



The Triangle
APRIL 1978

The Triangle

Editor,
Rudolph Kneer



ON THE COVER . . .

The Control Surveys and Mapping Program, currently being carried out by the Regional Municipality of Sudbury, is the result of a great deal of co-operation between Inco and the three levels of government. Here Jim Swain, left, survey assistant, David Hughes, chief cartographer with the Municipality of Sudbury, and Gren Rogers, chief surveyor for Inco, are observing distances at a horizontal control survey station west of Levack. A Dominion-Pegasus Helicopter, piloted by Len MacTaggart, was used extensively to transport crews to hundreds of survey stations throughout the Sudbury district. See story on Page 6.

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Inco Metals Company Donates Collection Of Paxy Carvings To Laurentian University



A total of 36 Charles Paxy wood carvings, depicting a large segment of Inco mining operations throughout the Sudbury District, were presented to Laurentian University recently. Ron Taylor, Ontario Division president, made the presentation on behalf of Inco Metals Company. Admiring a few of the detailed creations are, above, from left, Dr. Henry Best, president of Laurentian University, Charles Paxy, the talented creator of the carvings, and Ron Taylor. Below, members of the teaching staff of the mining engineering section of Laurentian check out a load-haul-dump unit, complete with moveable bucket and cylinders. From left, Richard Walli, professor of mining engineering, Okay Djamgouz, associate professor of mining engineering, Mel Young, assistant to the president, Ontario Division, Spike Hennessy, vice-president, administration, Laurentian University, and Dr. John Rawling, professor of mineral processing. According to Dr. Best, the entire collection will find a prominent display at Laurentian within the near future.



Effective May 1:

New Positions Announced

Toronto, April 3 — Three executives of Inco Metals Company's Ontario and Manitoba Divisions were elected to new positions, effective May 1, at today's meeting of the board of directors of Inco Limited.

Inco Metals is the primary metals production and marketing unit of Inco Limited.



RONALD R. TAYLOR

Ronald R. Taylor, president of the Ontario Division, has been elected assistant to the president of Inco Metals, with special responsibility for planning. He will also become president of Inco Tech, a newly formed division of Inco Metals that will provide consulting services in the minerals exploration and development fields. Mr. Taylor will move from Sudbury to the company's headquarters in Toronto.

Winton K. Newman, president of the Manitoba Division, will succeed Mr. Taylor as president of the Ontario Division.

Charles F. Hews, a vice-president of the Ontario Division with responsibility for



WINTON K. NEWMAN

administration and engineering services, will become president of the Manitoba Division.

Mr. Taylor was elected president of the Ontario Division in February, 1973. At that time, he was a vice-president of Inco Limited in Toronto, with responsibility for coordinating and planning the company's primary metals production operations. From 1969 to 1971, he was director, exploration. Mr. Taylor joined Inco in 1948 as a member of the geological staff in Copper Cliff. A native of Timmins, Ontario, he is 53 years old.

Mr. Newman has been president of the



CHARLES F. HEWS

Manitoba Division since September, 1974. For two years prior to that, he was assistant general manager, mining and milling for the Division. Mr. Newman transferred to the Manitoba Division from Sudbury in 1959. Mr. Newman joined Inco in 1954 as an efficiency engineer. A native of Kenora, Ontario, he is 48 years old.

Mr. Hews has been a vice-president of the Ontario Division since October, 1974. From 1972 to 1974, he was manager of maintenance for the Division. Mr. Hews joined Inco in 1952 as a contract engineer at the Creighton mine in Sudbury. A native of Webbwood, Ontario, he is 52 years old.

ESB RAY-O-VAC ELECTS DAVID C. DAWSON PRESIDENT



DAVID C. DAWSON

PHILADELPHIA, PA. — The board of directors of ESB Ray-O-Vac Corporation and subsidiary companies have elected David C. Dawson president of the battery manufacturing firm, Frederick J. Port, chairman and chief executive officer, announced.

Mr. Dawson has been vice president of Inco Limited, Toronto, the parent company of ESB Ray-O-Vac.

ESB Ray-O-Vac is one of the world's largest manufacturers of batteries and related products, marketed under the familiar trade names of Exide, Willard and Ray-O-Vac.

Mr. Dawson was elected a vice-president of Inco Limited on September 1, 1975. Prior to his election, he had been a director of Inco Europe Limited, Inco's United Kingdom subsidiary, since April 1974, where he was in charge of marketing. From April 1972 until transferring to London, he was vice-president, marketing for the company's United States metals marketing subsidiary, The International Nickel Company, Inc.

Mr. Dawson joined Inco in 1958 as a metallurgist in nickel sales, New York Office. In 1959, he was transferred to the Pittsburgh district office. He returned to New York in 1963 as assistant to the manager of market development. He was manager of the Pittsburgh office from 1966 to 1970. During the next two years, he served in New York as a member of Inco's foreign projects and resources development staff. Before joining Inco, he was a development metallurgist with the DuPont Company.



WARNER WOODLEY

J. A. Warner Woodley, Manager of the Port Colborne nickel refinery, will succeed Charles F. Hews as Vice-President of the Ontario Division, with responsibility for administration and engineering services, effective May 1.

Trevor E. Fregren, Vice-President, Manitoba Division, with responsibility for milling, smelting and refining, will transfer to Port Colborne as Manager of the nickel refinery, effective May 1.

Lorne M. Ames, Assistant to the President, Manitoba Division, has been appointed Vice-President, Manitoba Division, with responsibility for milling, smelting and refining, effective May 1.



In the induction area at Stobie mine's 600 level, trainees Keith Griffith, left, and Jim Harrison, centre, watch as instructor Yvan Forgues points out the types of tools used underground.



