



MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Robert L. Ehrlich, Jr.
Governor

Michael S. Steele
Lt. Governor

Kend P. Philbrick
Secretary

December 22, 2005

Jonas A. Jacobson
Deputy Secretary

George T. Purnell, Managing Member
Berlin Properties North, LLC
P.O Box 460
Ocean City, Maryland 21843

Re: Voluntary Cleanup Program Application
Tyson Chicken, Inc. Property
Berlin, Maryland 21811

Dear Mr. Purnell:

The Voluntary Cleanup Program ("VCP") of the Maryland Department of the Environment ("Department") has reviewed the application filed by Berlin Properties North, LLC for the Tyson Chicken, Inc. property located at 9943 Old Ocean City Boulevard in Berlin, Worcester County, Maryland. Prior to a final evaluation of this application, you are requested to submit written responses to the enclosed comments. The requested information must be accompanied by another statement of certification (see Section XIII of the application).

As you know, Tyson Foods, Inc. submitted a VCP application for the property in March 2005. A toxicological evaluation, conducted under a commercial land use scenario, was based on results of limited soil and ground water samples collected primarily in the area of the processing plant. Subsequently, a No Further Requirements Determination (NFRD) for unrestricted commercial or industrial use of the property was issued by the Department to Tyson Foods, Inc. on November 3, 2005. The NFRD has been recorded in the land records of Worcester County by Tyson Foods, Inc. in accordance with the requirements of Section 7-506(i) of the Environment Article.

The VCP application submitted by Berlin Properties North, LLC is now requesting unrestricted residential use of the Tyson Chicken, Inc. property. In order to conduct another toxicological evaluation of the property for unrestricted residential usage, supplemental soil and ground water samples are necessary as described in the enclosed comments. The additional sampling is primarily focused on those portions of the property proposed for residential development that were not previously sampled under a commercial use scenario, such as the wastewater treatment lagoons. If the additional sampling identifies contaminant levels of concern in the media sampled, the Department may request more sampling for characterization purposes. Please notify the Department at least two weeks prior to beginning the sampling, so

George T. Purnell, Managing Member
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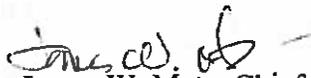
that we have an opportunity to oversee sampling activities with the option to collect split samples.

Both field screening technology and fixed laboratory sampling can be used to characterize the property. A copy of the MDE Screening Sample Collection Protocol and Request For MDE Sample Screening Analytical Services are attached. If you would like additional information on utilizing the MDE field screening services, please contact Barbara Brown, the project manager, at 410-537-3493.

After receiving and evaluating the additional information, we will notify you in writing whether the application has been accepted for participation in the Voluntary Cleanup Program. If denied, the reasons for denial will be provided. This evaluation will be finalized as soon as possible following the Department's receipt of the requested information.

If you have any questions regarding the enclosed comments or other aspects of the program, please contact Ms. Brown or me at 410-537-3493.

Sincerely,



James W. Metz, Chief
Voluntary Cleanup/Brownfields Division

JWM/bhb
Enclosure

cc: Mark S. Cropper, Esq., Ayres, Jenkins, Gordy & Almand
Mr. Ronald Nelson, Nelson & Associates
Mr. Horacio Tablada
Mr. James R. Carroll
Ms. Barbara H. Brown

Voluntary Cleanup Program

**Berlin Properties North, LLC
Tyson Chicken, Inc. Property
9943 Old Ocean City Boulevard
Berlin, Maryland 21811**

Comments on the Application

- (1) An original Statement of Certification (Section XIV, page 6) signed by the designated representative of the applicant, Berlin Properties North, LLC must be provided to the VCP.
- (2) Describe the proposed demolition plans for the property. Such information should include which existing buildings are to be demolished and/or renovated and whether the concrete slab(s) will also be removed. If the concrete slab material or other demolition debris will be reused on site as fill material please note that this material must be properly characterized as described in Comment 8.
- (3) Indicate whether previously abandoned underground storage tanks on the property will remain in place or be removed. All underground storage tank removals should be coordinated with the Department's Oil Control Program.
- (4) If available, provide a site-grading plan that delineates proposed cut and fill areas.
- (5) Please describe the intended usage for the existing number 6 oil aboveground tank and associated boiler system and piping. If the aboveground tank is to be removed, the removal must be conducted under the oversight of the Oil Control Program.
- (6) Please describe the intended usage for the three production wells located at the property and indicate whether additional potable wells will be installed at the property. If so, describe the anticipated depth and/or target aquifer designation.
- (7) Provide a lagoon closure plan demonstrating that such actions will be taken in accordance with applicable local, state and federal requirements. Include the sampling plan (number, location, proposed analysis for samples) proposed to characterize the sediment/sludge remaining in the lagoon. Describe the procedures and treatment to be used to dewater the lagoons. Indicate the disposal method and location for the accumulated sludge.
- (8) Supplemental Site Investigation
Additional sampling is necessary since Berlin Properties North, LLC has requested unrestricted use of the entire 68-acre property and the No Further Requirements Determination issued previously was conditioned on a commercial or industrial use of the property. Supplemental sampling is necessary to evaluate potential

