

FACILITY FILE: CITRUS COUNTY  
CITRUS COUNTY LANDFILL



BOARD OF COUNTY COMMISSIONERS  
CITRUS COUNTY

NEW CITRUS COUNTY COURTHOUSE 4009C0086  
110 North Apopka Avenue  
Inverness, Florida 32650

(904) 726-8500

WACS# 39859  
Permit S009-111795

Reply To:

Claire Bartlett, Env. Tech. IV  
Landfill Supervisor  
Citrus County Landfill  
P.O. Box 440  
Lecanto, FL 32661

October 8, 1986

Mr. Nicholas Bruno  
Solid Waste Section  
State of Florida  
Department of Environmental Regulation  
7601 Highway 301 North  
Tampa, FL 33610-9544

Ed A  
Paul [Signature]  
FYR  
NB

Dear Nick:

Enclosed, please find a copy of the final report from Haztech, Inc. on the incident that occurred at the Citrus County Landfill facility August 20, 1986.

This report includes their summary of the incident and recommendations as well as possible causes however, no single piece of data was conclusive.

After you have reviewed this report, please advise if there is any further action required on our part. We have notified in writing all of the commercial haulers of garbage and septic to be extremely cautious as to what their drivers are collecting and to assist in the education of public to the hazardous wastes in our environment. Previously I submitted a copy of that letter to you for your files.

We again thank you for your help.

Sincerely,

*Claire*

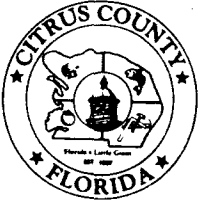
Claire Bartlett, ET IV  
Landfill Supervisor

ENCLOSURE: (1)

cc: Thomas H. Dick, Director  
Environmental Services Division

Richard Berg, Director  
Engineering Division

D. E. R.  
OCT 10 1986  
SOUTH WEST DISTRICT  
TAMPA



BOARD OF COUNTY COMMISSIONERS  
CITRUS COUNTY  
NEW CITRUS COUNTY COURTHOUSE  
110 North Apopka Avenue  
Inverness, Florida 32650

(904) 726-8500

Reply To:

Claire Bartlett, Env. Tech. IV  
Landfill Supervisor  
Citrus County Central Landfill  
P.O. Box 440  
Lecanto, Fl 32661

September 19, 1986

Mr. Nicholas Bruno  
Solid Waste Section  
State of Florida  
Department of Environmental Regulations  
7601 Highway 301 North  
Tampa, Florida 33610-9544

RECEIVED  
NOV 5 1986

EA, SOLID WASTE

Dear Nick:

Attached, please find a machine copy of a letter that we have sent to all the commercial garbage haulers that frequent the Citrus County Landfill facility.

If you have any further suggestions we may take to enlighten the public and others in this industry to avoid a "near disaster" such as the one we experienced, we would be more than happy to comply.

Again, thank you for all your help.

The final report has not yet been sent to me from the Haztech firm, however, I do expect that to arrive next week and will forward a copy to you for your review and finalization.

Sincerely,

*Claire*

Claire Bartlett, Env. Tech. IV  
Landfill Supervisor

/ceb

ATTACHMENTS: 1

cc: Thomas H. Dick, Director  
Environmental Services Division

Dick Berg, Director  
Division of Engineering

D. E. ...

NOV 23 1986

EAST DISTRICT  
TAMPA



BOARD OF COUNTY COMMISSIONERS  
CITRUS COUNTY  
NEW CITRUS COUNTY COURTHOUSE  
110 North Apopka Avenue  
Inverness, Florida 32650

(904) 726-8500

September 17, 1986

Reply To:

Department of Technical Services  
Central Landfill  
P.O. Box 440  
Lecanto, FL 32661  
Phone: (904) 746-2694

To All Commercial Collectors:

The recent incident at the sanitary landfill involving the illegal introduction of a pesticide product and subsequent death of many birds that prey upon refuse at the site was termed "serious" by the Florida Department of Environmental Regulation. The nature of the toxic material was such that the detrimental effects were relatively short-term and we are fortunate the incident was not even more threatening.

Even without this occurrence, we all know that the term "hazardous waste" is in the foreground. The recent small hazardous waste generator survey conducted by the Withlacoochee Regional Planning Council and the up-coming Amnesty Days program are prime examples of the growing concern over the proper handling of hazardous materials.