Instructor Vic Laporte, left, explains the function of an Anfo loader to trainees Jim Harrison and Keith Griffith. Watching are training foreman Doug Anderson and instructor Yvan Forgues.

At Stobie Mine:

Central Training

Area

Just over a year ago, the company selected Stobie mine as the site for a central training area which would provide instruction in underground operations to all new underground employees and to transfers from surface facilities who had no underground experience. So far, over 650 employees have been exposed to the training program and, according to training foreman Doug Anderson, "we're getting good feedback from both the



More than 650 employees have gone through the training program during the past year. Here, trainees Jim Harrison, left, and Keith Griffith, centre, assemble chute segments for instructor Vic Laporte.



Trainees Jim Harrison, left, and Keith Griffith listen and watch while instructor Yvan Forgues explains the operation of a switch throw on underground tracks.



At Stobie mine's 1800 level training area, trainees Andy Ongora, left, and Ron Goudreau are demonstrating their new skills of loading holes with blasting agent by instructor Armand Ruel, right.



Hands-on training stimulates interest and provides confidence. Here, instructor Joe Grabish watches while trainee Dennis Menard drills slash with a jackleg drill.

trainees and from the mines they're assigned to."

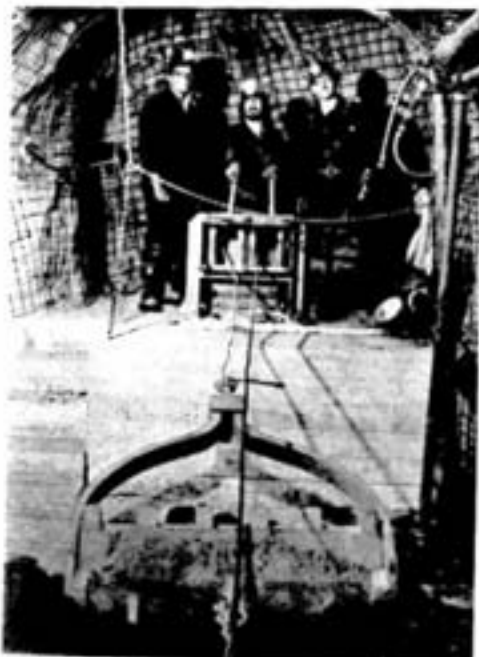
During the first week, registration, orientation and a surface tour are followed by going underground to the induction training centre. During this time, the trainees learn the rules covering underground and plant behaviour; they learn about personal protective equipment, mining tools, open holes, explosives, blast guarding, fire procedure, tagging in, scaling and pipe-fitting, and

are given a first-aid course by plant protection officers.

The trainees are then sent to different areas of operation as helpers, for a week of orientation and familiarization of hands-on work. The balance of time covers hands-on training provided by the central training area's seven instructors. The trainee is shown the components and proper use of the jack leg, stopper, slusher, drill stagings and ground support, then learns blasting procedures

and care of explosives. For in-the-field hands-on training, the trainees are taken out by their instructors to active headings where they do the actual development work.

Added Doug Anderson, "we stress hands-on training, with a requirement to demonstrate the skill level attained, which gives the employees a feeling of confidence in their abilities when they leave the training area with their newly demonstrated skills."



Instructor Paul Yergeau, right, explains the use of a slusher to trainees Dennis Withers, left, and Jean Paul Loyer.



The team responsible for training our underground personnel — from left, instructors Gerry Clyke, Eddy Tidd, Vic Laporte, Paul Yergeau, Yvan Forgues, Joe Grabish, Armand Ruel, and training foreman Doug Anderson.



Jim Swain, left, survey assistant, and instrumentmen Bob Hicks and Gord Pedersen pack necessary gear, including snow machines, electronic distance-measuring equipment, theodolites and levels.



Instrumentman Bob Hicks, left, takes a reading with a precise automatic level to determine elevations while instrumentman Gord Pedersen records the statistics which will later be used for mapping.



At a survey site, Jim Swain, survey assistant, is holding a reading from a level rod at a bench mark.

S. A. M.

(Control Surveys and Mapping Program)

As recently as 1970, relatively little mapping of the Sudbury area existed, other than federal topographic maps. This lack of an integrated surveys and mapping system in the Region meant that specific projects were being mapped at different scales and draughting specifications, which resulted in a confusion of unrelated work. The need for a reliable system was apparent to every user of such data.

The Control Surveys and Mapping (SAM) Program currently being carried out by the Regional Municipality of Sudbury is the result of a great deal of co-operation between industry and the three levels of government. Inco, the only participant from industry, has contributed \$150,000 over the past three years to the program and is also making its own internal survey information available through Gren

Rogers of the land surveys section of Inco's mines exploration department. Gren is also the company's representative on a Technical Advisory Committee which has been established to advise the Regional Planning Committee and Council on matters related to the SAM program.

The main object of the program is to improve the accuracy of, and standardize, all control surveys and mapping performed in the Region. Not only will many departments at Inco reap the benefits of the system, but such a standardized mapping program will also prove invaluable to various utility companies and government ministries.

The Surveyor-General of Ontario has overall responsibility for the correlation of the project and, through the Ministry of Natural Resources, has financed much of



Discussing the day's accomplishments are, from left, Bob Hicks, instrumentman, Jim Swain, survey assistant, Gord Pedersen, instrumentman, and Gren Rogers, chief surveyor for Inco.



Studying maps resulting from the program are, from left, Kal Biro, land surveyor, Gren Rogers, chief surveyor for Inco, and David Hughes, chief cartographer with the Regional Municipality of Sudbury.



