

## Bringing You Our Best

By Jeff Zerilli, President, CRO

[jeff@imrtest.com](mailto:jeff@imrtest.com)

About the time you receive this news letter, we will just be starting our annual budgeting and planning process for the upcoming year. As in years past we try hard to deliver you the best in analytical services. 2004 will be no exception as we will be rolling out many innovative services and completing projects already in progress. While we have done a pretty good job over the years of anticipating your needs, I'd like to ask for some input this time on any changes, improvements, or new services you would like at any of our IMR facilities. With your help we can continue to bring you our best and create a win/win situation for all. Thank you for your support.

Jeff



## Lab Information Management Software (LIMS)

By Denise Robinson, Network Administrator

Our MATware LIMS program continues to gain popularity with labs looking to maximize efficiency at a reasonable cost. MATware is customized to your lab's unique way of doing things and offers a template by which to manage lab activities.

Here is what MATware can do for you:

- Manage contact and vendor information
- Link directly with most email software for seamless communications
- Manage work in-progress
- Track delivery times
- Schedule P/M and Calibrations
- Search for historical data based on P/N or description
- Link directly to specifications and drawings
- Link directly to MS Word and Excel

We have a team of dedicated IT professionals to answer your questions and provide the customization, installation and training you need to maximize your labs' potential.



## IMR Charleston Update

By Melissa Gainey, Lab Manager

IMR Charleston continues the growth that began last year in all areas. Our services have expanded to include certified weld inspection. Ted Turanski, Chief Metallurgist in Charleston, became certified by the American Welding Society as a Certified Welding Inspector. Ted has put his new skills to work processing welder qualification exams for a local fire engine manufacturer.

The physical location has expanded by more than 25% to support the business growth in Charleston. The new facility will include over 6,600 square feet of lab and office space with a new, separate entrance to make accessing the lab much easier for visitors. The additional space will be utilized primarily for sample preparation, storage, new offices and a conference and break room area. Some space will be set aside for future expansion.

To contact the Charleston laboratory call 843-740-2901 or email any contact below:

Lab Manager: Melissa Gainey [mgainey@imrcharleston.com](mailto:mgainey@imrcharleston.com)

Sales: Gregg Anderson [ganderson@imrcharleston.com](mailto:ganderson@imrcharleston.com)

Metallurgy: Ted Turanski [tturanski@imrcharleston.com](mailto:tturanski@imrcharleston.com)

Chemistry: Wil Barwick [wbarwick@imrcharleston.com](mailto:wbarwick@imrcharleston.com)

Metrology: Charles White [cwhite@imrcharleston.com](mailto:cwhite@imrcharleston.com)

## 2003 Open House(s)

**Louisville, KY: Friday, September 26<sup>th</sup>**

**Charleston, SC: Friday, November 7<sup>th</sup>**

**Lansing, NY: Friday, October 3<sup>rd</sup>** See enclosed flyer.

## IMR Louisville Update:

By John Jendrzewski, Chief Metallurgist

[John@imrlouisville.com](mailto:John@imrlouisville.com)

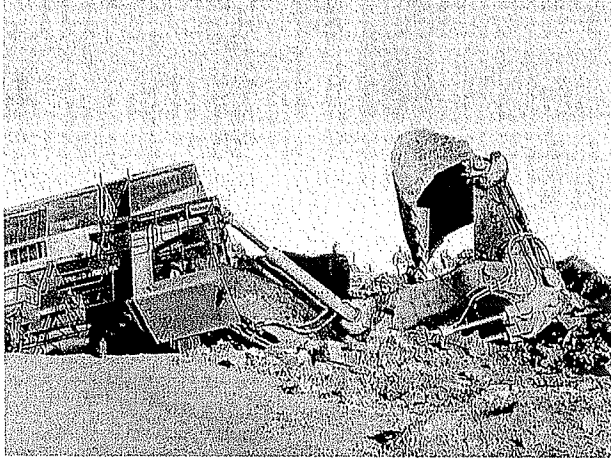
Business has been steadily increasing since we opened a year ago. We are at the point where everyone is busy and we are looking at hiring more engineers to keep up with the work.

