SITE SAFETY PLAN
FOR
INSTALLATION OF GAS PROBES
AT THE CALMAR FACILITY
333 SOUTH TURNBULL CANYON ROAD
CITY OF INDUSTRY, CALIFORNIA

Prepared by:

The Earth Technology Corporation
Health & Safety Office
100 West Broadway, Suite 5000
Long Beach, California 90802-5785
(213) 495-4449

Earth Technology Project No. 90-1007

Effective November, 1989

1.0 INTRODUCTION

This plan presents Health and Safety procedures and practices to be used during vapor probe installation in contaminated soil at the Calmar Incorporated Dispensing Systems Facility located at 333 South Turnbull Canyon Road, City of Industry, California. A total of 120 gas probes will be installed at the site.

All Earth Technology employees involved with on-site work for the subject project will follow this plan which supersedes all interim Health and Safety plans. In the event of a conflict between this plan and another regulatory guideline, the more stringent will be observed.

In addition to this plan, all on-site work will comply with any work plans for the Building Site which have been approved by Earth Technology.

2.0 GENERAL BACKGROUND

The Calmar facility was built on this site in about 1963. Prior to that time, the property was undeveloped. Calmar manufactures dispensing systems for household products (i.e., lotion pumps and spray pumps). These products are fabricated by injection molding of plastics. Raw material in the form of plastic beads is held in outside dispensing silos.

3.0 SCOPE OF WORK

The purpose of this project is to install 120 gas probes at various locations on the site. The gas probes will be driven to a depth of 4 feet below the ground surface. Samples will be collected from the gas probes and collected on charcoal media for immediate analysis of solvent contamination. Soil borings may be drilled to investigate any indications of contamination in the soil vapor study.

4.0 HAZARD ASSESSMENT AND PRECAUTIONS

Based on our previous investigations, 1,1 - dichloroethene, Dichloromethane, 1,1,1 - trichloroethane, Trichloroethylene, and Tetrachloroethene are present at the Site.

4.1 POTENTIAL CHEMICAL TOXICITY

The chemicals listed above are all solvents and have the same physical effects. These chemicals act as an anesthetic on the human body by depressing the central nervous system and has also shown symptoms of eye irritation, vertigo, tremors, nausea, and dermatitus. Exposures to high levels can sensitize the heart to epinephrine. The target organs are the respiratory system, heart, liver, kidneys, CNS, and skin.

4.2 POTENTIAL PHYSICAL HAZARDS

FLAMMABLE ENVIRONMENTS

Fire potential exists at this site during field operations. Chemical compounds which are flammable may not be identified and, therefore, any vapor or liquid must be treated as if it were flammable. * Smoking inside designated areas is prohibited.*

Fires involving flammable liquids are considered Class B fires. They require blanketing or smothering to extinguish the fire. This effect keeps oxygen away from the fuel, and can be obtained with Carbon Dioxide (CO2), dry chemical, foam, loaded stream, or multipurpose dry chemicals. Water Spray, CO2, and dry chemical extinguishers are marked by a Class "B" on a background of red.

HYPOTHERMIA AND HEAT STRESS

Four factors will influence the interchange of heat between field personnel and hot environments. These are 1) air temperature, 2) air velocity, 3) moisture content of the air, and 4) radiant temperature. The hot environment problem is one in which a combination of these factors produces an imbalance of metabolic heat production and heat loss. When heat loss fails to keep pace with heat gain, certain physiological mechanics come into play: dilation of blood vessels, increased cardiac output, and increased sweat production. Prolonged exposure to excessive heat may cause increased irritability, decreased morale, increased anxiety, and inability to concentrate. The physical disabilities caused by excessive heat exposure are, in order of increasing severity: heat rash, heat cramps, heat exhaustion, and heat stroke.

Symptoms of heat exhaustion usually begin with muscular weakness, dizziness, nausea and a staggering gait. Vomiting is frequent and the bowels may move involuntarily. The victim is very pale, his skin is clammy, he may perspire profusely. The pulse is weak and fast and his breathing is shallow. He may faint unless he lies down. Death can occur.

First aid for the victim is to first remove his from the work area and place him in a cool shady area with good air circulation. Remove all protective gear, call a physician, and give the victim sips of water with salt added or an electrolyte solution. Transport the victim to a medical facility as soon as possible.

