



July 30, 2009
Project No. 09-07-23

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 10, 2009,
Whispering Pines Landfill, MSW Permit No. 1193, Harris County, Texas;
WWC 11995235, 12441213; RN100216878/CN601528094**

Dear Mr. Brown:

This letter is written to provide a response to the comments in a letter dated July 10, 2009, from the Texas Commission on Environmental Quality (TCEQ), regarding the Groundwater Sampling and Analysis Plan (GWSAP) Permit Modification. The letter requested that the TCEQ comments be addressed within 30 days (August 9, 2009). The TCEQ's comment/questions are provided below in italics with our response immediately following.

Comment 1: *Section 2.4.4 Sample Filtration states "in accordance with 30 TAC §330.405(c), groundwater samples will not be field-filtered prior to laboratory analysis". Please further revise to state that samples will not be filtered in the field or in the laboratory.*

Response: Section 2.4.4 has been revised to state: "In accordance with 30 TAC 330.405(c), groundwater samples will not be filtered in the field or in the laboratory prior to laboratory analysis." Revised pages are attached.

Comment 2: *Sections 3 Laboratory Procedures/Performance Standards includes references to 30 TAC Chapter 330, Subchapter F (Analytical Quality Assurance and Quality Control) which expired on January 1, 2009. We request that you remove all references to 30 TAC, Chapter 330, Subchapter F in Section 3 and elsewhere in the GWSAP.*

Response: All references to 30 TAC, Chapter 330, Subchapter F have been removed from Section 3, which is the only section that references Subchapter F. Revised pages are attached.

Comments 3 & 4: *Section 4.4 Groundwater Analysis Result Submittals states "The facility will provide information required by the LCN that cannot be completed by the laboratory as long it is technically feasible and is information the permittee is knowledgeable about". We request that*

this be revised to state "Any information required in the laboratory case narrative (LCN) that cannot be completed by the laboratory will be completed by the permittee". We understand that the facilities rationale for the original language was that the facility performs waste disposal operations and is not necessarily knowledgeable about laboratory. While we understand the facility may not be knowledgeable in laboratory operations, this includes information regarding any field activities that effect or potentially effect laboratory analysis, including, but not limited too, identifying field blanks, trip blanks, equipment blanks, and sample duplicates that can only be completed by the permittee. It is for this reason that we are requesting the changes to Section 4.4. Additionally, we believe that the term "technically feasible" is insufficiently concise and request that it be removed from Section 4.4.

Response: The term "technically feasible" has been removed from Section 4.4 and has been revised to state: "Any information required in the LCN that cannot be completed by the laboratory will be completed by the permittee." Revised pages are attached.

Comment 5: *Please add a sentence in Section 5.1 and 5.2 to clarify that "apparent SSI" correspond to the SSI referred to in the first sentence of 30 TAC §330.407(b), and are based on the statistical evaluation of an initial sample during a detection monitoring event that has not yet been confirmed by verification resampling. This will help ensure that timelines for actions listed in the subsections of §330.407(b) are counted from the date of that event.*

Response: The following sentence has been added to Sections 5.1 and 5.2: "An apparent SSI is consistent with the SSI discussed in 30 TAC §330.407(b)." Other changes have been made to correct typographical errors and to clarify when statistical analysis of VOCs will begin. Revised pages are attached.

Comment 6: *Please revise the GWSAP to state that during the background data collection period, an interwell statistical analysis will be performed after each monitoring event on data from any new point of compliance monitor well. If significant statistical variation occurs due to natural spatial geologic variations the permittee may submit an alternate source demonstration.*

Response: Interwell statistical analysis can only be performed after a minimum of three background events have occurred. Hence, it is not possible to implement the statistical analysis as you requested. As an alternative, the facility will ensure that well decommissioning will occur only after the new wells have been installed and background data has been established.

Statistical analyses will continue for the inorganic GWSAP parameters in current wells until such time as new wells are installed and total metals background is established in accordance with the facility statistical analysis plan.

