



September 5, 2008  
Project No. 08-07-37

Mr. Charles Brown  
MC 124  
Municipal Solid Waste Permits Section  
Texas Commission on Environmental Quality  
P. O. Box 13087  
Austin, Texas 78711-3087

**Re: Response to a TCEQ Notice of Deficiency Letter Dated July 23, 2008, Whispering Pines Landfill, MSW Permit No. 1193, Harris County, Texas; WWC 11995235; RN100216878/CN601528094.**

Dear Mr. Brown:

This letter is written to provide a response to the comments in a letter dated July 23, 2008, from the Texas Commission on Environmental Quality (TCEQ). The letter requested that the TCEQ comments be addressed within 45 days (September 6, 2008). The TCEQ's comment/questions are provided below in italics with our response immediately following.

Comment 1: *Procedures for field filtration of groundwater samples have been removed from Section 2.4.4 Sample Preservation. We request that the GWSAP include a statement in Section 2.4.4, or elsewhere as appropriate to the topic, that samples will not be filtered in the field or the laboratory.*

Response: The requested change has been made and the revised pages are attached.

Comment 2: *Please revise Section 4.1 Analyzed Constituents to remove the statement that the PQL "will be less than the MCL or..." Please also revise the citation used to reference the requirement that the practical quantitation limit (PQL) for each constituent be as low as practically feasible to correctly reflect §330.405(f)(5).*

Response: The requested change has been made and the revised pages are attached.

Comment 3: *Please revise Section 4.2 to acknowledge in accordance with 30 TAC §330.407(a)(1), that upon completion of background monitoring and during background updates, the owner or operator will evaluate the background data to ensure that the data are representative of background groundwater constituent concentrations unaffected by waste management activities or other sources of contamination, and that the evaluation will be documented in a report and submitted to the executive director before the next subsequent groundwater monitoring event following the updated (or initial) background period.*

Response: The requested change has been made and the revised pages are attached.

Comment 4: *We request that the GWSAP be revised to include performance criteria for the analysis of groundwater samples. Please revise Section 3 Laboratory Procedures/Performance Standards or Section 4.1 as appropriate to include the following: ...*

Response: The requested change has been made to Section 4.1 and the revised pages are attached.

Comment 5: *Section 4.4 Groundwater Analysis Result Submittals states that notice will be provided for any SSI in any point of compliance well. Please revise the GWSAP to provide for notification of an SSI in any constituent in any on-site well in accordance with §330.407(b).*

Response: The requested change has been made and the revised pages are attached.

Comment 6: *Section 4.4 states that the annual detection and assessment monitoring reports will provide the data on TCEQ-0312 forms and will include information determined since the previously submitted annual report. Please revise this section to more clearly identify that in addition to the results of groundwater monitoring, testing, and analytical work as provided on TCEQ-0312 forms, the annual detection and assessment report will include all other information required in §330.407(c)(1-6) and §330.409(k)(1-6), respectively.*

Response: The requested change has been made and the revised pages are attached.

Comment 7: *Please revise Section 4.4 to clarify the reporting requirements for data being submitted by the facility. It also will be necessary to reconcile this Section with Section 3 which contains reference to laboratory data and information being provided. We request that Section 4.4 also include the following:*

- *The facility will submit a laboratory case narrative and a laboratory checklist with all analysis submitted to the TCEQ. In place of the laboratory checklist, the facility may submit a copy of the laboratory QA/QC and analytical data.*
- *Please state that the owner or operator will also provide laboratory analytical data as requested by the executive director. Analytical laboratory reports, if requested by the TCEQ, may be submitted either electronically or in hard copy form.*
- *The facility will explain any problems encountered in the laboratory analysis, either by adding additional explanations to the checklist or by extending the laboratory case narrative.*

- *Any information required in the laboratory case narrative that cannot be completed by the laboratory will be completed by the permittee.*

Response: The requested change has been made and the revised pages are attached. Regarding the request that the permittee complete any information required in the laboratory case narrative (LCN) that cannot be completed by the laboratory, please note that the LCN is prepared by the laboratory performing the analyses, whereas, the facility performs waste disposal operations and is not necessarily knowledgeable about laboratory operations and therefore may not be able to provide information that cannot be provided by the laboratory. Nevertheless, the facility agrees to provide information required by the LCN that cannot be completed by the laboratory as long as it is technically feasible and is information the permittee is knowledgeable about.