Heat stroke is the most serious heat symptom because the core body temperature often raises to 105 to 110 degree F. The skin will be dry, red and hot and the symptoms are pain in the head, dizziness, nausea, and oppression.

First aid for heat stroke is to remove the victim from the work area, remove all protective clothing, and cool the body as fast as possible with ice, water, alcohol, or wet towels. Transport the victim ass soon as possible to the nearest medical facility.

Personnel should be aware of the factors influencing heat stress and of its systems in order to minimize potential hazards in the field.

Some of the following control measures may be used to help control heat stress:

- Provide adequate liquids to replace lost body fluids
- Provide electrolyte replacement fluid
- Establish a work regime to provide adequate rest periods for cooling down
- Provide a cool rest area

Hypothermia is a fall in body temperature to below 95 degrees F. The symptoms are drowsiness, lowers breathing and heart rates, and may lead to unconsciousness or death. Hypothermia can be caused by prolonged exposure to extremely cold weather, swimming in the sea, or wearing damp clothing in cold conditions. A person suffering from hypothermia is usually pale, puffy-faced, and listless. Hypothermia is a medical emergency and anyone suspected of suffering from it requires immediate medical attention.

NOISE EXPOSURE

Working around large equipment often creates excessive noise. The effects of noise can include physical damage to the ear, pain, and temporary and/or permanent hearing loss. Workers can also be startled, annoyed, or distracted by noise during critical activities.

If workers are expected to work where noise levels exceed an 8-hour time-weighted average sound level of 90 dBA (decibels on the A-weighted scale), administrative or engineering controls must be used.

5.0 MONITORING GUIDELINES

This section of the Health and Safety Plan outlines the air monitoring strategies which will be used to determine airborne concentration of contaminates.

5.1 Direct Reading Instruments

The flame ionization detector (FID) will be used on site to determine the airborne concentrations of solvents. This instrument shall be used at all hand augering areas, in the employees breathing zones, and at various locations around the site.

5.2 ACTION LEVELS

Monitoring Zone	Instrument	Response Level	Reading Interval	Response
Breathing Zone	PID	<15 ppm above background	Continuous	Continue working and continue monitoring the work area
Breathing Zone	PID	>15 ppm above background	Continuous	Stop work and Consult the safety officer

6.0 SAFETY AWARENESS

Every safety hazard associated with field operations cannot be anticipated accordingly, rules cannot be developed for every contingency that could arise. Consequently, a practical safety program consists not only of written procedures, but also of the application of a great deal of common sense, judgment, and technical analysis. While all employees are required to adhere to procedures presented in this document, this health and safety plan stresses the importance of maintaining a high level of awareness. This involves constant vigilance for unsafe or potentially hazardous conditions or practices, and immediate corrective action.

Employees are encouraged to ask questions about any field conditions or situations about which they are uncertain or uncomfortable. Field conditions may be discovered which were unknown when the project was planned or implemented.

Safety awareness also includes personal observation of fellow workers. Some indications of possible exposure to hazardous or toxic chemicals are the following symptoms:

- Headaches.
- Dizziness.
- Blurred vision.
- Cramps.
- Irritation of eyes, skin, or respiratory tract.
- Changes in complexion, skin discoloration.
- Changes in coordination.
- Changes in demeanor.
- Excessive salivation, pupillary response.
- Changes in speech pattern.

I one or more of the above symptoms occur; notify the on-site safety officer or team leader, leave the contaminated work zone, decontaminate the individual if possible, and remove the individuals personnel protective equipment.

Have the worker rest in a cool place. Document the extent of contamination and the symptoms the worker is having. If symptoms persist, seek medical attention. Earth Technology's Occupational Physician is:

Dr. Peter Greaney
1103 Aneheim Blvd.
Aneheim, California
(714) 533-2211

7.0 SAFETY PRACTICES, PROCEDURES, AND REQUIREMENTS

7.1 GENERAL SAFETY PRACTICES

The following safety practices will be observed where exposure to potentially hazardous contaminants exists:

1. Eating, chewing gum or tobacco, and taking medication are prohibited in contaminated or potentially contaminated areas or where the possibility of the transfer of contamination exists. Smoking is prohibited throughout the site, except for specifically designated areas.

