



State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Rd.
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

Re: Port Clinton Landfill
Ground Water

July 1, 2009

Mr. John Logsdon
Port Clinton Landfill, Inc.
530 North Camp Road
Port Clinton, Ohio 43452

Dear Mr. Logsdon:

On June 22-23, 2009, the Ohio Environmental Protection Agency (Ohio EPA) performed an Operating Facility Ground Water Inspection (OFGWI) at the Port Clinton Landfill (Facility). Mr. Ken Brock from the Ohio EPA Division of Drinking and Ground Waters (DDAGW) was present during the inspection. Ground water sampling activities were performed by a representative of CEC, Inc., of Columbus, Ohio. This inspection included the following:

- Observation of CEC's sampling procedures; and
- Observation of the surficial construction of the wells in the ground water monitoring network.

Enclosed with this letter is the inspection form. This form summarizes the inspection of the surficial well construction of the observed monitoring wells and also summarizes the inspection of the equipment and procedures used during the sampling event.

Following are Ohio EPA's comments concerning the inspection.

COMMENTS

Violations

1. **During the June 22-23, 2009, inspection, a violation of Ohio Administrative Code (OAC) Rule 3745-27-10(C)(1)(a), regarding adherence to the Sampling & Analysis Plan (SAP), occurred. To avoid future violations of this rule, the owner/operator should ensure that the SAP is adhered to during ground water sampling events.**

OAC Rule 3745-27-10(C)(1)(a) requires that the owner/operator use the procedures documented within the SAP during ground water sampling events.

The SAP states that purge water from wells in the ground water quality assessment program will be containerized and disposed into the facility's leachate collection system.

The only well in the assessment monitoring program at the time of the inspection was MW-23.

Ohio EPA was not on-site during the purging of MW-23. However, when asked, the ground water sampler indicated that for this event, the purge water from MW-23 had been dumped on the ground away from the well.

Therefore, a violation of OAC Rule 3745-27-10(C)(1)(a) occurred during the June 2009 sampling event.

Recommendations

- 2. Ohio EPA recommends that the SAP portions of the Ground Water Detection Monitoring Plan (GWDMP) and Ground Water Quality Assessment Plan (GWQAP) be revised to document that the sampling crew will have a copy of the SAP in the field during ground water sampling events.**

During the inspection, the ground water sampler had a copy of the SAP in the field. Ohio EPA concurs with this procedure as it should help the sampling crew to consistently follow the SAP. However, the SAP portions of the GWDMP and GWQAP do not document that this procedure will be followed.

- 3. Ohio EPA recommends that the SAP portions of the GWDMP and GWQAP be revised to clarify the time frames for measuring the total depths of the wells.**

The SAP states, *"The total depth of each well will be measured prior to purging and sampling in all wells at least annually."* However, the SAP also states, *"If a well is equipped with a dedicated pump that does not allow depth measurements, the depth of that well will be measured whenever maintenance allows."*

Considering that all of the monitoring wells are equipped with dedicated pumps that don't allow well depth measurements, these statements in the SAP (noted above) seem somewhat contradictory. Therefore, Ohio EPA recommends that the SAP be revised to clarify the language regarding the time frames for measuring the total depths of the wells.

- 4. Ohio EPA recommends that the SAP portions of the GWDMP and GWQAP be revised to state that any deviations from the SAP and the reasons for the deviations will be documented on the field information log.**

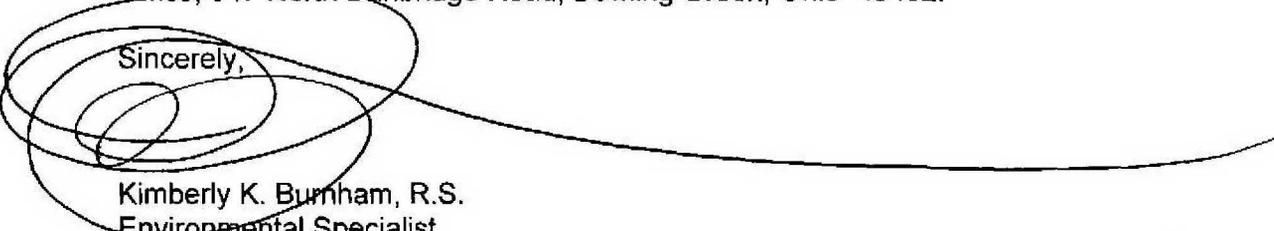
Mr. John Logsdon
July 1, 2009
Page Three

The SAP does not document that any necessary deviations from the SAP during sampling events will be documented on the field information log. No deviations from the SAP were necessary during the inspection.