I believe that we who are employed in this refuse, collection and disposal industry have an obligation to educate and assist the general public in recognizing hazardous wastes and the need to dispose of them properly. Our target population should include both commercial and residential customers and we should be aggressive in our pursuit.

I think we all realize that it is next to impossible for us at the landfill site to insure that hazardous materials do not "enter" our facility. Likewise, you as collectors are faced with a similar problem of not being able to visually inspect the contents of every collection point container. Therefore, it is apparent that the key to our success in this endeavor lies with the education of our public.

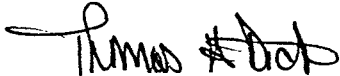
I have enclosed an "Amnesty Days" and Hazardous Waste Management" pamphlets which are available free of charge from the Florida Department of Environmental Regulation. Other free literature and posters are also available. The contact person for this program is Ms. Genie White, Communications Coordinator. She can be reached at the following toll-free number (800) 342-0184. I would urge each of you to contact her office and to utilize the resources that are available to us. Timely inserts in your billing mailouts would appear to be an ideal starting point for this education program. Our landfill staff will be happy to assist each of you in any way we can.

SOUTH W. TAMPA

Letter to All Commercial Collectors  
September 17, 1986  
Page Two

The solid waste disposal industry is important to each of us. Incidents such as the recent one at our facility is many times improperly perceived by the public and gives our industry a bad name. Let's all work together to eliminate the potential for a re-occurrence by becoming active in making our customers more aware of their individual waste products and proper disposal techniques. In doing so we can all benefit and keep the image of our industry one that we are proud of!

Very truly yours,



Thomas H. Dick  
Director

Enclosures

cc: Richard A. Berg  
Director, Div. of Engineering

Claire Bartlett  
Landfill Supervisor

jmc

**HAZTECH**

FINAL REPORT  
CITRUS COUNTY CENTRAL LANDFILL  
LECANTO, FLORIDA

FINAL REPORT  
CITRUS COUNTY CENTRAL LANDFILL  
LECANTO, FLORIDA

INTRODUCTION

HAZTECH, Inc. is pleased to present this final report on services performed at the Citrus County Landfill. It summarizes the previous information and presents new analytical data with discussion.

SUMMARY OF ON-SITE INVESTIGATION

On August 20, 1986, an unknown gas evolved in the commercial cell of the Citrus County Landfill near Lecanto, Florida. Two operators experienced headache and nausea as a result of exposure to the substance, and approximately 130 birds of assorted species died in the two days following release of the substance. The Landfill Supervisor notified the proper authorities and contracted HAZTECH to conduct an investigation. During the nights of August 21 and 22, HAZTECH's team excavated the area of concern and monitored the air for possible contaminants. The following items were found, but were not conclusive as to a source of the unknown substance:

- 1) A small cylinder (approximately 5 lbs.) with the valve broken off.
- 2) Two 2-gallon containers, labels off, but embossed with the name of a manufacturer of pesticides. The container type and manufacturer name were consistent with that of VAPAM®, a carbamate-based soil fumigant.
- 3) Six other pesticide containers, including some for Diazinon® and Sevin®.

TABLE 1

Results of Air Monitoring  
(Results in parts per million)

EXPLOSIVE ATMOSPHERE	ND
ORGANIC VAPORS	0.2-95
CARBON MONOXIDE	ND
METHANE	+
CYANIDE	2-10
HYDROCYANIC ACID	ND
HYDROGEN SULFIDE	ND
HYDROGEN FLUORIDE	ND
NITRIC ACID	ND
AMMONIA	ND

\*Not quantitative for methane.



4) Two partially crushed 55-gallon drums containing a resin. It is very unlikely that this material caused the incident, and the drums were turned over to the Landfill Supervisor for proper handling.

Air monitoring detected organic vapors in ranges of 0.2-95ppm and cyanide in ranges of 2-10ppm. Methane was also found but was clearly associated with an area of decaying organic material. A dead tern was submitted for necropsy and soil and water samples were collected. The on-site work is detailed in a report dated September 3, 1986.

