(a)pyrene							Ug/L	
034521	Benzo(g,h,i)perylene							Ug/L	
077147	Benzyl alcohol							Ug/L	
039337	alpha-BHC							Ug/L	,
039338	beta-BHC							Ug/L	
046323	delta-BHC							Ug/L	
039340	gamma-BHC; Lindane							Ug/L	
034273	Bis(2-chloroethyl)ether							Ug/L	
034278	Bis(2-chloroethoxy)methane							Ug/L	
073522	Bis (2-chloro-1-methylethyl) ether							Ug/L	
039100	Bis(2-ethylhexyl)phthalate							Ug/L	
073085	Bromochloromethane							Ug/L	
032101	Bromodichloromethane							Ug/L	
032104	Bromoform							Ug/L	
034413	Bromomethane							Ug/L	
034636	4-Bromophenyl phenyl ether						1	Ug/L	
034292	Butyl benzyl phthalate							Ug/L	
07,7041	Carbon Disulfide							Ug/L	
032102	Carbon Tetrachloride							Ug/L	
039350	Chlordane							Ug/L	
073529	p-Chloroaniline							Ug/L	
034301	Chlorobenzene							Ug/L	
039460	Chlorobenzilate							Ug/L	

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#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: INTGW Initial Ground Water Monitoring (Page 4 of 10)

WACS\_FACILITY 89544

SAMPLING DATE/TIME

damage with a state

WACS_WELL	<u></u>
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SAMPLING METHOD

MONITORING\_SITE\_NUM \_\_\_\_\_

Ground water classification: G-II

Well Purged prior to Sample Collection? (Y/N) \_\_\_\_\_ PERMITTED: \_\_\_ (AS) Assessment (IW) Irrigation Well WELL TYPE (BG) Background (OT) Other

(CO) Compliance (PZ) Piezometer (DE) Detection (SO) Source

(DG) Downgradient (UP) Upgradient

(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
034452	p-chloro-m-cresol							Ug/L	
034311	Chloroethane							Ug/L	
032106	Chloroform							Ug/L	
034418	Chloromethane							Ug/L	
034581	2-Chloronaphthalene							Ug/L	
034586	2-Chlorophenol							Ug/L	
034641	4-Chloropheny phenyl ether				-			Ug/L	
081520	Chloroprene							Ug/L	
034320	Chrysene							Ug/L	
977148	m&p-Cresol							Ug/L	
077152	o-Cresol							Ug/L	
039730	2,4-D; 2,4-Dichlorophenoxyacetic acid							Ug/L	
039360	4,4-DDD							Ug/L	
039365	4,4-DDE						- -	Ug/L	
039370	4,4-DDT							Ug/L	
073540	Diallate						-	Ug/L	
034556	Dibenz(a,h)anthracene							Ug/L	
081302	Dibenzofuran							Ug/L	
032105	Dibromochloromethane							Ug/L	
049146	1,2-Dibromo-3-chloropropane							Ug/L	
077651	1,2-Dibromoethane							Ug/L	
039110	Di-n-butylphthalate							Ug/L	
034536	1,2-Dichlorobenzene							Ug/L	-

#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: INTGW Initial Ground Water Monitoring (Page 5 of 10)

\_\_\_\_\_

WACS\_FACILITY 89544

SAMPLING DATE/TIME

WACS\_WELL \_\_\_\_\_

SAMPLING METHOD

MONITORING\_SITE\_NUM \_\_\_\_\_

Ground water classification: G-II

Well Purged prior to Sample Collection? (Y/N) \_\_\_\_\_ PERMITTED: \_\_\_ (AS) Assessment (IW) Irrigation Well WELL TYPE

(BG) Background (OT) Other

(CO) Compliance (PZ) Piezometer (DE) Detection (SO) Source

(DG) Downgradient (UP) Upgradient

(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
034566	1,3-Dichlorobenzene			(,				Ug/L	
034571	1,4-Dichlorobenzene							Ug/L	
034631	3,3-Dichlorobenzidine							Ug/L	
049263	trans-1,4-Dichloro-2-butene							Ug/L	
034668	Dichlorodifluoromethane							Ug/L	
034496	1,1-Dichloroethane							Ug/L	
034531	1,2-Dichloroethane							Ug/L	
034501	1,1-Dichloroethene							Ug/L	
077093	cis-1,2-Dichloroethene							Ug/L	
034546	trans-1,2-Dichloroethene							Ug/L	
034601	2,4-Dichlorophenol							Ug/L	
077541	2,6-Dichlorophenol							Ug/L	
034541	1,2-Dichloropropane							Ug/L	
077173	1,3-Dichloropropane							Ug/L	
077170	2,2-Dichloropropane							Ug/L	
077168	1,1-Dichloropropene							Ug/L	
034704	cis-1,3-Dichloropropene							Ug/L	
034699	trans-1,3-Dichloropropene		· .					Ug/L	
039380	Dieldrin							Ug/L	
034336	Diethyl phthalate							Ug/L	
073553	Thionazin							Ug/L	
046314	Dimethoate							Ug/L	
073558	p-(Dimethylamino)azobenzene							Ug/L	
073559	7,12-Dimethylbenz(a)anthracene							Ug/L	

#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: INTGW Initial Ground Water Monitoring (Page 6 of 10)

WELL TYPE

WACS\_FACILITY <u>89544</u>

SAMPLING DATE/TIME

WACS\_WELL \_\_\_\_\_

SAMPLING METHOD

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MONITORING\_SITE\_NUM \_\_\_\_\_

Ground water classification: G-II

Well Purged prior to

Sample Collection? (Y/N)