Comment 8: *Section 5.1 has been revised to reference the "laboratory reporting limit". Please revise this to reference the "practical quantitation limit".*

Response: The requested change has been made and the revised pages are attached.

Comment 9: *Sections 5.1 Statistical Analysis for Organic Constituents (47 Volatile Organic Compounds) and 5.2 Statistical Analysis for Metals and 5.3 Statistically Significant Constituents and Verification Resampling state that notice will be provided for any SSI in any downgradient well. Please revise this to reference an SSI in any on-site well in accordance with §330.407(b).*

Response: The requested change has been made and the revised pages are attached.

Comment 10: *Please revise Section 5.3 to state that the results of resampling will be submitted as appropriate for the statistical method being used within 60 days of the determination of the SSI as per §330.407(b)(2).*

Response: The requested change has been made and the revised pages are attached.

Comment 11: *Section 5.3 Statistically Significant Constituents and Verification Resampling states that assessment monitoring will be initiated "within approximately 180 days of the initial sampling date". Please revise this section to provide for assessment monitoring to be initiated in accordance with the timeframes specified in §330.407(b).*

Response: The requested change has been made and the revised pages are attached.

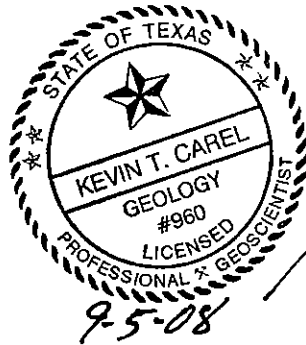
Comment 12: *Section 5.3 states that if an SSI is verified, assessment monitoring will be initiated for the well exhibiting the SSI and for the two immediately adjacent point of compliance wells. Please revise this to indicate that if*

*an SSI is verified, assessment monitoring will be initiated at the well(s) exhibiting the SSI and at the immediately adjacent wells on each side of the well(s) exhibiting the SSI, unless an alternative subset of wells is designated by the executive director.*

Response: The requested change has been made and the revised pages are attached.

In response to previous written and oral communication I understand that the TCEQ now believes that modifications of this type do not require public notice. Therefore please process this permit modification request as a non-notice modification.

I trust this information is acceptable. Please call if you have any questions.



Sincerely,

THE CAREL CORPORATION

Kevin T. Carel, P.G.  
President

Att: TCEQ Part 1 Application Page 1 and Signature Page  
GWSAP – Underlined/Strikeout Replacement Pages  
GWSAP – Clean Replacement Pages

cc: TCEQ Region 12 Office  
Burgess Stengl – Allied Waste Industries  
Mark Allendorf - Allied Waste Industries (e-copy)  
Jose Molina – Whispering Pines Landfill

**TCEQ Part 1 Application Page 1 and Signature Page**



# Texas Commission on Environmental Quality

## Permit or Registration Application for Municipal Solid Waste Facility

### Part I

#### A. General Information

Facility Name:	Whispering Pines Landfill			
Physical or Street Address (if available):	8101 Little York Road			
(City) (County) (State) (Zip Code):	Houston	Harris	TX	77016
(Area Code) Telephone Number:	713-633-2720			
Charter Number:				

If the application is submitted on behalf of a corporation, provide the Charter Number as recorded with the Office of the Secretary of State for Texas.

Operator Name <sup>1</sup> :	Whispering Pines Landfill TX, LP			
Mailing Address:	8101 Little York Road			
(City) (County) (State) (Zip Code):	Houston	Harris	TX	77016
(Area Code) Telephone Number:	713-633-2720			
(Area Code) FAX Number:	713-633-4262			
Charter Number:				

If the permittee is the same as the operator, type "Same as Operator".