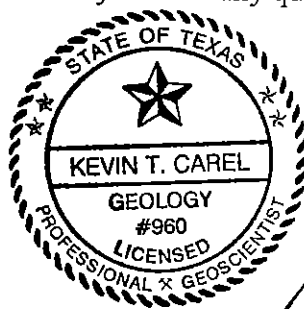
Volatile organic compound (VOC) monitoring for wells to be decommissioned will cease upon installation of new and replacement wells as detection monitoring for VOCs can commence immediately in new and replacement wells. SSI determination for VOCs are based on whether they are detected in the new monitoring system wells above a laboratory practical quantitation limit (PQL). The establishment of background will involve sampling total metals listed in 30 TAC §330.419 in all wells (existing and proposed) of the revised monitoring system. Following completion of background monitoring, statistical analysis will be conducted on an intra-well basis in accordance with the facility's GWSAP.

Comment 7: *Section 5.3 states "verification resampling will be completed within 60 days of the notification of the initial SSI". Please revise Section 5.3 to indicate that the results of verification resampling, as appropriate for the statistical method being used, will be submitted within 60 days of the determination of the SSI in accordance with §330.407(b)(2).*

Response: The requested change to Section 5.3 has been made and revised pages are attached.

Please note that references to Browning Ferris Industries (BFI) have been removed from the GWSAP, as they are no longer the owner of the facility. Revised pages are attached.

We trust this information meets your needs, please call Mr. Burgess Stengl at (713) 671-1561 or me at (817) 337-0112 if you have any questions.



7.30.09

Sincerely,

THE CAREL CORPORATION

A handwritten signature in black ink that reads "Kevin T. Carel".

Kevin T. Carel, P.G.
President

Mr. Charles Brown
July 30, 2009
Page 4

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 – Republic Services, Inc.
Mark Allendorf – Republic Services, Inc. (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:	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

¹ 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 Stengl, Environmental Manager
(Operator) (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 Stengl Date: 7/22/09

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.

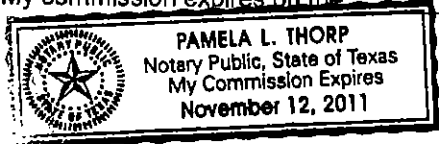
Printed or Typed Name of Operator or Principal Executive Officer

Signature

SUBSCRIBED AND SWORN to before me by the said Burgess Stengl

On this 22nd day of July, 2009

My commission expires on the 12th day of November, 2011



Pamela L. Thorp
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.~~
Whispering Pines TX, LP

March 1999

Revised December 2006

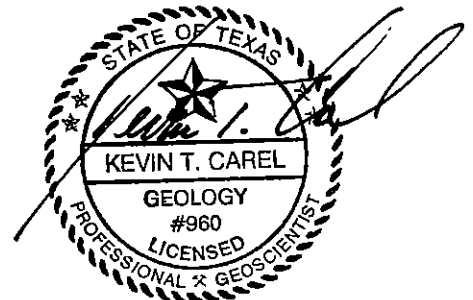
~~Revised September 2008~~

Revised July 2009

Prepared by:



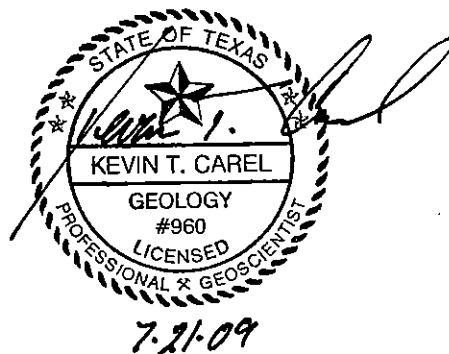
136 Pecan Street
Keller, Texas 76248
(817) 337-0112



7-21-09

CONTENTS

1	INTRODUCTION	1
2	FIELD PROCEDURES	2
2.1	Field Sampling Health and Safety Plan	2
2.2	Sample Event Preparation and QA/QC	2
2.3	Well Purge	6
2.4	Monitoring Well Sample Collection	8
2.5	Record Keeping	10
2.6	Sample Transport	11
3	LABORATORY PROCEDURES/PERFORMANCE STANDARDS	12
4	SAMPLING FREQUENCY - DETECTION MONITORING	15
4.1	Analyzed Constituents	15
4.2	Background	16
4.3	Detection Monitoring Events	16
4.4	Groundwater Analysis Result Submittals	17
5	STATISTICAL METHODOLOGY GROUNDWATER DATA ANALYSIS	18
5.1	Statistical Analysis for Organic Constituents (47 Volatile Organic Compounds)	18
5.2	Statistical Analysis for Metals	18
5.3	Statistically Significant Constituents and Verification Resampling	19
6	REFERENCES	20



CONTENTS (Continued)