environmental impacts from the operation of the wastewater treatment plant, the associated lagoons and also possible environmental impacts resulting from past industrial processes within the existing buildings.

The sampling may be conducted after site demolition activities have been completed. Additional sampling may be required if additional environmental concerns are noted during demolition and site grading activities.

Soil Sampling

Soil samples should be collected at the locations indicated on Figures 1, 1A and 1B and analyzed for the parameters described in Table 1. Each surface (0-1 ft.) and subsurface (4-5 ft.) grab sample must be collected and analyzed for parameters outlined in Table 1.

Additional grab samples may be required if contamination is observed at depths other than those indicated in Table 1. If unusual conditions such as staining, discoloration, odor, and/or liquid are observed within the soil and/or overburden profile, a sample must be collected at this discrete depth and laboratory analyzed for the full suite of parameters (e.g. VOCs - EPA Method 8260; semi-volatile organic compounds - EPA Method 8270; priority pollutant metals-EPA Series 200.8; pesticides/herbicides, and PCBs, EPA Method 8081 and 8082) and/or field screen for the full suite of parameters (ie. VOCs, PCBs, cPAHs, metals).

- (9) If additional fill is to be emplaced at the site, certified "clean fill" must be used. Prior to placing fill at the site please provide the following information:
- a. Submit a report to the Department outlining the protocol for ensuring that imported material is "clean" [e.g. source of material, quantity of imported material from each source, sample frequency, number of samples, volume of clean fill, type of sample (composite vs. grab), analytical parameters, quality assurance/quality control measures].
 - b. Any analytical data for imported material used to certify that the material is "clean" must be submitted to the Department for review and approval prior to use on site.

(8) Quality Assurance/Quality Controls

- a. Please note that hazardous substances classified as carcinogenic generally have a cleanup standard concentration established at a target cancer risk of 10^{-6} . This level is one order of magnitude more protective than the remedial action requirement of 10^{-5} established by the Department. This safety factor allows for accounting of potential additive risk factors from a multiple of hazardous substances at a property (refer to MDE Cleanup Standards for Soil & Groundwater – August 2001, Interim Final Guidance, Update No. 1).

- b. The Department recommends that quality assurance and quality control measures be implemented during the sampling program. Refer to *Attachment A* for details on the recommended project deliverables to submit to the Department for review.
- c. Low detection limits must be obtained during sample analyses. The detection limits for soil samples should be comparable to the Department's residential clean-up standards for soil.

(9) Investigatory Derived Material

Please note that all drill cuttings and purged water generated from the installation of wells or piezometers must be properly containerized and characterized to determine appropriate disposal method. Any borehole (e.g. piezometer) that intercepts the water table for ground water monitoring purposes is considered a "well" and must be abandoned according to the State of Maryland well abandonment standards [Code of Maryland Regulations 26.04.04.11].

Attachment A
Recommended Data Deliverables

	Recommended Submittals to MDE	Do not submit unless requested by MDE ¹
Data Deliverable Level I:		
Analytical data	X	
Sample collection date	X	
Laboratory receipt date	X	
Laboratory analysis date and time	X	
Laboratory analysis Ids	X	
Sample Ids	X	
Surrogate spike recovery results (GC and GC/MS data)	X	
Copy-of-chain of custody	X	

Data Deliverable Level II:		
Instrument calibration data		X
Method and reagent blank results	X	

Data Deliverable Level III		
Sample preparation/extraction dates	X	
MS/MSD results		X
Initial/continuing calibration verification results		X
Reference standards and I.C.S. recoveries		X
Instrument time specifications for GC/MS analysis		X
Internal standard summaries		X

Data Deliverable Level IV:		
Copies of internal chain-of-custody forms		X
Copies of preparation logs		X
Tentatively Identified Compound (TIC) results ²	X	
Complete ICP information		X
Raw data		X

SS The laboratory must be able to provide this information to MDE upon request.