### RESULTS AND DISCUSSION

While work on-site was still in progress, HAZTECH's Scientist consulted several authorities about the illness and death of the birds. These included Dr. Randy Caligiuri, a wildlife clinician at the University of Florida; Dr. Steven Sunlop, who specializes in avian (bird) toxicology and parasitology, also at the University of Florida; and Ms. Sue Hazeltine, a toxicologist with the United States Department of Interior Migratory Bird Research Center in Maryland. Following a description of the incident and of the birds' symptoms, both Dr. Caligiuri and Dr. Sunlop suspected pesticide poisoning. The manner of death was consistent with an acute dose of a strong pesticide, not chronic poisoning from a source of food or water. A carbamate-based pesticide (such as Sevin® and numerous fumigants) or an organochlorine/organophosphate type pesticide were suggested. Ms. Hazeltine concurred with this evaluation, but also suggested cyanide as a possible causative agent, since it is capable of killing birds at very low concentrations. Since air monitoring detected cyanide at the site, this source was indeed a possibility. HAZTECH's Certified Industrial Hygienist, Mr. Arthur Tippit and a senior member of the United States Environmental Protection Agency Region IV Emergency Response Division, Mr. Charles McPherson, were also consulted. Both felt strongly that a pesticide was the most likely cause of the incident.

Results from the necropsy of the bird performed by the Florida Department of Agriculture (FDA) Dade City Diagnostic Laboratory, appear in Table 2. HAZTECH's Scientist and Dr. Harold Albers of the Suncoast Seabird Sanctuary (Indian Rocks Beach, Florida) both requested that toxicology be performed on the specimen. The FDA veterinarian who performed the necropsy elected not to do so and did not inform HAZTECH. This was most disappointing.

The necropsy showed that the organs and systems of the bird appeared normal with the exception of the liver. Had cyanide

poisoning been the cause of death, changes in the lungs would have been expected. This was not seen. Postmortem changes in the liver, as noted in the report, are consistent with pesticide poisoning. The Candida fungal growth noted in several organs was felt to be a result of the period of illness suffered by the bird before death. Candida is an opportunistic fungus and is often seen as a secondary complication in weakened animals.

Since the spectrum of pesticides is so broad, requiring many different analytical methods, it had been planned that necropsy results would be used to guide soil and water analysis. By the time results were reported, the holding time for a pesticide water sample had passed, making any results questionable. The soil was submitted to Wadsworth/ALERT Laboratories, Inc. (WAL), in Bartow, Florida. WAL is an independent, certified laboratory. Without guidance from the necropsy, analysis for all pesticides would have been a time-consuming, expensive, "shot-in-the-dark" process. Therefore, a screen for some of the more common and persistent pesticides was requested. None of these twenty-seven compounds were detected (Table 3; WAL's quality control information follows the body of this report).

#### RECOMMENDATIONS

Though no single piece of data is conclusive, the body of information and the expertise of toxicologists and wildlife clinicians point toward the following conclusions:

- 1) The discharge of an unknown substance, not contamination of the food chain, was the cause of the illness in the landfill operators and of the death of the birds.

- 2) The discharged substance was most likely a pesticide.

Since illness and death of birds ceased within two days of the discharge, and since no containers holding any notable volumes of potential poisons were found in the area of the discharge, and since none of the screened pesticides were found in the soil, it is the feeling of HAZTECH's investigators that the discharge was a one-time occurrence. We believe that a vessel was ruptured, resulting in the evolution of a toxic gas and the poisoning of a number of birds. Some birds were killed at once by a strong exposure; those receiving smaller doses lingered one or two days before dying. The landfill staff acted quickly to restrict access, mitigate the incident and notify authorities. A search of the discharge area was conducted and a site investigation was performed. No residual contamination seems to remain. Based upon these facts, HAZTECH does not recommend any further actions in the matter of this incident.

AGE 1 FLORIDA DEPARTMENT OF AGRICULTURE & CONSUMER SERVICES 08/27/86  
DIVISION OF ANIMAL INDUSTRY / DADE CITY DIAGNOSTIC LABORATORY  
P. O. BOX 1031, DADE CITY FL 33525

PHONE (904)567-5176

ACCESSION # 86-P01809  
DATE REC'D 08/25/86

VETERINARIAN

OWNER

DR. HAROLD F. ALBERS  
1401 4TH ST., NO.  
ST. PETERSBURG FL 33704

DEDA JOHANSEN  
7813 B. PROFESSIONAL PLACE  
TAMPA FL 33637

SPECIES/TYPE AVIAN / WILDLIFE\*  
NUMBER OF ANIMALS 1

AGE UNKNOWN SEX UNKNOWN

SPECIMENS - DEAD BIRD.

TESTS REQUESTED AND HISTORY ON FILE. COPY AVAILABLE UPON REQUEST.