However, for a better understanding of the field procedures, Ohio EPA recommends that the SAP be revised to state that any deviations from the SAP and the reasons for the deviations will be documented on the field information log.

If you have any questions, please feel free to contact Ken Brock at the Ohio EPA Northwest District Office at (419)373-3143. Any written correspondence should be sent to the attention of Mike Reiser, Division of Solid & Infectious Waste Management, Ohio EPA Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio 43402.

Sincerely,



Kimberly K. Burnham, R.S.
Environmental Specialist
Division of Solid & Infectious Waste Management

/cs

Enclosure

pc: Jim Adams, Republic Services, Inc.
Joe Montello, Republic Services, Inc.
Dave Vossmer, Republic Services, Inc.
Matt Barnett, Civil & Environmental Consultants, Inc.
Ken Brock, DDAGW, NWDO
DSIWM, NWDO File, Ottawa County, BFI, Ottawa County Landfill, Groundwater

ec: JL, Habib, Mike Reiser

id: 5-8630

GROUND WATER INSPECTION CHECKLIST

Site/Facility Name: Port Clinton Landfill		
Site/Facility Address: 530 North Camp Rd., Port Clinton		Ohio EPA ID#: 62-00-03
Site/Facility Status (circle one): <u>Operating</u> Closed		District: NWDO
Client Division/Program (check applicable) DSIWM DHWM MSW <u> X </u> Interim Standards (65-90 to 94) Ind _____ Final Standards (54-90 to 100) Res _____ CA/IGWMP (54-01) _____ CDD _____		DERR DSW Remedial Response _____ VAP _____
Site/Facility Contact, Name & Title: John Logsdon, Landfill Manager		
Client Division Contact: Kimberly Burnham		DDAGW Geologist: Ken Brock
Names and company affiliations of facility or consulting personnel performing field monitoring and sampling activities: 1. Jeff Kennedy, CEC, Inc. 2.		

Documentation Reviewed Prior to Field Inspection

Ground Water Sampling and Analysis Plan

If the ground water sampling and analysis plan (SAP) has previously been reviewed by DDAGW, it need not be formally reviewed again prior to the field inspection. However, it should be consulted during completion of the office portion of the ground water field inspection form. If DDAGW has not previously reviewed the SAP, a formal review of the document should be requested by the client division and completed as a separate project prior to the field inspection.

1. Has the current SAP been formally reviewed by DDAGW?	Yes <u> X </u> No	If yes, document date: January 2008 Approval date (if applicable):
2. The current SAP is: (circle one)	a stand alone document?	If another document, specify:
	included in another document?	
3. Sampling and analysis procedures are often modified through correspondence between the regulated entity and Ohio EPA. A new, revised SAP may not be generated as part of this process. If the current SAP has been modified through correspondence between the Ohio EPA and the regulated entity, please list in the space below, the dates of the correspondence and the modifications that were documented and approved.		

January 2008: Multiple revisions with modifications too complex to list herein

Other Sources of Documentation

The key document for review prior to observing field activities is the Sampling and Analysis Plan; however, it may be necessary to review other documents to establish the evaluation basis for the inspection. Which of the following documents were reviewed by Ohio EPA to determine the applicable monitoring and sampling requirements?