SS TICs presented in a summary table of the (10) most likely TIC VOCs and (20) most likely TIC SVOCs for each sample ID

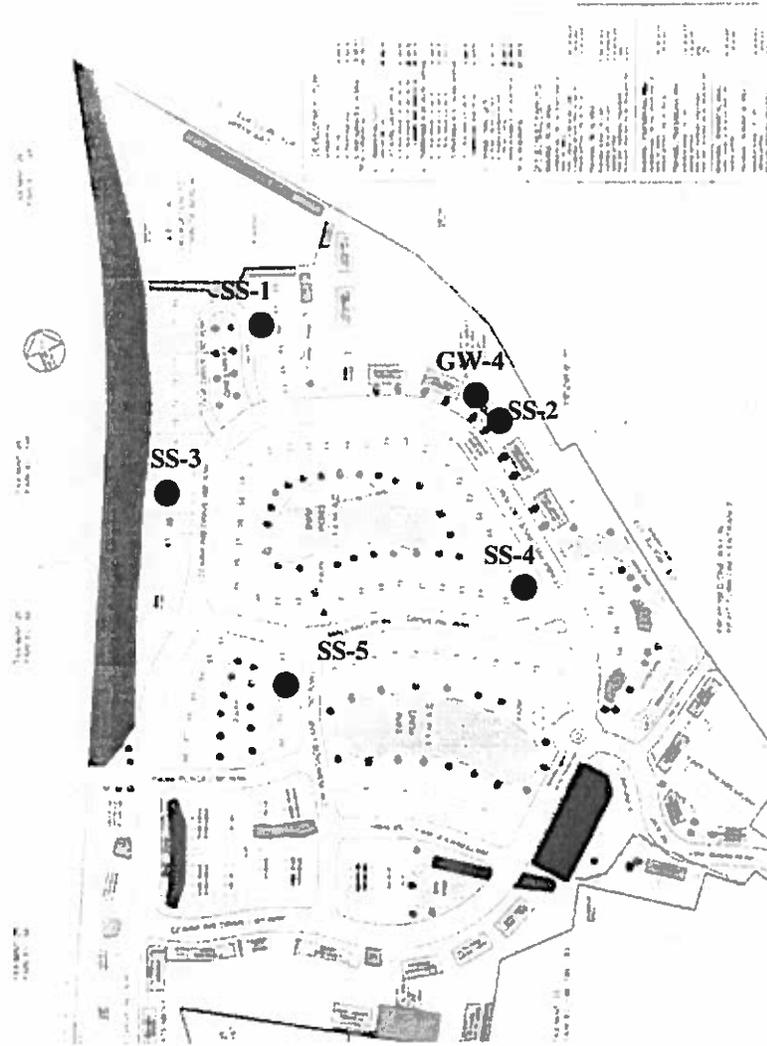
**Table 1: Soil Sampling Plan for the Tyson Chicken, Inc. Property
Berlin, Maryland 21811**