Taking readings to establish elevations at a location north of the Sudbury basin near Joe Lake are, from left, Bob Hicks, instrumentman, Gord Pedersen, instrumentman, and Jim Swain, survey assistant.

the work done to date. The Surveys and Mapping branch of the Department of Energy, Mines, and Resources has established new first-order geodetic survey stations in the Region which, in turn, control the accuracy of second-order stations established by the province through use of private land survey firms. The topographical mapping is prepared from aerial photography and vertical and horizontal control survey information, and is contracted out to private industry.

According to Gren Rogers, the company is pleased to encourage, participate in, and support the Regional Surveys and Mapping Program and he added that, while the benefits of such a project are not often immediately apparent, they will, through the years, be reflected in substantial savings in time, work, and money.



Preparing to establish elevations of bench marks by using a precise level and a leveling rod are, from left, instrumentman Bob Hicks, instrumentman Gord Pedersen, and survey assistant Jim Swain.



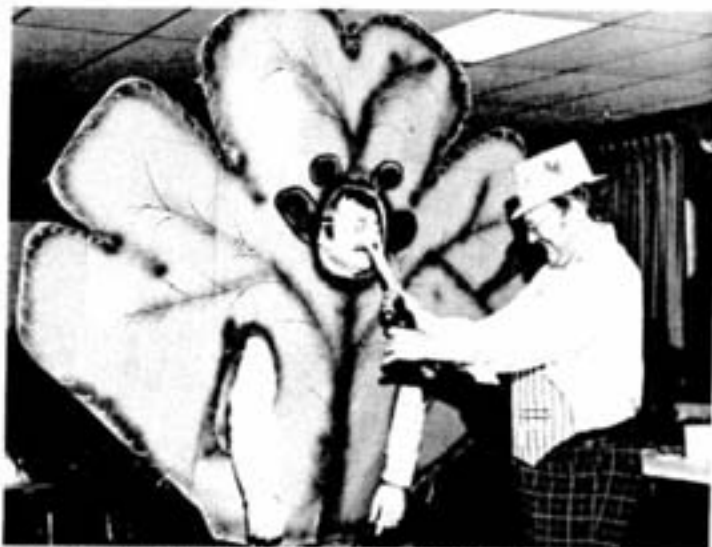
Erik Lienala, left, of Meunster Construction and Sparky Harry, drawmaster and engineering department pensioner, check the tallies to see who's taking a lead.

St. Patrick is theme for 14th Annual Bonspiel

The wearin' of the green was this year's theme for the 14th annual general engineering curling bonspiel, held recently at the Sudbury Curling Club. And thanks to good planning and co-ordination, the event was once again an overwhelming success.

Thirty-six participating teams were decked out in special shamrock derbies and striped vests, and competed for prizes that ranged from fishing reels to socket sets.

This year's bonspiel chairman was Jack Perron, office services co-ordinator. The winning team was skipped by Jim Urquhart, and prize committee members were John Jack, contract administrator, Henry Fiacconi, supervisor of planning and scheduling, and Jack Perron.



The largest shamrock in the world! Ben McQueen, left, contract administrator, receives some welcome refreshment from Jack Perron, office services co-ordinator.



Registering for the bonspiel are, from left, Bob Smith, construction group; Grino Conte, engineering design; Karl Vainio, engineering construction, and Doug Moxam, engineering design.

Engineering specialist Rod Sutton, centre, receives advice on how to judge the rock from Steve Hughes, left, Felkal Construction and Bob Watson, Cooper Crane Rentals.

Special St. Patrick's get-up added a touch of color to the day's event. Here, Arnie Klippe, right, of Arnex Construction, straightens the tie of project co-ordinator Bob Donaldson.





Maintenance personnel at the new community centre take advantage of the facilities. Sparring are Ralph Ens, left, and Kevin Snow.



Ralph Ens, left, and Kevin Snow get set for an invigorating game of squash in one of the two courts available at the community centre.

Copper Cliff's McClelland Community Centre now officially open

Welcome addition to Copper Cliff is the new McClelland Community Centre, named in honor of local school teacher Bert McClelland, and now officially open to the public.

The facility, which replaces the well-known Stanley Stadium, boasts a 200-by-85-foot ice surface with arena seating capacity of 900. Activities in the arena include figure skating, Copper Cliff minor hockey, and Inco shift league hockey. Also making use of the ice are the Copper Cliff copper refinery Oldtimers, Inco engineering Oldtimers, and the Copper Cliff Oldtimers.

The new building also features a fitness centre, a community hall with kitchen and bar facilities, two squash courts and two saunas.

Manager John Fraser is responsible for the new community centre, which employs approximately 12 people.



Attending the centre's official opening were, from left, Wilt Digby, superintendent of Inco's employment and benefits department, Dorothy McCarthy, Vi Taylor, Jay McCarthy, a maintenance foreman at the Copper Cliff smelter, and Ron Taylor, president, Inco Metals Company, Ontario Division.



The new McClelland Community Centre features a 200-by-85-foot ice surface with a seating capacity of 900. The building also houses two squash courts, two saunas, a fitness centre, a community hall with fully-equipped kitchen and bar facilities, six dressing rooms and two snack bars.



Park employee Harold Bolton overhauls the engine of a riding mower.

Well, there's no doubt about it, spring has arrived and the warmer April weather means increased activity for all members of Inco's agriculture department.

According to Tom Peters, head of the department, more than 50,000 plants are now being seeded at the Copper Cliff greenhouse. Once the seeds are ready for transplanting, they'll be transferred to all of Inco's various surface and underground operations, thus adding that welcome touch of color and freshness to our regular workdays.

At the new agriculture complex in Copper Cliff, park employees are busy overhauling the many pieces of equipment that will be put to good use throughout the coming summer months.

Agriculture Department Prepares for New Season



Debbie Olfert, greenhouse worker, sows a variety of pansy seeds.



