



A skier navigates the ski hill in Inco Cup action this year. See wrap-up Pages 8 & 9.

INCO Triangle

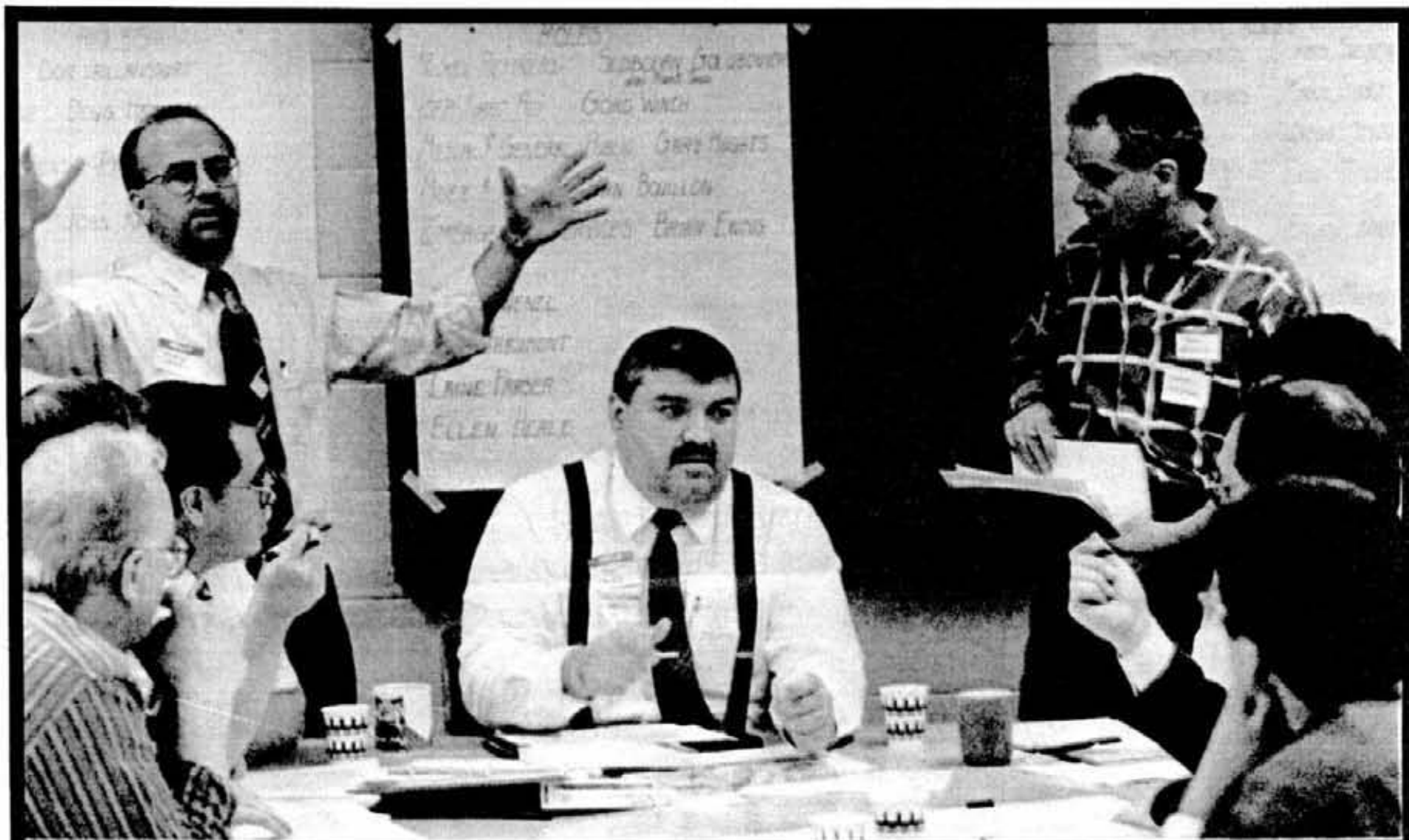
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Paper exercise tests emergency scenario



Exercise Ultra Clean umpire Berno Wenzl (standing, left) makes his point as the emergency preparedness exercise heats up. The paper exercise was designed to test communications, situation assessment and decision-making in an emergency situation. From left are Ray Sasseville, Doug Hamilton, Paul Yearwood, John Kanerva, Brian Rintta, Wayne Smith and Eric Mitchell.

As a plant protection officer, Gord Winch is highly trained, motivated and dedicated, yet he wasn't absolutely certain of how he fit into the broad picture.

Late in April, that all changed.

Closeted with more than a dozen others in a General Engineering Building conference room, Gord saw the inner workings of Inco's emergency preparedness system up close, under pressure and under full steam.

It was a Level Three Emergency Preparedness Training Exercise, and although the injuries of three Inco employees and two contractors were only on a piece of paper, the learning experience was invaluable.

"I think a lot of people know their own jobs and re-

sponsibilities," said Gord. "I'm confident that I can do my job and do it well. What I learned as part of this exercise is what other people in the system do, where they fit in. I think this kind of familiarization with the larger picture is very important. In every emergency there's always the potential unpredictability and uncertainty. The more we know about how the system works, the better we can eliminate the snags."

While Inco has participated in community-wide 'paper' exercises as well as several mock emergencies, this was the first comprehensive in-house paper exercise.

And it was the first exercise for Ellen Heale, who took on the position of Inco emergency preparedness coordinator from Berno Wenzl who was

appointed superintendent of maintenance services at Copper Cliff Refining.

On hand to umpire the event, Berno was impressed at how well the task force performed.

"It was the first time for most of these people," said Berno, particularly those in back-up roles.

It gave them a chance to see how one of these emergencies could unfold."

The main purpose behind Exercise Ultra Clean was to test effective communication, situation assessments and decision-making.

"Times were logged and all telephone, radio and verbal conversations received or initiated were documented," said Ellen.

The scenario began at 9:58 a.m. with the nickel refinery

reporting a level three emergency situation. Ammonia was leaking from a large open gash in a storage tank in the Iron Ore Recovery Plant area caused when a crane failed and sent a large kettle into the side of the tank.

Two casualties were reported.

Within the next two hours, updates of the situation revealed that there were 36 people in an assembly area downwind of the leak in the Apprenticeship Training Centre. The assembly area was becoming contaminated and people were beginning to panic. There were five casualties.

By noon, the leak was stopped by the Sudbury Hazardous Materials Team and Inco's Emergency Response Team and water was put on

the spilled material to stop ammonia evaporation.

The emergency was over.

All participants were assigned a role. Ivon Chaumont acted as president and Brian Ewing was responsible for emergency services.

Laine Fraser evaluated Public Affairs, Transportation, protective equipment, Purchasing and Warehousing, Traffic and Occupational Medicine.

Ellen evaluated first aid and Frank Javor developed the emergency scenario.

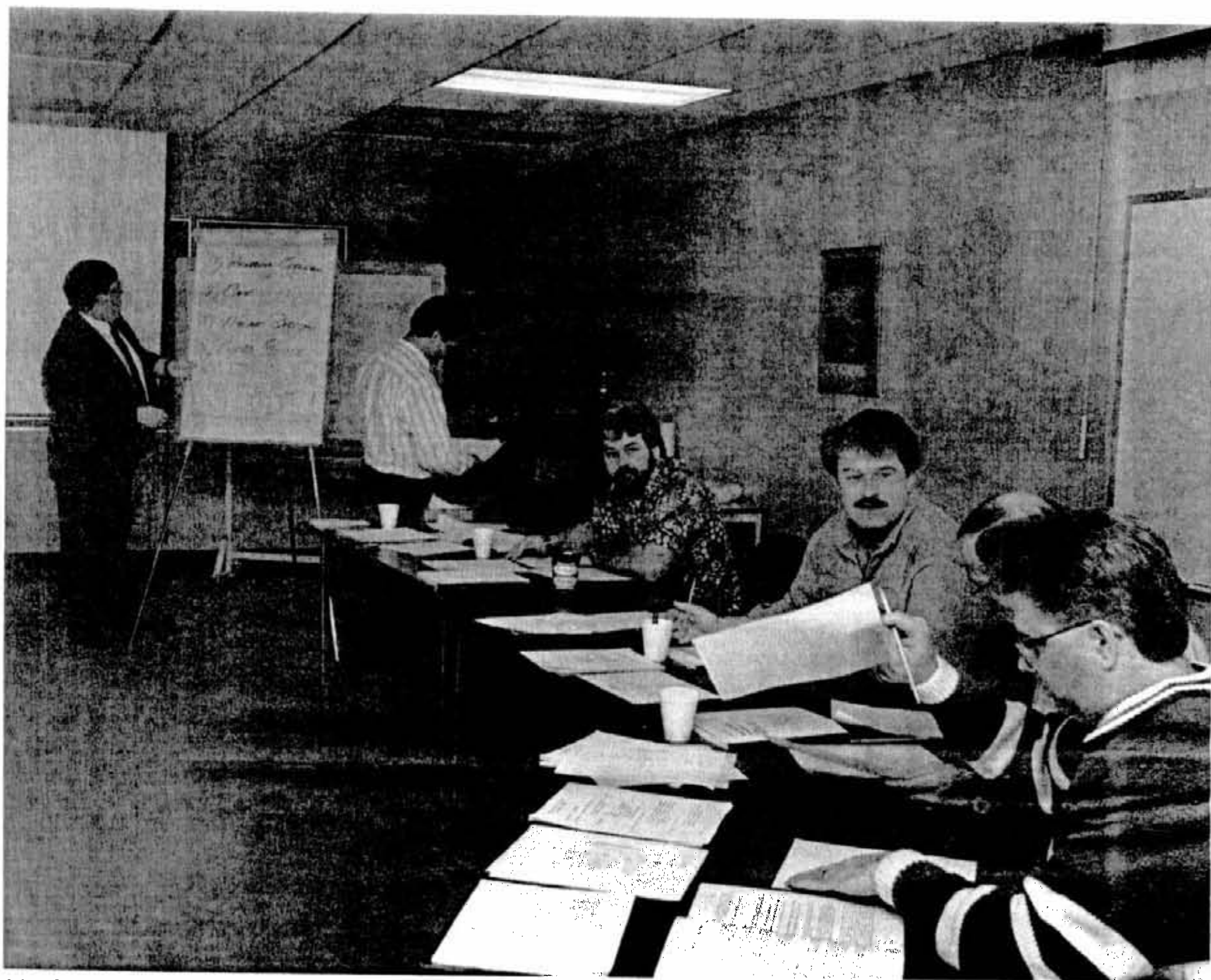
Others involved in the exercise were Don Vaillancourt, Doug Hamilton, Paul Yearwood, John Kanerva, Arel Courville, Pam Tobin, Dr. Greg Garrioch, Ray Sasseville, Mary Sitko, Wayne Smith, Eric Mitchell, Brian Rintta and Tom Mehes.