PERMITTED: \_\_\_ (AS) Assessment (IW) Irrigation Well

(BG) Background (OT) Other

(CO) Compliance (PZ) Piezometer (DE) Detection (SO) Source

(DG) Downgradient (UP) Upgradient

(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
082213	3,3-Dimethylbenzidine							Ug/L	
034606	2,4-Dimethylphenol							<u>U</u> g/L	
034341	Dimethyl phthalate							Ug/L	
045622	m-Dinitrobenzene							Ug/L	
034657	2-Methyl-4,6-dinitrophenol							Ug/L	
034616	2,4-Dinitrophenol							Ug/L	
034611	2,4-Dinitrotoluene							Ug/L	
034626	2,6-Dinitroltoluene							Ug/L	
081287	DNBP (Dinoseb)							Ug/L	
034596	Di-n-octyl phthalate							Ug/L	
077579	Diphenylamine							Ug/L	
081888	Disulfoton							Ug/L	
034361	Endosulfan I							Ug/L	
034356	Endosulfan II							Ug/L	
034351	Endosulfan sulfate							Ug/L	
039390	Endrin							Ug/L	
034366	Endrin aldehyde							Ug/L	
034371	Ethylbenzene							Ug/L	
073570	Ethyl methacrylate							Ug/L	
073571	Ethyl methanesulfonate							Ug/L	
038462	Famphur							Ug/L	
034376	Fluoranthene							Ug/L	
034381	Fluorene							Ug/L	
039410	Heptachlor							Ug/L	

#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: INTGW Initial Ground Water Monitoring (Page 7 of 10)

WELL TYPE

WACS\_FACILITY 89544

SAMPLING DATE/TIME

WACS\_WELL \_\_\_\_\_

SAMPLING METHOD

ALL REPORT OF ALL REPORT OF

MONITORING\_SITE\_NUM \_\_\_\_\_

Ground water classification: G-II

Well Purged prior to

Sample Collection? (Y/N) \_\_\_\_\_

PERMITTED: \_\_\_\_(AS) Assessment (IW) Irrigation Well

(BG) Background (OT) Other

(CO) Compliance (PZ) Piezometer

(DE) Detection (SO) Source

(DG) Downgradient (UP) Upgradient

(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
039420	Heptachlor epoxide		<u> </u>					Ug/L	<u></u>
039700	Hexachlorobenzene							Ug/L	
034391	Hexachlorobutadiene							Ug/L	
034386	Hexachlorocyclopentadiene							Ug/L	
034396	Hexachloroethane							Ug/L	
073576	Hexachloropropene							Ug/L	
034403	Indeno (1,2,3-c,d) pyrene							Ug/L	
077424	lodomethane							Ug/L	
077033	Isobutyl alcohol							Ug/L	
039430	Isodrin							Ug/L	
034408	Isophorone							Ug/L	
073582	Isosafrole							Ug/L	
081281	Kepone							Ug/L	
081593	Methacrylonitrile							Ug/L	
073589	Methapyrilene						•	Ug/L	
039480	Methoxychlor							Ug/L	
077103	Methyl butyl ketone							Ug/L	
073591	3-Methylcholanthrene							Ug/L	
081595	Methyl ethyl ketone							Ug/L	
081597	Methyl methacrylate							Ug/L	
073595	Methyl methanesulfonate							Ug/L	
077416	2-Methylnaphthalene							Ug/L	
039600	Methyl Parathion							Ug/L	
077596	Methylene Bromide							Ug/L	

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## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: INTGW Initial Ground Water Monitoring (Page 8 of 10)

WACS_FACILITY <u>89544</u>	SAMPLING DATE/TIME							
WACS_WELL	SAMPLING METHOD							
MONITORING_SITE_NUM		(AS) Assessment	· / •					
Ground water classification: <u>G-II</u>	WELL TYPE	(BG) Background ( (CO) Compliance (	(PZ) Piezor					
Well Purged prior to Sample Collection? (Y/N)		(DE) Detection ( (DG) Downgradient ( (IM) Intermediate	(UP) Upgra					

STORET CODE	PARAMETER	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
034423	Methylene Chloride							Ug/L	
081596	Methyl isobutyl ketone							Ug/L	
034696	Naphthalene							Ug/L	
073599	1,4-Naphthoquinone							Ug/L	
073600	1-Naphthylamine							Ug/L	
073601	2-Naphthylamine							Ug/L	
078142	o-Nitroaniline							Ug/L	
078300	m-Nitroaniline							Ug/L	
030342	p-Nitroaniline							Ug/L	-
034447	Nitrobenzene							Ug/L	
034591	2-Nitrophenol							Ug/L	
034646	4-Nitrophenol							Ug/L	
073609	N-Nitrosodi-n-butylamine							Ug/L	
073611	N-Nitrosodiethylamine							Ug/L	
034438	N-Nitrosodimethylamine							Ug/L	
034428	N-Nitrosodipropylamine							Ug/L	
034433	N-Nitrosodiphenylamine							Ug/L	
073613	N-Nitrosomethylethalamine							Ug/L	
073619	N-Nitrosopiperidine							Ug/L	
078206	N-Nitrosopyrrolidine							Ug/L	
073622	5-Nitro-o-toluidine							Úg/L	
039540	Parathion							Ug/L	
077793	Pentachlorobenzene							Ug/L	
081316	Pentachloronitrobenzene							Ug/L	

DEP Form 62-522.900(2) Effective April 14, 1994

(IW) Irrigation Well

(PZ) Piezometer (SO) Source (UP) Upgradient (WS) Water supply

2991-972 2 

#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: INTGW Initial Ground Water Monitoring (Page 9 of 10)

WELL TYPE

WACS\_FACILITY <u>89544</u>

SAMPLING DATE/TIME

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WACS\_WELL \_\_\_\_\_

SAMPLING METHOD

MONITORING\_SITE\_NUM \_\_\_\_\_

Ground water classification: G-II

Well Purged prior to

Sample Collection? (Y/N) \_\_\_\_\_

PERMITTED: \_\_\_ (AS) Assessment (IW) Irrigation Well

(BG) Background (OT) Other

(CO) Compliance (PZ) Piezometer (DE) Detection (SO) Source

(DG) Downgradient (UP) Upgradient

(IM) Intermediate (WS) Water supply

STORET CODE	PARAMÉTER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
039032	Pentachiorophenol			<b>\</b>				Ug/L	
073626	Phenacetin							Ug/L	
034461	Phenanthrene							Ug/L	
034694	Phenol							Ug/L	
073628	p-Phenylenediamine							Ug/L	
046313	Phorate							Ug/L	
039516	Polychlorinated biphenyls							Ug/L	
039080	Pronamide							Ug/L	
077007	Propionitrile							Ug/L	
034469	Pyrene							Ug/L	
077545	Safrole							Ug/L	
039760	Silvex; 2,4,5-TP							Ug/L	•
077128	Styrene							Ug/L	
039740	2,4,5-Trichlorophenoxyacetic acid							Ug/L	
077734	1,2,4,5-Tetrachlorobenzene							Ug/L	
077562	1,1,1,2-Tetrachloroethane							Ug/L	
034516	1,1,2,2-Tetrachloroethane							Ug/L	
034475	Tetrachioroethene							Ug/L	
077770	2,3,4,6-Tetrachlorophenol							Ug/L	
034010	· Toluene							Ug/L	
077142	o-Toluidine							Ug/L	
039400	Toxaphene							Ug/L	
034551	1,2,4-Trichlorobenzene							Ug/L	
034506	1,1,1-Trichloroethane							Ug/L	
	L								