Greenhouse worker Gino Neccarato transplants young geraniums.



Alex Gray of the greenhouse files a hard-coated seed to help germination.



Working with geranium plants is greenhouse worker Danielle Brunet.



Daryl Bolton, park employee, overhauls a chain saw used for tree trimming.



Aito Ahopelto, park employee, touches up an agriculture wagon.

Copper Cliff Copper Refinery Captures R. D. Parker Shield



Representing the Copper Cliff mines are, front, from left, Dennis Thornton, Charles Fraser, captain, and Len Hirvela; back, from left, Walter Mariga, William Galipeau, coach, and George Jenkins.

In a tense and exciting battle at the Sudbury Inco Club between the Ontario Division's best first aid teams, the Copper Cliff copper refinery group won the R. D. Parker Shield as 1978 Inco Ontario Division inter-plant first aid champions.

The Garson mine entry, representing the mining and milling section and captained by Alan Benoit, was the runner-up for the title.

This year, the teams were faced with a rather complex problem involving a wide variety of injuries to some five "patients". As the teams arrived on the scene of a car mini-bus accident, they

were faced with three "patients" requiring their first aid skills.

Just when the teams thought they had matters under control, a car came down the hill and collided with the team members' car, injuring the driver and a team member. This situation now left a four-man team to look after five "patients".

After the judges had tallied the score sheets, the copper refinery team, under the capable guidance of captain Frank MacKinnon, was declared the winner. The judges had their work cut out for them because both teams were closely

matched, and the calibre was high.

Ron Taylor, Ontario Division president, presented the coveted R. D. Parker Shield to the winning team. He reminded those present of the value of first aid training not only to fellow workers but to the family and the community as a whole.

To reach the Parker Shield final, a total of 12 teams worked their way through semi-final competitions for the D. Finlayson and H. J. Mutz trophies. Seven surface plant teams competed for the Finlayson trophy. Five teams from the mine areas competed for the H. J. Mutz trophy.



The Winners

The victorious Copper Cliff copper refinery team — division champions and winners of the coveted R. D. Parker Shield. Looking remarkably relaxed after a grueling competition, from left, Norm Dever, Norm St. Amand, chief first aid co-ordinator Hank Derks, team captain Frank MacKinnon, Ontario Division president Ron Taylor, who made the presentation, Ted Kaczowski, coach Duncan White, and Greg Anderson.



From the Froid-Stobie complex are, front, from left, Jack McKibbin and Neil Pacaud; back, from left, Claude Trudel, Gord Stewart, captain, and Clem Boudreau.



Representing the Creighton complex are, front, from left, Leonard Phillips and Gord Blackwell; back, from left, Ronald Linville, Perry Kirkbride, captain, and Tony Pickford.



Representing the Garson complex are, front, from left, Raymond Lauzon and Norm Gaudette; back, from left, William Rainville, Alan Benoit, captain, and Cecil Ralph.



From the Levack area are, front, from left, Clement Castonguay, Phillip Gaudreault, captain, and Robert Neveu; back, from left, Laurent Henri, Guy Filiatrault, coach, and Omer Dumont.



From the Copper Cliff copper refinery are, front, from left, Norm St. Amand, Frank MacKinnon, captain, and Ted Kaczowski; back, from left, Greg Anderson, Duncan White, coach, and Norm Dever.



Representing the I.O.R.P. are, front, from left, Michael Forget, Don Boyer, captain, and Don Benoit; back, from left, Tom Fowler, Howard Glasby, coach, and Dermont Kinsella.



Casualty simulator Rick Cholette, a first aid instructor, applies soft tissue swelling to "patient" Andy Rickaby.



Copper Cliff copper refinery team members Frank MacKinnon, left, and Gri Anderson apply bandages to a "patient". Dr. John Jones, one of the judges pictured in the background.



Well over 500 spectators turned out to view the competition. Here the Gars team enters the scene of the accident.



Representing the Port Colborne nickel refinery are, front, from left, Dan DeLuca, Archie Ferguson, captain, and John Cormier; back, Clint Minor, Barry Bitner, coach, and Marcel Desmarais.



From matte processing are, front, from left, Homer Bator and Jack Sabourin; back, from left, Norm Cote, Jack Tupling, captain, and Tito Tikkonen.



Representing the transportation c from left, Moe Raymond, Vic Hen Don Primeau; back, from left, Roy Quesnel, coach, and Gerry Perro.



Here Frank MacKinnon, of the Copper Cliff copper refinery team, controls the bleeding on "patient" Jackie Corrigan's forehead.



Norm Gaudette, centre, and Cecil Ralph, right, members of the Garson mine team, in the process of splinting a fractured leg. Assisting is "bystander" Lionel Rochon, a protection supervisor in the Copper Cliff smelter.



Frank Cholette is the casualty with severe facial laceration being applied by David Derochie, a first aid instructor.



department are, front, Anderson, captain, and in Brouillette. Norm on.

From the Copper Cliff smelter are, front, from left, Dennis Holland and Winston Myre; back, from left, Norm Marcil, Reg Gareau, captain, and Ricky Pasanen.



Representing the Copper Cliff divisional shops are, front, from left, George Dempsey and George Kain; back, from left, Wayne Butler, Gerry Regimbal, captain, and Gordon McCandless.

Family Album



A foreman in the electrolytic nickel refining department at the Port Colborne nickel refinery, John Toscher enjoys gardening and keeping his home in good repair. With him are his wife, Janette, and his children, from left, Ingrid, 13, Erica, 15, James, 9, and Edith, 18.



