

BNL Unveils New Environmental Technology on Earth Day

About 50 Long Island business leaders, politicians, and BNL scientists and administrators gathered in the Laboratory's cafeteria last Monday, Earth Day, to unveil the EnSoL System, a new, environmentally friendly technology that uses nonpathogenic bacteria to clean up restaurant and food-industry wastes.

Developed under a Cooperative Research and Development Agreement (CRADA) initiated by BNL's Office of Technology Transfer (OTT) and Environmental Solutions Corporation of Wyandanch, the EnSoL System was demonstrated to the public for the

first time on this occasion. BNL's participation in this CRADA was funded by the U.S. Department of Energy's Office of Energy Research, Laboratory Technology Research Program.

Grease-Eating Bacteria

The new technology incubates selected bacteria until they are at their peak of grease-eating power, then releases them into a sink-drain system. The bacteria digest grease and solid waste, completely changing them to water and carbon dioxide, both environmentally benign by-products.

EnSoL's biochemical processing is better for the environment than cleaning up wastes with harsh chemicals or by physical methods. Improvements in the timing of the bacteria's delivery result in 70 percent digestion of grease, substantially cutting the volume of solid grease waste sent to septic systems and municipal sewage treatment plants.

In 1993, through an introduction by the Long Island Research Institute (LIRI), Environmental Solutions approached the BNL research team headed by Eugene Premuzic, Department of Applied Science, to exploit the group's experience in biochemistry.

Aided by the Wyandanch company, Premuzic and his team devised the EnSoL System, a five-gallon incubator that nurtures approximately 90 trillion bacteria, acclimating them to the waste stream before injecting them into grease traps or drains — three billion at a time — to digest grease.



Roger Stoutenburgh

Surrounding the EnSoL System at its unveiling in the Lab's cafeteria on Earth Day are: (from left) David Langiulli, BNL's Office of Technology Transfer; John Lucido, Environmental Solutions Corporation; Eugene Premuzic, BNL's Department of Applied Science; and Daniel Keenan, Environmental Solutions Corporation.

The new EnSoL System improves bacteria's efficiency about a hundred-fold or more, according to Premuzic. He added that the work with Environmental Solutions was a spin-off of other technologies that he and his associates — Mow Lin, Hsienjen Lian, Lucy Shelenkova and Jeffrey Yablon — had been exploring.

"Originally, we started investigating the biochemical technology to up-

grade heavy crude fossil oils, making them lighter and environmentally more acceptable. The technology has also been applied to processing brine wastes, a by-product of geothermal power production," Premuzic said. "We're now delighted that a spin-off from our new technology and our cooperative work with Environmental Solutions has paid off in an efficient, eco-

(continued on page 3)

AUI Grant Goes To Environmental Advocates

The community forum, organized by community members in January as a conduit between BNL and its neighbors, now has an official name, office space at the Lab and a home base. And, its parent organization, Research and Education Project of Long Island (REP-LI) has received a grant from Associated Universities, Inc. (AUI), to help support the group.

The group is now known as the Community Work Group. It's using an office in Bldg. 179, and its phone number is 344-6329.

The Work Group is part of the newly created Office of the Environmental Advocates of Long Island, which is, in turn, a not-for-profit arm of REP-LI, an established organization "dedicated to enriching the quality of life on Long Island," according to a REP-LI press release issued last week to announce its AUI grant.

"The Trustees of AUI responded to the need to support an independent group that is representative of the communities surrounding the Lab by providing a small initial grant to REP-LI to aid the community," said Leland Willis, AUI Vice President for Environment, Safety and Health. "It is the hope of AUI that this group will help promote open and honest dialogue. In view of the concerns expressed in recent months by citizens who live in communities surrounding the Lab, AUI thought it was important to assist this outreach effort in education and research."

Local civic activists Nanette Essel of Yaphank and Jean Mannhaupt of Manorville have been named directors of the new Environmental Advocates. This group will provide the opportunity for citizens to become knowledgeable about BNL's plans of actions and will promote a dialogue with the appropriate regulatory agencies regarding environmental monitoring on site.

Seventeen civic, environmental and school groups are members of the Work Group, with ex-officio representation from elected officials, governmental agencies and labor unions. Participation is open to all organizations.

For more information about upcoming meetings, call the Community Work Group at its BNL office, Ext. 6329.

Brookhaven to Host Women's Programs Review; Some Events Open to All

Since 1990, the U.S. Department of Energy (DOE) has sponsored four Reviews of Laboratory Programs for Women at its various sites. The fifth review will be held at BNL, Monday through Wednesday, May 6-8, organized by both Brookhaven and the Princeton Plasma Physics Laboratory.

Victoria McLane, BNL's Women's Program Coordinator, heads the Laboratory organizing committee and is also co-chair of the Point of Contact Planning Committee. Nina Leonhardt, Office of Educational Programs, is BNL's Point of Contact.

In addition to the Points of Contact, six other people from each DOE site are invited to participate in all the review's presentations, focus groups

and other activities — including the Tuesday night banquet at which Joyce Justice, Assistant Director for Social and Behavioral Sciences and Education in the Office of Science and Technology Policy, Executive Office of the President, will speak about "Working Together to Make a Difference."

However, McLane explained, some events are open. As the host site, BNL invites the Lab community to participate in the following events (all in Berkner Hall, unless noted otherwise):

Monday, May 6

• **Reception** — 6 p.m. at the Brookhaven Center, light dinner and wine, advance registration required, \$12/person; call Pauline Dixon, Ext. 2164, by May 1.



Science education writer Sheila Tobias will speak on May 8.

Tuesday, May 7

• **Keynote speaker** — Martha Krebs, Director of DOE's Office of Energy Research, "DOE and the U.S. Science Base: Critical Assets at Risk," 11 a.m.