#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: INTGW Initial Ground Water Monitoring (Page 10 of 10)

WACS\_FACILITY 89544

SAMPLING DATE/TIME

WACS\_WELL \_\_\_\_\_

SAMPLING METHOD

MONITORING\_SITE\_NUM \_\_\_\_\_

Ground water classification: G-II

Well Purged prior to Sample Collection? (Y/N) \_\_\_\_\_ PERMITTED: \_\_\_\_(AS) Assessment (IW) Irrigation Well WELL TYPE (BG) Background (OT) Other

(CO) Compliance (PZ) Piezometer (DE) Detection (SO) Source

(DG) Downgradient (UP) Upgradient

(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
034511	1,1,2-Trichloroethane		·····					Ug/L	
039180	Trichloroethene							Ug/L	
034488	Trichlorofluoromethane							Ug/L	
077687	2,4,5-Trichlorophenol							Ug/L	
034621	2,4,6-Trichlorophenol					-		Ug/L	
077443	1,2,3-Trichloropropane					i.		Ug/L	
073652	0,0,0-Triethyl phosphorothioate							Ug/L	
073653	sym-Trinitrobenzene							Ug/L	
077057	Vinyl Acetate							Ug/L	
039175	Vinyl Chloride							Ug/L	
034020	Xylenes							Ug/L	

## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

## PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: SEMGW Semi-annual Ground Water Monitoring (Page 1 of 4)

WACS_	FACILITY <u>89544</u>		SAMPLING DATE/TIME								
WACS_	WELL			SA	MPLING M	IETHOD _					
MONIT	ORING_SITE_NUM _				ED:(A				on Well		
Ground	water classification: <u>G</u>	<u> 3-11</u>		WELL TYPE (BG) Background (OT) Other (CO) Compliance (PZ) Piezometer (DE) Detection (SO) Source							
	rged prior to Collection?(Y/N)	<u></u> .			(D	G) Downg 1) Intermed	radient (UF	) Upgra	dient		
STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER		
082545	Water Elevation (NGVD)							Ft			
.000010	Temperature (field)				1			deg C			
000299	Dissolved Oxygen (field)							Mg/L			
000406	pH (field)							STD			
000094	Spec. Conductance (field)						1	Umhos/cm			
082078	Turbidity (field)							NTU			
000610	Total Ammonia as N							Mg/L			
000940	Chlorides							Mg/L			
000620	Nitrate as N							Mg/L			
070300	Total Dissolved Solids							Mg/L			
	METALS										
001097	Antimony							Ug/L	-		
001002	Arsenic							Ug/L			
001007	Barium							Ug/L			
001012	Beryllium						,	Ug/L			
001027	Cadmium							Ug/L			
001034	Chromium							Úg/L			
001037	Cobalt							Ug/L			
001042	Copper							Ug/L			
001045	Iron			· ·				Ug/L			
001051	Lead							Ug/L			

Mercury

Nickel

Selenium

071900

001067

001147

Ug/L

Ug/L

Ug/L

#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: SEMGW Semi-annual Ground Water Monitoring (Page 2 of 4)

WACS\_FACILITY 89544 SAMPLING DATE/TIME SAMPLING METHOD WACS WELL PERMITTED: \_\_\_ (AS) Assessment (IW) Irrigation Well MONITORING\_SITE\_NUM \_\_\_\_\_ WELL TYPE (BG) Background (OT) Other (PZ) Piezometer Ground water classification: G-II (CO) Compliance (DE) Detection (SO) Source Well Purged prior to (DG) Downgradient (UP) Upgradient Sample Collection? (Y/N) \_ (IM) Intermediate (WS) Water supply FIELD PRESERV. STORET ANALYSIS ANALYSIS PARAMETER ANALYSIS DETECTION UNITS FILTERED INTACT QUALIFIER CODE MONITORED DATE METHOD RESULT LIMIT (/N) (Y/n) 001077 Silver Ug/L 000929 Sodium Mg/L 001059 Thallium Ug/L 001087 Vanadium Ug/L 001092 Zinc Ug/L ORGANICS 081552 Acetone Ug/L 034215 Acrylonitrile Ug/L 034030 Benzene Ug/L 073085 Bromochloromethane Ug/L 032101 Bromodichloromethane Ug/L 032104 Bromoform Ug/L 034413 Bromomethane Ug/L 077041 Carbon Disulfide Ug/L Carbon Tetrachloride 032102 Ug/L 034301 Chlorobenzene Ug/L 034311 Chloroethane Ug/L 032106 Chloroform Ug/L 034418 Chloromethane Ug/L 032105 Dibromochloromethane Ug/L 038437 1,2-Dibromo-3-chloropropane Ug/L

DEP Form 62-522.900(2) Effective April 14, 1994

1,2-Dibromoethane

1.2-Dichlorobenzene

1,4-Dichlorobenzene

077651

034536

034571

Ug/L

Ug/L

Ug/L

....

## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: SEMGW Semi-annual Ground Water Monitoring (Page 3 of 4)

					_ SAMPLING DATE/TIME							
WACS	_WELL			SA	MPLING M	ETHOD _			····· <b>·</b>			
MONIT	ORING_SITE_NUM				· · ·	S) Assess		/) Irrigatio	on Well			
Ground	d water classification: <u>G</u>	<u>i-  </u>		WELL TYPE (BG) Background (OT) Other (CO) Compliance (PZ) Piezometer (DE) Detection (SO) Source								
	urged prior to e Collection?(Y/N)			(DG) Downgradient (UP) Upgrad (IM) Intermediate (WS) Water								
STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER			
0,49263	trans-1,4-Dichloro-2-butene							Ug/L				
034496	1,1-Dichloroethane			-				Ug/L				
034531	1,2-Dichloroethane							Ug/L				
034501	1,1-Dichloroethene							Ug/L				
077093	cis-1,2-Dichloroethene							Ug/L				
034546	trans-1,2-Dichloroethene							Ug/L				
034541	1,2-Dichloropropane							Ug/L				
034704	cis-1,3-Dichloropropene							Ug/L				
034699	trans-1,3-Dichloropropene							Ug/L				
034371	Ethylbenzene							Ug/L				
077424	lodomethane		:					Ug/L				
077103	Methyl butyl ketone							Ug/L				
081595	Methyl ethyl ketone							Ug/L				
077596	Methylene Bromide							Ug/L				
034423	Methylene Chloride							Ug/L				
081596	Methyl isobutyl ketone							Ug/L				
077128	Styrene							Ug/L				
077562	1,1,1,2-Tetrachloroethane							Ug/L				
034516	1,1,2,2-Tetrachloroethane			a.				Ug/L				

Tetrachloroethene

Toluene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichloroethene

034475

034010

034506

034511

039180

Ug/L

Ug/L

Ug/L

Ug/L

Ug/L

## 

## ATTACHMENT E

## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

## PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: SEMGW Semi-annual Ground Water Monitoring (Page 4 of 4)

WACS_	FACILITY <u>89544</u>			SA	MPLING D	ATE/TIME			
WACS	_WELL		<u> </u>	SA	MPLING M	ETHOD _			
Ground Well Pu	ORING_SITE_NUM water classification: <u>G</u> irged prior to Collection? (Y/N)		PERMITTED:(AS) Assessment (IW) Irrigation Well WELL TYPE (BG) Background (OT) Other (CO) Compliance (PZ) Piezometer (DE) Detection (SO) Source (DG) Downgradient (UP) Upgradient (IM) Intermediate (WS) Water suppl						
STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
034488	Trichlorofluoromethane							Ug/L	
077443	1,2,3-Trichloropropane							Ug/L	
077057	Vinyl Acetate							Ug/L	
039175	Vinyl Chloride							Ug/L	
034020	Xylenes							Ug/L	

					- 3/-	1	
039175	Vinyl Chloride				Ug/L		
034020	Xylenes				Ug/L		
					Ĵ.		I
			-				1
							1
							1
L			 i				

## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: SEMSW Semi-annual Surface Water Monitoring (Page 1 of 4)

WELL TYPE

WACS\_FACILITY 89544

SAMPLING DATE/TIME

WACS\_WELL

SAMPLING METHOD

MONITORING\_SITE\_NUM \_\_\_\_\_

Ground water classification: G-II

Well Purged prior to Sample Collection? (Y/N) \_\_\_\_\_ PERMITTED: \_\_\_ (AS) Assessment (IW) Irrigation Well

(BG) Background (OT) Other (CO) Compliance (PZ) Piezometer

(DE) Detection (SO) Source

(DG) Downgradient (UP) Upgradient

(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
082545	Water Elevation (NGVD)							Ft	
000010	Temperature (field)							deg C	
000299	Dissolved Oxygen (field)							Mg/L	
000406	pH (field)							STD	
000094	Spec. Conductance (field)							Umhos/cm	
082078	Turbidity (field)							NTU	
000612	Un-ionized Ammonia as N							Mg/L	
000900	Total Hardness as CaCO3							Mg/L	
000680	Total Organic Carbon							Mg/L	
070300	Total Dissolved Solids							Mg/L	
000530	Total Suspended Solids							Mg/L	
000310	BOD (5 Day) @ 20 <sup>O</sup> C							Mg/L	
000340	Chemical Oxygen Demand							Mg/L	
000600	Total Nitrogen as N							Mg/L	
000620	Nitrate as N						2	Mg/L	
000650	Total Phosphates as PO₄							Mg/L	
032211	Chlorophyll A							Ug/L	
031616	Fecal coliform							#/100 mL	
	METALS								
001097	Antimony							Ug/L	
001002	• Arsenic							Ug/L	
001007	Barium							Ug/L	
001012	Beryllium							Ug/L	
001027								Ug/L	

## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: SEMSW Semi-annual Surface Water Monitoring (Page 2 of 4)

WACS\_FACILITY 89544

SAMPLING DATE/TIME

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WACS_	_WELL			SA		IETHOD _	-		<u> </u>
MONIT	ORING_SITE_NUM				(	S) Assess	· ·	/) Irrigati	on Well
Ground	water classification:	<u>G-II</u>		WELL TYP	) (C	G) Backgro O) Compli E) Detectio	ance (PZ	) Other 2) Piezon 0) Source	
	rged prior to Collection?(Y/N)_				(D	G) Downg () Interme	radient (UF		dient
STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
001034	Chromium							Ug/L	
001037	Cobalt							Ug/L	
004040				1 .		1			

	001034	Chromium				Ug/L	1
	001037	Cobalt				Ug/L	
	001042	Copper				Ug/L	
	001045	Iron				Ug/L	
C	001051	Lead				Ug/L	
C	071900	Mercury				Ug/L	
0	001067	Nickel				Ug/L	
0	001147	Selenium				Ug/L	
0	001077	Silver			:	Ug/L	
0	001059	Thallium				Ug/L	
0	001087	Vanadium				Ug/L	
0	01092	Zinc				Ug/L	
		ORGANICS					
0	081552	Acetone				Ug/L	
0	34215	Acrylonitrile				Ug/L	
0	034030	Benzene				Ug/L	
0	073085	Bromochloromethane				Ug/L	
0	032101	Bromodichloromethane				Ug/L	
0	32104	Bromoform				Ug/L	
0	34413	Bromomethane				Ug/L	
0	)77041	Carbon Disulfide				Ug/L	
0	32102	Carbon Tetrachloride				Ug/L	
C	34301	Chlorobenzene				Ug/L	
C	34311	Chloroethane				Ug/L	

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## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

## PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: SEMSW Semi-annual Surface Water Monitoring (Page 3 of 4)

WACS_FACILITY <u>89544</u>	SAMPLING DATE/TIME
WACS_WELL	SAMPLING METHOD
MONITORING_SITE_NUM	PERMITTED: (AS) Assessment (IW) Irrigation Well WELL TYPE (BG) Background (OT) Other
Ground water classification: <u>G-II</u>	WELL TYPE (BG) Background (OT) Other (CO) Compliance (PZ) Piezometer (DE) Detection (SO) Source
Well Purged prior to Sample Collection? (Y/N)	(DC) Detection (SC) Source (DC) Downgradient (UP) Upgradient (IM) Intermediate (WS) Water supply