APPENDIX A

Table 1 - Background/Detection Monitoring Parameters	A.1 – A.3
Table 2 - Minimum Precision Requirements	A.4
Table 3 - Minimum Accuracy Limits	A.4

APPENDIX B

BFI Field Information Log/Explanation	B.1 – B.6
Containerization and Preservation of Samples	B.7
Chain-of-Custody	B.8
Field Sample Summary Log/Example	B.9 – B.10
BFI Ground Water Monitor Well Condition Report	B.11
Prediction Limits Flow Chart	B.12 – B.13

APPENDIX C

Combustible Gas Meter/Calibration/Operation Procedures	C.1 – C.4
pH Meter/Calibration/Operation Procedures	C.5 – C.6
Conductivity/Temperature Meter/Calibration/Operation Procedures	C.7 – C.8
Turbidity Meter/Calibration/Operation Procedures	C.9 – C.10
Basic Water Level Indicator Procedures	C.11
Ground Water Sample Field Filtration Procedures	C.12 – C.13

APPENDIX D

Laboratory Checklist	D.1 – D.4
----------------------	-----------

1 INTRODUCTION

This Ground Water Sampling and Analysis Plan (GWSAP) has been prepared for the BFI-Whispering Pines Landfill site (Texas Commission on Environmental Quality [TCEQ] Permit No. 1193). The BFI-Whispering Pines Landfill is a Type 1 Municipal Solid Waste Disposal Facility located immediately west of FM Highway 527 (east Houston - Dyersdale Road), 1/4 mile north of Little York Road, and immediately north of Houston City limits in Harris County, Texas.

The following plan covers the procedures for collecting representative samples from ground water monitoring wells and the basic laboratory requirements for obtaining valid, defensible data. The plan is limited to sampling and analysis requirements and does not include monitoring well placement, design and construction, or well development procedures.

2 FIELD PROCEDURES

2.1 Field Sampling Health and Safety Plan

A health and safety plan is required for all ground water sampling events at the BFI Whispering Pines Landfill. Prior to monitoring well purging and sampling, the sampling contractor's Ground Water Sampling Health and Safety Plan must be in place. Designing the site Ground Water Sampling Health and Safety Plan will be the responsibility of the party performing the actual work.

In addition, each laboratory facility is responsible for their own standard laboratory health and safety plan as required by current OSHA regulations.

2.2 Sample Event Preparation and QA/QC

2.2.1 General Event Preparation

The laboratory performing the ground water analysis shall supply all necessary coolers, pre-cleaned containers, trip blanks, chemical preservatives, packaged refrigerant, labels, custody seals, chain-of-custody and shipping forms. All field data shall be entered on a BFI-Field Information Log (see Pages B.1 through B.6 in Appendix B). Any changes to the monitoring plan and/or procedures need to be given to the laboratory prior to the field sampling personnel arriving on the site. A specific contact person should be established at both the facility and contract laboratory for communication between the two (2) parties.

2.2.2 Sample Container Selection

Each sample container needs to be constructed of materials compatible and nonreactive with the sample it is to contain. Consult Page B.7 (Appendix B), Containerization and Preservation of Samples, to determine the number, type and volume of appropriate containers. As noted in Section 2.2.1, the contract laboratory performing the analysis shall supply all the required containers.

2.2.3 Sample Container Preparation

Sample containers will be purchased as a pre-cleaned product or cleaned in the laboratory in a manner consistent with EPA protocol. An example protocol is as follows:

- Bottles, vials, cubitainers, liners and caps hand washed in a laboratory-grade, non-phosphate detergent.
- Rinse three (3) times with distilled water.
- Rinse with a chemically pure or reagent grade 10% nitric acid solution.
- Rinse three (3) times with organic-free water.
- Oven-dried (air-dried for high-density polyethylene containers and caps).

After containers and caps are cool and dry, cap each container and store in a clean and dry environment.

2.2.4 Equipment Preparation Prior to Site Arrival

Dedicated purge and sample devices for the BFI-Whispering Pines Landfill are described in Section 2.3.3 and 2.4.3. This section outlines the equipment preparation prior to site arrival for a specific monitoring event. This equipment preparation includes, at a minimum, decontamination procedures for water level indicator(s), pH/temperature meter, specific conductivity meter, and turbidity meter. Operation and calibration information for field instruments are contained in Appendix C.