Permittee Name:	Same as Operator			
Physical or Street Address (if available):				
(City) (County) (State) (Zip Code):			TX	
(Area Code) Telephone Number:				
Charter Number:				

If the application is submitted by a corporation or by a person residing out of state, the applicant must register an Agent in Service or Agent of Service with the Texas Secretary of State's office and provide a complete mailing address for the agent. The agent must be a Texas resident.

Agent Name:	CT Corporation System			
Mailing Address:	350 N. St. Paul Street			
(City) (County) (State) (Zip Code):	Dallas	Dallas	TX	75201
(Area Code) Telephone Number:	214-979-1172			
(Area Code) FAX Number:	214-754-0921			

#### Application Type:

<input type="checkbox"/> Permit	<input type="checkbox"/> Major Amendment	<input type="checkbox"/> Minor Amendment	
<input type="checkbox"/> Registration	<input checked="" type="checkbox"/> Modification	<input type="checkbox"/> Temporary Authorization	
	<input type="checkbox"/> w/Public Notice		
	<input checked="" type="checkbox"/> w/out Public Notice	<input checked="" type="checkbox"/> Notice of Deficiency Response	

<sup>1</sup> The operator has the duty to submit an application if the facility is owned by one person and operated by another [30 TAC 305.43(b)]. The permit will specify the operator and the owner who is listed on this application [Section 361.087 Texas Health and Safety Code].

Signature Page

I, Burgess Stenq1 (Operator), Environmental Manager (Title)

certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Burgess Stenq1 Date: 9/2/08

TO BE COMPLETED BY THE OPERATOR IF THE APPLICATION IS SIGNED BY AN AUTHORIZED REPRESENTATIVE FOR THE OPERATOR

I, \_\_\_\_\_, hereby designate \_\_\_\_\_ (Print or Type Operator Name) (Print or Type Representative Name)

as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

Printed or Typed Name of Operator or Principal Executive Officer

Signature

SUBSCRIBED AND SWORN to before me by the said Burgess Stenq1

On this 2<sup>nd</sup> day of September, 2008

My commission expires on the April 14<sup>th</sup> day of April, 2012

Tina M. Hlavaty  
Notary Public in and for  
HARRIS County, Texas

(Note: Application Must Bear Signature & Seal of Notary Public)

## **GWSAP – Underlined/Strikeout Replacement Pages**

**BFI-WHISPERING PINES LANDFILL  
HARRIS COUNTY, TEXAS  
TCEQ PERMIT NO. 1193**

**DETECTION MONITORING  
GROUNDWATER SAMPLING AND  
ANALYSIS PLAN(GWSAP)**

Prepared for:

BFI Waste Systems of North America, Inc.

March 1999

Revised December 2006

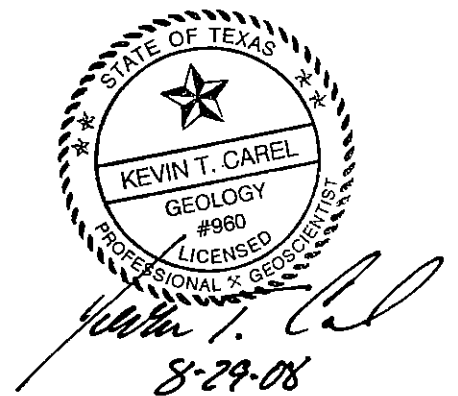
~~Revised March 2008~~

Revised September 2008

Prepared by



136 Pecan Street  
Keller, Texas 76248  
(817) 337-0112



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### **2.3.5 Purge Volume**

Low yield wells will be purged to dryness. Moderate to high yield wells will be purged a minimum of three (3) well volumes and to stabilization of field parameter temperature, specific conductivity, and pH.