•									
STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
032106	Chloroform							Ug/L	
034418	Chloromethane							Ug/L	
032105	Dibromochloromethane						1	Ug/L	
038437	1,2-Dibromo-3- chloropropane							Ug/L	
046369	1,2-Dibromoethane							Ug/L	
034536	1,2-Dichlorobenzene							Ug/L	
034571	1,4-Dichlorobenzene							Ug/L	
049263	trans-1,4-Dichloro-2-butene							Ug/L	
034496	1,1-Dichloroethane							Ug/L	
034531	1,2-Dichloroethane							Ug/L	
034501	1,1-Dichloroethene							Ug/L	
077093	cis-1,2-Dichloroethene							Ug/L	
034546	trans-1,2-Dichloroethene							Ug/L	
034541	1,2-Dichloropropane							Ug/L	
034704	cis-1,3-Dichloropropene							Ug/L	
034699	trans-1,3-Dichloropropene							Ug/L	
034371	Ethylbenzene							Ug/L	
077424	lodomethane					-		Ug/L	
077103	Methyl butyl ketone							Ug/L	
081595	Methyl ethyl ketone							Ug/L	
077596	Methylene bromide							Ug/L	
034423	Methylene chloride							Ug/L	
081596	Methyl isobutyl ketone							Ug/L	

#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: SEMSW Semi-annual Surface Water Monitoring (Page 4 of 4)

WACS FACILITY	89544	
—		_

SAMPLING DATE/TIME

WACS\_WELL \_\_\_\_\_

MONITORING\_SITE\_NUM \_\_\_\_\_

Ground water classification: G-II

Well Purged prior to

Sample Collection? (Y/N) \_\_\_\_\_

SAMPL	ING	METHOD	

PERMITTED: \_\_\_\_(AS) Assessment (IW) Irrigation Well WELL TYPE (BG) Background (OT) Other

(BG) Background (OT) Other (CO) Compliance (PZ) Piezometer

(DE) Detection (SO) Source

(DG) Downgradient (UP) Upgradient

(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
077128	Styrene							Ug/L	
077562	1,1,1,2-Tetrachloroethane							Ug/L	
034516	1,1,2,2-Tetrachloroethane							Ug/L	
034475	Tetrachloroethene							Ug/L	
034010	Toluene							Ug/L	
034506	1,1,1-Trichloroethane							Ug/L	
034511	1,1,2-Trichloroethane							Ug/L	
039180	Trichloroethene							Ug/L	
034488	Trichlorofluoromethane			-				Ug/L	
077443	1,2,3-Trichloropropane							Ug/L	
077057	Vinyl Acetate							Ug/L	
039175	Vinyl Chloride							Ug/L	
034020	Xylenes							Ug/L	
	•								



## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: ANNLC Annual Leachate Monitoring (Page 1 of 9)

WACS\_FACILITY 89544

SAMPLING DATE/TIME \_\_\_\_\_

WACS\_WELL \_\_\_\_\_

SAMPLING METHOD \_\_\_\_\_

MONITORING\_SITE\_NUM \_\_\_\_\_

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
000010	Temperature (field)			(1717)				deg C	
000299	Dissolved Oxygen (field)							Mg/L	
000406	pH (field)							STD	
000094	Spec. Conductance (field)							Umhos/cm	
000610	Total Ammonia as N							Mg/L	
000940	Chlorides							Mg/L	
000620	Nitrate as N							Mg/L	
070300	Total Dissolved Solids							Mg/L	
000440	Bicarbonate							Mg/L	
000720	Cyanide							Ug/L	
000745	Sulfide							Ug/L	
	METALS								
001097	Antimony			-				Ug/L	
001002	Arsenic							Ug/L	
001007	Barium							Ug/L	
001012	Beryllium							Ug/L	
001027	Cadmium							Ug/L	
001034	Chromium							Ug/L	1
001037	Cobalt							Ug/L	
001042	Copper							Ug/L	
001045	Iron							Ug/L	
001051	Lead							Ug/L	
071900	Mercury							Ug/L	
001067	Nickel							Ug/L	
001147	Selenium							Ug/L	
001077	Silver							Ug/L	
000929	Sodium							Mg/L	
001059	Thallium							Ug/L	



## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: ANNLC Annual Leachate Monitoring (Page 2 of 9)

WACS\_FACILITY 89544

SAMPLING DATE/TIME

WACS\_WELL \_\_\_\_\_

SAMPLING METHOD

MONITORING\_SITE\_NUM

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
001102	Tin							Ug/L	
001087	Vanadium							Ug/L	
001092	Zinc		i .					Ug/L	
	ORGANICS								
034205	Acenaphthene							Ug/L	
034200	Acenaphthylene							Ug/L	
081552	Acetone							Ug/L	
076997	Acetonitrile; Methyl cyanide							Ug/L	
081553	Acetophenone							Ug/L	
073501	2-Acetylaminofluorene; 2-AAF							Ug/L	
034210	Acrolein	:						Ug/L	
034215	Acrylonitrile							Ug/L	
039330	Aldrin							Ug/L	
078109	Allyl chloride							Ug/L	
077581	4-Aminobiphenyl							Ug/L	
034220	Anthracene							Ug/L	
034030	Benzene							Ug/L	
034526	Benzo(a)anthracene							Ug/L	
034230	Benzo(b)fluoranthene							Ug/L	
034242	Benzo(k)fluoranthene							Ug/L	
034247	Benzo(a)pyrene							Ug/L	
034521	Benzo(g,h,i)perylene							Ug/L	
077147	Benzyl alcohol							Ug/L	
039337	alpha-BHC					,		Ug/L	
039338	beta-BHC							Ug/L	
046323	delta-BHC							Ug/L	
039340	gamma-BHC; Lindane							Ug/L	
034273	Bis(2-chloroethyl)ether							Ug/L	

## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: ANNLC Annual Leachate Monitoring (Page 3 of 9)