3 Chaumont's kids

6 Stobie survival

10 Seniors' song

Leader 2001: Training for the future



A Leader 2001 session. The program is designed for leaders at all levels.

Ralph Proxleitner, a Creighton miner when he began Inco's Leader 2001 program, recalls initial confusion about its purpose.

"These guys can't be serious, this is just a mining company, dollars and cents, profit and loss and muck at all costs!" he figured.

"Well gentlemen, it is the end of the program and you know what? We found it . . . vision . . . that's it! It is a vision that goes beyond what we perceive to be a successful mining company today, where success is measured not just by the company's accomplishments, but by the accomplishments of the people within the company.

"We're not only going to lead, but we are going to lead with vision. We will go out and spread the word."

Ralph, today a foreman at Creighton Mine, enthusiastically endorsed the new leadership program in an address during graduation ceremonies held recently at the Copper Cliff Club.

He urged Inco to continue the Leader 2001 program with the same passion and dedication with which it was

launched. "Together we'll build a new Inco," he said, "an Inco of the future, an Inco that makes others get out of the way because we are no longer willing to follow but to lead."

The new leadership training program, designed by a team of employees from across the division and implemented and conducted by Inco's Human Resources Development department, is utilizing the latest in training and leadership technologies to change the focus of Inco leadership in the future.

About 60 leaders, from superintendents to shop floor supervisors, are in various stages of the initial "prototype" program that's heavy on team building, worker involvement, decision-making and effective communication skills.

"At this stage we want to ensure that we are getting the results that we need from the program," said training program specialist Stan Pasierowski. "We'll be analyzing the feedback, reviewing how people are applying what they learn and adjusting the program to make sure it is meeting the

division's objectives."

With the new leadership philosophy of teamwork and cooperation generally accepted at Inco, the nine-week training program provides additional skills needed to take Inco from the old management style.

"The program is geared to all our people. We want to reach everyone active in any kind of a leadership capacity. Our immediate focus, however, is on superintendents and general foremen," said Stan.

The program was officially launched last November with four groups enrolled, but preparations for the launch began six months earlier.

The method used to set up the program is perhaps the best example of what it teaches: teamwork.

A team of employees assessed the organizational needs and developed the program. Included in the group, along with Stan, were Little Stobie first line foreman John Larson, Bill Romas of HRD, Nickel Refinery safety foreman Lindsay Fournier, Smelter training general foreman Gord Pearce, hoist specialist Dan Sherrington and mines

training supervisor John Lundrigan.

"We wanted our own creation, a program designed to Inco's specific needs," said Stan. "The team approach was the best way to do that. The goal is to help our leaders become quality managers and facilitators. The new skills will help our people move towards a new management style. At the same time, the program is also designed to enhance communication skills, cooperation and an appreciation of worker involvement. The tearing down of inter-plant barriers and a better understanding of the customer-supplier relationship is a high priority of the program."

As well as the teambuilding, management and leadership emphasis, the program includes such issues as time management, decision making, understanding behavior, stress management and work redesign.

An example of the program's designed tailor-fit for Inco is the hands-on project component. Rather than design a project specifically for the course, HRD's unique approach has designed Leader 2001 so participants can learn

while working on a real active Inco project.

Another unique aspect of the course is the follow-up "mentoring" system that stays with students even after they've completed the program.

"Participants will be mentored after they return to their plants or mines, to help them practice what they've learned. In turn, they will become mentors for others who complete the program in the future.

"We feel that in the end this new style of leadership will result in a basic change in the way we conduct business at Inco and help the division achieve its goals. It should make us more productive," said Stan.

Management is fully behind the HRD effort.

"We've had full support and cooperation from senior management and all managers," said Stan. "In fact, the managers decided on a plan they could live with, allowing superintendents and general foremen to take the program in two-week blocks and return to the job for one month until the nine-week program has been completed."

Lively grade school youngsters send letters of appreciation to South Mine miner

South Mine superintendent Ivon Chaumont took Inco's emergency preparedness message to youngsters at St. James Separate School in Lively last fall. (see Triangle, Page 1, Oct. 1993).

The youngsters promptly sent him these messages. Because editing would remove the heart from these letters, we left them just as we found them.

Dear Mr. Chaumont,
I really enjoyed your visit and all the grade threes did too. Thank you for the pencil case and the nickel pellet, the copper and nickel-copper ore peccs.

They are very neat! I also liked the overhed projector pictures. Now I know what the horn in Sudbury is from,
Kyle Green

Dear Mr. Chaumont,
I would like to thank you for coming to our class to talk about mining. I learned alot of things from you. When I hear the horn I will remember to follow the rules. I wanted to know if you ever went underground? I was listening very well when you were talking, and I was very interested in what you said.

From: Megan McCourt
Grade 3-4

Dear Mr. Chaumont,
I want to thank you coming in and helping us understand about mining and explaining to us new and interesting things. Now I have learned alot more all because of you. You are a good friend to me. Now I am not finished

telling you all the things you did for us like letting us here the horn for a emergency if there every was we'd know what it was and what to do when it goes of. You showed us pitchers of mashines that you use underground and alot of other things. I realy like the pencile case and the nickel bason card to show us about mining. the map of sudbury really helps me with spelling all the nams of the mines like Coper Clif, South Mine, Creighton Mine Garson Mine Tottens Mine Stobie Mine. I think you know now that I do know alot more about mining.

Thank You
Siyanora, Sincerely, Robin Edmunds
Here's a basket of fruit just for you.

Dear Mr. Choumont,
Thank you for coming in and showing us the film about mining and thankyou for the pencil cases. Thank the man that took our pictures. On the film I learned that thay use big remote machines underground because when it is lifting rocks a rock doesn't fall on you.

From Katie Ambeau

Dear Mr. Chaumont
Thank you so much for coming in and telling us about Inco and safety The whole class is Thanking you for coming in. It was a great pleasure for Mrs. Dore. It rally did help us to under stand the mining world. Now we know what to do if the buzzer goes off. And we thank you one more tiome. An please say thank you to

Inco for the beauiful pencil casis and the little maps.

And let me say thank you.
Thank you INCO!!!!
From Meredith Martin

Dear Mr. Chaumont
Thank you for coming to see us. I had alot of fun learn- ing about mining and saftey. Thank-you for the stuff. I hope you come again.

from Robert Cretzman
Thank You Mr. Chaumont

Dear Mr. Chaumont thank you for coming to show us things from mining. We know what to do if we hear the horn. We run inside and stay insids until the horn ges off. We close all windows and doors.
From Chaelin McGuire.

Dear Mr. Choumant, I enjoyed your visit. I didn't know much about mining. It was fun having you over to St James School I love the pencilcase and I needed a pencilcase because my other pencilcase broke. I can't stop thinking about that fun time I had thank you.

From Jennifer Curry

Dear Mr. Chaumont,
We enjoyed your visit. I didn't know what the alarm sounded like or much about underground either. I was very interested in what you were saying. I also liked the pencil cases they're really being put to use I like to read the back of the card with the nickel, the copper and the ore. We really learned a lot mroe than we knew. Thank you for coming.
Sincerely, Andrew Prowse

Dear Mr. Caumont,
I want to thank you for coming to our classroom and explainig about unerground world and telling us about the horn because I bet half of the class didn't know about the horn ifact I think all the people in this class didn't know about the horn. I bet we didn't know what to do when it goes off. Is it fun being a miner? After you told us about mining I thout about becoming a miner when I grow up. Have you ever used one of those machines we saw? how long have you bin working as a miner? Do you know some one names Jon Mahon?

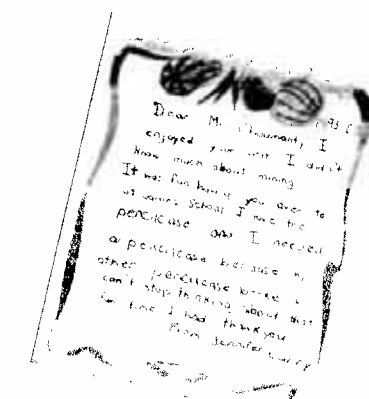
Your friend Mandi Duhamel p.s. Do we get one of those pictures?

Dear Mr. Chaumont
I injoyed your visit I also injoyed larening aboot mining most ov all I liked the pencil case thankyou for ever- ything Mr. Chaumont.
From Doug

Dear Mr. Chaumont,
I would like to say thankyou for cming to our classroom. No we have a good idea of what to do when the buzzer goes off. Now we know what the buzzer sounds like. Thankyou for showing us those wonderful clips of underground and for giving us those cool pencil cases and samples. Bye!

Sincerely,
Brianna Nadjiwon

Dear Mr. Chaumont,
We want to thank you for coming to teach us about mining. And for the pencil case. It



was very interesting having you here with us. And telling us about the alarm. And for giving us that chart. I just called it a chart because I forgot the name.

By Amanda Britton

Dear Mr. Chaumont,
We Thank you for telling us about mining and about the alarm. Thankyou for the pencilcase and telling us about safety. Thankyou for taking our picture. BYE!

From: Emily Dumencu
GR.4

Dear Mr. Chaumont
Thank you for coming in and showing us the film about mining and possible leaks And thankyou for the pencilcases. And thank the man that came and took our pictures. Oh yes I forgot, thankyou for the rock and the metilpees.

from Ashly Ferguson
Grade 3 + 4

Dear Mr. Chaumont,
thak you verely much for coming to our class. We enjoyed it. We really want to thank you for the Sudbury basin I think it's prety neat I thik that the rest of the class does too. Well thank you again,
Sinarely Paul Plastino

Mining conference attracts Inco employees

Marty Puro expects a wide range of Inco people will benefit from a Sudbury '95 Mining and the Environment conference to study an integrated approach to planning and rehabilitation for the 21st century.

"I would expect that many Inco people from many departments will be attending the conference," said Inco's superintendent of Decommissioning and Reclamation. "There's lots to be learned at this conference. We expect to draw experts from all over the world."

Marty, Inco's representative on the conference's organizing committee, said the conference emphasizes Sudbury's growing image as an environmental centre of excellence in areas ranging from land reclamation to revegetation.