- Parameter stabilization is defined as:
  - Specific Conductivity =  $\pm 10\%$  for three (3) consecutive measurements at approximately five (5) minute increments.
  - pH =  $\pm 10\%$  standard pH units for three (3) consecutive measurements at approximately five (5) minute increments.
  - Temperature =  $\pm 10\%$  for three (3) consecutive measurements at approximately five (5) minute increments.

Check water level after purge is complete.

Monitoring of temperature, pH, and specific conductivity for stabilization will be recorded on each Field Log (see Pages B.1 through B.6).

### **2.3.6 Purge Water Management**

On an individual monitor well basis, if purge water is known or suspected to be contaminated based on prior monitoring analytical data, the purge water shall be stored in appropriate containers until analytical results are available. After review of these analyses, proper arrangements for disposal or treatment of the water shall be made. Otherwise, purge water will be discarded on the ground surface away from the immediate monitor well area.

## **2.4 Monitoring Well Sample Collection**

### **2.4.1 General Sample Collection Information**

Sampling should take place as soon as purging is complete in moderate to high yield wells. For wells purged dry, sampling will take place within 24 hours once the well has sufficient recharge, typically the following day. The time interval between the completion of well purge and sample collection normally should not exceed twenty-four hours. According to TCEQ guidelines, with prior TCEQ approval, longer times not exceeding six (6) or seven (7) days may be allowed for slow recharging wells.

## **2.4.2 Sample Collection Order**

Samples will be collected and containerized according of the volatility of the requested analyses. A specific collection order is as follows:

- Field Parameters (Temperature, Specific Conductivity, pH, Turbidity)
- Volatile Organics
- Metals
- Inorganics

## **2.4.3 Sampling Equipment/Procedures**

Ground water samples will be collected with dedicated, permanently installed variable speed submersible pumps. Parts of the pump contacting the ground water sample will be constructed of stainless steel and Teflon. These are the same pumps used in well purge and have the ability to achieve low flow rates at approximately 100 ml/min.

Standard procedures for collecting representatives ground water samples after completion of purge is as follows:

- a. Reduce flow from pump to approximately 100 ml/minute and flow at this rate for approximately five (5) minutes.
- b. Sample field parameters.
- c. Sample for volatile organic compounds.
- d. Increase flow to a moderate rate (0.2 to 1.0 liters/minute).
- e. Sample metals.
- f. Sample general water chemistry parameters.

## **2.4.4 Sample Filtration**

In accordance with 30 TAC 330.405 9(c), groundwater samples will not be field-filtered prior to laboratory analysis.

### **2.4.4.2.4.5 Sample Preservation**

All samples will be containerized and preserved according to Page B.7, *Sample Containerization and Preservation of Samples*. Preservation acids may be added to the applicable sample container in the field or pre-preserved to the applicable empty containers at the laboratory prior to sample collection. Methods of preservation are intended to retard biological action, retard hydrolysis of chemical compounds and complexes, and reduce the volatility of constituents.

Samples requiring refrigeration to four degrees Centigrade, according to Page B.7, will be accomplished by placing the sample containers immediately into coolers containing wet ice or the equivalent and delivering to the analytical laboratory as soon as practical.

#### **2.4.52.4.6 Field Measurements**

Required field measurements include water levels, total well depth, temperature, pH, specific conductivity and turbidity. Water level and total depth measurement procedures are described in Section 2.3.2. Temperature should be measured immediately after collection of the sample. See Appendix C for pH/temperature, specific conductivity and turbidity procedures and schedule of calibration of these field instruments.

All instruments shall be properly calibrated and checked with standards according to the manufacturer instructions and the standard operating procedures outlined in Appendix C. Any improperly operating instruments must be replaced prior to continuing sample collection operations.

## **2.5 Record Keeping**

### **2.5.1 Field Logs**

All field notes must be completely and accurately documented. All field information will be entered on a standard BFI Field Information Log (see Pages B.1 through B.2). Included on Pages B.3 through B.6 is an explanation of each requested piece of information and the proper location to enter the data.

An individual field log is shown on Pages B.1 - B.2. All entries should be legible and made in black, indelible ink. Entry errors will be crossed out with a single line, dated, and initialed by the person making the corrections.