• **Speaker** — Jacqueline Cooke, U.S. Department of Labor Women's Bu-

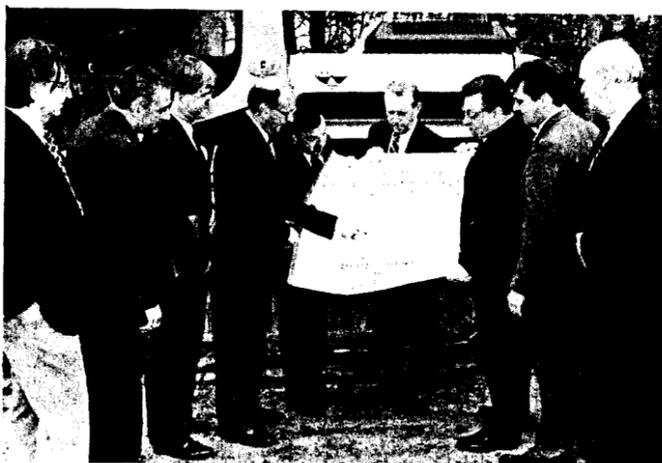
(continued on page 3)

Spreading the Word About Public Water Hookups

Even as Suffolk County Water Authority (SCWA) crews continue to connect North Shirley residents to the public water supply, the U.S. Department of

Energy (DOE) is trying to make sure that all eligible residents know about its offer of free connections and that residents in the first hookup area sign up by May 1. DOE is providing the connections to protect residents from possible future contamination of their private wells by groundwater pollution from past practices at BNL. Part of the spread-the-word campaign was the gathering of elected officials and others for a

briefing on the project and picture-taking to reassure residents that their representatives support the public-water hookups. Shown reviewing the



project's plans are: (from left) BNL Director Nicholas Samios; Suffolk County Legislator Michael Caracciolo; New York State Assemblyman Fred Thiele; U.S. Senator Alfonse D'Amato; U.S. Congressman Michael Forbes; Frank Faber, SCWA; Felix Grucci, Brookhaven Town Supervisor; Brookhaven Town Councilman Edward Hennessey; and Carson Nealy, Manager, DOE's Brookhaven Group.

Don & Dorothy Metz Donate \$100,000 For Scholarships for Disabled Students

Together, Donald and Dorothy Metz devoted almost 74 years to BNL before retiring, but their presence will be felt by BNLeers for many years to come: The Metzses have donated \$100,000 to Associated Universities, Inc. (AUI), to establish a scholarship for a disabled

child of a Laboratory employee or retiree who is going to graduate school in science or engineering.

Each Gorman-Metz scholarship will be a single, one-year award in the amount of \$5,000, but students may apply for and receive the award for

more than one year.

Students were always a focal point of the Metzses' work at BNL. Don, who retired in 1993, was a chemist who had headed the Office of Educational Programs since it was formed in 1985, and who had been active in BNL's



Roger Stoutenburgh

To initiate the new scholarship that he and his wife Dorothy Metz have established for the disabled children of BNLeers, Donald Metz (left) presents a check for \$100,000 to Robert Hughes, President of Associated Universities, Inc.

15 BNL Sons & Daughters Win AUI Scholarships

In the 31st year of the program, 15 sons and daughters of Lab employees have been awarded AUI Trustee Scholarships. Each AUI Scholar is a high school senior who will receive \$2,500 per year for up to four years of study at the college or university of his or her choice.

The Brookhaven winners were chosen from among 65 BNL applicants by an independent committee appointed by the College Scholarship service of Princeton, New Jersey, which administers the program for Associated Universities, Inc. (AUI).



Christopher Davenport, son of James Davenport, Department of Applied Science (DAS), lives in Setauket and attends Ward Melville High School. He will major in biology at The Johns Hopkins University.



Eileen Murtagh, daughter of Michael Murtagh, Physics Department, is a senior at the Shoreham-Wading River High School and lives in Shoreham. At the University of Rochester, she will major in health and society as a pre-med student.



Dimitri Dover is the son of Carl Dover, Physics Department. He lives in Belle Terre and goes to the Earl L. Vandermeulen High School. At Harvard University, he will study either chemistry or mathematics.

Ruchi Rohatgi is the daughter of Upendra Rohatgi, DAT. Living in Setauket, she is in her final year at Ward Melville High School. She will major in biology at either Bryn Mawr College or the University of Virginia.



Robert Franco, son of Nicholas Franco, Relativistic Heavy Ion Collider Project, is a resident of Patchogue. A senior at Patchogue-Medford High School, he will go to the Long Island campus of Polytechnic University, where he will major in civil engineering.



Thomas Sapienza, son of Barbara Crothamel, DAT, is a senior at the Shoreham-Wading River High School and lives in Shoreham. He will study biomedical engineering at Arizona State University.



Kentaro Fujita is the son of Etsuko Fujita, Chemistry Department, and the late Ichiro Fujita, DAS. In his last year at the Earl L. Vandermeulen High School, he lives in Port Jefferson. He will study liberal arts at Harvard University.

Masami Stampf is the daughter of David Stampf, Computing & Communications Division, and a resident of Shoreham. After being graduated from the Shoreham-Wading River High School, she will matriculate at Tufts University and the New England Conservatory of Music, majoring in liberal arts and violin performance, respectively.



Thomas Gilbert II is the son of Elizabeth Gilbert, Department of Applied Technology (DAT), and Thomas Gilbert, Safeguards & Security Division. A resident of Mastic Beach, he is a senior at the William Floyd High School. At the Rhode Island School of Design, he will study computer animation and graphics.



Harris Stein, son of Steven Stein, Director's Office, lives in Sayville, where he attends Sayville High School. He will attend Brandeis University to major in computer science.



Kathryn Heotis, daughter of Peter Heotis, Medical Department, is a resident of Miller Place, where she attends the Miller Place High School. She plans on majoring in the sciences as a premed student at the University of Richmond.