Document:	Yes	No	N/A	Comments:
1. Approved Permit?		X		If yes, date approved:
2. Approved Closure Plan?		X		If yes, date approved:
3. Final enforcement actions between AGO/Ohio EPA and facility?			X	If yes, date signed:
4. Current GWDMP?	X			If yes, document date: January 2008
5. Current GWQAP?	X			If yes, document date: April 2009
6. Current GWCMP?			X	If yes, document date:
7. Previous Ohio EPA inspection?	X			If yes, inspection date: 6/98, 6/00, 12/03, 6/06

Monitoring Well System

Maintenance & Sampling Information:	Yes	No	NA	Comments:
1. Do the actual number, locations, and depths of the wells sampled correspond to the SAP or other governing document?	X			
2. Are the wells maintained properly? (Please refer to the attached <i>Ground Water Monitoring Well Inspection Form</i>)	X			
3. Are there bumper guards around the wells ?				
4. Are there additional monitoring wells or piezometers present at the site that are not currently used as part of the ground water monitoring program?	X			
a) If so, were they also inspected during this visit?		X		
b) If inspected, are they constructed/maintained properly? If inspected, please include these wells on the attached <i>Ground Water Monitoring Well Inspection Form</i> . If not inspected, please indicate why in the Comments column.			X	
5. Additional comments				

Please note that for the purposes of this inspection, the terms "monitoring well" and "well" include piezometers (used to collect water level elevation data only) required by the SAP or other governing document.

Sampling & Analysis Plan Requirements and Field Procedures

Completing the "SAP Requirement" section of the checklist is not meant to constitute a formal review of an already reviewed and approved SAP. It is meant to prepare the DDAGW geologist for the field inspection, where the implementation of the SAP is reviewed and evaluated.

The main purpose of the field inspection (along with a review of monitoring well maintenance) is to address whether the procedures and techniques required by the SAP were properly implemented. The questions posed here are not intended to encompass every detail that may be contained in a SAP. The comments column can be used to document, as necessary, any observations regarding SAP implementation not explicitly addressed by the questions. While the DDAGW geologist can comment if the approved procedures are inadequate to ensure collection of representative ground water samples and protection of human health and the environment, these comments would be considered "recommendations".

Well Identification: Specify well numbers where ground water purging and sampling procedures were observed by Ohio EPA.	Wells: MW-31, MW-29, MW-11						
	SAP Requirement?			Field Instrumentation			Comments:
	Yes	No	N/A	Yes	No	N/A	
1. Does the person performing the sampling have a copy of the most current SAP with him/her in the field or is one available at the site?		X		X			See Comment No. 2
2. Measuring ground water levels/elevations (and surface water levels/elevations, if applicable), including:							
a) Measuring ground water levels (and if applicable, surface water levels) within a 24-hour period?	X			X			
b) Measuring ground water levels prior to purging and sampling?	X			X			
c) Measuring ground water levels (and if applicable, surface water levels) to an accuracy of at least 0.01 ft?	X			X			

	SAP Requirement?			Field Instrumentation			Comments:
	Yes	No	N/A	Yes	No	N/A	
2. Measuring ground water levels/elevations, cont. :	X			X			
d) Using a reference point established at the top of each well casing (and at each surface water sampling point, if applicable) to measure each water level?							
e) Procedures for documenting and measuring both dense non-aqueous phase liquid (DNAPL) and light non-aqueous phase liquid (LNAPL)?	X		X			X	SAP says they will if necessary
f) Is the total depth for each well measured? If so, does it match the total depth of the well documented on the well log? If not, what is the facility's schedule for measuring and evaluating total depths?	X				X		See Comment No. 3
g) Type(s) of device(s) used to measure water levels and total depths?	SAP: Elec. Meter			Field: Elec. Meter			
h) Are water levels used for determining ground water flow direction recorded on the field form with well purging and sampling information or on a separate field form?	SAP: Same form			Field: Same form			
3. Well Purging (Generic to all methods):	SAP: Sub pump			Field: Sub pump			
a) <u>Specify purging method(s) used for each well observed.</u>							
(1) Volumetric Purge?	Yes			Yes			
(2) Low Flow?	No			No			
(3) Minimum/No Purge?	NA			NA			
(4) Purge to Dryness	Yes			Yes			
(5) Other: _____	NA			NA			
b) Type of equipment used to purge each well observed. (Type /material) (Note: Specify particular type of pump or bailer)	SAP: Sub pump			Field: Sub pump			
c) Is purging equipment dedicated?	X			X			
d) If equipment is not dedicated, was the equipment properly decontaminated?			X			X	
e) If bailers are used, specify the type of cord used with the bailer.	SAP: Stainless/teflon/PVC			Field: NA			
4. For Volumetric Purging:	X			X			
a) Was the volume of water in the well column determined?							
b) Was the purging performed in a manner that minimizes mixing and aeration of the water column?	X			X			
c) <u>Were all SAP field stabilization parameters obtained to properly determine when purging is adequate?</u>				X			
(1) List stabilization parameters obtained:	SAP: pH, temp, cond			Field: pH, temp, cond			
(2) Were stabilization parameters taken every 1 to 1 ½ well volumes?	X			X			
(3) Was it demonstrated that three consecutive measurements were within their respective stabilization criteria?	X			X			
d) Were samples obtained immediately after purging?	X	X		X	X		Yes for high yield, no if well dry