Our lab will become A2LA accredited this fall and we are busy preparing for the audit. IMR Lansing has been very helpful in this process and we expect full certification for all of the chemical, mechanical and metallurgical testing we do here.

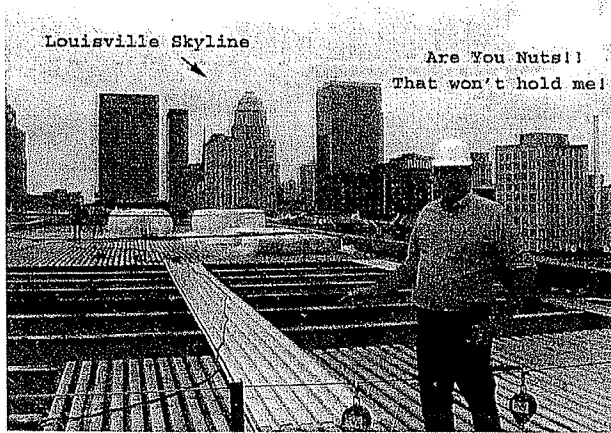
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**IMR Louisville, continued**

Demand for our field services is on the rise including portable material ID work. We have taken on many challenging field projects (see photos below).



Failed Excavator field investigation

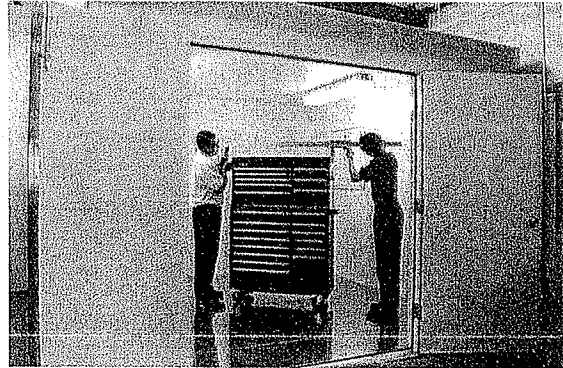


Construction site fire investigation

**Environmental Chambers**

We recently purchased two newly reconditioned large chambers in response to the increasing demand for product reliability testing. The 60 cubic foot Thermotron has elevated temperature and cooling while the 40 cubic foot has huge dual compressors for rapid freezing down to minus 60°C.

Walk-In Chamber: (Photo Below) the newest in our line has an interior dimension of 11' X 11' X 8' high with a 6' X 7' door. The unit is capable of elevated temperature and humidity, as well as cold conditions down to minus 40°C.



**Induction Heating System**

The purchase of an induction coil heating system with precise temperature control enables us to perform elevated temperature tensile tests more efficiently and cost effectively for our clients.

**Wire Bond Pull Tester** (photo below)

This device is used for measuring the tensile or bond strength of the extremely light gage wires used on IC's and other electronic components.



**Electron Microscope for Chemistry**

IMR added a third SEM/EDS last fall. The JEOL T300 with EDS moved to the chemistry department with immediate benefit as it has streamlined our identification of unknown materials considerably.

**New Equipment**

**AutoDesk Inventor**

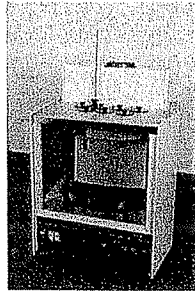
Lack of this popular CAD program has been a weakness in our design capability for years. We now have the same capability as many of our clients and can trade files of fixture designs just by uploading them to the client or vice-versa. In the past year, we have designed and fabricated over 100 fixtures and custom testing machines for clients and now we can do it with even greater precision and accuracy.

### Field Failure Analysis Kit

The need for us to dispatch analysts to the field has significantly increased, so we put together an F/A field kit which has everything necessary to perform replications, microscopy, hardness, dye penetration exams and even some field chemistry.

### Precision Viscosity Bath

An increasing number of incoming jobs requires greater precision than can be achieved with traditional baths. This unit can control the temperature to 0.01 of a degree Celsius, thus increasing the accuracy and repeatability of liquid viscosity testing.



### Employee News

#### *Ithaca:*

#### **Alexis Puerta, Ph.D.**

**Chemist;** Alexis joins IMR after completing a teaching position at Hobart and William Smith Colleges. Her role as a research chemist in our Chemistry department has allowed us to broaden the range of technical issues we can assist clients with.



