

MISSISSIPPI STATE CHEMICAL LABORATORY

INDUSTRIAL AND AGRICULTURAL SERVICES DIVISION PRICE LIST FOR ANALYTICAL SERVICES JULY 1, 2008



	(Area Code 662)
DR. KEVIN L. ARMBRUST , State Chemist.....	325-3324
DR. PAUL J. BRIGNAC , Associate State Chemist, IAS Division, Quality Assurance..	325-3324
DR. KANG XIA , Director Research & IAS Division	325-5896
DR. JOSE RODRIGUEZ , Director Chemical Regulatory & Petroleum Products	325-2653
DOUGLAS A. CRAWFORD , Chief Chemist, IAS Division.....	325-3250
CHRISTINA VALSAMAKIS , Environmental Residues.....	325-2955
GALE HAGOOD , Environmental Residues.....	325-2955
SUSAN HOLDER , Microbiology, Pesticide Formulations	325-2501
WILLIAM HOLMES , Mass Spectrometry.....	325-7811



P.O. Box CR, Mississippi State, MS 39762 (662)325-3428 FAX(662)325-7807

www.mscl.msstate.edu

**INDUSTRIAL AND AGRICULTURAL SERVICES DIVISION
PRICE LIST FOR ANALYTICAL SERVICES
"JULY 1, 2008"**

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GENERAL INFORMATION

This price list is not meant to be all-inclusive. For information on services not listed, please contact one of the key personnel listed on the cover of this price list. Quotes will be provided for individual samples; discounts may be given for samples submitted in groups. The term **SUBSEQUENT SAMPLE** refers to those of a similar nature submitted at the same time and analyzed together in a group. The single sample price applies if no subsequent price is shown. In certain situations benefiting both parties, a contract may be negotiated between MSCL and a client for analysis of a large number of samples or analysis of samples on a regular basis for an extended period of time. **(All prices subject to change without notice.)**

All services within the limits of our capabilities can be made available only to the extent that personnel, funds, and equipment permit. The right is reserved to refuse any services which interfere with other functions of the Laboratory or which may involve a conflict of interests.

Recheck Analysis - If a client-requested recheck confirms the original test results, the client will be charged for the additional analysis. If recheck does not confirm the original results, the client will not be charged for the recheck analysis.

Limits of Liability - Our representation for the work is limited to the accuracy of analyses of samples as received. We assume no responsibility for the purposes for which the client uses the test results, nor liability for any other warranties, expressed or implied, including warranties of fitness for a particular purpose or for merchantability made by the client. These terms and conditions shall supersede any conflicting terms and conditions stated on any purchase order, or other order of work submitted by the client. MSCL liability is controlled by Sections 11-46-1, et seq., Mississippi Code.

Sample Pickup or Collection - MSCL does not pickup samples, nor does its personnel conduct field sampling operations. Samples must be submitted according to our protocols.

Sample Reporting and Payments- Normally, the original copy of the report will be mailed to the owner of the sample(s), along with an invoice of any net charges due. Additional copies of the report may be requested by providing name(s) and address(es) on the sample submission form. Cash, checks, money orders, or major credit cards will be accepted for payment of services rendered.

INSTRUCTIONS FOR SUBMITTING SAMPLES

When submitting a sample or samples for analysis, please give special attention to the following points:

1. Fill out and submit with each sample or group of samples an MSCL **Sample Submission Form** giving a complete description of problems encountered and analysis desired, as well as the name and address for reporting and billing.
2. Samples should be **fresh** and as **representative** as possible.
3. Put identifying marks on each sample.
4. Provide adequate amount of sample(s) for analysis.
5. Package samples securely and ship properly. Perishable samples should be shipped under refrigeration.
6. Special precautions that should be taken to preserve some analytes in water samples are listed below:
 - a. For metals, preserve by adding nitric acid (HNO₃) to adjust the pH to <2.
 - b. For cyanide, preserve by adding sodium hydroxide (NaOH) to adjust the pH to >12.
 - c. For sulfide, preserve by adding 2 ml zinc acetate plus NaOH to adjust the pH to >9.
 - d. For Ammonia & Total Kjeldahl Nitrogen, Total Phosphorus, COD, Oil & Grease, and Phenols, preserve by adding sulfuric acid (H₂SO₄) to adjust the pH to <2 and refrigerate at 4°C.
7. Refrigeration at 4°C is sufficient to preserve water samples to be analyzed for BOD, conductance, dissolved solids, acidity, alkalinity, nitrate, nitrite, silica and sulfate. Refrigeration at 4°C also appropriate for most organic analytes including pesticides, herbicides, petroleum hydrocarbons, volatile and semivolatile organics.
8. If in doubt as to proper **sampling** or **shipping** procedures to use, please contact one of

the key personnel listed on the cover of this price list.
9. Samples which are too large or bulky to send by the **U.S. Postal service** should be shipped to the **following address** by **United Parcel Service (UPS)** or **FedEx**:

MISSISSIPPI STATE CHEMICAL LABORATORY
MISSISSIPPI STATE UNIVERSITY

U.S. Postal: Box CR
Mississippi State, MS 39762

UPS or FedEx: 310 President's Circle
ROOM 1145, HAND LAB
MISSISSIPPI STATE, MS 39762

Sample Size, Selection, Preservation, Shipping, and Shipping Costs - Usually, one (1) pound or 454 grams of solid material, or one (1) pint of liquid, as available, will be sufficient. However, one (1) gallon is required for water and waste waters. Generally, samples should be fresh and as representative as possible. They should be maintained in their normal condition until delivered to the Laboratory. For Toxicological Tests, biological fluids and tissue samples should be kept cold, with all chemical preservatives omitted. Tissue may be frozen and iced. For Microbiological Tests, samples should be iced, but not frozen, and delivered for analysis as soon as possible. If in doubt as to the proper Sampling, Preservation, or Shipping, detailed instructions will be furnished upon request. **Costs for shipping samples, returning samples, or returning shipping containers back is paid by client.**

SAMPLE PRIORITY

PRIORITY DESIGNATION	TYPE SERVICE	EXPECTED COMPLETION	APPROXIMATE ANALYTICAL COST
3	In Order Submitted	Up to 4 Weeks*	Listed Price
2	Started as NEXT analysis ahead of samples already in queue	Up to 10 Days*	2X Listed Price
1	Immediate & Continuous	As Soon As Possible	4X Listed Price

*Time required for completion depends on the type analysis requested as well as the nature and volume of work already in progress.

Please note that a request for **PRIORITY 1** service indicates that work will often begin immediately on the sample and will continue until the analysis is completed, which may require the analyst to work through the night or over a weekend. **PRIORITY 1** status is not just for a client's convenience. It is to be requested only in situations where human health or safety are involved, or significant economic loss is imminent (as in factory or plant shut-down). The ultimate priority of workload is at the discretion of the State Chemist. Note that the analytical **cost** for **PRIORITY 1** services is **4X** the **listed price** for normal, routine service. Unless otherwise requested upon submission to the lab, samples are assigned **Priority 3**.

SAMPLE DISPOSITION

Unless arrangements are made when samples are submitted to the laboratory, the excess from samples not used for analysis will be held at the laboratory following reporting of results for designated periods of time (shown in the table below), after which they will be discarded.

Drinking Water	1 Month
Wastewater/Sludge/Soil	7 Days
Food/Perishables	7 Days
All Other Samples	1 Month

Hazardous Samples - Any unused sample suspected of being classified as "hazardous waste" will be returned to the client at his/her expense. Alternatively, we can arrange for proper disposal of hazardous waste samples for a fee. Clients may also request that non-hazardous samples be returned at his/her expense if so desired. The client retains ownership of all samples submitted to Mississippi State Chemical Laboratory.

Costs for other services provided by MSCL Scientists are as follows:

1. Consulting or providing expert testimony; minimum \$100 per hour, portal-to-portal.
2. Research or investigative studies conducted by MSCL scientists can be negotiable. Inquire.
3. Analytical Method Development can be arranged. Prices will be negotiated in advance depending on the amount of effort required. This will depend on what analytes, their stability, matrix, QC, instrumentation required, and amount of validation required. For very complicated method developments, the price could be quite expensive, from \$2000 to \$20,000. Inquire.
4. Travel - Current mileage rate for the State of Mississippi.

(ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE)

**"Over a Century of Serving the State of Mississippi with
Analytical Excellence"**

SECTION 1
FEED, FORAGE AND FOOD ANALYSES
Contact: Dr. Jose Rodriguez

	Cost Per Sample		Cost Per Sample
ASH		PROXIMATE ANALYSES	
Total	\$ 15	Protein + Ash, Fat, Fiber and Moisture	\$ 50
FAT		Protein + 1 From Above Group	\$ 30
Crude, Ether Extract	\$ 20	Protein + 2 From Above Group	\$ 35
Acid Hydrolysis	\$ 30	Protein + 3 From Above Group	\$ 40
Alkaline Hydrolysis	\$ 30	MICROSCOPY:	
FIBER		Qualitative For Ingredients	\$ 50
Acid Detergent (ADF)	\$ 20	Quantitative Estimation, Cost Based on Complexity of Sample	\$ 85 minimum
Crude	\$ 18		
Lignin	\$ 25	NFE , Nitrogen Free Extract	NC
Neutral Detergent (NDF)	\$ 25	Calculated Carbohydrate (Proximate required)	\$ 42
Total Dietary	\$160	NPN , NonProtein Nitrogen from Urea	\$ 25
MOISTURE			
Forced Draft Oven	\$ 15	TDN , Total Digestible Nutrients, calculated (Proximate required)	NC \$ 50
Karl Fischer	\$100	SAMPLE PREP (If Required) Grinding, Homogenizing,	\$10-\$40
PROTEIN			
Crude, LECO N ₂ Analyzer.	\$ 20	NC = No Charge	

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ANTIBIOTICS IN FEEDS

Bacitracin, Chlortetracycline, or Oxytetracycline\$ 50

CALCIUM (Ca) \$ 35

PHOSPHORUS (P) \$ 35

CALCIUM AND PHOSPHORUS\$ 50

CALORIES

Oxygen Bomb Calorimeter. \$ 80

Calculated From Proximate Results. NC

DRUGS IN FEEDS

Amprolium, Arsanilic Acid, Sulfathiazone, Sulfamethazine, or Zoalene \$ 60
(Inquire about others not listed)

GOSSYPOL IN FEEDS \$100

	Cost Per
	Sample
HAY AND SILAGE	
Protein, Fiber and Moisture	\$ 35
Plus pH	\$ 40

LIPIDS (FATS AND OILS)	
Cholesterol by FID/GC	\$ 85
Fatty Acid profile by FID/GC	\$ 85
Iodine Number	\$ 43

MYCOTOXINS IN FEEDS	
ELISA Mycotoxin Tests for:	
Aflatoxins.....	\$ 40
Other Mycotoxins	Inquire

NITRATE IN FORAGE	
Qualitative	\$ 20
Quantitative by Ion Chromatography	\$ 40

NUTRITION LABELING

The Nutrition Labeling and Educational Act of 1990 (NLEA) passed by the US Congress requires nutrition labeling for most foods, beginning in May 1994. The new food label will be headed with the title "Nutrition Facts", and the revised nutrition panel will present data for mandatory dietary components as well as voluntary components.

- Total Calories
- Calories from Fat
- Total Fat
- Saturated Fat
- Trans Fat
- Cholesterol
- Sodium
- Total Carbohydrate
- Dietary Fiber
- Sugars
- Protein
- Vitamin A
- Vitamin C
- Calcium
- Iron

Voluntary components that may be included are: Calories from saturated fat, polyunsaturated fat, monounsaturated fat, potassium, soluble fiber, insoluble fiber, sugar alcohol, other carbohydrate, and other essential vitamins and minerals. The following analyses are required to provide the necessary data for the 14 mandatory dietary components listed above:

NUTRITION ANALYSES (Sample Prep Fee may be Charged)	
Proximate (Protein, Ash, Fat, Fiber, Moisture)	\$ 50
Fatty Acid Profile by FID/GC	\$ 85
Cholesterol by FID/GC	\$ 85
Sodium (Digestion and AAS Analysis)	\$ 35
Carbohydrates (Calculated using proximate values)	NC
Dietary Fiber	\$160

Sugars by HPLC Screen	\$ 70
Vitamin A by HPLC	\$ 70
Vitamin C by HPLC	\$ 75
Calcium by AA	\$ 35
Iron by AA	\$ 35

(See next Page)

NOTE: It is very important that a representative sample of food product be submitted for nutrition analyses. A one pound composite sample should be submitted which consists of approximately 12 randomly selected samples from various batches, lots and/or cases of the food product.

	Cost Per Sample
Caffeine	\$150
pH	
Aqueous	\$ 15
PRUSSIC ACID in Forage (Qualitative For Cyanide)	\$ 30
SALT , Sodium Chloride	\$ 25
STARCH , Hydrolysis and Glucose Determination	\$ 90
SUGARS (In Syrup, Honey, Molasses, etc.):	
Brix, Degrees.	\$ 25
HPLC Screen for Fructose, Glucose, Lactose, Maltose and Sucrose.	\$ 70
Invert, by Copper Titration.	\$ 60
VITAMINS	
Beta Carotene	\$ 75
HPLC Analysis for A	\$ 70
Vitamin C	\$ 75

SECTION 2
METAL, MINERAL AND INORGANIC ANALYSES

Contacts:

Fertilizers - Dr. Jose Rodriguez
Other Analyses - Douglas Crawford

	Cost Per Sample
FERTILIZERS	
Nitrogen	\$30
Available Phosphorus (P ₂ O ₅ Equivalent) or Total P	\$30
Potassium, Potash (K ₂ O Equivalent)	\$30
N-P-K (Nitrogen, Phosphorus and Potassium in Fertilizer Materials)..	\$60
N-P-K (At Trace Levels in Lagoon Water, Soils and Solid Materials)..	\$90
Sulfur, Total	\$55
LIMESTONE, AGRICULTURAL	
Calcium Carbonate Equivalent.....	\$25
Calcium, Acid Soluble.....	\$35
Magnesium, Acid Soluble.....	\$35
Calcium plus Magnesium.....	\$45
Sieve Analysis (U.S. Standard Nos. 10 & 50).....	\$20
(Additional Sieve Size, each.....	\$15
RELATIVE NEUTRALIZING VALUE, (RNV).....	\$40
ARSENIC	
Quantitative.....	\$50
ASBESTOS IDENTIFICATION BY POLARIZED LIGHT MICROSCOPY (PLM)	\$30 to \$50
BORON (Send in Plastic Container)	
Percentage Levels	\$35
Trace Levels	\$65
CHLORIDE, Total by Bomb Digestion.....	\$75
CHLORINE, Available (Iodometric).....	\$50
CYANIDE, Qualitative.....	\$25
FLUORIDE.....	\$30
GIBBERELLIC ACID	\$100
IODINE:	
As Iodide.....	\$40
At Trace Levels.....	\$60
IONS by Ion Chromatography (IC)	
Sample Prep and Extraction Prior to Quantification by IC	\$30 to \$60
Anions: chloride, fluoride, sulfate, nitrite, nitrate, or phosphate	
Cations: sodium, potassium, ammonium, calcium, or magnesium (Per Ion)	\$30
Total Anion Scan	\$120
Total Cation Scan	\$120
MERCURY, By Cold Vapor (AAS).....	\$75

METALS, By Atomic Absorption Spectrophotometry (AA)	
SAMPLE PREP AND EXTRACTION Prior to Quantification by AA.....	\$10 to \$25
Aluminum, Antimony, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Silver, Sodium, Tin, Titanium, or Zinc (Per Metal).....	\$35
	Cost Per Sample
NITRATE	
Qualitative	\$15
Quantitative	\$35
PHOSPHATE (PO₄)	
Aqueous, Dissolved Inorganic (Ortho)	\$35
Total or Polyphosphate	\$50
PHOSPHORUS, Total	\$50
SELENIUM, By Graphite Furnace AA	\$50
SILICA	
by Gravimetric	\$60
by AA	\$30
SOLUBILITY	\$20
SULFUR/SULFATE:	
Soluble	\$30
Total	\$50

SECTION 3
WATER AND WASTEWATER ANALYSES
Contact: Douglas Crawford

	Cost Per Sample
ACIDITY/ALKALINITY	\$20
ARSENIC , Quantitative	\$50
BOD₅ (Biochemical Oxygen Demand)	\$35
BORON (Send in Plastic Container)	
Percentage Levels	\$35
Trace Levels	\$55
BTEX	\$Inquire
CALCIUM	\$35
CHLORIDE , Silver Titration	\$30
CHLORINE , Residual	\$30
CHROMIUM	
Total by Atomic Absorption	\$35
Hexavalent by Colorimetry	\$50
COD (Chemical Oxygen Demand)	\$40
COLOR	
Spectrophotometric (3 Color)	\$60
CYANIDE (Free or Total):	
<1 mg/L (Free or Total)	\$100
>1 mg/L (Free or Total)	\$40
Amenable To Chlorination (<1 mg/L)	\$100
Amenable To Chlorination (>1 mg/L)	\$40
DIESEL	Inquire
FISH PRODUCTION PARAMETERS	
pH, Alkalinity, Carbonate/Bicarbonate, Chloride, Ammonia Nitrogen, Iron, Calcium, Magnesium and Recommendations	\$130
FLUORIDE	\$30
FORMALDEHYDE	\$60
GUPPY BIOASSAY	\$20
HARDNESS (Calcium Carbonate Equivalent from Ca + Mg)	
Titration	\$60
Dip Stick	\$20

ION CHROMATOGRAPHY SCAN Per Ion, each\$30
 Anions (Chloride, Fluoride, Sulfate, Phosphate, Nitrate, Nitrite). .. \$120
 Cations (Sodium, Potassium, Ammonium, Calcium, Magnesium). \$120

IRON

Total \$35
 Dissolved \$35

**Cost Per
Sample**

IRRIGATION ANALYSES (For Crops, Ornamentals and Greenhouse)

pH, Conductance, Carbonate/Bicarbonate, Sodium, Calcium, Magnesium,
 Iron, Sulfate, Chloride and Recommendations \$140

LEAD

by AA \$35
 At Trace Levels and in Drinking Water by Graphite Furnace AA \$50

MAGNESIUM

by AA \$35
 by Ion Chromatography \$30

MERCURY

by Cold Vapor AA \$75

METALS, OTHER

by AA
 Aluminum, Antimony, Barium, Beryllium, Cadmium, Copper, Manganese,
 Molybdenum, Nickel, Potassium, Silver, Sodium, Tin or Zinc (Per Metal) \$35

N-P-K (at Trace Levels) \$75

NITROGEN

Albuminoid (organic) \$40
 Ammoniacal (with Distillation) \$40
 Kjeldahl Total (TKN) \$50
 Nitrate \$30
 Nitrite \$30

OIL AND GREASE (Liquid-Liquid Extraction) (Send in Glass Container)

With Methylene Chloride \$40
 With Hexane, Gravimetric (EPA 1664) \$60

ORGANICS by GC/MS

Acid Extractables Inquire
 Base-Neutral Extractables Inquire
 Volatile Organic Compounds Inquire
 Semivolatile Organic Compounds Inquire

PESTICIDE RESIDUE SCREEN (Individual Component) \$125 minimum

Organochlorines \$150 minimum
 Organophosphates \$150 minimum
 Plus PCBs. \$150 minimum
 See Section 8 For Others Available

PETROLEUM HYDROCARBONS (Gasoline, Diesel, etc.)

Qualitative \$150 minimum

pH \$15

PHENOLS

Colorimetric \$80
 By GC/MS \$250 minimum

PHOSPHATE	
Orthophosphate (Dissolved Inorganic)	\$35
Total or Polyphosphate	\$50

PHOSPHORUS	
Total	\$50

Cost Per Sample

PHYSICAL AND CHEMICAL (P&C) ANALYSIS OF POTABLE WATER	
(Includes Acidity/Alkalinity, Dissolved Solids, Fluoride, Sulfate, Phosphate, Chloride, Nitrogens, Hardness, Total Iron, Lead, Sodium, Potassium, Ammonium, and Microscopic; Comments/Recommendations)	\$180
LIMITED P&C ANALYSIS (Includes Acidity/Alkalinity, Dissolved Solids, Hardness, Sodium and Iron)	\$130

SELENIUM	\$50
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SILICA	
Gravimetric	\$60
By AA	\$35

SOLIDS	
Total	\$25
Dissolved, Total	
as NaCl by Conductance	\$20
by Gravimetric	\$30
Suspended	\$20
Volatile	\$30
Dissolved plus Volatile	\$40

SULFUR/SULFATE	
Soluble	\$30
Total	\$50

SULFIDE (Request Preservative Needed)	
Methylene Blue Procedure	\$40
Iodometric Procedure	\$50

SURFACTANTS/DETERGENTS (Qualitative-MBAS)	\$35
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TANNIN AND LIGNINS	\$30
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TOTAL PETROLEUM HYDROCARBONS (TPH) EPA 1664	\$50
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TURBIDITY	\$15
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SECTION 4
MICROBIOLOGICAL ANALYSES
 Contact: Susan Holder

Cost Per Sample

FOODS AND BEVERAGES (FDA Bacteriological Analytical Manual, 6th ED)

AEROBIC (STANDARD) PLATE COUNT	\$40
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COLIFORM BACTERIA AND <u>E.coli</u> (Fecal)(Send in Sterile Container)	\$40
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YEAST AND MOLD COUNT	\$40
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WATER AND WASTEWATER (Standard Methods for the Examination of Water and Wastewater, 18th Ed):

BOD₅ (Biochemical Oxygen Demand, 5 Day @ 20°C)	\$40
COLIFORM BACTERIA (Send in Sterile Container)	
Presumptive (MPN)	\$30
Confirmed Coliform Bacteria and <u>E.coli</u> (Fecal)	\$40
HETEROTROPHIC (STANDARD) PLATE COUNT (Send in Sterile Container).....	\$30

SECTION 5
ANALYSES FOR DRUGS OF ABUSE AND CONTROLLED SUBSTANCES
Contact: Douglas Crawford

	Cost Per Sample
Cocaine	
by IR.	\$100
by TLC and FID/GC.	\$100
Ethanol Identification	
by FID/GC	\$100
Marijuana Identification	
by Microscopic Exam, Duquenois Test and TLC.	\$100

SECTION 6
PHYSICAL DETERMINATIONS
CONTACT: Douglas Crawford

	Cost Per Sample
BOILING POINT/MELTING POINT	\$ 20
COLOR , By Comparison	\$ 60
CALORIMETRY BY PARR BOMB	\$ 80
CONDUCTANCE	\$ 25
DENSITY/SPECIFIC GRAVITY	
Liquids by Hydrometer	\$ 20
Liquids by Pycnometer	\$ 30
Solids by Displacement	\$ 30
Bulk	\$ 20
MICROSCOPIC EXAMINATION (Other than Feeds)	\$ 25-50
pH	\$ 15
SIEVE DETERMINATION , U.S. Standard Nos. 8-10-40-60	\$ 10 per Sieve No.
SOLUBILITY	\$ 20
TURBIDITY	\$ 15
VAPOR PRESSURE	\$100

SECTION 7
PETROLEUM PRODUCTS ANALYSES

Contact: Dr. Jose M. Rodriguez

Minimum Disposal Fee (\$ 50 per Sample) Minimum Charge (\$100 per Sample)

(Applies to Petroleum Samples Only)

	Cost Per Sample
A.P.I. GRAVITY (Hydrometer)	\$ 25
CETANE INDEX (ASTM D 976)	\$ 25
CETANE NUMBER (ASTM D 613)	\$250
DISTILLATION RANGE (ASTM D 86)	\$ 80
FIRE POINT (ASTM D 92)	\$ 55
FLASH POINT (ASTM D 56, D 92, D 93)	\$ 50
OCTANE NUMBER:	
Research (ASTM D 2699)	\$200
Motor (ASTM D 2700)	\$200
SEDIMENT IN DIESEL (ASTM D 2709)	\$ 40
VAPOR PRESSURE (ASTM D 5191)	\$ 70
WATER IN PETROLEUM FUEL (ASTM D 95)	\$ 50
% SULFUR (D 5453)	\$100
 <u>BIODIESEL</u>	
KINEMATIC VISCOSITY (D 444)	\$ 70
COPPER STRIP CORROSION (D 130)	\$ 70
CLOUD POINT (D 2550)	\$ 75
CARBON RESIDUE (D 4530)	\$ 75
DISTILLATION TEMPERATURE (D 1160)	\$250
COLD FLOW	\$ 75

SECTION 8
ANALYSES FOR ENVIRONMENTAL AND INDUSTRIAL CHEMICAL RESIDUES,
AND OTHER ORGANIC CHEMICALS

Contacts: Gale Hagood, Christina Valsamakis, or Dr. Kang Xia

**Cost Per
Sample**

ENVIRONMENTAL RESIDUES

INSECTICIDE RESIDUES

ORGANOCHLORINE (OC) SCREEN

In Fats (Animal, Poultry, Feed Grade, etc.).....\$225 minimum
In Feeds, Fish, Foliage, Food and Soil\$225 minimum
In Water\$150 minimum

OC SCREEN Plus PCBs, Requiring Silicic Acid Column; Add to Above . \$100 minimum

ORGANOPHOSPHATE (OP) SCREEN

In Feeds, Foliage, Food and Soil\$175 minimum
In Water\$150 minimum

ORGANOCHLORINE PLUS ORGANOPHOSPHATE SCREEN

In Water\$225 minimum

INDIVIDUAL OCs OR OPs FROM ABOVE SCREENS

In Fats (Animal, Poultry, Feed Grade, etc.)\$165 minimum
In Feeds, Fish, Foliage, Food and Soil\$165 minimum
In Water\$130 minimum

CARBAMATE SCREEN

In Foliage\$250 minimum
In Soil\$250 minimum
In Water\$125 minimum
In Animal Tissue\$250 minimum

GLYPHOSATE

In Foliage, Soil, or Animal Tissue\$300 minimum
In Water\$250 minimum
Additional for metabolites\$100 minimum

PYRETHROID SCREEN

In Foliage, Soil and Animal Tissue\$225 minimum
In Water\$150 minimum

HERBICIDE RESIDUES

CHLOROPHENOXY HERBICIDE SCREEN

In Foliage and Soil\$250 minimum
In Water\$150 minimum

IMIDAZOLINONE HERBICIDE SCREEN

In Foliage\$250 minimum

SUBSTITUTED UREA HERBICIDE SCREEN

In Foliage\$250 minimum
 In Soil\$250 minimum
 In Water\$150 minimum
 In Tissue\$250 minimum

SULFONYLUREA HERBICIDE SCREEN\$300 minimum

**Cost Per
Sample**

TRIAZINE HERBICIDE SCREEN

In Foliage\$300 minimum
 In Soil\$300 minimum
 In Water\$150 minimum
 In Tissue\$300 minimum

FUNGICIDESInquire

INDIVIDUAL HERBICIDES

In Foliage, Soil and WaterInquire

INDUSTRIAL CHEMICAL RESIDUES

ALIPHATIC HYDROCARBON SCREEN

In Animal or Plant Tissue\$250 minimum
 In Soil\$200 minimum
 In Water\$150 minimum

POLYNUCLEAR AROMATIC HYDROCARBON SCREEN

In Animal or Plant Tissue\$250 minimum
 In Soil\$200 minimum
 In Water\$150 minimum

POLYCHLORINATED BIPHENYLS (PCBs)

By CongenersInquire

POLYCHLORINATED BIPHENYLS (PCBs)

By Individual Arochlors
 In Fats (Animal, Poultry, Feed Grade, etc.).....\$250 minimum
 In Feeds, Fish, Foliage, Food and Soil\$250 minimum
 In Water\$150 minimum
 In Oils (Transformer, Hydraulic, etc)\$150 minimum

GAS CHROMATOGRAPHY/MASS SPEC (GC/MS) CONFIRMATION OF RESIDUESInquire

OTHER ORGANIC CHEMICALS

PHARMACEUTICALSInquire

NATURAL AND SYNTHETIC HORMONESInquire

FLAME RETARDANTSInquire

SECTION 9

PESTICIDE FORMULATIONS

Contacts: Sue Holder, or Dr. Jose Rodriguez

Cost Per
Sample

PESTICIDE FORMULATIONS

BY FLAME IONIZATION GC	\$75 to \$125
BY HIGH PERFORMANCE LIQUID CHROMATOGRAPHY	\$75 to \$125
ARSENICALS (MSMA, DSMA, or Arsenic Acid as Total Arsenic).....	\$50
SURFACTANTS (% Active Ingredient).....	\$35

SECTION 10

COMPLIANCE MONITORING

HAZARDOUS WASTE, WASTEWATER DISCHARGES, PRIORITY POLLUTANTS

Contact: Doug Crawford, or Gale Hagood

Cost Per
Sample

WASTEWATER DISCHARGES TO NAVIGABLE STREAM

Arsenic	\$50
BOD₅ (Biochemical Oxygen Demand, 5 Day).....	\$40
Chlorine , Residual	\$30
COD (Chemical Oxygen Demand)	\$40
Coliform Bacteria , Confirmed (Send in Sterile Container)	\$40
Cyanide	\$100
Lead	\$50
Mercury	\$75
Metals By Atomic Absorption @ \$35 each metal	
Antimony, Beryllium, Cadmium, Chromium, Copper, Nickel, Silver,	
Thallium and Zinc (QC Requires Blanks, Spikes and Duplicates)....	\$250
Nitrogen	
Ammonia	\$40
Nitrate	\$30
Total Kjeldahl (TKN)	\$50
Oil and Grease (Liquid-Liquid Extraction, EPA 1664)(Send in Glass) ..	\$50

Phenols , Total (Colorimetric EPA 9065)	\$80
Priority Pollutant Screen	
Acid Extractables By GC/MS.	Inquire
Base/Neutral Extractables By GC/MS.	Inquire
Acid and Base/Neutral Extractables By GC/MS	Inquire
Volatile organics By GC/MS.	Inquire
Organochlorine Pesticides	\$250
OCs plus PCBs	\$350

**Cost Per
Sample**

Selenium	\$50
Solids	
Suspended	\$20
Total	\$25
Total Dissolved	\$30
Sulfate , Soluble	\$30
Sulfide , Total or Dissolved	\$40

HAZARDOUS WASTE (RCRA)

Characteristic of Ignitibility	
Flash Point	\$55
Characteristic of Corrosivity	
pH	\$55
Characteristic of Reactivity	
Cyanide and Sulfide	\$55
Characteristic of Toxicity	
Sample Preparation and TCLP Extraction.	\$75-100
Arsenic	\$50
Barium, Cadmium, Chromium, Lead and Silver @ \$35 each	\$150
Mercury	\$75
Selenium	\$50
Endrin, Lindane, Methoxychlor, Chlordane, Heptachlor, Hept. Epoxide and Toxaphene.	\$150 minimum
2,4-D and 2,4,5-TP (Silvex)	\$150 minimum
VOCs (10) By GC/MS	\$280
ABNs (13) By GC/MS	\$475

Total Cyanide

\$100

Total Phenols

\$80

Total Metals (Other than RCRA 8) By AA @ \$35 each

Total Organic Carbon (In Solids)

\$55

TOTAL PESTICIDES

Organochlorines and PCBs (EPA 8080)	\$350 minimum
Organophosphorus Pesticides (EPA 8140)	\$350 minimum
Chlorinated Herbicides (EPA 8150)	\$350 minimum

PHTHALATES

\$400

TOTAL SELENIUM

\$50

Cost Per
Sample

MUNICIPAL SEWAGE SLUDGE (126 PRIORITY POLLUTANTS FROM 40 CFR, PART 122, APPENDIX D)

- 88 ORGANIC TOXIC POLLUTANTS By GC/MS (Includes 31 Volatiles, 11 Acid Compounds and 46 Base/Neutral Compounds) Inquire
- SAMPLE PREPARATION FOR GC/MS ANALYSIS REQUIRED \$50-100
- 25 ORGANIC TOXIC POLLUTANTS By EC/GC (Includes 18 Organochlorine Pesticides and 7 PCBs) \$450 minimum
- 13 METALS (Includes Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium & Zinc)..... \$425

PETROLEUM HYDROCARBONS (UNDERGROUND STORAGE TANKS)

- GASOLINE, BTEX** (Benzene, Toluene, Ethyl Benzene, Xylene):
 - Soil, By GC/FID (Modified EPA 8020) Inquire
 - Water, EPA 8260, By GC/MS. Inquire
- TOTAL PETROLEUM HYDROCARBONS, TPH** (EPA 1664)
 - Water\$100
 - Soil\$100
- POLYNUCLEAR AROMATIC HYDROCARBONS, (PAHs)**
 - Soil, by GC/MS\$250 minimum
 - Water, by GC/MS\$150 minimum

NOTE: When fuel storage tanks are removed or closed in place, soil samples must be collected immediately to prevent loss of volatile constituents. Collect each sample in a clean one-quart glass jar (do not rinse with petroleum solvents). Carefully wipe the rim free of any sand or soil particles; cover with aluminum foil and screw top on tightly. Sample must be refrigerated from time of collection until it is transported to the lab. Contact the MS Department of Environmental Quality if you have any questions concerning how soil or water samples should be collected (601-961-5075).

SECTION 11

BOTTLED WATER, SOIL ANALYSES FOR ORGANIC CERTIFICATION, AND LEAD ANALYSES FOR PLAYGROUNDS AND DAYCARE

Contact: Paul Brignac

WATER QUALITY ANALYSES FOR BOTTLED WATER (REQUIRED BY MS STATE DEPARTMENT OF HEALTH, DIVISION OF SANITATION)

Cost Per
Sample

- Physical/Chemical Analyses, Nonregulated Inorganics. \$250
 - Inorganic Chemicals, EPA Regulated \$425
 - Volatile Organic Chemicals, EPA Regulated \$200
 - Radiological Analysis for Alpha Emitters \$45
 - Bromate.....\$40
- (Inquire about sampling and transportation temperature requirements)

SOIL ANALYSES FOR ORGANIC CERTIFICATION by Mississippi Department of Agriculture and
Commerce (Chain of Custody as for Usual MDAC Samples)

Organochlorine/Organophosphate/Pyrethroid Screens\$225

LEAD ANALYSES (Playgrounds, Daycare)

Soil\$35

Paint Chips\$35 (Last Page)