	SAP Requirement?			Field Instrumentation			Comments:
	Yes	No	N/A	Yes	No	N/A	
	5. For Low-Flow Purging:			X			
a) Was water level drawdown measured during purging?							
b) Was it demonstrated that drawdown stabilized?			X			X	
c) Specify location of pump.	SAP: NA			Field: NA			
d) What was the purging rate?	SAP: NA			Field: NA			
e) <u>Were all SAP field stabilization parameters obtained to properly determine when purging is adequate?</u>			X			X	
(1) List stabilization parameters obtained:	SAP: NA			Field: NA			
(2) Were stabilization parameters taken every 3 to 5 minutes?			X			X	
(3) Was it demonstrated that three consecutive measurements were within their respective stabilization criteria?			X			X	
f) Were samples obtained immediately after purging?			X			X	
6. For Minimum/No Purge:			X			X	
a) If the pump was not dedicated, was the pump placed far enough in advance so that the effect of the pump installation has completely dissipated?							
b) Specify the location of the pump.	SAP: NA			Field: NA			
c) <u>Were steps taken to prevent stagnant water from entering the well?</u>			X			X	
(1) Was drawdown measured during purging?			X			X	
(2) Was the amount of drawdown no more than the distance from the top of the screen and the position of the pump intake within the screen, minus a 2 foot safety margin maintained?			X			X	
(3) If other, specify .	SAP: NA			Field: NA			
7. For Purging to Dryness: Were samples taken as soon as sufficient water was available?	X			X			
8. Field parameters for ground water, surface water, and/or leachate, including:	X		X	X		X	Ground water yes, surface water NA
a) Are field analyses of temperature, pH, and specific conductance performed?							
b) Are field parameters checked after purging and before sampling?	X			X			
9. Ground water (and if applicable, surface water or leachate) sample collection, including:	SAP: See above			Field: See above			
a) Specify sample collection methods and equipment used:							
b) Is the ground water sampling equipment dedicated?	X			X			
c) If applicable, is the well sampling order from least to most contaminated?	X		X		X	X	Assessment well goes dry and must be purged first
d) Are sample containers filled in order of parameter volatilization sensitivity, e.g., VOCs, SVOCs, total metals?	X			X			
e) If bailers are used, samples collected in a manner that minimizes aeration of the well water column?			X			X	Not currently used