#### *Charleston:*

**Gregg Anderson;** Gregg Anderson has "re-joined" IMR-Charleston in the role of Technical Sales/Associate Metallurgist. Gregg spent the last four years with Valeo, a maker of heat transfer products in Indiana, as a metallurgist and was previously with CMS Laboratory Services (now known as IMR-Charleston). His extensive knowledge of non-ferrous materials will be a welcome addition in the lab. In his new role of Technical Sales, Gregg will be calling on current as well as potential customers in the Southeast. Gregg received his Bachelor of Science degree from the College of Charleston.

#### *Louisville:*

**Tim Johnson;** Tim has worked in the laboratory business for over 20 years. He is an expert in testing foam insulation products and currently performs this work on-site for a customer in Louisville.

### Promotions

- George Wildridge, Manager of Failure Analysis and Metallurgical Engineering
- Jim Andrews, Mechanical Lab Supervisor
- Pete Damian, Chemistry Lab Supervisor
- Jeremy Hansen, Lead Analytical Chemist
- Greg Belanger, Lead Chemical Technician
- Klaron Smith, Senior Machinist
- Larry Canfield, Machine Shop Supervisor
- Redcliff Magill, Mechanical Test Specialist, CWI
- Mike Parkhurst, Technical Sales Representative

### Employee Training and Certifications

- Ron Parrington, VP of Materials Engineering, recently attended an Expert Witness Seminar to learn the finer points of the litigation aspects of our business. Ron's case load has increased significantly and his record on cases to date is excellent.
- Bud Brinkerhoff, Associate Metallurgist, Heat Treat Specialist attended a 30 hour training course titled Superalloys for Heavy Duty and Aircraft Type Gas Turbines. The course covered 34 topics dealing with every phase of turbine material chemistry, mechanical properties, metallographic and failure modes.
- Jerone Gagliano, Non-Metallics Materials Engineer attended a week long course titled FTIR Spectral Interpretation.
- Larry Canfield, Machine Shop Supervisor attended a week long training session on the VMC800II.
- Redcliff Magill (Ithaca), Dave Mohr (Louisville), and Ted Turanski (Charleston) passed the Certified Welding Inspectors examination which now qualifies them to perform certification to AWS standards.

### ASM Materials Camp August 11-15, 2003

IMR is an active supporter of ASM International both at the local and national level. This year we donated a week of Ron Parrington's time to teach high school age students materials science. This annual event was held in Cleveland, OH and was such a hit, it caused the blackout. Mr. Parrington also recently published an article in Advanced Materials & Processes titled "Fractographic Features in Metals and Plastics."

#### **ILAP Conference:**

Tim McGrady attended the Inter-Laboratory Analysis Program (ILAP) annual technical meeting held this year in Beaver Creek, CO. ILAP is sponsored by Analytical Reference Materials International (ARMI). Tim presented a paper entitled "Powder Metallurgy Products: The Need for Standardized Test Methods and Certified Reference Materials". This is a continuation of Tim's work to develop standardized tests and certified reference materials for P/M products. Tim presented his first paper on the chemical analysis of P/M products at the PM2TEC 2002 World Congress on Powder Metallurgy Products held in Orlando, FL in June 2002.

**Trivia Question Classic:**  
What three primary  
metals are magnetic?

First ten correct responses win an IMR denim shirt. The answer will be posted on our web site in October. E-mail answer to Don Shuman at [dshuman@imrtest.com](mailto:dshuman@imrtest.com) cc: [jeff@imrtest.com](mailto:jeff@imrtest.com)

If you have a good science based question for our next newsletter and we use it – we'll send you a shirt too!

**Trade Show Activity** - Look for IMR at the following shows this year:

- ASM Materials Solutions Conference - Pittsburgh, PA October 13-15.
- The Testing Expo - Detroit October 29, 30 and 31.

**testing expo 2003**  
north america

29, 30, 31 October 2003 Novi Expo Center, Detroit, MI  
The North American trade fair for Automotive Testing Development and Proving

- Southeastern Job Shop Show - Greenville, SC. November 12 & 13.

If you would like free passes to any of these shows, contact Don Shuman – [dshuman@imrtest.com](mailto:dshuman@imrtest.com).