Media	Sample Location	Sample Depth	Analytical Parameters	RATIONALE
Soil				
	SS-1	0 to 1 ft. 4 to 5 ft.**	SVOCs (EPA Method 8270) and PPL metals (EPA Method 200 series).	<i>To characterize soil conditions in the vicinity of the wastewater treatment lagoons and proposed residential development.</i>
	SS-2	0 to 1 ft. 4 to 5 ft.**	SVOCs (EPA Method 8270) and PPL metals (EPA Method 200 series), Pesticides and Herbicides (EPA methods 8081 and 8151).	<i>To characterize soil conditions in the vicinity of the wastewater treatment lagoons and proposed residential development.</i>
	SS-3	0 to 1 ft.* 4 to 5 ft.**	VOCs (EPA Method 8260), SVOCs (EPA Method 8270) and PPL metals (EPA Method 200 series).	<i>To characterize soil conditions in the vicinity of the wastewater treatment lagoons and proposed residential development.</i>
	SS-4	0 to 1 ft. 4 to 5 ft.**	SVOCs (EPA Method 8270) and PPL metals (EPA Method 200 series).	<i>To characterize soil conditions in the vicinity of the wastewater treatment lagoons and proposed residential development.</i>
	SS-5	0 to 1 ft. 4 to 5 ft.**	SVOCs (EPA Method 8270) and PPL metals (EPA Method 200 series).	<i>To characterize soil conditions in the vicinity of the wastewater treatment lagoons and proposed residential development.</i>
	SS-6	0 to 1 ft. 4 to 5 ft	SVOCs (EPA Method 8270) and PPL metals (EPA Method 200 series).	<i>To characterize soil conditions in the berm material surrounding the wastewater treatment lagoon.</i>
	SS-7	0 to 1 ft.* 4 to 5 ft.	VOCs (EPA Method 8260), SVOCs (EPA Method 8270) and PPL metals (EPA Method 200 series).	<i>To characterize soil conditions in the vicinity of the former truck scale</i>
	SS-8	0 to 1 ft. 4 to 5 ft.	TPH-DRO (EPA Method 8015), SVOCs (EPA Method 8270) and PPL metals (EPA Method 200 series).	<i>To characterize soil conditions underneath the existing #6 oil AST.</i>
	SS-9	0 to 1 ft. 4 to 5 ft.	TPH-DRO (EPA Method 8015), VOCs (EPA Method 8260), SVOCs (EPA Method 8270) and PPL metals (EPA Method 200 series).	<i>To characterize soil conditions within the former boiler room in the main processing plant</i>
	SS-10	0 to 1 ft. 4 to 5 ft.	TPH-DRO (EPA Method 8015), VOCs (EPA Method 8260), SVOCs (EPA Method 8270) and PPL metals (EPA Method 200 series).	<i>To characterize soil conditions within the former maintenance room in the main processing plant.</i>
*Surface (0-1') VOC analysis is not required unless field conditions warrant (i.e. visual or olfactory observations and/or elevated PID readings).				
**All borings in the wastewater lagoon areas should be collected in soil material beneath accumulated sediment or sludge.				
Soil QA/QC Parameters				
	Rinsate Blank (one sample/sampling episode)		VOCs (EPA Method 8260), SVOCs (EPA Method 8270) and PPL metals (EPA Method 200 series).	<i>Rinsate blank if soil sampling equipment is decontaminated. One sample per sampling episode. Not required if dedicated sampling equipment is used.</i>

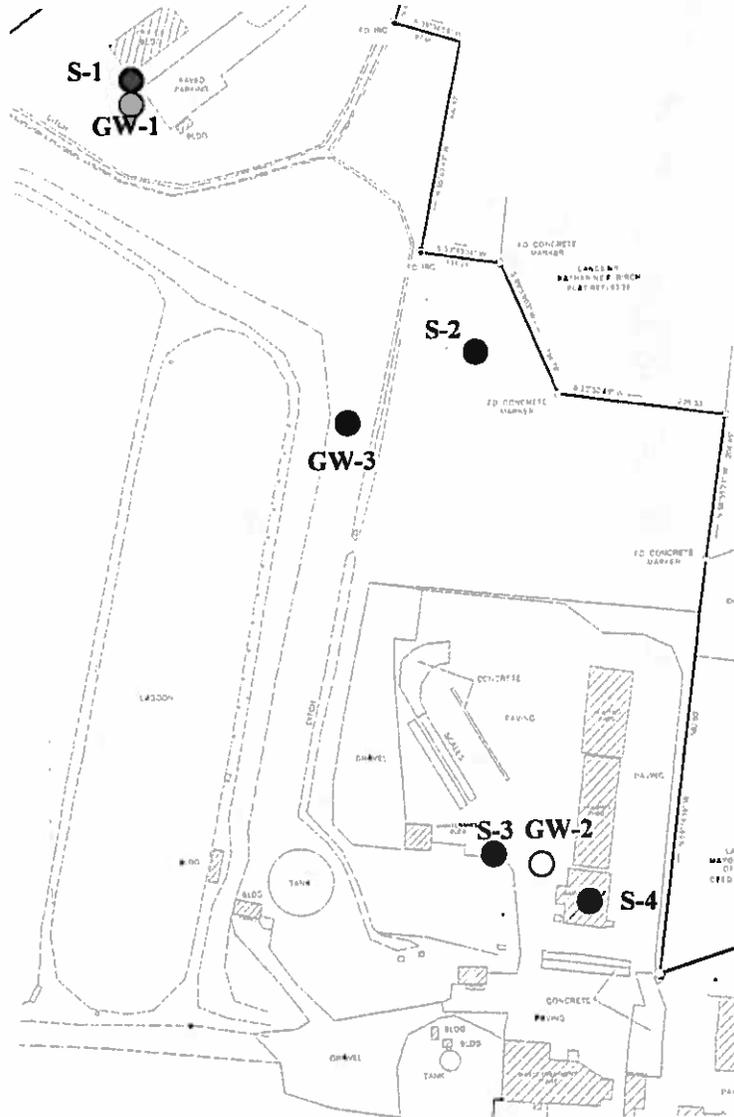
**Table 2: Ground Water Sampling Plan for Tyson Chicken, Inc. Property
Berlin, Maryland 21811**