WACS\_FACILITY 89544

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SAMPLING METHOD

MONITORING\_SITE\_NUM \_\_\_\_\_

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
034278	Bis(2-chloroethoxy)methane							Ug/L	
073522	Bis (2-chloro-1-methylethyl) ether							Ug/L	
039100	Bis(2-ethylhexyl)phthalate							Ug/L	
073085	Bromochloromethane							Ug/L	
032101	Bromodichloromethane							Ug/L	
032104	Bromoform							Ug/L	
034413	Bromomethane							Ug/L	
034636	4-Bromophenyl phenyl ether					-		Ug/L	
034292	Butyl benzyl phthalate							Ug/L	•
077041	Carbon Disulfide							Ug/L	
032102	Carbon Tetrachloride				1 2			Ug/L	
039350	Chlordane				- 			Ug/L	
073529	p-Chloroaniline							Ug/L	
034301	Chlorobenzene							Ug/L	
039460	Chlorobenzilate							Ug/L	
034452	p-chloro-m-cresol		,					Ug/L	
034311	Chloroethane							Ug/L	
032106	Chloroform							Ug/L	
034418	Chloromethane								
034581	2-Chloronaphthalene							Ug/L	
034586	2-Chlorophenol							Ug/L	
034641	4-Chloropheny phenyl ether							Ug/L	
081520	Chloroprene							Ug/L	
034320	Chrysene							Ug/L	
977148	m&p-Cresols							Ug/L	
077152	o-Cresol							Ug/L	
039730	2,4-D; 2,4-Dichlorophenoxyacetic acid							Ug/L	

## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: ANNLC Annual Leachate Monitoring (Page 4 of 9)

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MONITORING\_SITE\_NUM \_\_\_\_\_

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
039360	4,4-DDD		(,	<u></u>				Ug/L	
039365	4,4-DDE							Ug/L	
039370	4,4-DDT			ı				Ug/L	
073540	Diallate							Ug/L	
034556	Dibenz(a,h)anthracene							Ug/L	
081302	Dibenzofuran							Ug/L	
032105	Dibromochloromethane							Ug/L	
049146	1,2-Dibromo-3-chloropropane							Ug/L	
077651	1,2-Dibromoethane							Ug/L	
039110	Di-n-butylphthalate							Ug/L	
034536	1,2-Dichlorobenzene							Ug/L	
034566	1,3-Dichlorobenzene							Ug/L	
034571	1,4-Dichlorobenzene							Ug/L	
034631	3,3-Dichlorobenzidine							Ug/L	
049263	trans-1,4-Dichloro-2-butene							Ug/L	
034668	Dichlorodifluoromethane							Ug/L	
034496	1,1-Dichloroethane							Ug/L	
034531	1,2-Dichloroethane							Ug/L	
034501	1,1-Dichloroethene							Ug/L	
077093	cis-1,2-Dichloroethene							Ug/L	
034546	trans-1,2-Dichloroethene							Ug/L	
034601	2,4-Dichlorophenol							Ug/L	
077541	2,6-Dichlorophenol							Ug/L	
034541	1,2-Dichloropropane							Ug/L	
077173	1,3-Dichloropropane							Ug/L	
077170	2,2-Dichloropropane							Ug/L	
077168	1,1-Dichloropropene							Ug/L	
034704	cis-1,3-Dichloropropene							Ug/L	

DEP Form 62-522.900(2) Effective April 14, 1994

#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: ANNLC Annual Leachate Monitoring (Page 5 of 9)

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MONITORING\_SITE\_NUM \_\_\_\_\_

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
034699	trans-1,3-Dichloropropene							Ug/L	
039380	Dieldrin							Ug/L	
034336	Diethyl phthalate							Ug/L	
073553	Thionazin							Ug/L	
046314	Dimethoate							Ug/L	
073558	p-(Dimethylamino)azobenzene							Ug/L	
073559	7,12-Dimethylbenz(a)anthracene							Ùg/L	
082213	3,3-Dimethylbenzidine							Ug/L	
034606	2,4-Dimethylphenol							Ug/L	
034341	Dimethyl phthalate							Ug/L	
045622	m-Dinitrobenzene							Ug/L	
034657	2-Methyl-4,6-dinitrophenol							Ug/L	
034616	2,4-Dinitrophenol				•			Ug/L	
034611	2,4-Dinitrotoluene							Ug/L	
034626	2,6-Dinitroltoluene							Ug/L	
081287	DNBP (Dinoseb)			:				Ug/L	
034596	Di-n-octyl phthalate							Ug/L	
077579	Diphenylamine							Ug/L	
081888	Disulfoton				·			Ug/L	
034361	Endosulfan I							Ug/L	
034356	Endosulfan II							Ug/L	
034351	Endosulfan sulfate							Ug/L	
039390	Endrin							Ug/L	
034366	Endrin aldehyde							Úg/L	
034371	Ethylbenzene							Ug/L	
073570	Ethyl methacrylate							Ug/L	
073571	Ethyl methanesulfonate				•			Ug/L	

## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: ANNLC Annual Leachate Monitoring (Page 6 of 9)

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MONITORING\_SITE\_NUM \_\_\_\_\_

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
038462	Famphur							Ug/L	
034376	Fluoranthene							Ug/L	
034381	Fluorene							Ug/L	
039410	Heptachlor							Ug/L	
039420	Heptachlor epoxide							Ug/L	
039700	Hexachiorobenzene							Ug/L	
034391	Hexachlorobutadiene							Ug/L	
034386	Hexachlorocyclopentadiene							Ug/L	
034396	Hexachloroethane				•			Ug/L	
073576	Hexachloropropene							Ug/L	
034403	Indeno (1,2,3-c,d) pyrene							Ug/L	
077424	lodomethane							Ug/L	
077033	Isobutyl alcohol							Ug/L	
039430	Isodrin							Ug/L	
034408	Isophorone							Ug/L .	
073582	Isosafrole							Ug/L	
081281	Kepone							Ug/L	
081593	Methacrylonitrile							Ug/L	
073589	Methapyrilene							Ug/L	
039480	Methoxychlor							Ug/L	
077103	Methyl butyl ketone							Ug/L	
073591	3-Methylcholanthrene							Ug/L	
081595	Methyl ethyl ketone							Ug/L	
081597	Methyl methacrylate							Ug/L	
073595	Methyl methanesulfonate							Ug/L	
077416	2-Methylnaphthalene							Ug/L	
039600	Methyl Parathion							Ug/L	
077596	Methylene Bromide							Ug/L	