According to Marty, the concept of environmentally sustainable economic development is now generally embraced and is a primary guide for acceptable exploitation of mineral resources. Thus, complete mine rehabilitation must be incorporated into activities

during mine planning and operating phases.

The objective of the Sudbury conference is to bring together technical experts from around the world to address mine rehabilitation and related environmental protection methods. The conference will be organized and discussions encouraged to feature comprehensive and integrated problems. The organization and integration of many disciplines will be featured in specific case studies.

Marty said that the conference's early promotion — it is scheduled for May 28 to June 1, 1995 — stems from its international character. "There's a lot of lead time required if we are to attract the kind of people we hope to get. We're hoping for at least 300 delegates, experts from all over the world. To do that we have to get the word out early."

Plenary papers describing the issues, the approaches taken in different parts of the world and major case studies will be presented.

Parallel specialty sessions will follow to communicate



A researcher floats a platform of bullrushes in an Inco-funded research project to investigate a biological, natural way of treating acidic water. It is just one of many Inco environmental efforts that explore the razor's edge of high-tech environmental technology. The Sudbury '95 Mining and the Environment conference will be held in Sudbury, due at least in part to the local private and public environmental commitment.

advances in specific topic areas.

Included will be tailings, waste rock and slag management, acid mine drainage prevention and control, new tools, rehabilitation methods, ground and surface water remediation and more.

Prospective authors are invited to submit abstracts by June 30, 1994. They should be limited to approximately 100 words and should include a short title as well as the names of authors and their affiliations. Abstracts should be sent to: Tom Hynes, Canmet, 555

Booth Street, Ottawa, Ont. K1A 0G1, Canada, or telephone (613) 943-0524, Fax (613) 996-9041.

Marty pointed out that the Sudbury site for the conference is particularly well-suited. Initially a nickel mining centre, it has grown to a major governmental, educational, medical and tourist centre and has gained international recognition as an environmental rehabilitation centre. It is also a showcase for rehabilitation with examples of mine site planning, revegetation programs and one of the world's largest active reclamation projects. Several technology development groups focussing on mine rehabilitation technology are also located in Sudbury.

Field trips planned include visits around the Sudbury region as well as other major mine site rehabilitation projects in Northern Ontario. Visits are expected to include Inco and Falconbridge projects, uranium mine reclamation sites at Elliot Lake and reclamation activities in the Timmins area.

MAKING Change

Future workplace an educational environment

A three-day Total Quality Workshop, designed to teach quality tools through hands-on practical application, is attempting to change the face of Inco.

Emphasizing teamwork, leadership, problem-solving, cooperation and education, the program is on the razor's edge of industry's cultural change required if Canadian corporations are to succeed on the international market.

The program signals the need for continual education and training of employees and the mix of the participants is a strong indicator of the face of a changing industry.

An electrician, mechanic or janitor may find themselves comparing notes with a manager, superintendent or company vice-president.

What's even more unusual from the traditional corporate stereotype is that the electrician's ideas and opinions carry equal weight.

"Before we began these continuous improvement efforts things worked a lot differently," said storeman Roger Laschi. "Managers, superintendents and foremen went on these courses and came back to the plants and mines with new ideas and new ways of doing things.

"The problem was," said Roger, "the people on the shop floor had no idea what they were talking about.

"Now we're involved. We know not only what has to be



No, your eyes haven't deceived you, Employee Relations manager Don Sheehan and Frood-Stobie-Garson manager Joe Loring fumble with Lego blocks. Part of the Total Quality Workshop, the unique Lego experiment is part of an exercise to drive home the importance of effective teamwork.

done, but why we're doing it."

Roger is one of scores of people who have taken the Total Quality Workshop course, and although the lessons he learned will be of particular use in his work on a continuous improvement materials management team, he's convinced the program is invaluable to most others as well.

"It's about problem solving, teamwork and getting along with others," said Roger. "There isn't a workplace at Inco where these lessons can't be applied."

Roger is convinced that management and labor will have to work together more

and more in the future to ensure survival. "It's a matter of keeping our jobs."

Yet he's cautious about the issue of trust. "To make all this work, trust is an absolute necessity," he said. "I think we've gone a long way, but have a ways yet to go. There are still the nay-sayers . . . on both sides, people who resist change and have a vested interest in the status quo.

"But it's quite obvious that there are fewer of these than just a few years ago."

More than 200 people have already taken the course, said facilitator Sean Romenco.

"I figure this is a good way to bring about the needed cul-

ture change at Inco," said Sean, a system analyst and quality advisor. "It brings people from all walks together for a common purpose."

The course is itself an example of its own effectiveness.

"We used the principles taught in the course to set up the course," said Sean. "The entire program is set up to eventually run by itself."

Plans call for each plant and mine, with help from the core group, to establish its own workshop program complete with qualified people to do the teaching. The group from manager to foreman at the Levack Complex have already gone through the course.

All indications to date show better than expected results. "We're getting very positive feedback," said Sean. "One 22-year Inco veteran administrator told us the workshop was the best course he's taken in his years at Inco.

The workshop's objectives include;

- Understand how to work on teams
- Have a starter-level ability to use problem solving tools
- Understand the customer-supplier chain
- Have a basic knowledge of process improvement steps
- Have a head start on the first project
- Know how to get help
- Work in a reinforcing environment.

Participants are asked to work hard to understand the information presented and to feel free to ask questions when they don't understand. Participation in discussions and group activities are emphasized and participants are asked to evaluate and use on the job concepts and techniques learned in the course.

While some of the work is theoretical and academic, much of the ideas are presented in easy-to-understand, hands-on ways.

Members are given experience using flipcharts for discussing ideas, something more people will be asked to do during meetings that today often include people from the shop floor as well as the manager's office.

Ducks Unlimited recognizes Inco's Manitoba, Ontario successes

Ontario and Manitoba Divisions may both be struggling hard to keep up with falling nickel prices and oversupply, but at least one area, things are just . . . ah . . . ducky.

Manitoba Division recently received one of the first International Great Blue Heron Awards from the North American Waterfowl Management Plan for its participation in a Ducks Unlimited conservation project along the shores of Lake Manitoba.

The award comes on the heels of last year's Ducks Unlimited award to Ontario Division in recognition of outstanding work for conservation.

"Inco's greening, particularly in the tailings area, has had a major impact on bird populations here," said Dario Petovello, the longest standing member of the

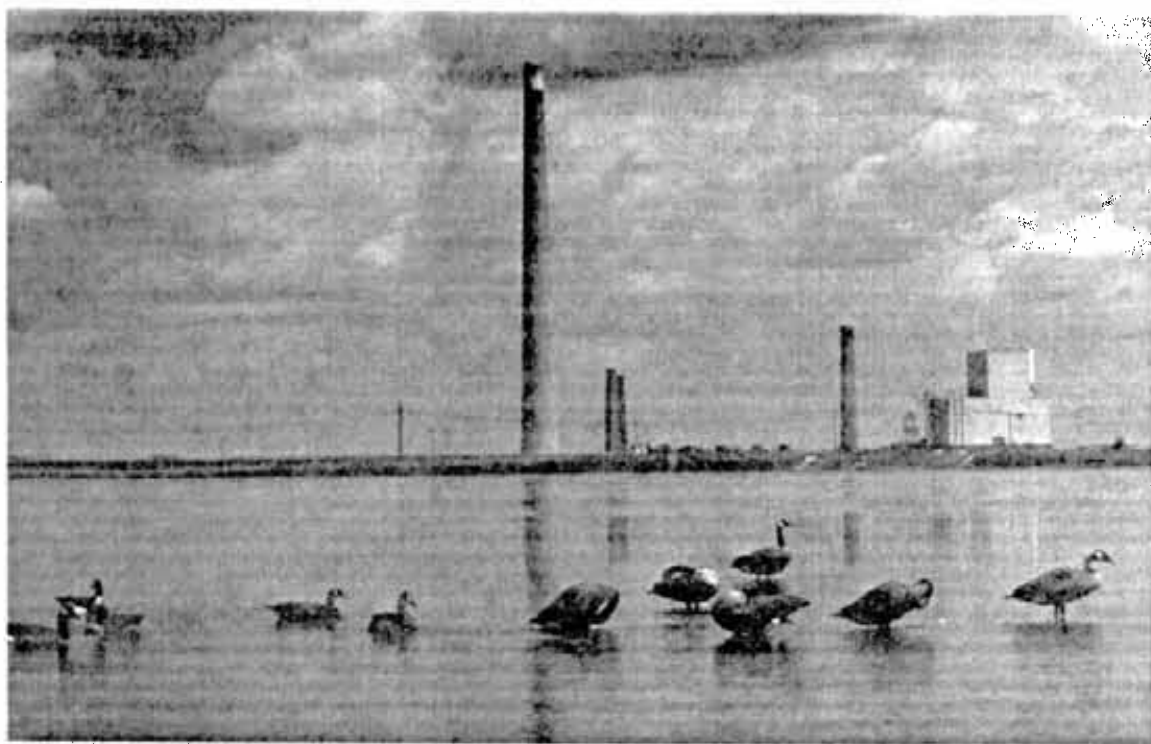
Sudbury Ducks Unlimited Committee.

Dario, a stationary engineer at the acid plant, said populations have mushroomed since the Copper Cliff Rod and Gun Club introduced 11 goslings at the tailings area about a decade ago.

"Now there's a large resident population and the tailings-turned-wildlife habitat are attracting more and more stop-overs of migratory birds," he said.

"In fact, the tailings area has become one of the best areas in this part of the province for wildlife habitat."

Dario has praise for Inco's agriculture department, particularly grounds supervisor Mike Peters. "These people have been instrumental in making it work," said Dario. "They should be commended."



Waterfowl populations have mushroomed at the Inco tailings area. Mine waste has been converted to one of the best wildlife habitats in the area.

MAKING Change

Copper Refinery savings a steamy story

Two employees at Copper Cliff Refining are sporting wide grins these days.

Instrument man Alf Doherty and utilities foreman Gates Perreault have a lot to smile about. Because of their brainstorming sessions, they have come up with significant cost savings by developing a way of supplying the extra steam demanded from the Copper Refinery's own boilers.

Since the implementation of their ideas in August, the copper refinery has saved more than \$500,000 in steam charges.

It all started when Alf noticed Gates struggling to get the month end steam figures. Alf showed Gates how the figures he needed could be generated from the Bailey DCS. The Bailey DCS is a computerized distributed control system. There are four control areas throughout this network at the copper refinery. Each control area has a pressure control unit or computer terminal set up there. All of these areas are connected to each other. The Bailey System has been in operation since 1982.