Ana Bei Yang is the daughter of Xiao-Qing Yang, DAS. A Port Jefferson Station resident, she will be graduated from Comsewogue High School. Once enrolled at Harvard University, she will study business or foreign relations.



Benjamin Krinsky, son of Samuel Krinsky, National Synchrotron Light Source (NSLS) Department, lives in East Setauket and attends Ward Melville High School. He will major in physics or computer science at the Massachusetts Institute of Technology.



Hua-Yin Yu, daughter of Li-Hua Yu, NSLS, resides in Port Jefferson Station and attends Ward Melville High School. As a major in biology, she will matriculate at either the Massachusetts Institute of Technology or the Honor College of the State University of New York at Stony Brook.



Vanessa Murdock is the daughter of George Murdock, Alternating Gradient Synchrotron Department. Residing in Center Moriches, she will be graduated from the Center Moriches High School. To major in biochemical engineering, she will matriculate at Lehigh or Rochester University.

educational efforts for many years before that; Dorothy, who left on long-term disability in 1990 as Assistant Manager in the Staff Services Division, had volunteered in helping students with transportation and housing. Over the years, both were particularly impressed by the disabled students they met.

"They have so many difficulties to overcome," said Don Metz, "that they typically can't take a full class load. And, if students have less than full-time schedules, then they're not eligible for standard scholarships. We've seen how hard these students work and how much they have to contribute, so we wanted to help."

Since the new scholarship was accepted by the AUI Board of Trustees at its October 1995 meeting, the Metzses have been working with AUI and the BNL Diversity Office to establish its parameters. Named in memory of the Metzses' parents, the scholarship will be administered by the Diversity Office, with the National Center for Disability Services choosing the awardees.

The scholarship is expected to be awarded for the first time in March 1997, and employees will be notified as soon as application forms are available. In the meantime, any questions about eligibility for this award should be addressed to Lorraine Merdon, Ext. 3318.

— Anita Cohen

In Memoriam

The following retirees passed away recently:

Frank Fridrich, who had retired from the Lab with 24 years of service, died on April 17 of a heart attack. He was 64. He began his Lab career as a plumber A in the then Plant Maintenance Division on December 17, 1962, and he retired from that position in the Plant Engineering Division on December 17, 1986. He is survived by his ex-wife Barbara Fridrich, Financial Services Division; daughters Cynthia Murphy, Margaret Fridrich-Heimann and Sharon Murphy; son Frank Jr.; grandchildren Rachel and Michelle Heimann, Shannon Murphy and Amanda Fridrich; brother William Fridrich; and sister Marie Gordon.

Ira W. Still, who retired from the Instrumentation Division as a technical associate II on April 30, 1981, died on April 20. He was 79 years old. He had worked at BNL for 21 years, having started on April 4, 1960, as a senior technician in the Reactor Division.

Memorial Celebration for Phyllis Vineyard

Phyllis Vineyard, who was the wife of the late George Vineyard, BNL's Director from 1973 to 1981, died on March 16. The first woman elected to the Board of Directors of the Long Island Lighting Company, she was also a pioneer volunteer activist in local, national and international organizations in the fields of health, population, family planning and social welfare.

A time to remember and to celebrate Phyllis Vineyard's life has been set for Saturday, May 4, from 2 to 4 p.m., in Berkner Hall.

Women's Programs (cont'd.)

reau, "Working Women Count," 1:30 p.m.

Wednesday, May 8

• **Speaker** — Sheila Tobias, science

education writer, "Rethinking Science as a Career," 9 a.m. (see box below).

• **Speaker** — Corlis Moody, Director of DOE's Office of Economic Impact, and Diversity, topic to be announced, 10:30 a.m.

Rethinking Science as a Career

As part of the U.S. Department of Energy's Review of Laboratory Programs for Women, science education writer Sheila Tobias will speak about "Rethinking Science as a Career," on Wednesday, May 8, at 9 a.m., in Berkner Hall. In her talk, Tobias will look at obstacles that face both men and women as they vie for research jobs in the physical sciences. Tobias will offer a new framework for thinking about the current oversupply of young Ph.D. scientists, as well as the social contract between science and society.

She'll also examine differences in the way men and women manage their careers in science. For example, Tobias will explain, women publish slightly less — 2.3 papers for women vs. 2.8 for men. But women's articles are cited more often than men's.

Many of these ideas are contained in Tobias's most recent book, *Rethinking Science as a Career: Perception and Realities in the Physical Sciences*, coauthored with Daryl Chubin and Kevin Aylesworth.

The author of ten books covering topics ranging from mathematics and science education to woman and militarism and gender and politics, Tobias has been on a long-time writing project for Research Corporation, a foundation for the advancement of science.

In addition to earning a B.A. in history and political science from Harvard-Radcliffe University and an M.A. in history from Columbia University, Tobias has received four honorary doctorates. She has taught in the departments of political science at the University of California-San Diego, University of Southern California, Vanderbilt University, Wesleyan University and the University of Arizona.

EnSoL Technology (cont'd.)

nomical, easy-to-use and good-for-the-environment technology to clean restaurant grease."

The bacteria grown in the EnSoL System either die after digesting grease or travel with the digested waste to a municipal sewage treatment plant — or, at the Lab, to BNL's own sewage treatment plant — where they may augment the bacteria used in activated-sludge treatment.

Positive Pollution Prevention

The Earth Day ceremony at the cafeteria that introduced the EnSoL System was organized by OTT, with the help of the Administrative Support Division, Director's Office, Information Services Division, Plant Engineering Division, Public Affairs Office and Service America, the food service company that runs the cafeteria.

George Proios, Assistant Suffolk County Executive, Office of Environmental Affairs, praised the new system in his remarks at the Earth Day ceremony, calling it a "positive way to prevent pollution."