#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: ANNLC Annual Leachate Monitoring (Page 7 of 9)

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MONITORING\_SITE\_NUM \_\_\_\_\_

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
034423	Methylene Chloride							Ug/L	
081596	Methyl isobutyl ketone							Ug/L	
034696	Naphthalene							Ug/L	
073599	1,4-Naphthoquinone							Ug/L	
073600	1-Naphthylamine							Ug/L	
073601	2-Naphthylamine							Ug/L	
078142	o-Nitroaniline							Ug/L	
078300	m-Nitroaniline				·			Ug/L	
030342	p-Nitroaniline							Ug/L	
034447	Nitrobenzene							Ug/L	
034591	2-Nitrophenol							Ug/L	
034646	4-Nitrophenol							Ug/L	
073609	N-Nitrosodi-n-butylamine	-						Ug/L	
073611	N-Nitrosodiethylamine							Ug/L	
034438	N-Nitrosodimethylamine							Ug/L	
· 034428	N-Nitrosodipropylamine							Ug/L	
034433	N-Nitrosodiphenylamine							Ug/L	
073613	N-Nitrosomethylethalamine							Ug/L	
073619	N-Nitrosopiperidine							Ug/L	
078206	N-Nitrosopyrrolidine							Ug/L	
073622	5-Nitro-o-toluidine							Ug/L	
039540	· Parathion							Ug/L	
077793	Pentachlorobenzene							Ug/L	
081316	Pentachloronitrobenzene							Ug/L	
039032	Pentachlorophenol							Ug/L	
073626	Phenacetin							Ug/L	
034461	Phenanthrene						· .	Ug/L	

## OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: ANNLC Annual Leachate Monitoring (Page 8 of 9)

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MONITORING\_SITE\_NUM \_\_\_\_\_

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
034694	Phenol		<u></u>					Ug/L	
073628	p-Phenylenediamine							Ug/L	
046313	Phorate							Ug/L	
039516	Polychlorinated biphenyls							Ug/L	
039080	Pronamide							Ug/L	
077007	Propionitrile							Ug/L	
034469	Pyrene							Ug/L	
077545	Safrole							Ug/L	
039760	Silvex; 2,4,5-TP							Ug/L	
077128	Styrene					-		Ug/L	
039740	2,4,5-Trichlorophenoxyacetic acid							Ug/L	
077734	1,2,4,5-Tetrachlorobenzene							Ug/L	
077562	1,1,1,2-Tetrachloroethane							Ug/L	
034516	1,1,2,2-Tetrachloroethane							Ug/L	
034475	Tetrachloroethene							Ug/L	
077770	2,3,4,6-Tetrachlorophenol							Ug/L	
034010	Toluene							Ug/L	
077142	o-Toluidine							Ug/L	
039400	Toxaphene							Ug/L	
034551	1,2,4-Trichlorobenzene							Ug/L	
034506	1,1,1-Trichloroethane							Ug/L	
034511	1,1,2-Trichloroethane							Ug/L	
039180	Trichloroethene							Ug/L	
034488	Trichlorofluoromethane							Ug/L	
077687	2,4,5-Trichlorophenol							Ug/L	
034621	2,4,6-Trichlorophenol							Ug/L	
077443	1,2,3-Trichloropropane							Ug/L	
073652	. 0,0,0-Triethyl phosphorothioate							Ug/L	



#### OAK HAMMOCK DISPOSAL, CLASS I LANDFILL

#### PARAMETER MONITORING REPORT Rule 62-701.510(8)(c)&(d) WACS Report Type: ANNLC Annual Leachate Monitoring (Page 9 of 9)

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SAMPLING METHOD

MONITORING\_SITE\_NUM \_\_\_\_\_

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (/N)	PRESERV. INTACT (Y/n)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
073653	sym-Trinitrobenzene							Ug/L	
077057	Vinyl Acetate							Ug/L	
039175	Vinyl Chloride						-	Ug/L	
034020	Xylenes							Ug/L	
		(							
•									
								-	

# **Florida Department of Environmental Protection**

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

## MONITORING WELL COMPLETION REPORT

		DATE:		
FACILITY NAME: Oak Hammock Dispo	sal, Class I Landfill			
		WACS_FACILIT	<sup>-</sup> Y: <u>89544</u>	
WACS MONITORING SITE_NUM.:				
WELL_TYPE: BACKGROUND	DETEC		COMPLIAN	CE
LATITUDE AND LONGITUDE (see Pag	e 2 for requirements):			<u> </u>
Coordinate Accuracy	_ Datum	Elevati	on Datum	
Collection Method		_ Collection Date	)	
Collector Name	Collec	tor Affiliation		
AQUIFER MONITORED:	· ·			
DRILLING METHOD:		DATE INSTALL	ED:	
INSTALLED BY:			·	
BORE HOLE DIAMETER:	TOTAL DEPTH	:	(BLS)	
CASING TYPE:	CASING DIAMETER: _		CASING LENGTH:	<u> </u>
SCREEN TYPE:	SCREEN SLOT SIZE:		SCREEN LENGTH:	<u>.                                    </u>
SCREEN DIAMETER:	SCREEN INTERVAL: _		то	(BLS)
FILTER PACK TYPE:	_ FILTER PACK (	GRAIN SIZE:		
	ТО	(BLS)		
SEALANT TYPE:	SEALANT INTERVAL:	<u> </u>	то	(BLS)
GROUT TYPE: GROUT	INTERVAL:	то	(BLS)	
TOP OF CASING ELEVATION (NGVD)	GROL	JND SURFACE E	ELEVATION (NGVD	):
DESCRIBE WELL DEVELOPMENT:				
POST DEVELOPMENT WATER LEVEL	ELEVATION (NGVD):			
DATE AND TIME MEASURED:				
REMARKS:				
		· · · · · · · · · · · · · · · · · · ·		

NAME OF PERSON PREPARING REPORT: \_

(Name, Organization, Phone No., E-mail)

**NOTE** ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG. (NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1929 (BLS) = BELOW LAND SURFACE

Latitude must be measured in degrees, minutes and seconds, to at least two (2) decimal places.

Longitude must be measured in degrees, minutes and seconds, to at least two (2) decimal places.

Eastings and northings **must** be converted to latitude and longitude.