Gates and Alf decided to analyze all steam flows to the customers at the copper refinery. Alf set up a computer program to log the steam flows, steam pressures and the times of any problems. Whenever a customer complained about steam pressure, they would study what had been going on with the various flows at that time.



Gates Perrault and Alf Doherty at the computer terminal in the Copper Refinery utilities department.

An early problem was the #2 desuperheater, which is a pressure control station that takes the steam and lowers its pressure. At the time, operators could not control it. It would take literally days to increase or decrease the flow of steam because the Utilities Department had to go out physically into the plant to readjust the controls and valves. Now, the operators can control the pressure through the process control unit located in the Tankhouse.

Also, at this time a project was under way to limit the rate of flow into the Acid Plant by installing new valves that

cost upwards of \$45,000. Gates and Alf put their heads together and figured out that the flow of steam could be regulated through the pressure controls already in the Tankhouse. It took Alf roughly two days to get the idea up and running on the Bailey System. They talked to Acid Plant leader Emily Dakin, to understand better what the Acid Plant needs were and what the process was all about. They adjusted their figures and now everything is running smoothly.

However, even with tying in the Acid Plant to the Bailey System, excess steam still had

to be dumped into the atmosphere. With this in mind Alf mentioned to Gates that this excess steam might be enough to feed the Electrowinning Department. Gates went to Electrowinning and again studied all the different steam systems and found out how much steam was actually needed for the Electrowinning Department to operate. A test proved successful.

This was the first time the entire copper refinery had been supplied with steam produced from its own boilers. In fact, the Electrowinning Department had been experiencing some condensation prob-

lems and now those problems are gone.

Up to this point, a system called the Foxboro controlled the steam in Electrowinning. The plan now is to tie in the Bailey to the Foxboro so that all the entire copper refinery is together. Should a preliminary investigation warrant it, the nickel refinery's powerhouse (IORP) will eventually be tied in on this same system for future use. If the copper refinery then required extra steam, the powerhouse would be able to tell how much was needed in advance.

Now, when an area requires more steam than it receives, the computers interchange the information and redirect some steam flow to the needed area very gradually so as not to disturb the system.

The flow of steam can be seen on a computer screen in any of the control areas. Changes to the steam flow can now be done instantly from the computer.

Leaning back in his chair as he grinned broadly, Alf voiced his enthusiasm. "I really like this stuff, and I told Gates, if you can dream it, we can do it!"

Gates states their motto: "We believe in customer demands . . . and raving fans."

Said Gates; "They are doing a really great job out there, and even as this article is being written, they are still fine tuning and coming up with more ideas that they would like to see incorporated into the steam system."

MAKING Change

Port Colborne teamwork

Teamwork continues to pay off at Inco Port Colborne.

This November, industrial tradesman Steve Adamec headed up a team dedicated to rebuilding the #2 utility furnace in the #4 building. The team, consisting of workers from the engineering, electrical and mechanical maintenance, and instrumentation departments, fabricated and installed 1.5 inch thick side plates and designed and installed new columns and floor beams.

They also installed redesigned steelwork for hanging arch brick, installed floor plates and overhauled the dust collector. Other work included electrical and instrumentation equipment overhauls and new installations.

The team extends thanks to other members of the maintenance group who filled in while the rebuild was going on.

In early February, another team consisting of John Agnew, Don Marr, Marcel Desmarais and Dan DeLuca was put together to fabricate furnace charge trays. In the past, this task was contracted out, but Inco employees were given the opportunity to do this project in-house and the results are proving to be competitive in comparison to having trays fabricated outside the plant.

The first tray was fabricated in under a month and a second tray is currently under construction. Inco's previous purchase of a MIG welder helped this in-house fabrication and although the MIG was expensive it has now paid for itself in cost savings and productivity.

"The workmanship is first class," says maintenance foreman Glen Sevenpiper. "They made excellent progress. It turned out to be a real cracker-

jack job."

Beginning this spring, different elements of the ISO 9002 Quality Standards will be reviewed monthly as part of the PORTS Program in the Cobalt Refinery Department, the Utility Nickel and Foundry Additive Department, and the Yard, Shipping, Shearing and Stores Department.

ISO implementation is also progressing well. The Quality Policy Manual is completed, has been reviewed by the steering committee and will soon be issued to the Quality Management Institute for evaluation.

In the meantime, work is progressing well on the Departmental Strategy Manuals and the Departmental Operating Manuals in the Cobalt Refinery Department, the Utility, Nickel and Foundry Additive Department, and the Yard, Shipping, Shearing and Stores Department.

This spring a number of social events are planned here as well.

On April 3, the Easter Bunny made his annual visit, on May 14 the Quarter Century Club will hold its Celebration Day and on June 18 the Inco Golf Tournament is scheduled. Players will compete for the Elaine Arnold Memorial Trophy.

In other news, Inco is asking its suppliers of pressure boundary materials to meet the same high quality standards the company is conforming to. The project is part of a larger plan which will rationalize Inco's suppliers and those conforming with ISO 9002 or 9001 will have a better chance of continuing as suppliers. The project is aimed at maintaining a level of product quality that can only be achieved if Inco and its suppliers maintain consistent standards.

MAKING Change

New profitable process from Port teamwork

Port Colborne's Precious Metals Refinery (PMR) has a new bismuth sand product which is making management and customers alike see green.

Production of the sand, which contains two tonnes per year of bismuth, began in March and the first shipment was made last November.

"The design, construction and implementation of this new process was a PMR team effort," says Mike Dinga, PMR process technology section leader.

The PMR, he explains, produces 100 tonnes a year of lead carbonate cake which they were shipping to a government approved landfill site until mid-1992.

"Our preference was to sell it to a lead smelter for re-use," he says, "but no producer wanted it because it contained too much bismuth."

Enter the new bismuth product.

A bismuth leach process already existed to separate bismuth from silver. The bis-



Mike Dinga with the new bismuth sand product.

moth leach solution, however, was allowed to periodically mix with the lead leach solution and "contaminate" the lead carbonate cake.

In the new bismuth sand process, this bismuth leach solution was separately treated with iron powder to produce a 65 per cent grade bismuth sand product, thereby no longer contaminating the lead carbonate.

Now all of the bismuth sand and all of the lead carbonate cake are sold for re-use instead of being buried at a landfill site.

"It results in a cleaner environment," says Mike, "and we all want a cleaner environment."

Already the product is getting approved from management.

"Management has felt we're doing our part in helping clean the environment," Mike says.

"There has been a positive reaction because we're making a product that's useful and saleable."

Mike also credits Inco's Toronto Marketing and Port Colborne Refinery environmental groups for their efforts in establishing markets for our lead carbonate cake and bismuth products.

The bismuth sand product, explains Mike, can be sold to a refiner for a net gain of \$15,000 U.S. per year and has eliminated the need to bury 30 tonnes per year of high bismuth lead carbonate saving the company \$5,000 U.S. a year.

Bismuth also has a commercial value. Bismuth compounds can be sold for medication used for skin and intestinal ailments, bismuth salts can be used in the manufacturing of ceramics, bismuth metal can be used to produce "safe" bullets used in hunting which eliminate potential lead poisoning in game from lead ammunition, and bismuth alloys that melt below 100 degrees Celsius can be used as fusible plugs in automatic sprinkler systems and compressed gas cylinders.

Awareness, teamwork is key to Stobie's survival

The new flavor-of-the-day buzzword or catchy phrase notwithstanding, at Stobie Mine they don't mince words. At Stobie, the word is plain and simple.

Survival.

In fact, miners here can hardly avoid the daily reminder that surviving is what the game is all about. A huge bulletin board has been erected in the warm room for everyone to see. Headed "Stobie Mine Survival Targets," the board lists safety targets as well as supply and production cost targets by the month and the day.

"We aren't going to make it here without working together," said mine superintendent Mike Grace, "and the first thing we have to do is make everyone aware of the problem. We figured this is the way to do it."

"We" at Stobie means more than management. "We" means just about everyone who works with a scoopteam, broom or pencil.

While a "survival team" set up early this year at the mine included mostly administrators, it was the input of "the people on the line" who gave the entire project the boost it required.

"We gave a presentation outlining what Stobie Mine is



Cagetender Art Maillet with Stobie's sign of the times: Survival.

up against to all the crews," said Mike. "We asked our people for input, suggestions and ideas about how we can reduce our daily supply costs."

The problems, similar to those at most other mines, are simple. At current nickel prices, producing nickel costs more than the selling price.

"We're holding our own very well compared with other

mines," said Mike, "but not good enough to keep competitive with the price of nickel on the market."

Area manager Fergus Kerr said the team looked hard at the costs that can be directly controlled.

"Supply costs were an area where we could realize immediate savings, and Stobie moved fast on the problem

and came up with some good ideas resulting in significant savings."

Stobie's miners responded positively. A salvage program reclaimed unused water and air lines and clamps. An explosives team was formed to try to reduce the \$20,000 a day spent on explosives. To ensure that every nut and bolt was accounted for in the sup-

ply chain, a daily print-out of stock and non-stock items ordered that day is reviewed daily with everyone ordering and using the supplies.

"Seeing on paper where things are going and how much is used is a great way to make people aware of the high cost of supplies," said Mike.

Although the results fall short of the mine's targeted cost reductions, accomplishments so far have been impressive.

Daily supply costs were \$84,000 a year ago. After only the first months of cost reduction efforts, that dropped to \$63,000.

With the more obvious areas of saving money eliminated, Stobie miners continued to whittle away at the costs and managed to draw the expenditures down to \$51,000 a day by December of this year, becoming the division's lowest-cost producer.

"Everybody at the mine knows that's not enough," said Mike. "We set our sites at reducing daily costs to \$50,000. But we also knew that we wouldn't be able to reach that target overnight."

"But I have absolutely no doubt that we're going to make it. Our people have never failed to meet a challenge before."

MAKING *Change*

Self-analysis for laboratory analyst

It's the job of the analytical group at Process Technology and Production Planning to examine with unbelievable detail the products that the company sells to its customers. Quality control here means a parts-per-million difference between acceptance and rejection.

In their persistent efforts to reach the mythical zero defect, the 35 chemists and analysts have recently added a new element to their list of things to place under their microscopes.

Themselves.

"The best way to find out how you're doing is by asking your customers," said analytical supervisor Rene Ethier, "so that's what we did."

"One of the major tools used to make improvements at the lab," said chief chemist John Bozic, "was the team approach. We not only got our people involved in coming up with answers, but we moved to bring the decision-making process further down the chain."