REPORTS- PRELIMINARY 08/27

TELEPHONE

FINAL

BASE COORDINATOR DR. I. HOWARD KAHAN

RESULTS OF EXAMINATION:

8/27/86

TERN (OR GULL)

NECROPSY

BIRD SOMEWHAT EMACIATED. HEART, LUNGS APPEARED NORMAL. LIVER SHOWED POSTMORTEM CHANGES. KIDNEYS NORMAL AND INTESTINES NORMAL.

BACTERIOLOGY

AEROBIC CULTURE - HEART - NO GROWTH.

AEROBIC CULTURE - LIVER - NO GROWTH, NO SALMONELLA ISOLATED..

AEROBIC CULTURE - LUNG - NO GROWTH.

FUNGAL CULTURE - INTESTINE - CANDIDA SP..

FUNGAL CULTURE - LIVER - CANDIDA SP..

FUNGAL CULTURE - CROP - CANDIDA SP..

VIRUS ISOLATION RESULTS TO FOLLOW

9/16/86 - Virus Isolation - Negative (per phone)



WADSWORTH/ALERT  
LABORATORIES, INC.

"TABLE 3"

CLIENT: Haztech/ Citrus City  
SAMPLE ID: Soil from study area  
MATRIX: Soil

LAB ID: 6114  
DATE REC'D: 9/22/86  
DATE EXT'D: 9/23/86  
DATE COMP'D: 9/29/86

ANALYTICAL REPORT CHLORINATED PESTICIDES

COMPOUND	RESULT	COMPOUND	RESULT
Aldrin	ND	Dieldrin	ND
Alpha-BHC	ND	Endosulfan I	ND
Beta-BHC	ND	Endosulfan II	ND
Lindane (Gamma-BHC)	ND	Endosulfan sulfate	ND
Delta-BHC	ND	Endrin	ND
Chlordane	ND	Endrin aldehyde	ND
4,4'-DDD	ND	Heptachlor	ND
4,4'-DDE	ND	Heptachlor epoxide	ND
4,4'-DDT	ND	Methoxychlor	ND
		Toxaphene	ND*

Note: ND (None detected, lower detectable limit = 0.1 mg/Kg)  
ND (None detected, lower detectabl limit = 1.0 mg/Kg)  
J (Detected, but below quantitation limit, quantitation suspect)



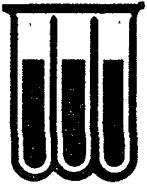
WADSWORTH/ALERT  
LABORATORIES, INC.

COMPOUND LIST -- ADDITIONAL PESTICIDES

Client: Haztech/ Citrus Hill  
Sample I.D.: Soil from study area  
W/AL Sample I.D.: 6114  
Date received: 9/22/86  
Matrix: Soil  
Date extracted: 9/23/86  
Date completed: 9/29/86

COMPOUND	RESULT
Diazinon	ND
Malathion	ND
Kelthane	ND
Parathion	ND
Ethion	ND
Trithion	ND
Tedion	ND
Guthion	ND

Note: ND (none detected, lower detectable limit = 0.1 mg/Kg )



WADSWORTH/ALERT  
LABORATORIES, INC.

### INTRODUCTION

In this report, Wadsworth/ALERT Laboratories presents the results of analysis from a soil sample submitted by HAZTECH. The sample was collected from the study area at the Citrus County Landfill and formally submitted to the laboratory in accordance with documented sample acceptance procedures. The sample was analyzed for organochlorine and organophosphate pesticides using United States Environmental Protection Agency approved methods SW-846, Methods 8080 and 8140.

A synopsis of Wadsworth/ALERT Laboratories' Quality Assurance/Quality Control Program is also included.



WADSWORTH/ALERT  
LABORATORIES, INC.

## LABORATORY QUALITY ASSURANCE PROGRAM

### OBJECTIVES AND POLICIES

The objectives of Wadsworth/ALERT Laboratories Inc.'s Laboratory Quality Assurance Program are to provide legally and scientifically valid laboratory services. This Laboratory Quality Assurance Program directs organizational adherence to systematic operating protocols which ensure that all generated analytical data is scientifically correct, legally defensible, and fulfilling of applicable environmental regulatory requirements. These operating protocols control and validate both evidentiary and technical aspects of all laboratory sampling and analytical services, including ALERT's mobile operation.