### **2.5.2 Chain-of-Custody / Sample Container labels**

Proper chain of custody records are required to insure the integrity of the samples and the conditions of the samples upon receipt at the laboratory, including the temperature of the samples at the time of log-in. The sample collector shall fill in all applicable sections and forward the original, with the respective sample(s), to the laboratory performing the analysis. Upon receipt of the samples at the laboratory, the sample coordinator is to complete the chain of custody, make a copy for his/her files, and make the original documents part of the final analytical report (see Page B.8 as an example of chain-of-custody).

All sample containers will be labeled to prevent misidentification. The following will be indicated on an adhesive label with a waterproof pen:

- Collector's name, date and time of sampling.
- Sample source.
- Sample Identification number.
- Sample preservatives (if any).
- Test(s) to be performed on the sample.

### **2.5.3 Sample Summary Log**

A quick reference summary sheet referred to as a Field Sample Summary Log (see Pages B.9 and B.10) presents a general overview of the field sampling program. This document is to be prepared prior to a specific sampling event and appropriately filled in with sampling dates each day. The field sample summary log shall be included with the final analytical report as part of the field note documentation section.

### **2.5.4 Monitor Well Inspection**

Inspection of the monitoring well integrity will be performed at a minimum of an annual basis by utilizing the BFI Ground Water Monitoring Well Condition Report (see Page B.11). In addition, during each ground water monitoring event not utilizing the Well Condition Report, visual problems with the monitor well integrity should be noted on the BFI Field Information Log.

## **2.6 Sample Transport**

Samples shall be shipped from the field back to the analytical laboratory either by hand delivery or utilizing an overnight courier service. Samples are to be shipped in sealed insulated shipping containers which maintain the samples at approximately 4°C. Overnight courier shipping containers must be a sturdy water-proof design (ice chests are commonly used) equipped with bottle dividers and cushion material to prevent breakage during shipment. The field crew shall contact the laboratory each time samples are sent to identify the samples being sent and the transportation carrier along with the shipping identification number.

## 4 SAMPLING FREQUENCY - DETECTION MONITORING

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### 4.1 Analyzed Constituents

The detection monitoring constituents at the facility will be as specified in 30 TAC 330.419 and 40 Code of Federal Regulations (CFR) 258 Appendix I (see Table 1 of this GWSAP). The practical quantitation limit (PQL) for each constituent will be less than the MCL or as low as practically feasible per 30 TAC 330.407(b) for each of the constituents, the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility, per 30 TAC 330.405(f)(5).

The practical quantitation limit (PQL) is defined as the lowest concentration reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions and is analogous to the limit of quantitation (LOQ) definition in the most recent available NELAC Standard (National Environmental Laboratory Accreditation Conference). The PQL is method, instrument, and analyte specific and may be updated as more data becomes available. The PQL must be below the groundwater protection standard established for that analyte as defined by 30 Texas Administrative Code Section 330.409(h) unless approved otherwise by the TCEQ. The precision and accuracy of the PQL shall be initially determined from the PQLs reported over the course of a minimum of eight groundwater monitoring events. The results obtained from these events shall be used to demonstrate that the PQLs meet the specified precision and accuracy as shown in the table below. The PQL will be supported by analysis of a PQL check sample, which is a laboratory reagent grade sample matrix spiked with chemicals of concern at concentrations equal to or less than the PQL. At a minimum, a PQL check sample will be performed quarterly during the calendar year to demonstrate that the PQL continues to meet the specified limits for precision and accuracy as defined in the table below.

#### QC Specification Limits for the PQL and Lower Limit of Quantitation Check Samples

<u>COC</u>	<u>Precision (% RSD)</u>	<u>Accuracy (% Recovery)</u>
<u>Metals</u>	<u>10</u>	<u>70-130</u>
<u>Volatiles</u>	<u>20</u>	<u>50-150</u>
<u>Semi-Volatiles</u>	<u>30</u>	<u>50-150</u>

For analytes that the established PQL cannot meet the precision and accuracy requirements in the table above, the owner/operator will ensure the laboratory will submit sufficient documentation and information to the TCEQ for alternate precision and accuracy limits on a case by case basis. Non-detected results will be reported as less than the established PQL limit that meets these precision and accuracy requirements.