	SAP Requirement?			Field Instrumentation			Comments:
	Yes	No	N/A	Yes	No	N/A	
9. Ground water sample collection, cont. :	SAP: various if used			Field: NA			
f) Specify type of cord or wire used with sampling bailers:							
g) If used, are bladder pumps operated in a manner that prevents sample aeration and minimizes sample turbidity?			X			X	
h) Are pumps (all types) operated at a rate low enough to prevent sample aeration and minimize sample turbidity?	X			X			
10. Calibration of field monitoring and analytical equipment:	X			X			
a) Is each device calibrated to its manufacturer's specifications?							
b) Is each device calibrated prior to use in accordance with the SAP?				X			
c) Are all calibration procedures and/or equipment maintenance (and the date(s) performed) documented on field forms or in a field log book?	X			X			
11. Equipment decontamination, including:						X	
a) If applicable, is all non-dedicated monitoring, purging, and sampling equipment decontaminated between sampling locations in accordance with the SAP?							
b) Is clean or decontaminated sampling equipment placed on the ground or in other potentially contaminated areas prior to use?	X				X		
c) Are all decontamination fluids contained and disposed in accordance with the SAP?						X	
12. Purge water disposal, including:	X			X			
a) If previous monitoring results indicate that a well has not been contaminated, is all purge water disposed in an area where it cannot affect purging or sampling activities at any sampling location during the ongoing event?							
b) If previous monitoring results indicate that a well has been contaminated, or if the ground water is known to be contaminated, is all purge water properly contained, stored, transported, and disposed per applicable federal, state, and local laws?	X				X		See Comment No. 1
13. Field sample preparation, including:	X			X			
a) Sample containers and handling:							
(1) Are all sample containers pre-cleaned and provided by the laboratory?							
(2) Are any samples field filtered prior to being transferred to their appropriate containers?		X			X		
(3) Are samples transferred directly from the sampling device to their appropriate containers in a manner that minimizes agitation and aeration?	X			X			

	SAP Requirement?			Field Instrumentation			Comments:
	Yes	No	N/A	Yes	No	N/A	
	13. Field sample preparation, cont. :	X			X		
(4) Are VOC sample containers completely filled to form a meniscus and capped in a prompt manner to minimize volatilization?							
(5) Are VOC containers checked for air bubbles after filling and capping?	X			X			
b) Sample preservation (per SW-846, Revision 1, 12/96, Chapter 2, Table 2-36):	X	X		X	X		Alk, Sulfate, TDS – yes Nitrate/Nitrate gets H2SO4 as required
(1) To the extent applicable, are samples for all organic parameters, PCBs, chromium VI, phenols, coliform bacteria, oil and grease, pesticides, specific conductance, alkalinity, COD, cyanide, nitrate/nitrite, phosphorous, sulfate, sulfide, TDS, TOC, and/or turbidity immediately placed in a cooler with ice for preservation at 4° C?							
(2) Are VOC samples field-acidified to pH < 2 with HCl?	X			X			
(3) To the extent applicable, are samples for metals and/or radiological parameters (gross alpha, gross beta, radium); endrin; lindane; methoxychlor; toxaphene; 2,4-D; and/or 2,4,5-TP Silvex field-acidified to pH < 2 with HNO ₃ ?	X			X			
(4) To the extent applicable, are samples for phenols, oil and grease, ammonia, COD, nitrate/nitrite, phosphorous, TOX, and/or TOC field-acidified to pH < 2 with H ₂ SO ₄ ?	X			X			
(5) Are CN samples field-preserved pH > 12/50% w/NaOH?			X			X	
c) Sample labeling:	X			X			
(1) Unique sample (field) identification number that clearly associates the sample and the sampling location?							
(2) Facility/site name?	X			X			
(3) Sample type (matrix) and date and time of collection?		X			X		
(4) Parameters and analyses requested?	X			X			
(5) Sample preservatives?	X			X			
(6) Name or initials of sampler and company affiliation?	X			X			
(7) Is an indelible pen or marker used to complete sample labels?		X		X			
(8) Are sample labels secured and protected to ensure legibility when delivered to the laboratory?	X			X			
14. Field Quality Assurance/Quality Control (QA/QC), including:	X			X			
a) Use of standard procedures that ensure the validity and reliability of field and laboratory data, as well as representative analytical results?							