Acting on the results of a survey carried out in the second half of 1992 that asked customers to rate the lab's services, their order of importance, the services most needing improvement and future services required, the group has made major improvements in a number of areas.

They range from equipment updates, electronic lab/customer communications and shortening the time it takes to get the analytical results back to the customer.

A recent telephone survey to follow up the 1992 survey revealed that of about 60 internal customers from 20 different departments canvassed, 61 per cent expressed satisfaction with the level of service provided by the central laboratory.

Many positive comments were received regarding improved turnaround times and quick response on "emergency" or "rush" samples this time around.

The initial survey showed that turnaround time for the approximately 8,000 samples a month was the major customer complaint, with about 45 per cent of customers registering dissatisfaction.

Through actions taken at the lab following the first survey, dissatisfaction with turnaround time has been cut in half.

"However a significant number of internal customers (23 per cent) are still dissatisfied with our service and an additional 16 per cent are not completely satisfied," said Rene. "We're not going to be satisfied around here until

that's been reduced to zero."

Measures were taken in all sections to reduce the turnaround time for some sample types in order to better meet customer needs. For most sample types turnaround time is being monitored in the Laboratory Information Management System (LIMS) and

turnaround time for specific samples is not known or unclear, the customer will be contacted and asked to submit a list of turnaround times required for each sample type.

Analysts/senior analysts/chemists have been made aware of the turnaround times required by customers and ar-

sulted in significant reductions in the turnaround time for these applications and time savings for the customer who doesn't have to manually enter results into a database.

Customer access to assays (or assay reports) in LIMS was looked at as a means of reducing turnaround time for other

network is done. Reduction in the turnaround time, particularly to outside customers, has resulted from this approach.

New or enhanced equipment has also been utilized to expedite the analysts' work. A 32-position automated water analysis system capable of determining pH, conductivity and alkalinity in a single run has been purchased. The system can also be set up to do automated runs for ammonia, cyanide, total Kjeldahl nitrogen and determinations by ion selective electrode (fluoride, chloride, silver, etc...). The system resulted in significant improvements in turnaround time and in precision and accuracy, as well as productivity.

A new ICP instrument is being commissioned. The turnaround time for this analysis will improve significantly by eliminating downtime due to instrument failure. Improvements in precision and accuracy are also expected.

Additional newer technology which would extend the laboratory's capability in terms of detection limits for precious metals and water analysis will be considered, as required, in the future. New sample preparation facilities have been built at the lab.

The main use for the new facilities is to process Mines Technical Services' drill core samples, but provisions have been made to accommodate the preparation of other sample types. In addition to sample preparation, other customer services such as moisture determination, screen analysis and bulk density analysis will also be offered in the future.

A conscious effort has also been made by each section to handle customer inquiries in a courteous manner and to follow up on customer requests. Some customers have had problems in knowing which section or which individuals to contact in order to get information on specific samples (analyses). Others have had problems with messages left on answering services which are not answered promptly or which have not been answered at all.

To improve communications, a list of the contact persons dealing with specific sample types and analyses will be issued to each customer.

"Process Technology and Production Planning is committed to providing internal and external customers with the services they need," said John Bozic. "Every effort will be made to ensure that present and future customer needs are satisfied to the fullest extent."



Dan Legrand checks the LIMS system while Rene Ethier looks on. The computer system keeps track of sample handling at the lab and will eventually be hooked up for customer access.

weekly reports showing the average turnaround time, target turnaround time and percentage on target are being produced.

All samples will be logged into LIMS by year end, making it a powerful tool in assessing and improving performance. It has also been suggested that copies of the turnaround time reports be sent to customers on a regular basis to keep them informed of job progress.

A centre for keeping records of customer complaints/compliments has been established and where information on

rangements have been made with some customers to have them schedule their sample collection at non-peak periods for the lab or to spread sample collection in such a way that the lab is not swamped with samples.

Steps have also been taken to provide quick turnaround time on emergency samples in some areas (eg. blood and urine samples.)

Wherever possible, analytical results are being reported electronically to customers (preferably directly into the customer's database) from LIMS. This has already re-

applications. In some cases results were not reported until all the analyses had been completed on the sample. In other cases the results were delayed due to the large number of reports supervisors must routinely mail to customers. Often the same report was sent to more than one individual. Access by the customer to results as they become available on LIMS greatly helps in eliminating these problems.

Where electronic transfer of results to the customer or customer access to LIMS is impossible, faxing of reports to the customer directly from the

Soo skiers are overall champions in this year's Inco Cup action



Howard Charles and Ellen Jordie negotiate the ski hill.

The Inco Cup series wrapped up another successful year of racing in Timmins earlier this month.

The Sault Ste Marie team who were in good standing going into the finals went home from the ski hill with an overall winning standing. Before the race they had already earned more than half the podium spots in the first three Inco Cup races.

More than 160 skiers turned out for the event on Easter weekend according to senior environmental analyst, Jeff Grieve. "By far the most well-attended Inco Cup event, anytime, anywhere," he said. "So many competitors that we had to set up two courses one dedicated only for the men and one for the women."

This year the format of the series was changed due to the shutdown. Normally the finals are held in Sudbury instead Timmins was chosen to host the fourth competition. The year-end celebration will be held at Science North on May 7.

As a result of this change the number of participants was up in Timmins. "It's a late season venue that can be used when all other clubs are shut down. Timmins can be used late in the season unlike the clubs down south which are finished," said Jeff So the fi-

nals saw a wider range of competitors from Ottawa to Collingwood come out.

One of the highlights of the whole series came in the third competition with the dual slalom races. The action was fast-paced at Adanac Ski Hill in Sudbury where the Inco Cup series held its third competition of the year, February 26 and 27.

Jeff, who was chief of the race at the Inco Cup 3, is proud of the series especially the race held in Sudbury. About 100 skiers competed in the two-day Inco Cup 3 in slalom and dual slalom. "We're the only one with a dual slalom race that pits two racers head-to-head on a parallel course," he said. "They aren't racing the unseen timer, they're racing one another."

Skier, David Rodney took home the gold medal for the top juvenile in the dual slalom. His parents, Wayne, a senior land man with Inco Exploration-Technical Services Group and wife Celia who works in Information Systems were pleased with their son's performance. "He just happened to advance one round further than all of the other juveniles that's how they determined the gold."

Wayne's olderson, Michael has come up through the Inco Cup and now races on the Northern Ontario team which

is two steps below the national team who compete at the Olympics. Wayne appreciates the Inco Cup series. "I think it's wonderful that the kids have an opportunity to compete at that level," he said. "It gives them a chance to compete and advance."

Further he added, "if it weren't for the Inco Cup series, they would have little or no opportunity to race in Northern Ontario."



Supervisor of electrical training Tom Tario took his turn timing skiers at the bottom of the hill.

Wayne said that both boys have aspirations of the national team but he concedes that the competition is fierce to get to that elite level. The family is taking it one season at a time.

Jeff explained how skiers work their way up from one level to the next. "The progression is from these teams, to the Northern Ontario team, to the Ontario team then the National Team. Olympic skier, Kate Pace came up through exactly the same way as these kids."

The Inco Cup began in the 1970s and has grown to the series that it is today. Jeff said that, "Inco has the longest running corporate sponsorship, 21 years, in North America of any sporting event."

Jeff's son, David also skied in the Inco Cup and was one

of the reasons for the family's involvement. "I've been involved since about 1985-86," he said. "I haven't missed an Inco Cup race in five/six years now."

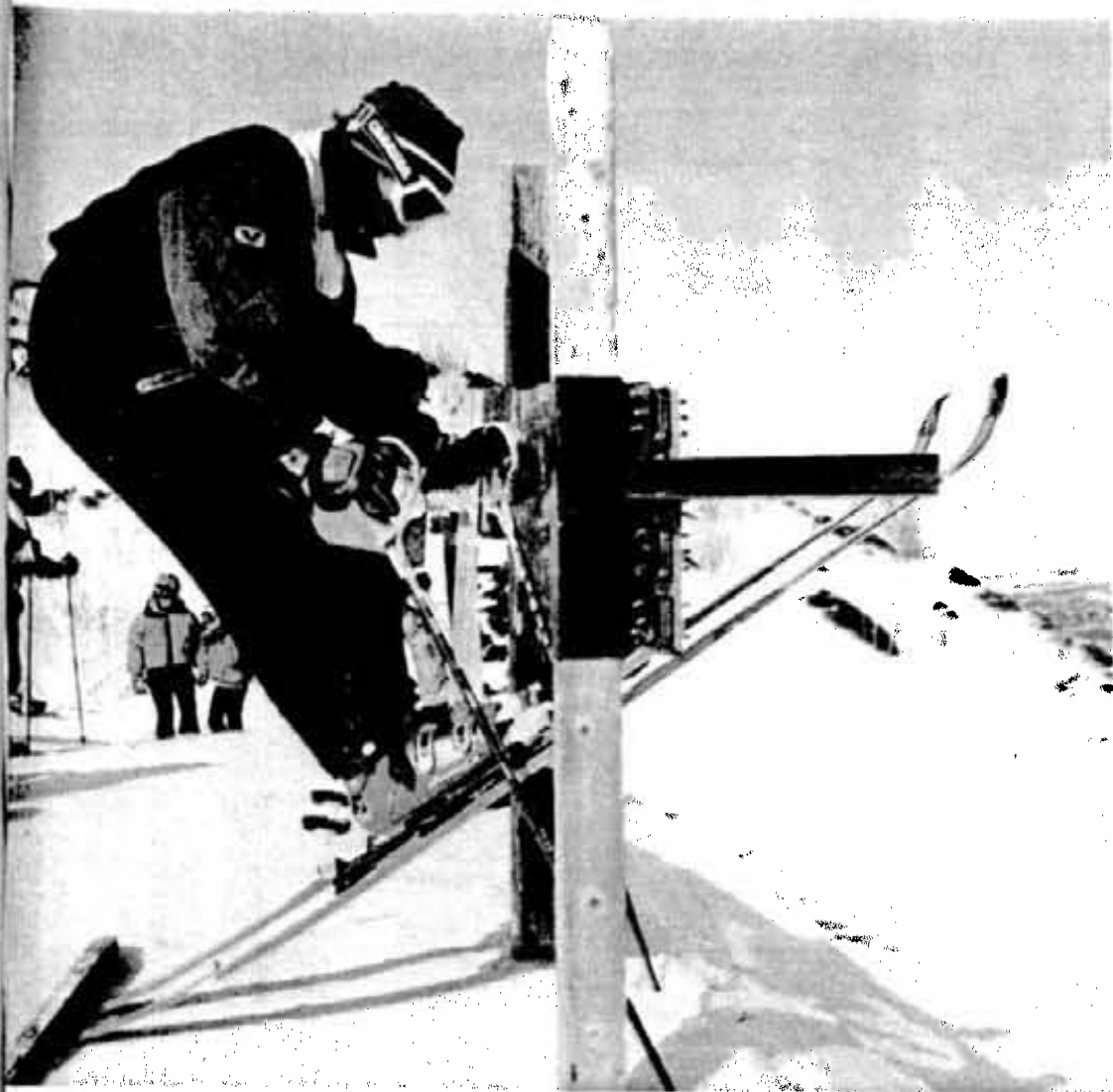
Other skiers in the Inco Cup 3, included Trevor Tario who's father, Tom is a supervisor for electrical training and mother, Pauline who works in Occupational Medicine and Manager of the Smelter Complex, Sid Segsworth's daughter, Sara.