Other speakers at the ceremony included David Langiulli, OTT, who gave the opening remarks and introduced the speakers who followed: David Nelson, Associate Director of Energy Research, U.S. Department of Energy (DOE) Office of Computational & Technology Research; Nicholas Samios, BNL Director; and John Lucido, Principal, Environmental Solutions Corporation.

Nelson said the EnSoL System is

one of the many innovations that derive from DOE's world-class national laboratories in collaboration with private industry, and predicted that it will "leave the earth at least as well-off as we found it."

Samios said that BNL's patents bring to the Laboratory a positive cash flow of between \$500,000 and \$1 million per year, which is reinvested in BNL research. He added that the CRADA concept is a very positive trend, especially at a time when U.S. industry is reducing its internal research and development efforts.

Associated Universities, Inc., and Environmental Solutions Corporation are joint applicants for a patent on the new EnSoL System, and the Wyandanch company has negotiated an exclusive license for the invention.

Assuring Samios that he plans to make "a lot of royalties" to share with Brookhaven, Lucido thanked Premuzic and others at the Laboratory and at LIRI for their support.

Founded by Lucido and Daniel Keenan in 1993, Environmental Solutions Corporation now serves more than 200 clients in the metropolitan New York-New Jersey area, including several McDonald's franchises, Marriott Hotels and Manhattan's Essex House.

Lucido was the CEO of a Long Island defense electronics firm, and Keenan owned a charter-bus company before they started Environmental Solutions, with the aid of the Long Island High Technology Incubator at the State University of New York at Stony Brook.

At the ceremony, Samios, Lucido and Keenan signed a proclamation to commemorate the technology-transfer success, and those who were interested got a behind-the-scenes look at the EnSoL System installed in the cafeteria.

—Diane Greenberg

Arrivals & Departures

Arrivals

Robert L. Dore.....Financial Services
Mary P. Ryan.....Applied Science

Departures

This list includes all employees who have terminated from the Lab, including retirees:

Gregory P. Borsella.....Chemistry
Bor-Chen Chang.....Chemistry
Robert W. Youngblood...Advanced Tech.

Lab on Exhibit for Earth Day



At the Long Island Earth Day celebration at Southaven Park last Sunday, April 21, BNL's table drew a lot of visitors. In addition to getting answers to their questions about the Lab and perusing Brookhaven's colorful exhibit (below), those stopping by were entertained by the juggling and unicycling of Michael Brennan (left), Alternating Gradient Synchrotron Department. Created by the Public Affairs Office, the exhibit is on view in the lobby of Berkner Hall for the remainder of this month.

**Healthline Lecture**

How to Cook Healthy Food

Though the number of meals per week that Americans eat out has increased over recent years, a National Restaurant Association survey revealed that seven out of ten meals are still prepared at home. So if you are not eating as well or as nutritiously as you could, then you may not be able to blame fast-food or fancy restaurants, when your own cooking may be the culprit.

"Healthy Cooking Techniques" will be covered in the next Healthline lecture, on Thursday, May 2, from noon to 1 p.m. in Berkner Hall. Sponsored by the Health Promotion Program (HPP) of the Occupational Medicine Clinic, the talk will be presented by registered dietitian Marlisa Brown. All are invited, and the lecture will be available afterwards on audiocassette in the Research Library, Bldg. 477.

Brown will discuss popular and low-fat cooking techniques, show how to substitute stocks and juices for the fat in different recipes, and suggest the use of different spices instead of salt. New recipes, food fact sheets and cooking-technique tips will be handed out.

Marlisa Brown, M.S., R.D., studied at the Culinary Institute of America. She has worked as a caterer, run culinary workshops, and, as part of her work in sports nutrition, has done several special projects for the New York Jets. She is the recipient of a community service award from Long Island University, from which she had received her degrees.

To register for this lecture, return the bottom portion of the Healthline flyer recently sent to all employees to Mary Wood by May 1. For more information about the HPP, call Ext. 5923.

Computing Corner

The Computing & Communications Division (CCD) is offering the following:

PC Training

Personal computer (PC) training classes to be offered in May are: intermediate ACCESS, beginner Lotus 1-2-3, basic Windows, and beginner DOS. To register for a class, contact your department or division training coordinator, or call Pam Mansfield, Ext. 7286, or e-mail pam@bnl.gov.

Basic CAD Training

Basic training in computer-aided design (CAD) using AutoCAD R12 will be offered over five days during the week of May 20. Class size is limited, so registration will be accepted first-come, first-served. For more information, to learn the fee and to register, call Chris Neuberger, Ext. 4160.

IDL Training

A five-day, highly interactive training class in IDL programming will be held during July. To participate, registrants must have at least six months of IDL programming experience or be proficient in some other programming language. The registration fee is \$1,165

per person. For a course outline, more information and to register, contact Pam Mansfield, Ext. 7286, or e-mail pam@bnl.gov.

Attn: IDAS Users

Since CCD upgraded to the Individual Dial-up Access System (IDAS) on March 4, the Thor dial-in system and the dial-back Secure Access System (SAS) will be taken out of service on May 1. As a result, the phone numbers for Thor and SAS, which are 344-2002 and 344-7600 respectively, will be taken out of service.

So, as of May 1, users must use 344-6300 for dial-back or direct-dial access. If Cisco-Remote software is not used, however, dial-back access must be hard coded to your IDAS account. The toll-free number (800) 265-7600 will not change, though toll-free service will be moved to the new IDAS hardware.

Therefore, users of the out-of-service numbers 344-2002 and 344-7600 and those who use the 800 number must reconfigure so they can use the new IDAS system, which has superior performance and reliability. For more information, see the documentation on the World Wide Web site <http://www.ccd.bnl.gov/nss/idas/>.