Sample Location	Analytical Parameters	RATIONALE
Proposed Monitoring Wells		
GW-3	VOCs (EPA method 8260) and dissolved metals (EPA Method 200 series)	<i>To characterize ground water conditions in the vicinity of the former wastewater treatment lagoon</i>
GW-4	VOCs (EPA method 8260) and dissolved metals (EPA Method 200 series)	<i>To characterize ground water conditions in the vicinity of the former wastewater treatment lagoon.</i>
Ground Water QA/QC Parameters		
Blank (Field Blank)	VOCs (EPA method 8260)	<i>One field blank is required per matrix for approximately every 10 samples submitted to the lab.</i>

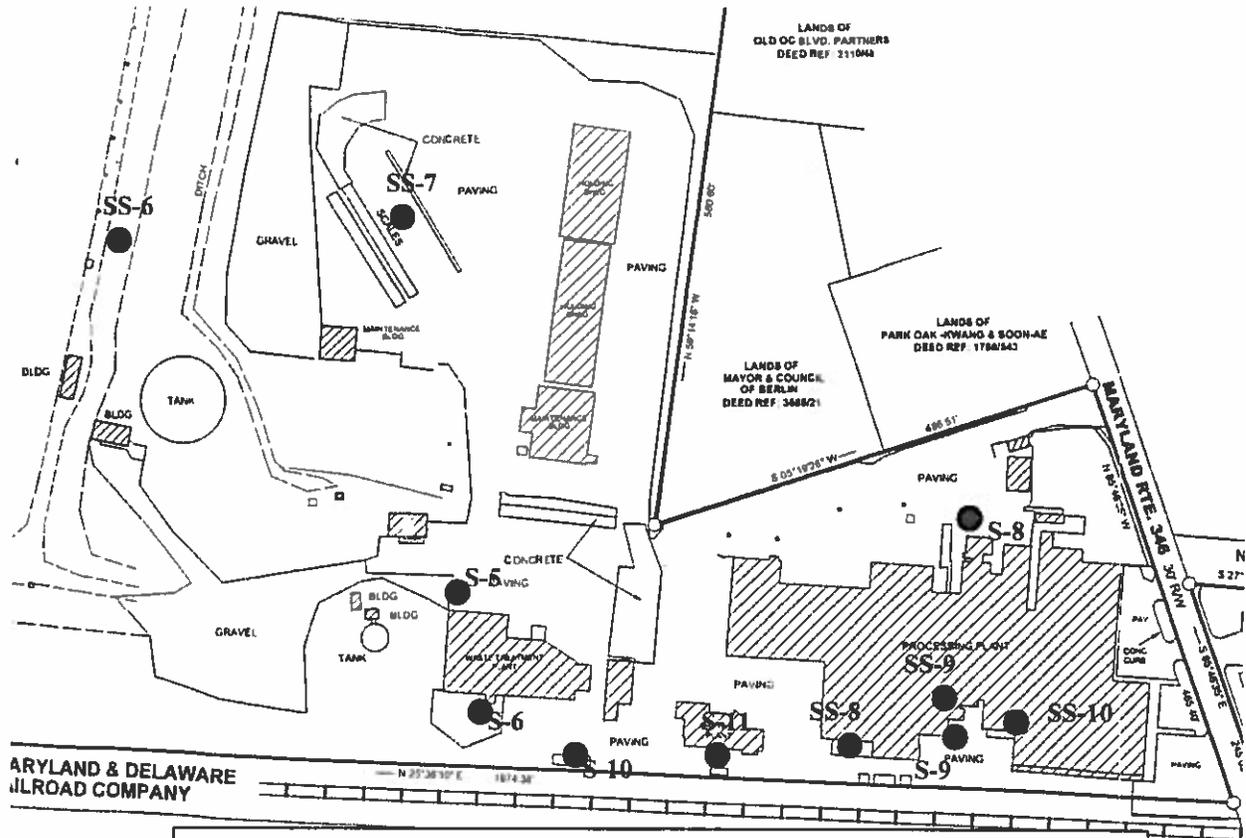
**Figure 1 Sample Location Plan Tyson Chicken, Inc. Property
Berlin, Maryland 21811**