Grieve was looking forward to the last race up in Timmins "We like to go up to Timmins because we have business competitors up there and we like to show the Inco flag up there."

About 100 skiers participated in Inco Cup 3 last February. The final races in the series will be held April 1-3 in Timmins.



Jeremy Bisson and Tom Sapinski at full throttle.



Adanac Club skier Matthew Conroy prepares for a downhill run.



Jeff Grieve, senior environmental analyst, took his position on top of the ski hill at Adanac. The chief of race made sure things ran smoothly from the top during the two-day event.



Start referee Scott Avery was glad to warm up in the chalet after being at the top of the hill.



Stephan Thorsteinson of the Adanac club gets out of the gate.

Final Standings

Friday, April 1

Women's Slalom

Gold: Kelly Churchill from Beaver Valley
Silver: Cameron Blott from Camp Fortune
Bronze: Danielle Manastersky from National Ski Academy in Collingwood—Also the top juvenile winner

Men's Slalom

Gold: Jeff Pearson from Searchmont
Silver: Jeff Charleton from Chickapee Club
Bronze: Keith Farnand from National Ski Academy
Juvenile race winner: Rob Butler from National Ski Academy

Saturday, April 2

Women's Slalom

Gold: Danielle Manastersky from National Ski Academy
Silver: Jenny Buckley from Alpine Ski Club
Bronze: Cameron Blott from Camp Fortune
Juvenile winner: Christine Chenier from Timmins Ski Racers

Men's Slalom

Gold: Keith Farnand from National Ski Academy
Silver: Jasper Blake from National -Ski Academy
Bronze: Jeff Charleton from Chickapee Club
Jeff Rodney (dad works at Inco) placed sixth

Sunday, April 3

Women's Slalom

Gold: Kelly Churchill from Beaver Valley
Silver: Cameron Blott from Camp Fortune
Bronze: Danielle Manastersky from National Ski Academy

Men's Slalom

Gold: Peter Valen, North Bay
Silver: Jessie Bull from Toronto Ski Club
Bronze: Michael Rodney from Sudbury



Adanac Club skier David Rodney keeps an eye on his place in the line-up. He's the son of Celia Rodney of Information Systems and Wayne Rodney of Inco Exploration.

in touch

Retirement can be sweet, sweet music



Five Inco pensioners and a Clarabelle Mill employee regularly get together to play a few tunes. The band includes: Top left to right, Jim Bett, Hector Bertrand, Aime Thibault, bottom left, Yves Forest, Claude Rainville and Austin Benoit.

Every week, five Inco pensioners and a fellow who claims to be a couple of years away from retiring gather to catch up on old times and play some country music.

From the basement of the Steel Hall the sound of 'Your Cheatin' Heart' can be heard as the band rehearses.

Claude Rainville called some of his buddies he had worked with and got the band together. "The band is brand new," he said. "We've only been playing about a month and a half now."

They've been so busy playing they haven't had time to come up with a name yet, but that doesn't seem to bother them. Right now they are content to be playing music to-

gether.

"It's great getting together just to improve our playing and the sound of the music," said Claude, who plays the violin.

The six-man band also includes guitar players Jim Bett, Aime Thibault and Yves Forest, while the keyboardist is Hector Bertrand and multi-talented Austin Benoit plays banjo, accordion, guitar, mandolin and mouth organ.

Claude, who retired from Stobie as a diesel mechanic about two years ago, said he has been enjoying himself. "I found it hard to find time to play when I was working."

His first interest in music came from his wife who played the piano. About 20 years ago

he began teaching himself by ear to play the violin.

Jim has been playing the guitar longer than he was employed by Inco. Retiring in 1986 as a scooptram operator, Jim has continued to play in a couple of bands including the 'Pioneers' who often perform at Memorial Hospital and Pioneer Manor.

"Once you're pensioned you have a lot of time on your hands," said Jim. "Some people like to go golfing but we like to play music."

Aime agreed. "It's a good pastime." The retired Nickel Refinery dryman of 32 years said he started playing the guitar over 20 years ago. He enjoys meeting up with the guys and attending jamborees in Noelville and

Pembroke.

Yves described why he and the others come out every week to practice at least five hours at a stretch. "You have to love music. It has to be in you."

Though he didn't have much time to play guitar while working, first underground then on surface for more than 32 years, Yves is making up for lost time. Since he retired he bought himself a brand new guitar, took some lessons and is now holding his own playing along side veteran band members.

Hector has been playing keyboard for about 40 years now. He believes that practising with the band keeps him active. "It really keeps the fingers from getting rusty." Hector worked as a driller for 11

years at Inco. When he's not rehearsing with his old buddies he's playing with another band, 'The Starlights.'

Austin is the only one still working—at Inco's Clarabelle Mill. So far he has about 28 years of service and talks about retiring in the next few years. "The guys have to work around me when planning our practice time, that's the only work they do these days it seems," he said with a chuckle.

Though the band has played at the Steel Hall they haven't made any firm bookings as of yet, but may begin doing so in the New Year. "We're just taking it one day at a time," said Yves. While Jim adds, "maybe you'll see us in Nashville!"



HERITAGE THREADS

by Marty McAllister

The Entrepreneurial Pensioner

Remember the fable about the fox with his tail cut off? He tried to avoid responsibility for his own predicament by selling other foxes on the merits of also cutting off their tails.

Well, we may have a few retirement foxes in our midst.

You know what I mean: they answer too quickly, when asked about enjoying their newfound freedom: "It's just great — aren't enough hours in the day — if the Lord made anything better, he kept it for himself — you're gonna love it!"

Some, of course, really mean it, and that's wonderful. Others feel 'arf and 'arf about it, and are just covering up for the down days. Still others are lyin' through their teeth: truly, they're having a lousy time.

But, how can we tell whether they're really singing: "Beyond the blue horizon, waits a beautiful day," . . . or Peggy Lee's song: "Is that all there is, my friend?"

I guess we can't, but — deep inside where lies are transparent — they know.

A Strange New Land

The truth takes a while to show up.

After all, we looked forward to this with all our hearts and souls. The opportunity might never be so good again. We looked at the numbers, got good financial advice, and honestly believed we had it all figured out. Then, once past the euphoria of landing out here in the bramble bush of retirement, we woke up, dusted ourselves off and stepped out onto the middle ground between yesterday and tomorrow.

And, when no one was around, we wondered: "Is it really done? . . . Finito? . . . Game over in Chicag'?"

No, not the end of eating and sleeping and being able to get a sunburn or pay the bills. I'm talking about the real stuff. The stuff that lets you grin at yourself in the morning and love the day you're in. Stuff that fires up your internal Motiv-8 and lets you hit the deck with your mental wheels just a'spinnin'.

Once you finish grinning smugly over the things you no longer have to do, you're faced with deciding what you really want to do. You maybe haven't had much help trying to figure that out, nor have you had much practice, for a long time.

For thirty-plus years, it's been someone else's game — someone else's schedule — someone else's sandbox. You've spent your best hours there; you've made a lot of friends, and maybe a few dollars as well. Sometimes you've won, sometimes not, depending on someone else's evaluation. That's the way it is, when it's someone else's sandbox. And, generally speaking, it's a fair exchange.

But now, something's missing, and there's no one around to supply it . . . except you.

Out of The Frying Pan . . .

That's what has to sneak up and whack you on the side of the head, after you tumble out of the bramble bush: you're back in business again! No, don't panic.

This time, it's your business — and you're on your own, baby. You have a few assets, hopefully a good partner, a little venture capital stowed away, a modest cost picture, and a handy trickle of guaranteed revenue coming in each month. You've got positive cash flow! That's incredible for a brand new business (any business, these days), so don't flub it.

Those resources — and the brain you've begun to believe is not

The Rest of Your Life Inc.

the rocket engine your mother said it was — are what you have in your start-up kit for the most important business in the world. And you're the CEO.

The business? It's called The Rest of Your Life, Inc.

Troylinc?

Go ahead, have raised-letter business cards made up if you like. It's your business. You can do anything [legal] you like — just not *everything* you like. This is the real world, remember?

That's the key: you have to decide. You set up the business here on the middle ground, just a horseshoe-toss from the bramble bush, and fly with it. That's the drill. No, TROYLINC is not a board (or bored) game. It is a serious, do-until-you-die business. It can be fun . . . heaps of fun; but it is no game.

Oh . . . about the brain. What you've been led to suspect is a crock. In his book 'The Age Wave' (1988), Dr. Ken Dychtwald said: "Of the 30 million Americans over the age of 65, only 10 percent show any significant loss of memory, and fewer than half of those show any serious mental impairment."

Yours may be a bit rusty, or you may have erected artificial barriers long ago, so . . . clear the barriers and kick-start it! It's crucial to your new business.

But what does this business make or do? You decide; it all depends on your real stuff.

The fun begins once you grab onto the fact that you're really in charge — and responsible — in this business. Football great O.J. Simpson said: "The day you take complete responsibility for yourself, the day you stop making any excuses, that's the day you start to the top."

And what's 'the top' for your business?

There are many definitions of success in retirement, and it's different for each of us, but most experts agree it is a long ways from doing nothing. In fact, we may do more than we've ever done — because we're doing what we want.

Charting A New Course

There are few limits on what you can create or accomplish. But (oh yeah, here it comes) . . . just because this is the world's most important business, and just because you're the CEO, it doesn't mean you can thumb your nose at reality, any more than any other business. You will have to:

- have a vision and know where you're going;
- like yourself;
- have special people in your corner;
- develop and use a realistic business plan;
- keep learning;
- keep track of how you're doing;
- be determined to cope with (not whine about) the changes that will surely come;
- take time to celebrate.