Coordinate Accuracy: the measured, estimated degree of correctness of the measurement. An accuracy of 15 feet or 5 meters is preferred.

Datum: the horizontal reference for measuring locations on the Earth's surface. NAD83-North American Datum of 1983 is preferred.

Elevation Datum: the reference datum from which elevation measurements are made. NGVD29 (National Geodetic Vertical Datum of 1929 is preferred.

Collection Method: the method or mechanism used to derive the measurements, e.g. GPS, map, aerial photo, etc.

Collection Date: the date and time on which the measurements were taken.

Collector Name: the name of the person taking the measurement.

Collector Affiliation: the agency or company for whom the collector works.

# **Florida Department of Environmental Protection**

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

# **GROUND WATER MONITORING REPORT**

Rule 62-522.600(11)

## PART I GENERAL INFORMATION

Telephone Number ()       (2)       WACS_Facility 89544         (3)       DEP Permit Number         (4)       Authorized Representative's Name _Title         Address       Address	(1)	Facility Name Oak Hammock Disposal, Cla	ss I Landfill		······································
City       Zip       County         Telephone Number ()       (2)       WACS_Facility 89544         (3)       DEP Permit Number       (2)       WACS_Facility 89544         (4)       Authorized Representative's Name _Title		Address	. Mata		
(3) DEP Permit Number					County
(4) Authorized Representative's Name _Title         Address         City       Zip         City         Telephone Number ()         (5) Type of Discharge		Telephone Number ()	. <u></u> .	(2)	WACS_Facility <u>89544</u>
Address         City         Zip         County           Telephone Number ()          (5) Type of Discharge	(3)	DEP Permit Number			
City         Zip         County           Telephone Number ()	(4)	Authorized Representative's Name _Title			
Telephone Number ()       (5) Type of Discharge		Address			
(5) Type of Discharge		City	Zip		County
		Telephone Number ()			
(6) Method of Discharge	(5)	Type of Discharge			
	(6)	Method of Discharge			

#### CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

Date	Owner or Authorized Representative's Signature	
PART II QUAL	TY ASSURANCE REQUIREMENTS	
Sampling Orga	ization Comp QAP #	
Analytical Lab	omp QAP #/ HRS Certification	
Lab Name		
Address		
	()	
E-mail Address		

1

#### DEP-SOP-001/01 FS 2200 Groundwater Sampling Form FD 9000-24 GROUNDWATER SAMPLING LOG

FACILITY NAME: Oak Hammock Di	sposal, Class I L	andfill			FACILIT				÷ · · · · · · · · · · · · · · · · · · ·		
MONITORING_SITE_NUM			WACS_V	VELL:					DATE:		
	i			PURG	ING DA	TA	• • • •		· I · · · · · · · · ·		
WELL	TUBING			REEN INTER	VAL	STATIC (			PURGE PUMP	TYPE	
DIAMETER (inches): WELL VOLUME PURGE:	DIAMETER (		DEPTH:	feet to	feet	TO WATI	· · · · · · ·		OR BAILER:		
only fill out if applicable)		= (		feet -			t) X		gallons/foo	+ =	gallons
EQUIPMENT VOLUME PI	JRGE: 1 EQUI	· ·	= PUMP VOL		NG CAPAC		,	G LENG	TH) + FLOW CEL		ganoris
(only fill out if applicable)			= ga	allons + (	galle	ons/foot X			feet) +	gallons =	gallons
INITIAL PUMP OR TUBIN DEPTH IN WELL (feet):	G	FINAL PUMP DEPTH IN W	P OR TUBING	3	PURGIN					TOTAL VOLUI PURGED (gall	
TIME VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH pH TO (standard WATER units)		TEMP. (°C)	COND. (μmhos/c m or μS/cm)	/c OXYGEN (circle mg/L or		TURBIDITY	COLOR (describe)	ODOR (describe)
							-		••••••		
					<u>, , , , , , , , , , , , , , , , , </u>						
WELL CAPACITY (Gallon TUBING INSIDE DIA. CAI	s Per Foot): 0. PACITY (Gal./Ft	<b>75" =</b> 0.02; .): <b>1/8" =</b> 0.00	1" = 0.04; 006; 3/16"	<b>1.25</b> " = 0.06 ' = 0.0014;	; 2" = 0.1 1/4" = 0.002	6; <b>3"</b> = 26; <b>5/16</b>	0.37; <b>4'</b> 5" = 0.004;				2" = 5.88 3" = 0.016
				SAMP	LING D					- <b>m</b>	
SAMPLED BY (PRINT) / A	FFILIATION:	SA	AMPLER(S) S	GNATURES	:		SAMP INITIA	LING TED AT	:	SAMPLING ENDED AT:	
PUMP OR TUBING DEPTH IN WELL (feet):				nL per minute	۰.			G RIAL CO		1,	
FIELD DECONTAMINATION	ON: Y N	FIE	ELD-FILTER	ED: Y N		FER SIZE:			DUPLICATE:	Y N	J
	CONTAINER FICATION			SAM	PLE PRESE	RVATION			INTENDED	) s	AMPLING
SAMPLE ID CODE CONTAI RS	MATER	VOLUME		ERVATIVE	TOTAL ADDED IN (mL	I FIELD	FINAL pH		ANALYSIS ANI METHOD	D/OR E	
											• · ·
			<u> </u>						· · · · · · · · · · · · · · · · · · ·		
REMARKS:		, , , .									
MATERIAL CODES:	AG = Amber	Glass; CG :	= Clear Glass	; PE = Po	lyethylene;	PP = Po	lypropylen	e; S=	Silicone; T = T	feflon; <b>O</b> = O	ther (Specify)
SAMPLING/PURGING EQUIPMENT CODES:	APP = After Pe	eristaltic Pump; se Flow Perista		iller; BP SM = Stra	= Bladder P	ump;	ESP = Ele	ctric Sul	omersible Pump; r = Vacuum Trap;	PP = Perist	altic Pump

#### 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm$  0.2 units Temperature:  $\pm$  0.2 °C Specific Conductance:  $\pm$  5% Dissolved Oxygen: all readings  $\leq$  20% saturation (see Table FS 2200-2); optionally,  $\pm$  0.2 mg/L or  $\pm$  10% (whichever is greater) Turbidity: all readings  $\leq$  20 NTU; optionally  $\pm$  5 NTU or  $\pm$  10% (whichever is greater)