**Figure 1A Sample Location Plan Tyson Chicken, Inc. Property
Berlin, Maryland 21811**



**Figure 1B Sample Location Plan Tyson Chicken, Inc. Property
Berlin, Maryland 21811**



Legend

Previous Sample Locations:

- Soil Sample (September 2005)
- Ground Water Sample (September 2005)

Proposed Sampling Locations:

- Soil Sample
- Ground Water Sample

***Approximate sampling locations shown on Figures 1, 1A and 2.
Exact sampling locations will be determined in the field.**



Maryland Department Of The Environment Voluntary Cleanup Program

Attachment Four MDE Screening Sample Collection Protocol

MDE encourages the use of sample-screening technologies to characterize the property. In an effort to keep analytical costs down while completing a thorough site characterization, MDE offers to screen site samples using the x-ray fluorescence (XRF), gas chromatography/mass spectral analysis (GC/MS) and immunoassay testing equipment owned by MDE. The screening process can greatly reduce analytical costs by reducing the number of samples submitted to a fixed laboratory for certain analytical parameters, such as metals, volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) a subset of semi-volatile organic compounds (SVOCs). The fees charged by MDE are outlined in the "Request for MDE Sample Screening Analytical Services" (See Attachment 3).

The applicant must sign and return this form, agreeing to pay a separate fee for the cost of sample-screening analyses by MDE. Once the signed form has been submitted, MDE will send a invoice for laboratory costs to the applicant. Sampling cannot be completed until the applicant has paid the invoice.

Once the samples have been analyzed the results will be submitted to the applicant or the applicant's consultant. Based on sample screening results, MDE, in conjunction with the applicant, will select 35-50% of the screen samples for fixed laboratory analysis.

A combination of sample screening technology and fixed laboratory sampling can be used to characterize a site while greatly reducing the cost of only using fixed laboratory analytical services. MDE has sample screening capabilities for the analyses of metals, VOCs, PCBs, and cPAHs.

Note: Sample screening for pesticides is compound specific and requires individual tests kits. However, MDE can perform sample screening analyses for the specific pesticide(s) of concern present at a property if applicant specifically knows what type(s) of pesticide were used. Otherwise samples requiring pesticide analyses must be sent to a fixed laboratory.

Billing

Applicants will be billed directly for analytical costs.

Protocol

The following protocol applies to all sample screening services provided by MDE:

- a) The applicant must sign and date the "Request for MDE Sample Screening Analytical Services" (Attachment 3) and return it to the Department.
- b) The applicant's environmental consultant must collect and deliver the samples to MDE with the appropriate chain of custody documentation. Samples may be scheduled for delivery to MDE during business hours Monday through Wednesday or Thursdays before 10 am.

- c) Except for VOC samples, soil samples must be well homogenized in the field prior to being containerized. Please note that dry media are preferred to eliminate matrix interference during XRF analyses.
- d) For metals, PCBs, and cPAH analyses, provide a minimum of 30 grams but not more than 200 grams of soil from each sample depth in one labeled Zip-Loc bag or sample jar. Label each sample and place in a cooler on ice for delivery to the MDE lab. Containers such as Zip-Loc bags and sample jars will not be supplied by MDE. Also, MDE will not provide the weighing device.
- e) For VOC analyses of soils, provide two separate vials with 5 grams of soil, measured using a 100.0 gram balance, in each VOA vial from the selected sample depth. For one soil aliquot, add 5 ml of methanol to the vial, then cap the vial and shake it vigorously. The other soil aliquot must remain unpreserved and capped. Label the preserved and unpreserved samples and place in a cooler on ice for delivery to MDE lab. *The methanol will be supplied by MDE in pre-measured 5 ml quantities and will be available for pick-up at MDE's offices. Please note that MDE will not provide the weighing device or the VOA vials.*
- f) For VOC analyses of groundwater, provide a minimum of 80 milliliters (i.e. two 40 milliliter glass VOA vials) of groundwater from each sample location. Each groundwater sample must be appropriately preserved with hydrochloric acid. Label the sample and place in a cooler on ice for delivery to MDE lab.
- g) Duplicate soil samples must be collected for each sample screen depth and held by the consultant if confirmatory analysis will be conducted at a fixed laboratory.
- h) MDE is not responsible for the final disposal of the soil. The environmental consultant must make arrangements for soil disposal.