And, also like any other business, those things require management skills. Just remember that the biggest reason for business failure anywhere is the lack of these same kinds of management skills. Don't for a minute underestimate the skills your years of experience have brought you — but don't be afraid to learn some new ones, either. Your brain can more than handle it; it will thrive on it!

A business as important as The Rest of Your Life deserves nothing less than the very best you can give it.

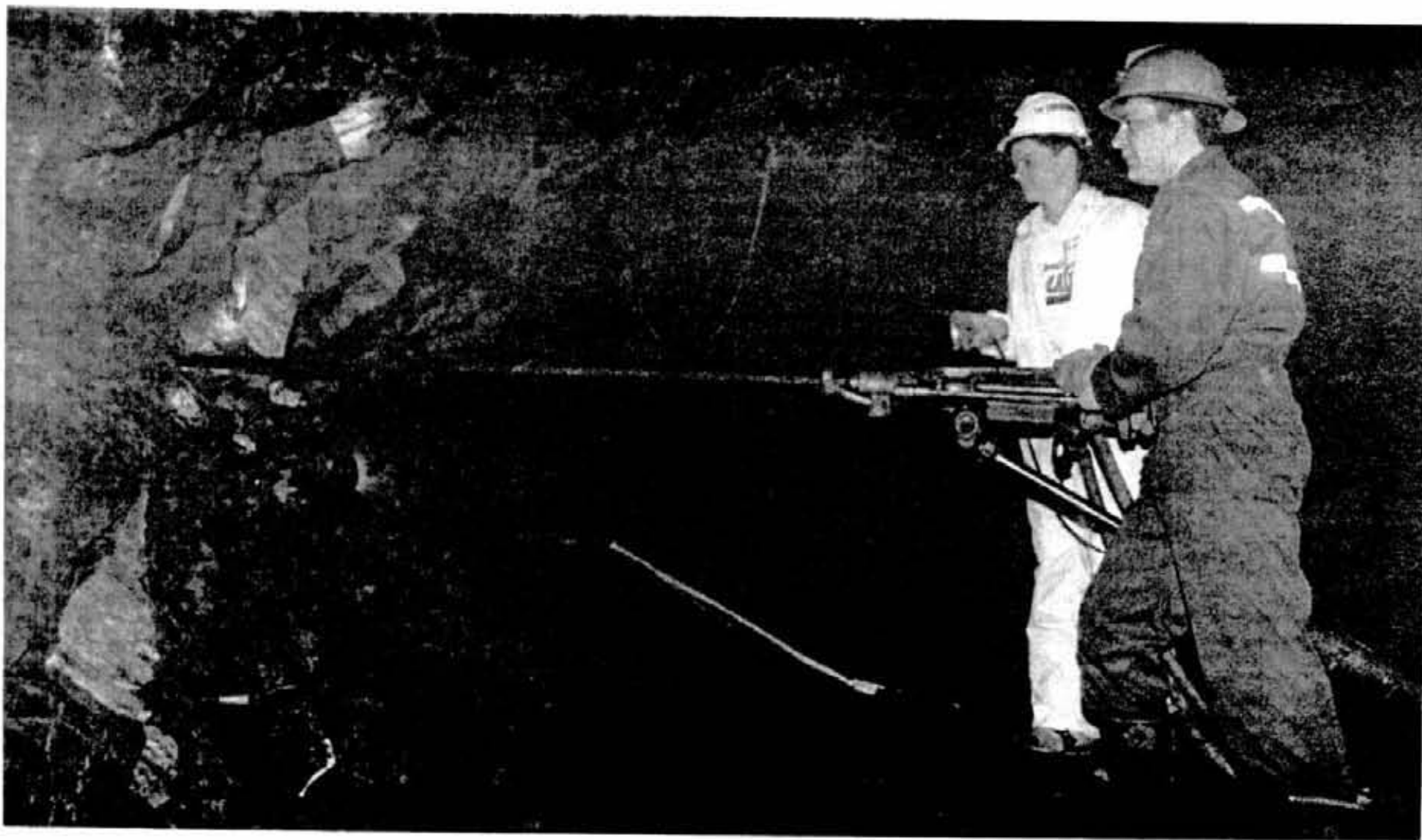
I know there are lots of good stories out there about the things Inco retirees have done and are doing. I'd love to tell some of them, so please give me a call or drop a note to The Triangle.

In Memoriam

NAME	AGE	DIED	YEARS SERVICE
Ash, John	60	March 16	31
Bidal, Jean	81	Feb. 10	34
Bouillon, Maurice	79	Mar. 5	32
Campbell, Clayton	67	Mar. 21	20
Coggins, Richard	67	Mar. 18	36
Cuthbertson, Kathleen	70	Feb. 26	13
Dufresne, Yvon	57	Mar. 23	15
Gagnon, Carl	57	Mar. 30	27
Gibbons, Walter	78	Feb. 11	31
Gorday, John	85	Mar. 28	24
Gowan, William	81	Mar. 11	33
Jackson, Ross	79	Feb. 29	28
Janota, Frank	80	Feb. 19	28
Kampman, George	89	Feb. 22	34
Kaulback, Eric	47	Mar. 21	47
Keirstead, John	71	Feb. 23	19

NAME	AGE	DIED	YEARS SERVICE
Leduc, Jean	77	Mar. 26	18
Lutyk, Andrew	81	Mar. 11	15
McGillinchey, Sterling	68	Mar. 27	32
McQuillan, James	77	Mar. 20	41
Menard, Alphonse	71	Mar. 8	41
Poirier, Guillaume	60	Mar. 31	20
Ricciuto, Giuseppe	61	Feb. 12	29
Skillender, Kevin	63	Feb. 13	26
Smith, Harold	71	Mar. 10	36
Smith, Raymond	70	Feb. 19	25
Strike, Benjamin	83	Jan. 30	24
Valli, Allan	70	Mar. 30	33
Wade, Gerald	45	Mar. 18	21
Wasylenki, Walter	92	Feb. 18	40
Werner, Helmut	64	Mar. 28	39

It may be just a game for these university students, but mining can still be an exhausting competition



Laurentian University students Sandy Spenceley, left, and Kevin McKay try their hands at jackleg competition at the Big Nickel Mine.

Brent Zeitz did his father proud.

The second-year Laurentian University mining engineering student certainly pulled his weight at the Canadian University Mining Games in the load-haul event.

It was all part of the fourth annual event held in Sudbury, March 25 and 26. When the scores of the various competitions were totalled up it was Laurentian University that came out on top over Queen's

Elliot Lake for the games. For Brent and the other 100 students who participated, it was a learning experience and an opportunity to meet others who are going into the field.

"I think it was a good chance to interact with other students and find out what they're doing," said the son of Mines Research's Kenneth Zeitz. "It gave us an opportunity to get a feel for what's going on elsewhere."

In addition to Laurentian

of town for the games.

Ontario Mine Rescue officers put the students through their paces during the two-day event with such activities as a jack-leg competition, where participants drilled a six-foot hole with a hand-held pneumatic drill and installed rockbolts at the Big Nickel Mine. Students also had to navigate through a series of obstacles to extinguish a controlled fire while in another event they had to haul a load of 24 bricks 100 metres on a plywood board and unload them in the least amount of time.

Such exposure to solving small problems through teamwork was important, said Mark Ashcroft, third-year Laurentian student and vice-chair of this year's competition. "Some of the students have never seen a jack-leg let alone installed a rockbolt before," he said. "Most have only read about it in a book."

After the games the Nova Scotia contingent was given a special tour of Coleman Mine by its manager Jon Gill. Mark, who went along with them, said the students appreciated their underground tour. "I don't think they quite expected the size of the operation," he said.

Brent said he enjoyed his first Mining Games and plans on going to the one at McGill next year depending on his work schedule at school. He believes that the whole opportunity opens doors and was well worth the physical work that he did, especially the strain of the load-haul event.



Giving it all they have in the load-haul event are Jeff Sepp, Tammy Leeson, Brent Zeitz and Tom Leinala.

University by one point. But the Laurentian team still ended up winning the bragging rights.

"It was a really good time," said Brent, who came from his co-op placement at Rio Algom's Stanleigh Mine in

University, other schools who participated in the games included the Technical University of Nova Scotia (TUNS), Ecole Polytechnique from Montreal, Laval, McGill and Queen's Universities. A total of 61 students came from out



Brent Zeitz tries to cool off in a snowbank after he competed with his team in the load-haul event in the Canadian University Mining Games.



FOR YOUR HEALTH

From the Occupational Medicine Dept.

Job related stress costs Canadian industry and society over \$13 billion in lower productivity, lost time and other liabilities.

One out of every three Canadians will be temporarily or seriously ill due to emotional problems at some time in their lives. One in eight will need to be hospitalized.

Stress or challenge? Illness or health & energy? It's your choice

This is the first in a series of articles on stress and what you can do about it and why you should find ways to decrease it.

Challenge increases your energy, your wellness and life expectancy.

Stress, on the other hand, can make you sick or even lead to health problems that will kill you.

It's been said that that we tackle the same number of decisions in a day that our ancestors of a few hundred years ago tackled in several weeks.

Change can be stressful, even when it is good

Complete the following questionnaire for the past year to find your stress rating.

Event	Value	Event	Value
Death of a spouse	100	Divorce	73
Separation	65	Death in immediate family	63
Personal injury or loss	53	Marriage	50
Fired/laid off	47	Reconciliation	45
Retirement	45	Death in extended family	44
Pregnancy	40	Sex difficulties	39
Addition to family	39	Work readjustment	39
Change in finance	38	Death of close friend	37
Loan over \$10, 000	36	Child leaving home	29
Trouble with in-law	29	Outstanding achievement	28
Spouse begins/stops work	26	Change in living conditions	25
Trouble with the boss	23	Change in work hours	20
Move	20	Change in social activities	19
Loan under \$10, 000	17	Change in sleeping habits	16
Vacation	13	Christmas season	12

A high score frequently leads to illness in the future and often changes your behavior now.

Little stressfull things can add up

Most stress may not come from one or more of the big events listed above but from all the littles annoyances that bother us daily, such as missing a green light, the way our children dress, a habit of our spouse, a fellow worker, a relative and so on.

All these little stresses add up and can have the same effect on us as the bigger events that cause us stress.

Handling stress a personal decision

Create a chart to help you get stress under control by putting the following headings across the top of a page:

Things that: Are bothering you, Can't change, Don't want to change, Want to change, Plan. (You will need a separate page for things that you are going to have a plan for.)