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Volleyball

Standings as of April 15

Open League — Semifinals: Monday Maulers 3, Bud Hitters 1; Pass, Set & Crush 3, Far Side 2

League I — Champions: Bikers 'n Spikers
League II — Quarterfinals: Fossils 2, Nuts & Bolts 1; Safe Sets 2, Volley Folly 0; Spiked Jello 2, Night Court 0; Monday Nite Live! 2, Jolly Vollyies 1

League III — Champions: Silver Bullets

Water Aerobics

Water aerobics classes will again be offered at the Lab pool, from 5:20 to 6:10 p.m., on Tuesdays and Thursdays, and sponsored by the Health Promotion Program. The first classes will be on April 20 and May 2, respectively. The classes are free, but participants must pay the pool fee of \$2 a session or show their season pool pass.

Employees and their spouses may sign up for one or both classes by calling Mary Wood, Ext. 5923.

Archery Club

The Archery Club will meet next on Thursday, May 2, at noon in the large seminar room, Physics, Bldg. 510. New members are welcome. For information, call Bill Schoenig, Ext. 2377.

Walk for WalkAmerica

Join the BNL-BERA team for the 26th March of Dimes WalkAmerica for Healthier Babies on Sunday, April 28. Sponsor sheets are available from Mary Wood, Bldg. 490, Ext. 5923, or Kay Dellimore, Bldg. 185, Ext. 2873.

To make a donation, mail your check, payable to the March of Dimes, to Dellimore, or drop it off at the BERA Sales Office in Berkner Hall.

APS Has Job Opening

The American Physical Society (APS) seeks a programmer/analyst to work in the editorial office. Responsibilities include designing, writing and implementing programs in support of an interactive database of scientific papers on the World Wide Web, and related programs for internal databases, and for analysis and planning of improvements. B.S. degree and at least three years' UNIX experience necessary; proficiency in C language, Perl and at least one UNIX-system internal, preferably Solaris, required. Experience with web-server configuration, user-interface construction and database software needed; experience with client-server programming, Java language and Windows-NT a plus. Familiarity with text-description languages such as TeX, Word, WordPerfect, Frame, SGML, and with output formats, such as PostScript and PDF, helpful. Send cover letter, salary requirement and resume to: Joseph Ignacio, Personnel Manager, APS, 1 Research Road, Box 1000, Ridge NY 11961.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position. Consideration is given to candidates in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action plan, selections are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Human Resources Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Human Resources, and second, for general recruiting under open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people.

Except when operational needs require otherwise, positions will be open for one week after publication.

For more information, contact the Employment Manager, Ext. 2882, or call the JOBLINE, Ext. 7744 (344-7744), for a complete listing of all openings.

Current job openings can also be accessed via the BNL Home Page on the World Wide Web. Outside users should open "http://www.bnl.gov/bnl.html", then select "Scientific Personnel Office" for scientific staff openings or "Employment Opportunities" or "BNL Human Resources Division" for all other vacancies.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

NS 3212. ENGINEERING POSITIONS - (term appointment) Requires BS/MS in civil or environmental engineering, and good interpersonal and communication skills. Experience with remediation activities is desirable. Will assist project managers in coordinating and monitoring remedial investigation and cleanup activities in the field. Office of Environmental Restoration.

Motor Vehicles & Supplies

94 FORD TAURUS - S.H.O. sport, 6-cyl., a/t, 26k mi., ac, p/s, p/b, red/gray int., loaded, asking \$15,000. Tom, Ext. 5899.

92 EXPLORER XLT - 4-dr., 4wd, a/t, ac, p/w, new tires, 2-yr. warr. remaining, \$14,500. 474-8577.

92 AWARD TRAVEL TRAILER - 30', aerodynamic, 5k lbs., easy towing, sleeps 6, deluxe features, mint cond., \$16,995 neg. Tom or Joan, 698-6259.

90 FORD TAURUS - 68k mi. warr. to 75k mi., \$3,750. Strongin, Ext. 3763.

89 ISUZU TROOPER 4x4 - maroon, a/t, p/s, p/b, ac, tint, new brakes & muffler, alarm, am/fm cass., 79k mi., \$7,500. Bette, Ext. 4117 or 589-8331.

88 STERLING 825SL - luxury sport, white/gray, fully loaded, comprehensive alarm system, p/roof, tinted windows, a/t, V-6, 37k mi., \$6,000. Edwards, Ext. 4308.

87 BLAZER S10 - 4wd, a/t, Tahoe pkg., red & silver, clean in/out, \$4,500. 696-7452.

87 FORD TEMPO - 5-spd., ac, 125k mi., new clutch, must sell, owner left country, \$650 neg. Mihail, Ext. 5240.

87 BRONCO II 4x4 - ac, p/w, 50k mi. on rebuilt eng., dark blue, good cond., \$4,500 neg. Craig, Ext. 4028.

86 PORSCHE 944 - turbo, red/black, loaded, 84k mi., mint cond. Jim, Ext. 2183.

85 BLAZER S10 4x4 - 185k mi., 5-spd., needs front end work, \$2,500. Bill, Ext. 2377 or 654-8685.

85 FORD TEMPO DLX - 77k mi., ac, p/w, a/t, needs tranny, good cond., \$200. Joe, Ext. 5740.

85 HONDA ACCORD SEi - 4-dr., all power, cruise, sunroof, high mi., runs well. \$1,800 neg. Pete, Ext. 2879.

85 CHRYSLER FIFTH AVENUE - 4-dr., V-8, fully loaded, leatherint., 83k mi., v.g. cond., \$2,200. Marvin, 791-4342.

84 LINCOLN MARK 7 - sunroof, all power, brown/tan int., \$2,000 neg.; '71 Pontiac Grand Prix 400, turbo, new tranny & motor, 4-barrell, \$3,500 neg. 661-8560.