2. Thorough washing of hands is required before eating.

3. The field crew will avoid contact with potentially contaminated substances. The field crew will also avoid, whenever possible, kneeling on the ground, and leaning or sitting on drums, equipment, or ground. Monitoring equipment will not be placed on potentially contaminated surfaces (i.e., drums, ground, etc.).

4. Personnel will be familiar with and knowledgeable about standard operation safety procedures for both equipment utilization and site considerations.

5. Personnel will be familiar, knowledgeable, and adhere to all instructions in this Site Health and Safety Plan.

6. Supervisors and all personnel will consider fatigue, heat stress, and other environmental factors influencing the health of personnel.

7. All personnel will wear designated, approved protective clothing and devices as instructed by the Health and Safety Manager.

7.2 EDUCATION AND TRAINING

All personnel involved in field operations where close proximity to hazardous materials is expected must receive training in general safety practices, procedures, and equipment use. This includes thorough familiarization with this document and other such safety directives as may be considered appropriate by the On-Site Safety Coordinator (SSC).

The proper care, maintenance, and use of general safety equipment and personnel protective equipment is required.

7.3 EMERGENCY RESPONSE PROCEDURES

Emergency response procedures are to protect the health and safety of personnel working at the site and all persons present in the surrounding community. The Site Safety Plan procedures are designed to take all reasonable precautions to avoid any emergency situation and ensure a continuous work flow. These procedures will remain in effect for the duration of the site project. The objective of these procedures is to minimize the potential risk as much as possible.

Emergency phone numbers including paramedics, local hospitals and fire departments will be posted in the field trucks and are attached to this plan. The OSSC should obtain a site map of the facility showing emergency phone locations. All accidents will be reported to the Site Safety Coordinator immediately and followed with a report.

a. Initiation of Emergency Response - Emergency response procedures will be initiated in response to the following situations:

- o Fire on site
- o Natural disaster
- o Air emissions which pose an immediate danger
- o On-site accident or equivalent failure that poses immediate danger to life or health

b. Responsibilities - The On-Site Safety Coordinator will have overall responsibility for the proper functioning of emergency response procedures. Specific activities will include:

- o Monitor Personnel Protective Equipment
- o Monitor Decontamination Procedures
- o Coordinate Emergency Response Actions
- o Institute a Site Specific Training Program

Response procedures for personnel exposure based problems are outlines in Section 6.0. The primary response to other hazards such as fire and other disasters is to assure an orderly evacuation of the site and notification of emergency personnel listed in Section 9.0.

7.4 SAFETY EQUIPMENT AND PROTECTION

7.4.1 General Safety Equipment

The following safety equipment and information will be provided on-site by the Contractor for use when needed. All equipment must meet Federal and State OSHA requirements and shall be checked on a weekly time interval to ensure that it is in proper condition.

- o First-aid kit
- o 5 lb fire extinguisher (ABC all purpose dry chemical)
- o Hand cleaner and towels
- o Clean water for washing or drench shower in case of an accident
- o Emergency phone numbers (hospital, police, fire department, etc.)
- o Additional equipment as required to provide an adequate safety at the site.

A list of emergency numbers (telephone numbers and radio call numbers, as appropriate) will be posted at the on-site job command post. These emergency numbers include the local police, fire department, medical care, paramedical squad, and the nearest emergency containment service. The names and telephone numbers of Earth Technology's key personnel will be include. All team members will be instructed in how to obtain assistance. In the event of an emergency (accident, illness, explosion, hazardous situation at the site, or intentional acts of harm), emergency assistance will be obtained by the On-Site Safety Coordinator or other member of the team if the OSSC is unable to do so.

7.5 Level of Protection and Personal Protection Equipment

Level D protection will be worn at the site.

Personnel protection equipment required for Level "D" protection includes:

- o Coveralls: Tyvek or Cloth
- o Boots/Shoes: Steel toed
- o Eye Protection
- o Hard Hat (face shield optional)
- o Chemically Resistant Gloves

Level "D" Protection can be worn only under the following circumstances:

- o No indication of airborne health hazards present.
- o No gross indications above background on the Organic Vapor Analyzer.
- o Continuous air monitoring will occur while wearing Level D Protection.

Level C protective gear will be available on-site for all work personnel. Personnel will be prepared to upgrade to this level when the action levels are reached.