	SAP Requirement?			Field Instrumentation			Comments:
	Yes	No	N/A	Yes	No	N/A	
14. Field Quality Assurance/Quality Control, cont. :	X					X	See Comment No. 4
b) Documentation of all deviations from SAP-required procedures?							
c) <u>Collection of the following QA/QC samples in accordance with the SAP:</u>							
(1) Duplicate samples?	X			X			
(2) Field blanks?		X			X		
(3) Equipment blanks?		X			X		
(4) Trip blanks?	X			X			
d) Collection of all necessary laboratory QA/QC samples (e.g., matrix spike, matrix spike duplicate)?	X			X			
15. Chain-of-Custody (COC) procedures, including:				X			
a) Are all SAP-required COC procedures followed? (If not, explain why.)							
b) Are standardized COC forms used to establish a complete custody record from the field to the laboratory for all samples?	X			X			
c) <u>Is the following field and laboratory information properly documented on the COC form to provide effective sample tracking and to ensure that samples are not misidentified; are properly preserved; and are properly analyzed?</u>							
(1) Address and contact information for the site/facility, laboratory, and, if applicable, all consulting firms performing sampling?	X			X			
(2) Unique sample (field) identification numbers that clearly associate the sampling location and sample?	X			X			
(3) Sample type (matrix) and date and time of collection?	X			X			
(4) Requested parameters, or a reference for the requested parameters?	X			X			
(5) Requested analytical methods, or a reference for the requested analytical methods?	X			X			
(6) Types of sampling containers used, or a reference for the types of sampling containers used?		X			X		
(7) Types of sample preservatives used, or a reference for the types of sample preservatives used?	X			X			
(8) Sample shipping information, including but not limited to the transporter(s), tracking #(s), and delivery time frame(s)?	X			X			
(9) Legible names (printed) and signatures of all field and laboratory personnel relinquishing and/or receiving the samples and inclusive dates and times of possession that provide a complete record of sample custody? (Names and signatures of commercial shipping personnel are not required.)	X			X			
d) Are custody seals (signed by the sampler) placed on sample coolers prior to shipment to indicate if the cooler has been opened or tampered with during shipment?	X			X			SAP says if necessary

	SAP Requirement?			Field Instrumentation			Comments:
	Yes	No	N/A	Yes	No	N/A	
16. Is the following sampling and water level elevation information properly documented on field forms or in a field log book for each well, surface water, or leachate sampling location observed?		X			X		
a) Monitoring program (detection, assessment, or compliance) identified?							
b) Correct reference to well identification number or specific well location?	X			X			
c) Static ground water level (elevation), associated measurement technique, date, and time?	X			X			
d) Surface water level (elevation), associated measurement technique, date, and time?	X			X			
e) Total depth and associated measurement technique for each well?	X			X			
f) Presence and thickness of immiscible layers and associated measurement technique?			X			X	
g) Well purging procedures and all associated SAP-required information?	X			X			
h) Field analyses procedures and all associated SAP-required information?	X			X			
i) Sampling procedures and all associated SAP-required information?	X			X			
j) Field observations, including but not limited to unusual sample characteristics (appearance, odor, etc.), unusual well recharge rates, apparent well damage, potential contamination sources, and unusual climatic conditions?	X			X			
k) Equipment malfunction(s)?		X				X	See Comment No. 4
l) Any deviations from the SAP and explanation of why such modifications were necessary?		X				X	See Comment No. 4
m) Sampling team personnel and company affiliation?	X			X			
17. Are copies of all field forms (and/or field log book), COC forms, and sample shipping documents stored at the site/facility as part of the operating record?		X		X			After report
Have all discrepancies between the SAP and the field implementation been described in the "Comment" section? Comments should include specific monitoring well (or other sampling) locations where deviations from the SAP and/or other regulatory requirements were observed.							
Additional Comments & Notes:							

GROUND WATER MONITORING WELL FIELD INSPECTION FORM

Port Clinton Landfill

June 22, 2009

Well Identification Number:	BW-1	BW-4	BW-8	BW-10	MW-1	MW-4	MW-11	MW-17
Correct location?	Yes							
Clearly and correctly labeled?	Yes							
Locked prior to arrival at well location?	Yes							
Ground water depth:	7.11	12.50	7.79	7.69	8.89	5.97	9.09	7.82
Well total depth:	Not Meas							
For above ground completions:								
a) Protective outer casing present?	Yes							
(1) Condition?	Good							
(2) Locking cap? Condition?	Yes							
(3) Weep hole present?	Yes							
(4) Standing water between protective casing & well casing?	No							
b) Surface seal/apron present?	Yes							
(1) Condition?	Good							
(2) Ponded surface water?	No							
For flush mount completions:								
a) Well vault present?	NA							
(1) Condition?	NA							
(2) Covered with bolted vault lid?	NA							
(3) Standing water in vault? Covering top of inner casing?	NA							
b) Surface seal/apron present?	NA							
(1) Condition?	NA							
(2) Raised at least slightly above grade and sloped away from the top of the vault?	NA							
(3) Ponded surface water on top of vault lid?	NA							
Well (inner) Inner well casing condition?	Good							
a) Material?	2" PVC							
b) Survey reference mark?	Yes							
c) Cap present?	Yes							
d) If the completion is flush mount, is the cap expandable and locking?	NA							
e) Condition of casing and cap?	Good							