84 CAMARO - V-6, orig. owner, new tires, runs well, \$550. George, Ext. 4453 or 924-6105.

83 PLYMOUTH RELIANCE - ac, am/fm, good commuter car, \$350. 935-5366.

82 SUZUKI GS650L - 2 new Shcei helmets, windshield, luggage case, cover, runs well, \$750. Joe, 728-7298.

82 CAMARO - V-6, a/t, needs engine work, \$300 obo. Frank D., Ext. 2022 or 399-4480.

79 FORD F350 4x4 - new engine, 12/12 warr., new clutch, western plow, new carb., many new parts, \$4,900 neg. Nancy, Ext. 7976.

76 VOLVO 242DL - 4-spd., new battery & front struts, good running cond. Steve, Ext. 3018 or 369-5181.

64 POP-UP CAMPER - hi-lo, sleeps 4, gas, refrig., oven, stove, heat, all working appl., potty, independent brakes, good cond., \$600. MaryEllen, Ext. 2979.

TRUCK PARTS - '79 Ford, hood, door, fenders, 4x4, 4-spd. tranny, CB radio, like new, B&M shifter, 302 alum. manifold. Wayne, Ext. 3084.

MANUALS - '89-'90 Ford Probe factory shop; electrical & vacuum diagram, \$25. Bob, 265-0391.

CAP - for '91 S10 pickup, white, \$200. Dave, Ext. 2109 or 472-9199 eves. & wknds.

UTILITY TRAILER - 4'x6', \$125; '95 trailer, 5'x10', 3/4 enclosed, mint, \$1,000 neg. 654-5889.

RAG TOP - for a '93 Geo Tracker, white, excel. cond., \$120. John, 395-5922.

Boats & Marine Supplies

33' HOUSEBOAT - sleeps 8, hot shower, stove, oven & frig., 318 Chrysler w/Dana o.d., clean in/out, asking \$9,000. Tirre, Ext. 3288.

16' MARK TWAIN BOWRIDER - good cond., \$350. Kevin, 878-4285.

12' BOAT - aluminum, flat hull, good cond.; 1984 4-h.p. Evinrude ob., like new, both \$650. Joe, 728-7298.

JET SKI - 1991 Kawasaki X2, 2-seater, 650cc., low hrs., clean, very fast, trailer tote incl., \$2,800. David, Ext. 5217.

MOTOR - 1988 165-h.p. Mercruiser w/Alpha drive, very low hrs., like new, all extras, ready for installation, \$2,000. Paul, Ext. 7858.

Furnishings & Appliances

APPLIANCES - from remodeled kitchen, good working cond.; upright freezer; truck cap, 474-8577.

BEDROOMS - Med. oak, dresser, armoire, end tables, headboard; Col. pine, bureau, bed, headboard; contemp. couch & love seat. John, Ext. 7005 or 473-8338.

CABINETS - kitchen starter set, old, solid pine; stove, old, working, best offer. Ext. 3876 or 286-8720.

DINING TABLE - Colonial, 2 extensions, painted, needs some rework, \$150; youth desk, chair, dresser, mirror, light oak, excel. cond., \$150. 878-0835.

DINING ROOM - table, 4 chairs, small China closet, \$225; \$150; freezer, big, old model, Sheluador, upright, \$75; sofa bed, full-size, \$150. Lynn, 289-6639.

DINING ROOM - table, 6 chairs, 2 leaves, pine, \$300. 698-5762 after 6 p.m.

FILE CABINET - office grape. 567-7813.

KITCHEN SET - table w/leaf, Formica top, chrome legs, 4 wicker-back chairs, \$65. Jim, Ext. 2183 or 689-8284.

LIVING ROOM - 3 tables, wall unit, oak basketweave w/glass, \$100; microwave, Sharp Carousel II, 1.2 cu. ft., \$75; patio table, glass top, new, 60"x38", \$75. Lloyd, Ext. 5225.

RANGE - G.E., elec., 30", works fine, \$150. Bill, Ext. 2807 or 281-0557.

SHADES - honeycomb pleated shades, 31"x64", 2 white, 2 antique white, \$20/2; 2 mini blinds, hunter green, 31"x64", \$5/ea. John, Ext. 4482.

WATER BED - king-size, black, 4-drawer pedestal, full flotation, hardly used, bedding incl., \$500. 230-0618.

Tools, House & Garden

ANNUALS - flowers, \$10/flat, \$5.50/1/2 flat, vegetables, \$1/pack. Ray, 727-6818 after 4 p.m.

ASPARAGUS ROOTS - grocery bag full of over 20 large roots, fresh dug, \$10/bag. Tom, Ext. 4507 or 878-1060.

CANNA BULBS - giant red, \$1/bulb; iris bulbs, \$3/potted, 75c/ea.; some fig trees avail. Jim, 325-9293.

COAL STOVE - Franco-Belge, 30,000 Btu, incl. chimney & other access. available. Sharon, Ext. 3995 or 878-9355 eves.

DAHLIAS - mixed colors, 50c/ea; cannas, red, 50c/ea. Joe, Ext. 2898.

LAWN MOWER - Sears Craftsman, 21", 4-cyl., \$60; bike, children's, 20", \$30; Schwinn Continental bike, 27 1/2", 10-spd., \$100. Steve, Ext. 3018 or 369-5181.

PATIO SET - 6-chairs w/cushions & matching umbrella table, 40"x90", green PVC, light fix., covers for all, orig. \$2,000, now \$1,000 neg. John, 395-5922.

POOL - 4'x15', all alum. w/ss filter, made to last, \$100. Bill, Ext. 3996.

POOL - 18' round, complete, 6-yr. old, \$200, you remove. John, Ext. 5347.

STORM DOOR - 36"x80", white, cross-buck, glass & screen, all hardware, \$65. Ext. 5873 or 878-1303.

STOVE - gas, circa 1920s, wood doors, glass knobs, complete w/jam, good cond. make offer. Tony, 298-1932.