## 4.2 Background

As stated in 30 TAC §330.405(b), the number of samples to be collected to establish groundwater quality data shall be consistent with the appropriate statistical procedures determined pursuant to 30 TAC §330.405(f). Due to the seasonal and temporal variations natural in groundwater analytical data and the distinctive change in Municipal Solid Waste Landfill (MSWLF) groundwater monitoring requirements in Texas, eight (8) independent samples from each background and each ~~downgradient~~ point of compliance well shall be collected and analyzed for the metal constituents listed in Table 1 to establish background water quality. Upon completion of background monitoring and during background updates, the facility will evaluate the data to ensure that they are representative of background groundwater constituent concentrations unaffected by waste management activities or other sources of contamination. The evaluation will be documented in a report and submitted to the executive director before the next subsequent groundwater monitoring event following the updated (or initial) background period.

For interwell statistical comparisons, after completion of the initial eight (8) quarterly background events, analytical data from ~~upgradient~~ background monitor wells will be incorporated into the background each monitoring event. Data will be evaluated for potential outliers prior to incorporation into background.

For intra-well statistical comparisons, after completion of the initial eight (8) quarterly background events, new quarterly or semi-annual data may be incorporated into background at a maximum frequency of once every two years. New data will be evaluated for any significant trends and potential outliers and if appropriate, incorporated into background.

## 4.3 Detection Monitoring Events

Within six (6) months after completion of background, sampling and analysis for both ~~upgradient~~ background and ~~downgradient~~ point of compliance monitor wells will be conducted on a semi-annual basis (every six (6) months) for constituents listed in Table 1.

#### 4.4 Groundwater Analysis Result Submittals

Statistical analysis will be performed in accordance no later than 60 days after each semi-annual sampling event. In the event that statistical analysis of the groundwater analytical results indicates an initial statistically significant increase (SSI) from background of any tested constituent at any ~~point of compliance on-site~~ well, a notice in writing to the Executive Director, or any local pollution agency with jurisdiction that has requested to be notified, will be submitted within fourteen (14) days of the determination of the SSI (30 TAC §330.407(b)).

Three (3) copies (triplicate) of an annual detection monitoring report describing groundwater sampling and analysis results will be completed on state reporting forms (e.g. TCEQ-0312 or subsequent versions) and will be submitted to the TCEQ no later than ninety (90) days after the facility's last groundwater sampling event in a calendar year and will include information determined since the previously submitted annual report (30 TAC §330.407(c)). In the event the facility is in assessment monitoring, three (3) copies (triplicate) of an annual assessment monitoring report describing groundwater sampling and analyses results will be completed on state reporting forms (e.g. TCEQ-0312 or subsequent versions) and will be submitted to the TCEQ no later than sixty (60) days after the facility's last groundwater sampling event in a calendar year and will include information determined since the previously submitted annual report (30 TAC §330.409(k)). The annual detection and assessment reports will also include all other information required in §330.407(c)(1-6) and §330.409(k)(1-6), respectively. ~~Data may also be required to be submitted to the TCEQ on diskette or another format as specified by the TCEQ.~~

The facility will submit a laboratory case narrative (LCN) and a laboratory checklist with all analysis submitted to the TCEQ. In place of the laboratory checklist, the facility may submit a copy of the laboratory QA/QC and analytical data. The facility will also provide laboratory analytical data as requested by the executive director. Analytical laboratory reports, if requested by the TCEQ, may be submitted either electronically or in hard copy form. Attempts to explain any problems encountered in the laboratory analysis, will either be done by adding additional explanations to the checklist or by extending the LCN. The facility will provide information required by the LCN that cannot be completed by the laboratory as long as it is technically feasible and is information the permittee is knowledgeable about.