A process laborer with the fluid bed roasting department, Ron Babin is an active supporter of the Big Brothers Association and a past president of the Matte Processing Athletic Association. That's his wife, Debra, along with son Adam, 3, daughter Lisa, 1, and Little Brother Robbie Urwin, 15.



A member of the Sudbury Revolver Club, Mike Levesque is a process laborer with the nickel reverb department in Copper Cliff. In his spare time, Mike enjoys leathercraft and reloading ammunition. That's his wife, Dianne, son Jimmy, 9, and daughter Kimmy, 8.



Jim Black is a cost analyst with the Division Comptroller's Department in Copper Cliff. Family members enjoy golf and cross-country skiing in their spare time. That's his wife, Ilona, sons Marc, 13, and Jamie, 14. Seated is daughter Shara Beth, 10. The family pet, "Cinnamon", is in front.



Looking forward to camping in his home-made camper bus is Gerold Heinze and his family. Gerold, a senior mechanical specialist, also finds time to teach a garage mechanic apprentice course at Cambrian College four nights a week. Family members are, from left, Kirsten, 19, wife Grete, Michaela, 3, and Gerold, Jr., 11.



Pat Maloney, a first class electrician with the Copper Cliff smelter furnace department, enjoys landscaping and gardening in his spare time. Members of his all-girl family are, from left, Tricia, 5, Meghan, 2, his wife, Marie, and Molly, 4.



Modular Training at the Silver Refinery – all systems "GO"

During the classroom phase of the modular training program, instructor Wrenley Watt, second from left, explains various process streams to silver refinery trainees, from left, Ken Knowlan, Jeff Noble, and Dan Nepssy.

"Modules permit individuals to learn the function of their particular job and associated equipment; then they can relate their knowledge to the overall operation of the plant." Doug McMorran, training supervisor at the Copper Cliff copper refinery, is now in the midst of implementing a modular training system at the plant and, in particular, at the silver refinery.

"All modules follow the same format," said Doug, "so no matter where an employee works in the Division, he will be familiar with the learning structure and can apply it to his previous learning experience."

The silver refinery is the first of Inco's existing process plants to receive the benefits of the modular training program being introduced throughout Inco's

various Ontario Division facilities. The process streams are rather complex and call for extensive training, both in the classroom and in an on-the-job "hands-on" situation. The overall program consists of 10 major process modules plus supportive equipment modules, and all current employees have the opportunity to become "trainees", while new employees will participate as



Mike Lacasse, left, roasterman trainee, charges a section of the roaster with raw slimes under the guidance of instructor Leo Charlebois.



Ray Lalonde, trainee, rakes the slimes to ensure they come in contact with sulphuric acid which will sulphatize the copper and nickel content of the slimes.



Rick McMahon, trainee, adjusts the ratio of natural gas and combustible air to give the required flame for the various phases of furnace operation.



Instructor Leo Charlebois, left, shows Dore furnace trainee Ray Lalonde how to skim off slags in order to produce the desired silver matte.

standard procedure.

In the classroom, one receives an overview of the operations of the silver refinery, and learns how one process step fits with another, to ultimately produce gold, silver, selenium, tellurium dioxide, and precious metals concentrates containing platinum, palladium, rhodium, ruthenium and iridium.

Then, as part of "hands-on" on-the-job training, trainees learn specific operations, as indicated in the accompanying photos. In picture two, trainees are shown how to charge the roaster with raw slimes, which are a residue from the electrolytic refining of copper and from which the products of the silver refinery are extracted.

In picture three, the trainee learns how to rake the slimes in the roaster, to make sure the slimes come in contact with sulphuric acid which has been added to the slimes to sulphatize the copper and nickel content. The slimes will then be leached and the copper-nickel content returned to the tankhouse for further recovery of metals.

Leached slimes are then mixed with flux and charged to a gas-fired Dore furnace. The trainee will be shown how to adjust the ratio of natural gas and combustible air to give the required flame for the various phases of furnace operation, as shown in picture four.

Picture five deals with the ongoing skimming operation which is carried out during smelting and refining of slimes, in order to produce a silver matte. Fine silver, fine gold, and precious metals concentrates are then extracted by further refining; offgases are scrubbed and the slags are further processed to produce tellurium dioxide and selenium.

In picture six, the trainees see the

"fruits" of their labor — in this case, a gold bar weighing approximately 28 pounds.

According to Doug, the "purpose of modular training is to make the job more meaningful and to make the individuals more knowledgeable in what they're doing, which in turn leads to the production of quality products representing the company."



Admiring one of the silver refinery's finished products are, from left, Wrenley Watt, instructor, Henry Zerhusen, MTS representative, Lyle Ridley, trainee, and Chris Depatie, trainee. The gold bar weighs about 400 Troy ounces.



Ed Eibl, first prize winner in the men's division.



The final race of the Inco Cup ski circuit was held at the Searchmont Ski Hill recently. The two-day competition brought to a close the Inco Cup for 1978.

First place in the individual standings was won by Martha Trussler in the ladies' division, with Ed Eibl picking up first prize honors in the men's division. The Adenac-Laurentian Ski Club, of Sudbury, was named the overall first place team.

The Inco Cup, sponsored by the Ontario Division of Inco Metals Company, is operated in conjunction with the Northern Ontario Ski Division.



At the Inco Cup awards banquet, held in Sault Ste. Marie, Ellis Hazen, above, was presented with this cartoon by Inco's Sid Forster, supervisor of community relations, Ontario Division. The presentation was made in appreciation of Ellis' outstanding contribution to skiing in Northern Ontario.



Martha Trussler, top performer in the ladies' division.

LOGO WRITER



George MacMillan

This month's logo writer is George MacMillan, the Ontario Division's special functions co-ordinator. Well-known for his culinary expertise, George recently introduced members of the Copper Cliff Club to an evening of gourmet dining, complete with all the trimmings. Forty couples, who turned out for the gala event, enjoyed excellent cuisine and spirited conversation. According to George, plans are already underway to stage another such event within the near future.

In his position as special functions co-ordinator, George is busy these days organizing this year's Quarter Century Club gathering, slated to take place later next month. George and his wife, Sandra, have one son, Danny, 15. The couple resides in Copper Cliff.



Charles Ferguson

Charles Ferguson, director of environmental affairs, Inco Metals Company, will be the guest speaker at the April 20 meeting of the Sudbury Branch of the Canadian Institute of Mining and Metallurgy. The address will cover the wastewater recycling and treatment strategy at Inco operations in the

Sudbury District. Members and guests are cordially invited to attend this most informative meeting which will get under way at 8 p.m. at the Northbury Hotel.

INCOmetrics

CHANGING TO SI . . .

Right on!



Hey Johnny, slip on this sweater . . . all the other guys in the club are wearing theirs!



Recent articles in The Triangle noted that only three small countries in the world are not presently committed to the International System of Units (SI). That would be sufficient reason for Canada to adopt SI, since we would be in an awkward situation if all other countries used one measurement language and we tried to use a different one.

There is good reason for the world to use one common system of measurement and the reason is simply that international trade and travel has expanded to such an extent that it is too cumbersome to use an assortment of systems and units.

What we usually refer to as the Imperial system has served us well. It has grown over a period of 3000 years, during which time all sorts and sizes of units have been introduced and there is no convenient or logical relationship between them. In addition, one name is often used for measures of different sizes in different places. For example the U.S., U.K. and Canadian gallon are all different sizes.

On the other hand, the metric system was introduced just about 200 years ago and although there have been some units added, deleted or

re-defined, each unit is the same size everywhere.

Furthermore, in SI metric there is a simple decimal relationship between many units and there is a logical relationship between many units of different types (a litre of water has a mass of one kilogram). So, one nice thing about changing to SI is that it is a much simpler system which has internationally standard sized units, many of which may be related without having to use odd conversion factors.

Another nice thing about changing to SI is that many units don't change at all. The common electrical units including volt, ampere, ohm, watt, hertz, farad and henry remain unchanged. Likewise, time units including second, minute, hour, day and week remain, and angles in degrees, minutes and seconds will continue to be used.

Next month, we'll take a look at other units which will become more and more familiar to us.

Tom Peters, far right, agriculturist with Inco's agriculture department, recently returned to Copper Cliff, following an extended visit to south-east Asia, where he carried out extensive studies and made recommendations on various tailings stabilization and disposal sites in different parts of the Philippines. He was on loan from Inco Metals Company to the United Nations on an environmental study and assistance program. At right, Tom is shown with members of the Philippine National Irrigation Administration and the Bureau of Mines.

For up-to-the-minute information,
dial

Inco Hotline

Sudbury 682-0626
Port Colborne 835-2454



NEWSMAKERS . . . NEWSMAKERS . . . NEWSMAKERS . . .



Harry Tompkins, centre, director of public affairs, Ontario Division, Inco Metals Company, recently addressed the Sudbury Lions Club. In his first official speech since coming to Sudbury 19 months ago, he suggested that local citizens don't do as much as they could to correct misleading impressions about Sudbury's poor image. "Our fellow Canadians don't hear much about the great and costly efforts of industry to clean up the environment and the fact that miners average \$12 an hour in wages and benefits," he said. He went on to say that few hear anything about the countless millions of dollars, manpower and expertise that corporations such as Inco have donated to all aspects of community life. Above, the guest speaker is pictured with Lions Club members **Jim Taylor**, left, and **Bill Nurmi**, right.



A flood frequency study is presently being carried out by the utilities department, field engineering section, on a stretch of the Spanish River, adjacent to Inco's High Falls and Nairn generating plants. Severe flooding has occurred in the past that has forced the High Falls plants to close, with river flows reaching 30,000 cubic feet per second. The purpose of the study is to determine what measures must be taken in order to ensure that water flow capacity of the High Falls facilities is not exceeded and to assess the financial impact of any necessary action. Above, examining plan of a section of the river are, from left, **Gren Rogers**, chief surveyor, **Gerry Cullain**, manager, utilities, Ontario Division, and **Jack Nell**, superintendent, municipal and field engineering.

Appointments and Re-assignments

Garry Brisco, cost analyst, division comptroller's office, Copper Cliff.

Dale Clarke, mine foreman, Creighton mine.

Gary Davis, area geologist, Stobie mine.

Monica Dutchburn, maintenance clerk-stenographer, divisional shops.

Don Elliott, general foreman, safety, Iron Ore Recovery Plant.

Herbert Fines, plant maintenance coordinator, Frood-Stobie mill.

Delwyn Fraipont, operations supervisor, Port Colborne nickel refinery.

Joy Goring, product costing clerk, division comptroller's office, Copper Cliff.

Robert Grant, mineralogist, process technology, Copper Cliff.

Roy Joeveer, maintenance foreman, Copper Cliff smelter.

George Johnston, area engineer, Stobie mine.

Alexander Krol, process assistant, Port Colborne nickel refinery.

Jack Longston, superintendent, inventory and surplus, purchasing and warehousing, Copper Cliff.

Andrew McLean, maintenance controller, Levack mine.

Ken Merla, process data analyst, division comptroller's office, Copper Cliff.

Gail Miller, clerk-stenographer, division comptroller's office, Copper Cliff.

John Mullock, senior district geologist, field exploration, Copper Cliff.

Sandy Muzia, mine geologist, Frood mine.

Al Sauerbrel, supervisor, field operations, field exploration, Copper Cliff.

Carmen Sharpe, supervisor, metal data, division comptroller's office, Copper Cliff.

Stan Simmons, section leader, process technology, Copper Cliff.

John Sorgini, maintenance general foreman, Iron Ore Recovery Plant.

Richard Stanislawski, senior process assistant, Port Colborne nickel refinery.

Randy Steels, senior process clerk, Copper Cliff copper refinery.

Ron Symington, superintendent of purchasing, purchasing and warehousing, Copper Cliff.

Maurice Taylor, utilities foreman, Iron Ore Recovery Plant.

John Tegel, senior process data analyst, division comptroller's office, Copper Cliff.

Pat Thompson, shift foreman, Iron Ore Recovery Plant.

INCO METALS COMPANY TORONTO OFFICE

J. D. Gulry, director of engineering, Toronto engineering department.

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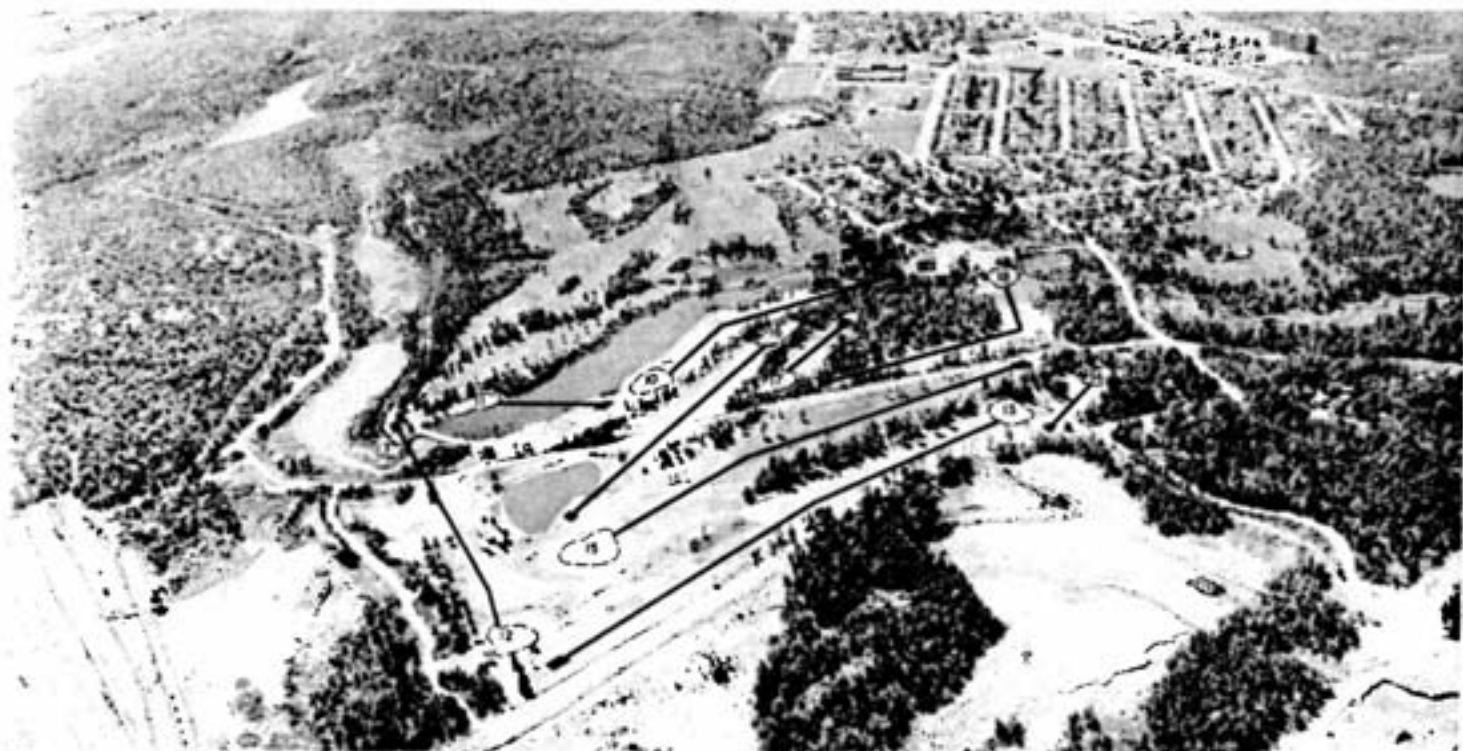
Philip C. Jessup, Jr.

Philip C. Jessup, Jr. has been elected vice-president and general counsel of Inco Limited, effective May 15, 1978. J. Edwin Carter, chairman and chief executive officer, has announced. Mr. Jessup has been managing director of P.T. International Nickel Indonesia since 1972. In January

1978 he was named the first president of the company. Mr. Jessup, who joined Inco in 1958 as an attorney, became associated with the Indonesian project initially in 1967, when he was appointed general solicitor — international of Inco. In 1968 he moved to London as secretary and chief legal officer of Inco Europe Limited and of its rolling mill affiliate, Henry Wiggin & Company Limited. Mr. Jessup received a Bachelor of Arts degree from Yale University in 1949. He received a Doctor of Jurisprudence degree from Harvard Law School in 1952. Prior to his association with the company, he was an attorney with the firm of Whitman, Ransom and Coulson in New York.



These are the members of Jack Leonard's crew, who achieved the lowest medical-aid frequency rating at Copper Cliff South mine throughout 1977. Members and their wives were honored at a recent dinner, held at the Copper Cliff Club. Front row, seated, from left, **Joe Blazina**, **Alex Konikow**, **Al Spencer**, **Toni Harrack**, **Evo Zambelli** and **Bob Udlschini**; front row, standing, from left, **Bob Ludgate**, manager, Copper Cliff mines, **Reg Hubert**, **Gerry Courchesne**, **Stan Golob**, **Paul Bourre**, **Ray Hobden**, **Barry Johnston**, **Elmer Johnson**, **John Leonard**, mine foreman, and **Vern Weiss**, safety supervisor; standing, back row, from left, **George Solomon**, **Erkki Kinos**, **John Sarkans**, **Bill Moffatt**, superintendent, Copper Cliff South mine, **Ray McLean**, **Hugh Corbit** and **Bill McNairn**.



With the assistance of a generous Wintario grant, the Lively Golf and Country Club has expanded its course from a nine hole par 34 to 18 holes par 69, for a total of 5,900 yards. Under the supervision of club member **Vic Bachmeyer**, a mine foreman at Creighton mine, and assisted by numerous dedicated members, construction was completed in August, 1977, followed by seeding by Inco's agriculture department. Final touches to the course will be carried out as soon as weather permits. Course superintendent **Frank Ladouceur** is very optimistic and feels the back nine should be in play before August. According to club president **Walter Chornenky**, members are proud of their accomplishment and pleased with the response and interest shown by prospective golfing enthusiasts.



When Don Dunbar retired as editor of The Triangle in 1971, Ted Gaetz, a former Inco vice-president, remarked: "He was able to capture the life of the community and the whole district in a personal way and did so objectively." Now, at the age of 72, Don is gone. Countless people, Inco workers and many others, in Sudbury, Port Colborne, Thompson, and throughout Ontario, have experienced a great loss, but will, I'm sure remember his many years of devoted service with a deep sense of pride.

The friendly and enthusiastic one-time Saskatchewan newspaper publisher conceived and established The Triangle back in 1936. Under his guidance, and over a period of 35 years, the magazine steadily progressed to become one of the finest company journals of its kind on the American continent.

Perhaps the great English poet Byron most aptly expresses my admiration for Don's accomplishments when he penned these lines . . .

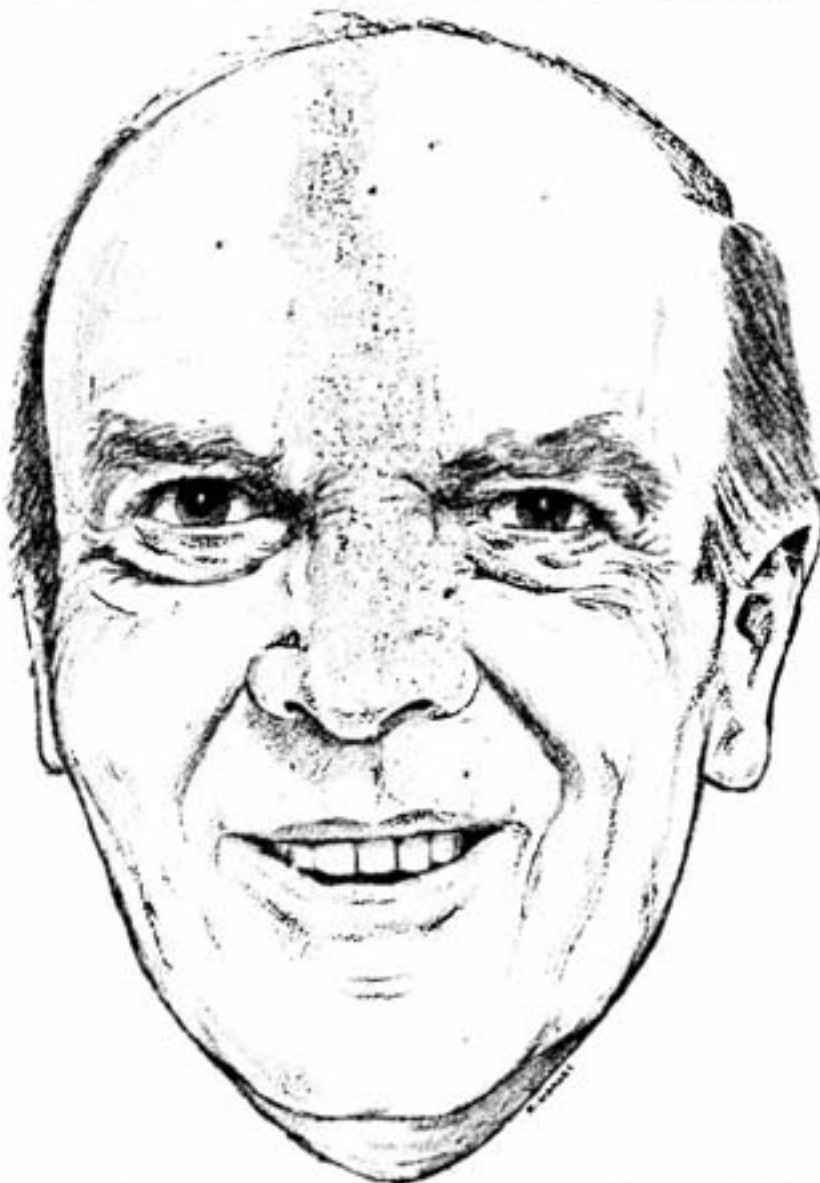
*"But words are things, and a small drop of ink,
Falling like dew, upon a thought produces
That which makes thousands, perhaps
millions think."*

Don, like few of his counterparts, was not only a humanitarian but a writer at heart. He recorded Inco's history with an outlook towards the future during his years of tenure as The Triangle's editor.

He was the intimate friend of all — the miner underground, the smelter worker, and the "man at the top."

He'll be sadly missed.

Rudolph Kneer
Editor



1906

DON DUNBAR

1978