Personnel Protective Equipment recommended for Level C protection includes the following:

- o Full-face, air purifying respirator (NIOSH approved) equipped with organic vapor cartridge (color coded yellow)
- o Tyvek coverall with hood taped to respirator
- o Chemically resistant gloves taped to coveralls
- o Hard Hat (face shield optional)
- o Boots (chemically resistant with steel toe and shank)
- o Equipment operators may use half-face respirators and non-vented goggles in place of a full-face respirator

8.0 DECONTAMINATION

Field personnel could become contaminated in the course of performing field operations. Personal protective equipment, such as Tyvek, chemically resistant gloves, and well designed work practices help mitigate such contamination. Field investigators, instruments and equipment are at constant risk of contacting hazardous materials.

The extent of decontamination is adapted to site specific conditions. The actual conditions may require more or less intensive effort. The toxicity of contaminants or hazard risk expected govern the degree of decontamination. Highly toxic or skin-destructive materials require full decontamination procedures. Less hazardous substances warrant a lower degree of decontamination complexity.

Field decontamination of personnel and equipment is required when contamination is obvious (visually or by odor). Recommended decontamination procedures follow.

A. Personnel

Solvents should be removed from skin using a mild detergent and water. Hot water is more effective than cold. Liquid dish-washing detergent is more effective than hand soap.

B. Equipment

Gloves, respirators, hard hats, boots, and goggles should be cleaned as described under personnel; however, if boots do not become clean after washing with detergent and water, wash them in a strong solution of trisodium phosphate and hot water.

Sampling equipment, augers, vehicle undercarriages and tires should be steam cleaned. The steam cleaner is a convenient source of hot water for personnel and protective equipment cleaning.

For this project, The Earth Technology field personnel's main concern is with solvent compounds. All decontamination activities will be coordinated with the On-Site Safety Supervisor.

9.0 SAFETY ORGANIZATION AND RESPONSIBILITY

9.1 Project Safety Personnel

Emergency Phone Number Listing:

Dave McElwain	Site Health and Safety Officer	Office:	(213) 495-4449
		Home:	(213) 377-7231
		Beeper:	1(800) 759-8255
		Pin Number:	18528
Mike Kammerzelt	Project Manager	Office:	(213) 495-4449

In Emergency:----------

Hospital	Queen of the Valley Hospital 1115 S. Sunset Avenue West Covina, California	(818) 962-4011
Poison Control		(213) 484-5151
Trauma Center	Presbyterian Inter-community 12401 E. Washington Blvd. Whittier, California	(213) 698-0811

Directions to Hospital

Take Turnbull Ave. North and go east on Valley Blvd. Turn right (north) on Sunset Blvd. The hospital is approximately 1 mile down Sunset and is located on the left hand side of the street. The cross street is Merced Avenue.

Refer to Figure 1 for map containing directions to this site's nearest hospital facility.

10.0 INCIDENT REPORT

The OSSC is responsible for submitting an incident report to the Site Health and Safety Officer (SHSO) should an incident occur during the site investigation. An incident is defined as an accident, illness, or case of exposure (suspected or actual). Another field team member may submit the report if the OSSC is unable to do so. The incident report will include the following:

- Date, time and place of occurrence
- Person(s) involved.
- Type of incident.
- Description of incident and action taken.
- Recommendations for prevention of a similar occurrence.

The report will be signed and dated by the person completing it. The SHSO will sign and date the report upon receipt. All accident reports and follow-up action on the incidents will be kept on file by the SHSO.

11.0 APPROVALS

The following approvals are provided to this Health & Safety plan dated November, 1989.

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Staff Industrial Hygienist	Date
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Mike Kammerzelt Project Manager	Date

12.0 SIGNATURE PAGE

I have read and reviewed the site-specific Health and Safety Plan for the site and understand the information presented. I will comply with the provisions contained therein.