Wadsworth/ALERT's Laboratory Quality Assurance Program maintains standard organizational operating practices consistent with USEPA regulatory requirements for: evidentiary sampling, documentation, and chain-of-custody possession considerations; analytical quality control; laboratory documentation and security; data handling/reporting; and confidentiality measures. Key components of this quality assurance programs include: strict adherence to USEPA sampling and analytical method criteria and related documentation; continual analytical instrument performance specifications; mandatory instrument standardization schedules verified with systematic calibration checks; and continuous surveillance and documentation of acceptable analytical performance through routine analysis of quality control samples.

The following summary of Wadsworth/ALERT's Laboratory Quality Assurance Program is organized to briefly outline our quality control and documentation procedures from sample collection in the field (as appropriate) through generation of final analytical result reports. Component summary items include brief discussions of sampling quality control practices and related documentation (as appropriate), sample transport and/or shipment, laboratory sample submittal and acceptance procedures, general analytical quality control procedures, laboratory documentation, and laboratory analytical result review.



WADSWORTH/ALERT  
LABORATORIES, INC.

WADSWORTH/ALERT LABORATORIES INC.  
LABORATORY QUALITY ASSURANCE PROGRAM

ANALYTICAL QUALITY ASSURANCE PROGRAM

Wadsworth/ALERT Laboratories maintain an analytical quality assurance program designed to ensure valid and meaningful analytical results, which meet all acceptable method criteria for analytical accuracy and precision. This analytical quality assurance program consists primarily of a thorough laboratory documentation network in combination with mandatory, systematic inclusion of instrumental and analytical quality control procedures and practices into all laboratory analyses. The resulting quality assurance program data base legally documents all component analytical activities and confirms acceptable analytical instrument and method performance throughout the duration of all laboratory operations. The analytical quality assurance program thereby ensures that all laboratory data is legally and scientifically valid.

ANALYTICAL QUALITY CONTROL MANAGER - A designated Analytical Quality Control Manager implements Wadsworth/ALERT's Analytical Quality Assurance Program. This Analytical Laboratory Quality Control Manager supervises all analytical quality assurance program activities including laboratory sample acceptance, initial and continuous analytical method performance evaluations, and overall laboratory documentation. Additional specific duties include: preparation and distribution of all analytical quality assurance spiking solutions; continuous evaluation of all laboratory analytical precision and accuracy data; enforcement of all required analytical corrective actions; and management of a quarterly double blind intra-laboratory proficiency testing program.

LABORATORY SAMPLE ACCEPTANCE - Wadsworth/ALERT Laboratories, utilize routine sample acceptance procedures to formally document, characterize, and secure all approved samples entering the laboratory. A designated Laboratory Sample Custodian assigns a unique laboratory identification number and corresponding analytical work sheet(s) to each approved sample. This numbered work sheet(s) identifies the sample, specifies analytical agendas, and contains additional laboratory information. This sample information is also cross-referenced in the Laboratory Sample Logbook, with accompanying chain-of-custody possession statements. The Laboratory Sample Custodian places all samples in the secure sample storage area to be distributed as appropriate to all involved laboratory personnel in accordance with documented chain-of-custody procedures.





WADSWORTH/ALERT  
LABORATORIES, INC.

WADSWORTH/ALERT LABORATORIES INC.  
LABORATORY QUALITY ASSURANCE PROGRAM

ANALYTICAL QUALITY ASSURANCE PROGRAM (cont'd)

ANALYTICAL METHODS AND INSTRUMENTATION - Wadsworth/ALERT Laboratories utilize only the USEPA approved and/or proposed instrumentation, methods, quality control procedures, and standard laboratory practices outlined in the following USEPA analytical method manuals and guidance documents:

EPA/SW-846, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", 1982.

EPA/SW-846, "Proposed Sampling and Analytical Methodologies for Addition to Test Methods for Evaluating Solid Waste Physical/Chemical Methods", 2nd Edition.

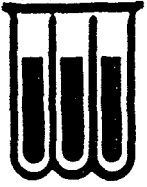
EPA 600/4-82-057, "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", July 1982.

EPA 600/4-79-02, "Methods for Chemical Analysis of Water and Wastes", March 1983.

EPA 600/4-79-019, "Handbook for Analytical Control in Water and Wastewater Laboratories".

EPA 330/9-79-001-R, "National Enforcement Investigation Center Policies and Procedures Manual", October, 1979.