- Water Level Indicator(s) - Water level indicator(s) will be decontaminated prior to initial site arrival by hand washing the sensor probe and entire length of tape in a laboratory grade non-phosphate detergent followed by a triple rinse with organic free water. While the tape is reeled back onto the carrying spool, the tape and probe will be wiped down with a clean dry paper towel. Water level indicator devices will be checked on an annual basis for proper calibration and prior to each monitoring event by reeling a 50' and 100' length of tape on a clean surface and checking the length with a steel measuring tape. Any discrepancies will be noted as a correction factor on the side of the water level indicator reel.
- pH / Temperature Meter - Meters will be decontaminated by hand washing the sample cells in a laboratory grade non-phosphate detergent followed by a triple rinse with organic free water. Meters will then be checked for proper calibration and operation as specified in Appendix C. Any malfunctioning meters will be replaced prior to packing.
- Specific Conductivity Meter - Meters will be decontaminated by hand washing the probes in a laboratory grade non-phosphate detergent followed by a triple rinse with organic free water. Meters will then be checked for proper calibration and

2.3 Well Purge

2.3.1 General Well Purge Information

Purging a monitoring well is just as important as the subsequent sampling of the well. Water standing in a monitoring well over a certain period of time may become unrepresentative of formation water because of chemical and biochemical changes which may cause water quality alterations.

2.3.2 Water Level Measurement

Prior to any purge or sampling activity at each monitoring well, a water level measurement is required. As indicated on the BFI-Field Information Log (Pages B.1 through B.6), several other water level measurements are to be taken during the course of purge and sampling.

Water level indicator equipment will be constructed of chemically inert materials and will be decontaminated at each well with a non-phosphate detergent followed with deionized water rinse. Water levels will be measured with a precision of + /- 0.01 foot.

Each monitoring well has a reference elevation point located at the top of the well head assembly. This reference point elevation has been measured by a licensed surveyor in relation to Mean Sea Level (MSL). Basic procedures for water level measurement is indicated on Page C.11.

Ground water elevations in wells which monitor the same waste management area must be measured over a period of time short enough to avoid temporal variations in ground water flow which could preclude accurate determination of ground water flow rate and direction.

In addition to the static water level, a total well depth is required to be measured at each monitoring well during each ground water monitoring event. Well depth can be taken with a water level indicator device since the probe is heavy enough to keep the tape measure straight and to "feel" the bottom of the well. Total well depth will be measured prior to well purge to reduce the risk of any contamination from the water level probe during sample collection.

2.3.3 Purge Equipment

Ground water wells will be purged with dedicated, permanently installed variable speed submersible pumps. Parts of the pump contacting the ground water will be constructed of stainless steel and Teflon. These pumps will remain dedicated to each respective well

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 in the field or in the laboratory prior to laboratory analysis.

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.

2.4.6 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.

3 LABORATORY PROCEDURES/PERFORMANCE STANDARDS

~~Laboratory data and analyses will be performed and submitted in accordance with Chapter 330, Subchapter F, Analytical Quality Assurance and Quality Control, until its expiration on January 1, 2009, at which time~~ The facility will submit laboratory data and analyses prepared by a TCEQ-accredited environmental testing laboratory and in accordance with acceptable accreditation standards (e.g. NELAC).

~~In complying with Subchapter F,~~ The owner or operator shall review all analytical data submitted under the requirements of this permit to ensure compliance with data quality objectives, prior to submittal of the data to the commission for review. This data review must include examination of the quality control results and other supporting data, including any data review by the laboratory and must identify any potential impacts such as bias on the quality of the data using qualifiers in the test reports tied to explanations in footnotes and in any laboratory case narrative which is required.

It is the responsibility of the owner or operator to ensure that the laboratory documents and reports all problems and anomalies observed that are associated with the analysis. If the analysis of the data indicates that it failed to meet the quality control goals for the laboratory's analytical data analysis program, it does not necessarily mean that the data is unusable. The owner and/or operator may still report the analytical data but must report any and all problems and corrective action that the laboratory identified during the analysis.

A Laboratory Case Narrative (LCN) report for all problems and anomalies observed must be submitted by the owner and/or operator. The LCN will report the following information:

1. State the exact number of samples, testing parameters and sample matrix.
2. The name of the laboratory involved in the analysis. If more than one laboratory is used, all laboratories shall be identified in the case narrative.
3. State the test objective regarding samples.
4. Explain each failed precision and accuracy measurement determined to be outside of the laboratory and/or method control limits.