NAME	ORGANIZATION	DATE
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APPENDIX D

GUIDELINES FOR REMOVAL OF UNDERGROUND WASTE OIL TANKS (CRWQCB)

STATE OF CALIFORNIA
GEORGE DEUKMEJIAN, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
1111 JACKSON STREET, ROOM 6040
OAKLAND 94607

Phone: Area Code 415
464-1255

February 26, 1987
File No. 1123.64 (TJC)

TO: LOCAL AGENCIES IMPLEMENTING UNDERGROUND TANK PROGRAMS

RE: GUIDELINES FOR REMOVAL OF UNDERGROUND WASTE OIL TANKS

The purpose of this letter is to provide guidance to local agencies regarding the removal of underground waste oil tanks. The following guidelines are in addition to the investigation and cleanup procedures specified in our "Guidelines for Addressing Fuel Leaks", September 1985. Waste oil tanks are used to store a variety of motor oils, however other materials are often discharged to these tanks such as degreasing agents and cleaning solvents. We have discovered instances where chlorinated solvents have been released from waste oil tanks into the surrounding soil and groundwater. We have also found that the heavier oil fractions are more mobile than previously assumed.

A soil sample is required from beneath each waste oil tank that is removed. In general, one soil sample is sufficient for performing analytical tests for a standard size (500 gal.) waste oil tank. However, for larger tanks more samples may be necessary. All samples must be analyzed by a certified analytical laboratory, and should be accompanied by an appropriate chain of custody document. Various field measurements (visual observations, odor, combustible gas readings) may be helpful in evaluating the nature and extent of soil contamination, however, the use of these methods does not obviate the need for the laboratory analyses of soil samples in all cases.

The following analyses should be performed on soil samples taken from waste oil tank excavations.

1. TOTAL PETROLEUM HYDROCARBONS (TPH, high boiling fraction as specified in Attachment 2 of our Guidelines)

2. TOTAL OIL & GREASE (TOG, using solvent extraction (EPA Method 3550), and gravimetric determination by Standard Method 503E)

3. VOLATILE ORGANIC COMPOUNDS (VOC's, using EPA method 8240, or 8010 and 8020)

The results of the above analyses will be used to determine if additional investigation and cleanup is required. One key element

of the investigation requirements, as described in the Guidelines, is the need to determine if groundwater has been impacted.

When soil samples reveal that total oil & grease (TOG), or total petroleum hydrocarbons (TPH) are in excess of 100 ppm, or if volatile organic compounds (VOC) are present in any detectable concentration, a soil boring/monitoring well must be installed. Specifications for the installation of soil borings and monitoring wells are contained in Attachment 1 of our Guidelines.

If you have any questions concerning this matter please contact Tom Callaghan at (415) 464-0787.

Sincerely,

Roger B. James
Executive Officer

cc: Local Agency List
Certified Laboratory List

ATTACHMENT 2

ANALYTICAL PROCEDURES FOR THE DETECTION AND QUANTIFICATION OF TOTAL PETROLEUM FUEL HYDROCARBONS AND FUEL CONSITUENTS

The following analytical procedures and analysis shall be used for the detection and quantification of petroleum hydrocarbons and fuel consituents. These techniques are to be followed when analysis is required for evaluation of either a suspected or confirmed tank leak as presented in the guidelines. These analytical techniques cover the full range of petroleum fuel hydrocarbons from gasoline (C_4-C_{12}) to jet fuel (C_{10}-C_{16}), to diesel (C_9-C_{22}) in either a liquid or solid matrix. Detection of complex hydrocarbon mixtures are best achieved using a Gas Chromatograph with a Flame Ionization Detector (GC/FID).

I. TOTAL PETROLEUM FUEL HYDROCARBONS ANALYSIS

(Low to medium boiling point hydrocarbons)
This includes the full range of gasoline. This technique may also be appropriate for military grade jet fuels.

A. Sample Preparation

1. Water

Use EPA method 5020, Headspace or EPA method 5030, Purge and Trap, (EPA manual SW-846, April 1984).

2. Soil

Use EPA method 5020, Headspace or EPA method 5030, Purge and Trap, (EPA manual SW-846, April 1984). Polyethylene glycol (PEG) or Methanol can be used as a extracting solvents. Extractions are applicable for the analyses of both fresh or aged fuels.

B. Analysis

1. Chromatographic operations for detection of total petroleum fuel hydrocarbons without BTX distinction.

   Detector: Flame Ionization
   Column: 10 Percent SP-2100 on 80/100 Supelcort (8ft x 1/8" glass column). Capillary columns may also be used as a substitute to improve separation.

B. Analysis (cont)

Typical Operating Conditions:

Carrier Gas: Nitrogen or Helium at 30mL/min.
Injector Temperature: 250°C
Detector Temperature: 300°C
Column Temperature: 40°C hold for 3 minutes. 10°C/min ramp rate to 300°C or until at least 95% of all components are eluted.