INITIAL METHOD ACCURACY AND PRECISION - Wadsworth/ALERT Laboratories establishes the initial accuracy and precision of all analytical methods commonly used in the laboratory to ensure that the method performance is in accordance with specified EPA criteria. Prior to the analysis of any sample, matrix spike studies are performed according to approved EPA or consensus analytical procedures. The average percent recovery (R) and standard deviation of the percent recovery (s) calculated from these studies must compare favorably to the respective published EPA method performance criteria before the method is used for actual sample analysis.



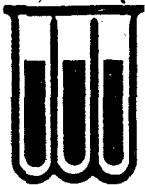
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LABORATORIES, INC.

WADSWORTH/ALERT LABORATORIES INC.  
LABORATORY QUALITY ASSURANCE PROGRAM

ANALYTICAL QUALITY ASSURANCE PROGRAM (cont'd)

ADDITIONAL QUALITY CONTROL - (cont'd)

10. Reference samples of a known concentration are prepared and analyzed over a long period of time in order to measure the accuracy and precision of the calibration and measurement process.
11. A quarterly intra-laboratory proficiency testing program is maintained in which known samples (EPA-EMSL standards spikes) are submitted for analysis as unknowns.



WADSWORTH/ALERT  
LABORATORIES, INC.

WADSWORTH/ALERT LABORATORIES INC.  
LABORATORY QUALITY ASSURANCE PROGRAM

ANALYTICAL QUALITY ASSURANCE PROGRAM (cont'd)

ADDITIONAL QUALITY CONTROL - In addition to the basic quality control procedures outlined previously, the following quality control checks are included in Wadsworth/ALERT Laboratories' Analytical Quality Assurance Program.

1. All analytical instrument performance specifications are maintained in accordance with specified EPA method criteria.
2. All GC/MS units are monitored every twelve (12) hours to ensure that instrument response on decafluorotriphenylphosphine (DFTPP) or 4-bromofluorobenzene (BFB) (as appropriate) is within EPA specifications.
3. Five (5) point GC/MS priority pollutant calibration curves are constructed for quantification purposes and are verified at least once every twelve (12) hours.
4. Method calibration curves are constructed for each individual batch of samples and systematically verified to ensure optimum quantifications.
5. Internal standards are added to all samples as appropriate to ensure consistent quantification.
6. Surrogate spikes are added to all GC/MS samples to monitor acceptable constituent recoveries.
7. Method blanks are systematically prepared in the lab, analyzed, and recorded in order to constantly evaluate the method background level and system interferences. Thirty-three percent (33%) of all quality control analyses are method blank.
8. Field duplicates are collected as appropriate and analyzed in order to determine the sampling precision.
9. Field spikes are performed as appropriate in order to determine sample integrity during the shipping and storage process.



WADSWORTH/ALERT  
LABORATORIES, INC.

WADSWORTH/ALERT LABORATORIES INC.  
LABORATORY QUALITY ASSURANCE PROGRAM

ANALYTICAL QUALITY ASSURANCE PROGRAM (cont'd)

CONTINUOUS METHOD PERFORMANCE EVALUATION - Wadsworth/ALERT Laboratories maintains continuous analytical method performance evaluations through systematic inclusion of duplicate/spike quality control samples into all laboratory analyses. The percent recovery determinations from these quality control samples provide a measure of the overall analytical method accuracy and precision. The R values from these spiked samples are entered in Wadsworth/ALERT's quality assurance computer system which maintains continuous R-s quality control charts for each analytical method commonly used in the laboratory. These quality control charts provide a continuous statistical method performance evaluation by visually comparing all recovery data to acceptable quality control values.

Percent recovery determinations from the systematic spiked sample analyses must compare favorably to designated quality control limits to approve a corresponding batch of analyses. Unacceptable spiked samples indicated by the quality control charts will render the corresponding analyses as suspect and prohibit further sample analysis until corrective action demonstrates the return of acceptable method performance.

The quality control analyses of duplicate/spike samples also provides additional analytical precision data. Relative percent difference determinations from the analysis of these samples is a direct measure of analytical precision. This precision data is also entered into Wadsworth/ALERT's quality assurance computer system and systematically monitored to ensure acceptable continuous analytical method performance.

Ten percent (10%) of all samples analyzed by Wadsworth/ALERT are analytical quality control samples. Sixty six percent (66%) of these quality control samples are duplicate/spike samples. These quality control samples are systematically included within all laboratory analyses to provide a continuous, thorough analytical method performance evaluation.