Additional Comments:

GROUND WATER MONITORING WELL FIELD INSPECTION FORM.

Port Clinton Landfill

June 22, 2009

Well Identification Number:	MW-18	MW-19	MW-23	MW-25	MW-29	MW-31	MW-33	MW-37
Correct location?	Yes							
Clearly and correctly labeled?	Yes							
Locked prior to arrival at well location?	Yes							
Ground water depth:	9.12	14.82	13.14	12.92	6.04	9.05	12.04	7.84
Well total depth:	Not Meas							
For above ground completions:								
a) Protective outer casing present?	Yes							
(1) Condition?	Good							
(2) Locking cap? Condition?	Yes							
(3) Weep hole present?	Yes							
(4) Standing water between protective casing & well casing?	No							
b) Surface seal/apron present?	Yes							
(1) Condition?	Good							
(2) Ponded surface water?	No							
For flush mount completions:								
a) Well vault present?	NA							
(1) Condition?	NA							
(2) Covered with bolted vault lid?	NA							
(3) Standing water in vault? Covering top of inner casing?	NA							
b) Surface seal/apron present?	NA							
(1) Condition?	NA							
(2) Raised at least slightly above grade and sloped away from the top of the vault?	NA							
(3) Ponded surface water on top of vault lid?	NA							
Well (inner) Inner well casing condition?	Good							
a) Material?	2" PVC							
b) Survey reference mark?	Yes							
c) Cap present?	Yes							
d) If the completion is flush mount, is the cap expandable and locking?	NA							
e) Condition of casing and cap?	Good							

Additional Comments:

GROUND WATER MONITORING WELL FIELD INSPECTION FORM

Port Clinton Landfill

June 22, 2009

Well Identification Number:	MW-38	MW-39	MW-40				
Correct location?	Yes	Yes	Yes				
Clearly and correctly labeled?	Yes	Yes	Yes				
Locked prior to arrival at well location?	Yes	Yes	Yes				
Ground water depth:	7.02	7.81	10.29				
Well total depth:	Not Meas	Not Meas	Not Meas				
For above ground completions:							
a) Protective outer casing present?	Yes	Yes	Yes				
(1) Condition?	Good	Good	Good				
(2) Locking cap? Condition?	Yes	Yes	Yes				
(3) Weep hole present?	Yes	Yes	Yes				
(4) Standing water between protective casing & well casing?	No	No	No				
b) Surface seal/apron present?	Yes	Yes	Yes				
(1) Condition?	Good	Good	Good				
(2) Ponded surface water?	No	No	No				
For flush mount completions:							
a) Well vault present?	NA	NA	NA				
(1) Condition?	NA	NA	NA				
(2) Covered with bolted vault lid?	NA	NA	NA				
(3) Standing water in vault? Covering top of inner casing?	NA	NA	NA				
b) Surface seal/apron present?	NA	NA	NA				
(1) Condition?	NA	NA	NA				
(2) Raised at least slightly above grade and sloped away from the top of the vault?	NA	NA	NA				
(3) Ponded surface water on top of vault lid?	NA	NA	NA				
Well (inner) Inner well casing condition?	Good	Good	Good				
a) Material?	2" PVC	2" PVC	2" PVC				
b) Survey reference mark?	Yes	Yes	Yes				
c) Cap present?	Yes	Yes	Yes				
d) If the completion is flush mount, is the cap expandable and locking?	NA	NA	NA				
e) Condition of casing and cap?	Good	Good	Good				

Additional Comments: