

# LEAD (Pb) AND METALS LAB SERVICES

EMSL Analytical, Inc. provides Lead (Pb) and other Metals testing for matrices that include: Air, Bulk (paint chips, debris, or materials), Wipes, Drinking Water, Wastewater, Soil and Solid Waste Samples; as well as metals testing on Consumer Products. Each EMSL Metals laboratory has trained and experienced staff along with the necessary laboratory certification(s) to provide analysis by various methodologies, including: NIOSH, OSHA, EPA, ASTM, and Standard Methods. Our laboratory equipment includes Flame Atomic Absorption Spectrometers, and Inductively Coupled Plasma (ICP)/ ICP-Mass Spectrometers.

Each of our Metals Laboratories maintain accreditation by AIHA or A2LA, as well as by State and City regulatory bodies, where applicable. The analytical process for Metals analysis, and reporting of the individual sample, is part of an overall Quality Control program that includes analysis of quality control samples (spikes), instrument QC controls, calibration standard checks, duplicates, and reporting limit controls. All of this to ensure the confidence limits of the data are within the acceptable range, as specified by the method requirements and our Quality Control Programs.

Sample control/processing (log-in, results data-entry, reporting) is facilitated by our computer Laboratory Information Management System (LIMS) which tracks the samples and individual projects to meet our clients' specified due dates and any special requirements. Additionally, the LIMS includes security controls to ensure that information is controlled and locked once the data has been entered by our analysts. Since our laboratories all utilize the same LIMS system, all reports are standardized which allows us to use multiple laboratories on the large capacity projects while ensuring that the work is done and reported in a similar format. The reports are delivered at the choice of the customer which would include email, fax, and/or hard-copy regular mail. Additionally, all clients have 24/7 real-time access to their reports, Chains-of-Custody (COCs), and project invoices via our online account management system, LABConnect™. This is a security enabled extranet feature that provides various search options so that our clients can find all project and invoicing information quickly and easily.

Laboratories operate on a five or six day schedule and all maintain an emergency response plan for off hours and/or weekend operating hours. Samples received during normal work hours and turnaround times (TATs) are tracked on business days from the time samples are received during normal operating hours of the laboratory. Laboratories that maintain extended routine hours will track TATs during all laboratory hours. Lead analysis TATs offered include same day (3 hr. and 6 hr.), 1 day, 2 day, 3 day, 4 day, 1 week, and 2 week TATs. Costs/rates are weighted based on the TAT requested with our 2 week rates being the most economically cost-effective for our customers.

Key tests include\* (but are not limited to) the following:

## FLAME AA

- Air (NIOSH 7082)
- Paint Chips (SW-846-7000B)
- Wipes (SW-846-7000B)
- Soil (SW-846-7000B)
- Wastewater (SW-846-7000B)

## COLD VAPOR AA (CVAA) (Mercury)

- Air (NIOSH 6009, OSHA ID-140)
- Air and Wipes (NIOSH 6009, OSHA 140 / ID-145)
- Aqueous and Solids (SW 846 7470A, 7470B)

## ICP/ICP-MS

- Air (NIOSH 7300/7303)
- TSP Lead in Suspended Particulate Matter (40 CFR Part 50)
- Wipes (SW-846-6010D/6020B)
- Soil (SW-846-6010D/6020B)
- Potable Water (Drinking Water)(EPA 200.5/200.8)
- Non-Potable Water (Groundwater/Wastewater) (SW-846-6010D/200.7)

## HAZARDOUS WASTE

- Toxicity Characteristic Leaching Procedure (TCLP) (Flame AA/ICP)
- Total Threshold Limit Concentration (TTLC) (Flame AA/ICP)
- Soluble Threshold Limit Concentration (STLC) (Flame AA/ICP)
- Synthetic Precipitation Leaching Procedure (ICP)

## METALS PACKAGES

- CAM 16/CAM 17
- RCRA 8
- TAL Metals/PP Metals
- Solder Metals Profile (air)
- Welding Fumes Profile (air)
- EPA Drinking Water Primary List

## CONSUMER PRODUCTS

- Total Lead in Paint and Surface Coatings
- Total Lead in Children's Metal Jewelry/Products
- Total Lead in Children's Non-Metal Products

## PRECIOUS METALS

- Wastewater

## METALS AVAILABLE\*

- |                  |                 |                   |                  |                  |                  |
|------------------|-----------------|-------------------|------------------|------------------|------------------|
| • Ag (Silver)    | • Bi (Bismuth)  | • Fe (Iron)       | • Na (Sodium)    | • S (Sulfur)     | • Ti (Titanium)  |
| • Al (Aluminum)  | • Ca (Calcium)  | • Hg (Mercury)    | • Ni (Nickel)    | • Sb (Antimony)  | • Tl (Thallium)  |
| • As (Arsenic)   | • Cd (Cadmium)  | • K (Potassium)   | • P (Phosphorus) | • Se (Selenium)  | • U (Uranium)    |
| • Au (Gold)      | • Ce (Cerium)   | • Li (Lithium)    | • Pb (Lead)      | • Si (Silicon)   | • V (Vanadium)   |
| • B (Boron)      | • Co (Cobalt)   | • Mg (Magnesium)  | • Pd (Palladium) | • Sn (Tin)       | • W (Tungsten)   |
| • Ba (Barium)    | • Cr (Chromium) | • Mn (Manganese)  | • Pt (Platinum)  | • Sr (Strontium) | • Zn (Zinc)      |
| • Be (Beryllium) | • Cu (Copper)   | • Mo (Molybdenum) | • Rh (Rhodium)   | • Th (Thorium)   | • Zr (Zirconium) |