TREES/SHRUBS - white pines, \$2/ft.; arborvitae, \$3/ft.; Alberta spruces, \$4/ft., hydrangea cuttings, \$2/ea. John, 744-5867.

Sports, Hobbies & Pets

BIKE - 1990, 12-spd., touring, excel. cond., \$75. Joe, 728-7298.

BICYCLE - men's 10-spd., good cond., \$50. Walter, Ext. 4972 or 567-9025.

CAMERA LENS - Nikon, 35-70/f2.8D, AF, 62mm, w/lens hood, \$655. Yi, Ext. 3809.

EXERCISE EQUIPMENT - Weslo Cardio glide plus rider, used 1 mo., like new, paid \$250, now \$150. Jim, 286-1358 after 5 p.m.

EXERCISE EQUIPMENT - Solo Flex, no attachments, all papers, excel. cond., \$300. Pat, Ext. 7705.

GOLF CLUBS - Sträter irons 2-SW, Prima, metal woods, 1,3,5, good starter set, bag incl., \$225 neg. Craig, 737-2253.

GOLF CLUBS - men's metal woods, Wilson HT1000 driver, 3, 5, \$60/all. Ruth, Ext. 7226.

GOLF CLUBS - Smith, metal woods 1-3-5, 2 yrs. old, ask. \$165. Ext. 2539.

SCUBA GEAR - 2 full setups, vests, regulators, excel. cond., best offer. Ext. 4252 or beeper, 4278.

SNAKE - boa, 3 1/2', w/30-gal. tank, heat rocks, light, eats frozen food, hand-tamed, complete setup, ask. \$230. Kevin, 878-9331.

STRETCHER - Hurley, good for stretching before karate class, \$100. Ext. 7601.

TICKETS - 4, Yankees vs. Calif., sec. 8, row A, 5/17, 7:35 p.m., \$64; Yankees vs. Chicago, 4, sec. 8, row A and 2, Sec. 12, row E, 5/2, \$16/ea. Tirre, Ext. 3288.

WET SUIT - Go-Sport, women's size small, 2-pc. full suit, 1/4" thick for L.I. diving, \$25. Craig, Ext. 4028.

Audio, Video & Computers

BASS HEAD - Gallien Kruger 200rb, 100 watts, 3 bad eq., chorus, \$115. Jim, 924-7374.

CLOSED-CAPTION DECODER - NCI-4000 remote control, cable-ready, mint, orig. \$175, ask. \$65. Yi, Ext. 3809.

COMPUTER - Micro-90MHz Pentium, 32MB RAM, 512K-EC, 17" SVGA, PCI-video W/2MB-VRAM, 1.2G HD, 4XCD-ROM, more, \$2,900. Gary, 728-5201.

COMPUTER - XT, 5 1/4" drive, 3 1/2" drive, 1MB, no monitor, \$50; HD, 108MB, IDE, \$35. Henry, Ext. 7595.

COMPUTER - Compu-add 386/25, 4MB RAM, 5 1/4" drive, 3 1/2" drive, CD ROM, Logitech mouse, 14" color monitor, \$300. Kevin, 878-4285.

ELECTRONIC TYPEWRITER - memory for 2 lines, bells & whistles, all manuals, excel. cond., best offer over \$100. Paul, Ext. 2264 or 941-9055.

MOTHERBOARD - 386Dx-40, \$40; 8MBRAM, 1x3, 70ns 30 pin, \$120, \$150/all; 486 SX-20, \$50, 8MB RAM, \$120, \$160/all. Tom, Ext. 5258.

SOFTWARE - Turbo Pascal 1.5 & Quattro Pro for Windows 5.0, both unopened, \$12/ea. Loretta, 744-5553.

TV - Hitachi, 19", color, w/remote & Sharp 7-day program VCR, both excel. cond., \$125/both. Joe, 728-7298.

TV - Sharp, 19", \$90; VCR, Panasonic, \$90, both 1 1/2 yrs. in use; Raleigh bicycle, \$20. Ext. 7830/1021.

VIDEO GAME - Nintendo, deluxe joystick, NAS Advantage, controller, 18 games w/19" color TV, \$300. John, 395-5922.

VIDEO GAME - Nintendo, Snes deck w/2 joysticks, 3 games, Maximum game, Donkey Kong Country & NBA Jab, ask. \$90/all. Ryan, 281-0360.

Miscellaneous

DOLLHOUSE - Little-Tykes, Grandma's House, minivan, people, 16 access., \$55; stroller, new Perego Velva, side-by-side, rec. dbl., now \$250. Lloyd, Ext. 5225.

ELECTRIC CART - needs batteries, otherwise in good cond., orig. \$3,500, best offer over \$500; other medical equipment. 928-5956.

TICKETS - 2, *Beauty and the Beast*, Staller Center, Stony Brook, excel. seats, April 28, paid \$9/ea., sell for less. 924-5505.

Yard & Garage Sales

MANORVILLE - May 18 & 19, 300 Dayton Ave., nearest crossroad Moriches Middle Island Rd.

N. SHIRLEY - April 27 & 28, 241 Auburn Ave., call to confirm. John, 395-5922.

PORT JEFFERSON - April 20 & 21, 9 a.m. to 5 p.m., 117 Wilson Dr., 25 yrs. of accumulation.

Lost & Found

FOUND - hubcap, spoked, Special Edition, Ext. 5054.

Free

LAWN CHAIR & TABLE - wood, you pick up. J. DiNicola, Ext. 5100.

ANIMAL LOVERS - please help stray cats, need shelter & food, already spayed, neutered, shots. Pat, Ext. 7705.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, religion, sex, age, national origin, disability or veteran status of the applicant.

For Rent

BELLPORT - room in 2-bdrm. house, laundry, eik, special \$350/mo. incl. all while house is for sale. David, 286-1633.

BROOKHAVEN - room, use of house & kitchen, located near Lab. Sydney, 286-4028.

CALVERTON - 2-bdrm. condo, 5 appl., fp, patio, upper deck, 24-hr. security. Henry, Ext. 7595.

CENTER MORICHES - 1-bdrm. apt., large bdrm., full bath, large l/r, kit., deck, walk-in closet, storage, thermostat, priv. ent., parking, \$750/mo. incl. all + sec. Pete, Ext. 4028 or 878-6505.

MIDDLE ISLAND - sunny 2-bdrm. co-op, full bath, w/w, w/d, d/w, microwave, c/ac, rear deck, upper end unit, parking, pool, trails, lake view. David, 924-0383.

MIDDLE ISLAND - 2-bdrm. upper condo, Fairview, new section, w/pond view, 1 1/2 bath, 5 appl., pool, tennis, clubhouse, 5 mins. to Lab, \$925/mo + util. Mac, Ext. 4558 or 924-2348.

MIDDLE ISLAND - 1-bdrm. garden apt., upper w/terrace, full bath, new appl., tennis, pool, laundry, ac, \$650 incl. heat, rent w/option to buy. 821-5484.

WADING RIVER - 3-4 bdrm. house, new, bright, immac., 2 1/2 baths, furn., avail. 8/96 for 1 yr., large wooded prop., want responsible tenants to provide TLC, \$1,200 + util. Penny, 929-5797.

WADING RIVER - large studio apt., unfurn., full kit., near beach, driveway parking, quiet neighborhood, 15 min. to Lab, elec. & heat incl., \$500/mo. Bill, 722-4489.

YAPHANK - Whispering Pines, 2-bdrm. townhouse, gar., bsmt., w/d, l/r, d/r, pool, ac, fp, \$550/mo. until 6/25. Ramesh, Ext. 4805 or 924-8113.

KEY WEST, FL - oceanfront timeshare, Coconut Beach Resort, sleeps 2-6, ac, TV, Jacuzzi, fish, swim, nightlife, week of 7/27-8/3. Pat or Ralph, Ext. 2539.

HILTON HEAD, SC - condo, sleeps 6, fully furn., 2 bdrms., 2 baths, pool, beach, golf nearby, through Sept., \$500/wk. Guy, Ext. 3147 or 689-5378.

For Sale

BAYSHORE - Brightwater Farms, 2-4 bdrm. Col., l/r, eik, fdr, den, 2 full tiled baths, ldy., Andersens, bsmt., 5 appl., 2 ac, yard, \$121,990. Bill, Ext. 2762 or 665-3782.

E. SETAUKET - 5-bdrm., 3 baths, 3 levels, poss. M/D, sliding door, wraparound deck, cul-de-sac, hardwood floors, 2 1/2 car gar., 3VSD, opt. to rent, \$1,700/mo. 689-6495.

FARMINGVILLE - 5-rm., 2-bdrm. house, modern kit., new appl., bath, carpet, windows, siding, 1/2 bsmt., w/d, OHW, detached gar., taxes \$2,430, \$104,000. Mark, 654-0268.

FARMINGVILLE - 4-bdrm. Colonial, 9 yrs. old, 2,400 sq. ft., 2 1/2 bath, d/r, l/r, eik, sunken den, bsmt., deck, fenced yd., gar., Sachem SD#5, \$169,000. 736-1662.

MEDFORD - 3 bdrm. house, raised ranch, fin. playroom, gar., 10 min. to Lab, ask. \$91,900. Bill, Ext. 2564.

N. SHIRLEY - 3-bdrm. ranch, 2 baths, l/r w/cathedral ceilings, lg. eik, alarm sys., full bsmt., gar., fenced 1/2 acre, 2 large decks, pool. John, 395-5922.

RIDGE - 3-4 bdrm. ranch, 2 1/2 baths, mud room, fenced yard, 3 mi. to Lab, \$112,000 or rent w/option to buy, ideal M/D. Carol, 744-8632.

RIDGE - 3-bdrm., 2 1/2 baths, 7 yr. old Colonial, 3/4 acre, Park Ridge Estates, cac, alarm, fenced, decks, pool, igs, 2 mi. to Lab., \$149,900. Mike, 924-1837.

ROCKY POINT - 3-bdrm. Colonial, 16 yrs. old, cedar inside/out, quality construction, 3 decks, 2 baths, full bsmt., 0.77 acres, motivated/transferred owner will assist w/closing fees, \$149,000. Ext. 7774.

ROCKY POINT - 3-bdrm. ranch, l/r, eik, fin. bsmt., OHW, city water, 100'x100', \$115,000. Mike, Ext. 3434.

RONKONKOMA - 6-rm. high-ranch, w/3-rm. income apt., oversized prop., ig solar heated pool, new roof, windows, burner, carpeting, Connequot SD, walk to lake, \$178,000. 467-8297.

SETAUKET - 2-story Col., 4-bdrm., bi-level decking, cac, igs, hot tub, screened porch, new custom kitchen, wood floors, cul-de-sac, more, \$339,000. 751-3298.

SHIRLEY - 4-bdrm. brick Cape, 2 unfin., 2 bath, family room w/sep. ent., 2-car gar., 100'x125' lot, close to beaches, asking \$79,900. 297-1776.

SOUND BEACH - 3-bdrm. cedar ranch, new windows, doors, skylights, cathedral ceilings, l/r w/fp, det. gar., 80'x125', fenced yd., MP5D. 744-5387.

S. HUNTINGTON - 4-bdrm. Cape, eik, l/r, w/marble fp, oak floors, tile, new windows, deck, fence, full bsmt. half fin., 2 full baths, 100'x70', taxes \$3,400, 1,550 sq. ft., \$139,900. Evelyn, 549-9113.

WADING RIVER - Clarendon, custom 4-bdrm. Colonial, 2 1/2 baths, encl. porch, 1 acre, hardwood floors, extras, mint cond., SWRS, \$295,000. 929-69