B. Analysis (cont)

2. Chromatograpic operations for detection of total petroleum fuel hydrocarbons with BTX distinction.

Detector: Photo Ionization in series with Flame Ionization.
Column: Carbopack B/3 percent SP-1500

Typical Operating Conditions:

Carrier Gas: Nitrogen or Helium at 10mL/min.
Injector Temperature: 200°C
Detector Temperature: 250°C
Column Temperature: 100°C x 6 min to 225°C at 10°C/min hold 25 min. or until at least 95% of all components are eluted.

C. Quantification

Quantify Total Petroleum Fuel Hydrocarbons by intergrating all major peaks within the time period in which at least 95% of the recoverable hydrocarbons are eluted. Calibration shall be based upon an appropriate fuel standard representative of the suspect fuel.

If an appropriate sample for calibration does not exist, as in the case of an aged fuel, calibration shall be done using a "non-aged" representative fuel standard.

Calibration should be established within the estimated range of contaminant levels within the sample, based on odor or sheen or on prescreening measurements (i.e., combustable gas meter, or I.R. method). Where "non-detectable concentrations" are reported, the level of detection shall not exceed 10 ppm for soil and 50 ppb for water.

II. TOTAL PETROLEUM HYDROCARBONS ANALYSIS

(High boiling point hydrocarbons)

This analysis includes the range of diesel motor fuels and commerical grade jet fuels.

A. Sample Preparation

1. Water

Use EPA method 3510, Separation, (EPA manual SW-846, April 1984). Partitioning with hexane has been found to be an acceptable preparation, however other appropriate solvents may also be used.

2. Soil

Use EPA method 3550, Sonication Extraction. (EPA manual SW-846, April 1984). Acetone extraction with sample partitioning in hexane has been found to be an acceptable sample preparation, however other appropriate solvents may also be used.

B. Analysis

Chromatographic operations for detection of total petroleum fuel hydrocarbons.

Detector: Flame Ionization
Column: 10 Percent SP-2100 on 80.100 8ft x 1/8" glass supelcoport. Capillary columns may also be used as a substitute to improve seprartion.

Typical Operating Conditions:

Carrier Gas: Nitrogen or Helium at 30mL/min.
Injector Temperature: 250°C
Detector Temperature: 300°C
Column Temperature: 40°C hold for 3 minutes. 10°C/min ramp rate to 300°C or until at least 95% of all components are eluted.

C. Quantification

Quantify Total Petroleum Fuel Hydrocarbons by intergrating all major peaks within the time period in which at least 95% of the recoverable hydrocarbons are eluted. Calibration shall be based upon an appropriate fuel standard representative of the suspect fuel.

If an appropriate sample for calibration does not exist, as in the case of an aged fuel, calibration shall be done using a "non-aged" representative fuel standard.

Calibration should be established within the estimated range of contaminant levels within the sample, based on odor or sheen or on prescreening measurements (i.e., combustable gas meter, or I.R. method). Where "non-detectable concentrations" are reported, the level of detection shall not exceed 10 ppm for soil and 50 ppb for water.

III. Quantification of Benzene, Toluene, and Xylene (BTX).

A. Sample Preparation

1. Water

Use EPA Method 602, or EPA method 5020, Headspace or method 5030, Purge and Trap, (EPA manual SW-846, April 1984).

2. Soil

Use EPA method 602 or EPA method 5020, Headspace or method 5030, Purge and Trap, (EPA manual SW-846, April 1984).

B. Analysis

Use EPA method 602 or 8020, (EPA manual SW-846 April 1984).

IV. Quantification of Ethylene Dibromide (1,2 Dibromoethane, EDB).

Use EPA method 601 or appropriate method in Recommended Methods for Analysis of Components in AB 1803, Pg. 301. (a), or any other Department Health Services analysis approved under the 1803 program.

V. Quantification of Tetraethyl Lead.

Use EPA method 7421 Atomic Adsorption/Graphite Furnace (AA/GF).

Results shall be reported as Total Lead.

a. Khalifa, Safy, Ph.D., Templin B.R. Ph.D., Spath, David, Ph.D., Recommended Methods Of Analysis For The Organic Components Required For AB 1803. Department of Health Services, State of California. May 1985