1. Make a list of all the things that are bothering you. This includes little things. They add up. Don't put them in any order. Take a few days to do this or keep adding to it.

2. Put "No" beside the ones that you can't change and forget them. This will be a positive action only if you stop thinking about the problems in this column. If there are side effects that you can't forget, put them on your list. For example; loss of income, unable to play squash due to injury, not enough to do.

3. Put "No" beside all the things that you can do something about but do not want to spend the time or the money to do it and forget them.

4. In the "Yes" column make a plan for how to change each item based on the time and money that you have. The plan can be to start something in three months or a year. Everything doesn't have to be right away. Make lots of steps to the plan so you can get a feeling of accomplishment for each step. It is important to keep in mind that YOU made the plan to help YOU. This plan can be changed when you want to. YOU are in control of it. Don't let it control you.

This should help you concentrate you time, money and energy on the things that you can change even if it takes some time.

Because you will probably have been spending time worrying about things that you can't or aren't prepared to change, you will have to go back to the list and teach yourself to think about the plans you have for the things that you can do something about.

A few questions to ask yourself to help you stay on track are; "Is it worth making myself sick over or having a bad relationship with someone?" or "In the realm of life will what I'm getting upset about really make a difference."

Learn to relax

There are several ways to relax. The following are two easy ones.

A. 1. Close your eyes - get comfortable - be as relaxed as possible.

2. Breath in SLOWLY for 10 counts.

3. Hold your breath for five counts

4. Breath out SLOWLY for 10 counts.

5. Relax for five counts.

Repeat two to four times several times a day.

B. 1. Close your eyes - get comfortable - be as relaxed as possible.

2. Breath in. As you breath out say the word "CALM."

3. Think of yourself relaxing.

4. Repeat for 10 minutes if possible.

Learning to relax needs to be practiced for about a week so that you can do it easily when you need it.

Strengthen yourself

Make sure that you eat well, exercise, sleep well, practice relaxation techniques and get some support from a relative, friend or a professional so that you can spring back from stress.

In the next issue we'll discuss the importance of changing stress into challenge and some more ways to relax.

From Superstack to carving, John's work reflects the north

It's fitting that John Palmer is carving out a living on Inco rock. The company, after all, gave him the opportunity to reach new heights.

1,250 feet, to be exact.

"I worked on your Superstack pouring cement," said the budding artist.

John, son of the late John Palmer Sr. who worked 25 years for Inco, has a different connection to the nickel mining business today. After graduating from Cambrian College's graphic arts course, John is into sculpture these days. One of his latest creations is a beautiful muskie

carved from a desk-sized piece of rock donated to the college by Clarabelle Mill.

Nickel may be what's paying Inco bills, he said, but for a sculptreor, metal-bearing rock is a nightmare.

"It took me about 80 hours to sculpt it, and a good third of the work involved smoothing out the nickel in the ore. It's very hard."

The piece is just one of about three or four works in the beginnings of his portfolio.

He's determined to keep a northern flavor to his work, mainly by emphasizing wildlife and nature in

general.

He said an industrial accident put him permanently out of commission for heavy work, yet he expects the injury will turn out all for the best in the end.

"I was always into art, so the injury may turn out to be a godsend. It forced me to do what I'd always wanted to do. I certainly enjoy it more than anything else I've done."

Like most new artists, he has found it an uphill battle to make a living at art. He's confident in his work, however, and plans to keep at it. Anyone interested in John's work can call 853-4587.



John Palmer with his nickel-bearing muskie.

Pete & machine: Wallowing in the mud

Despite it being his first year of mud bog racing Pete Gagnon left his opponents behind in the mud. When he isn't working as a train conductor at Inco, Pete can be found either in his garage tinkering with his 1965 Chevy truck or racing it during the summer.

Pete placed in each of his races, taking home three firsts, a second and a third. Now that he has a taste for the winner's circle he plans to race again next season.

The object is simple. Drivers compete by racing their trucks through a mud filled track. The fastest time wins. The sport of mud bog racing is gaining popularity in Northern Ontario according to Pete. "The sport is really big in the United States and it's catching on here. This summer there were eight separate races. Next year the circuit is supposed to be even bigger."

Pete managed to race his truck in five local competitions including those in Chelmsford, Azilda and Vermillion.

But because of shift work he wasn't able to attend races further away like the one in Timmins. "It really limits which ones you can go to," he said.

Pete is no stranger to the racing scene. "I've been racing on and off for about five years but this is my first year for mud bogging."

One of his fondest recollections of last summer was his first race in Vermillion. Despite having earlier problems with his truck's battery, Pete went on to break the Northern Ontario record going 200 feet in 4.49 seconds compared to 5.7 seconds before.

"That really made my day," said Pete. "I like to go out and please the crowd. When you know you're the main attraction there's no better feeling."

That makes it all worth the hard work of building the



Peter Gagnon with his mud bog racer and trophies.

truck. "It took my brother George and I about nine months working on and off to build the truck."

Without his brother's help and the support of his sponsors Pete's dream might not have become a reality.

"I'm lucky to have four sponsors, Mr. Transmission, Unapco, Penzoil and Mac Tools."

Though his truck stays out of the elements in his garage Pete is already dreaming of next year's races.

SportsSportsSportsSportsSportsSpo

Muck Monsters dominate Stobie Hockey league action

In some fast-paced (and downright hilarious) action in the Stobie Mine Hockey League, The Muck Monsters continued their dominance over the Pencil Necks with a 10-8 victory before a standing room only crowd at the Walden arena.

Brian (*Smooth Roads*) McDonald scored the clinching goal into an empty *Pencil Necks* goal. The *Necks* pulled their goalie Ron (*Benedict*

Arnold) Stewart for an extra attacker.

It appeared the game had been tied at 9 - 9, however referee Ron (*Hawk-Eye*) Leger disallowed Pascal (*The Ventriloquist*) Hamelin's apparent goal which brought a huge storm of protest from *Pencil Neck* supporters. Instant replays proved *Hawk-Eye* made the right decision as the puck did not cross the goal line but it may take weeks for *Muck Monsters* goalie Wayne (*Pepto-*

Bismol) Tonelli to completely digest the pasty rubber morsel.

The *Muck Monsters* held a post-game victory party at *Chez Al's* posh stately manor overlooking the scenic *Mud Lake*. Interestingly this reporter noted the swimming pool had blue lines and a goal crease painted on the frozen surface. Could this possibly be the "*Muck Monsters*" secret work out location? Stay tuned!

SPORTS FANS!

Do you have a plant, office or mine sports league organized? How about an annual, periodic or occasional bowling, curling or basketball event. Whether it be a fully-organized league or a friendly keep-in-shape fun game, we'd like to give you space on our sports pages.

So designate a correspondent, take some pictures (we'll develop the film) or just send the results of your sports event to Public Affairs by inter-office mail or to: Inco Triangle, Public Affairs, Copper Cliff, POM 1NO

Nickel refinery engineer Barry Bowerman paints prize for I Love Wildlife Art Raffle



Barry Bowerman: Art for a good cause.

Forget Lotto 649. The hottest ticket in town is the I Love Wildlife Art Raffle where one of the prizes is a painting by Nickel Refinery engineer Barry Bowerman.

Though he isn't ready to give up his day job just yet to take up painting full-time, Barry does spend a lot of his spare time creating works of art.

When he was asked to donate a painting to the Lake Laurentian Conservation Authority for their raffle, Barry didn't think twice. The project is trying to raise \$30,000 to help fund environmental education programs. "The whole idea of this raffle going to make sure that this environmental program keeps going was a big factor," he said.

The conservation area is not only treasured by Barry

and his family but by many visitors to the area. "It's important that we instill an appreciation in the children, then we've done a good part in helping to preserve areas like this for generations in the future to enjoy."

Barry depends on the area for his art. "With the type of work that I do, wildlife painting, I find it a great resource and it inspires ideas for compositions," he said. "When I realized the purpose for this raffle I thought it was a way for me to give something back to what this area has given to me and also give something to the community."

When approached to produce a painting, Barry said he had an idea in the back of his mind to paint a fox but he asked the naturalists for their input. "I didn't tell them ahead of time because if they thought

of something different, I would have just as readily done something else," he said.

As it turned out, both he and the naturalists were thinking along the same lines. They told him about a resident fox living not too far from the trail, so Barry set out to take some photographs of the area for reference. When he showed his photos to the naturalists he was told that he was pretty close to the fox's actual den.

Barry just didn't sit down and paint, he did a lot of research into his subject first. He then used photographs, books and a fox skin from Laurentian University to make his painting look as real as possible. He explained what makes a good painting. "When you compose it, that's how you can express yourself. The detail, that's where the challenge

is, to make it look natural and as real-looking as possible."

This project has given Barry new challenges. "It's been a learning experience with a new subject that I hadn't done before so I had to put more research into it, such as getting the texture of the fox fur right, the correct proportions and researching the skeleton and muscle structure."

He started painting in 1985 after his wife gave him a set of paints as a Christmas present. His first painting was a gift to her parents for their 50th wedding anniversary and he hasn't looked back. "I was hooked after that."

Though Barry has had no formal training, he has taken a couple of workshops with wildlife painters Robert Bateman and Glen Loates. "The opportunity to take courses from these people was

a once-in-a-lifetime opportunity."

Barry's painting will be raffled off May 1. A total of 6,000 tickets will be sold and the winning ticket will be re-entered for a second draw to be held October 1.

The second prize is a carving by Pat Roberts, whose husband Clyde is a mine planner at Levack mine. "I'm carving a kestrel, which is a small falcon," she said. "It will be very colorful and fully textured when it's finished."

Pat estimates that it will take about 200 hours from the research stage to the finished bird. She brings more than eight years of experience to her craft.

Tickets for the raffle are \$5 and available at a variety of outlets or by calling the Lake Laurentian Conservation Authority.



Longest conveyor installed

40 Years Ago

The longest conveyor ever employed in the company's history had just been installed at Creighton Mine to carry ore from No. 3 shaft to No. 7 shaft, where it was hoisted directly to the crusher.

The grand-daddy of them all, it was 1,820 feet long, 48 inches wide and was driven by a 150 hp motor. It required a belt that weighed 70,000 pounds and was 3,750 feet long. The belt had a six-ply thickness of 48-oz duck rubber face and a 1/16-inch rubber back.

It joined three other mammoth conveyors at the mine: a 1,461-foot highway that ran from the rockhouse at No. 5 shaft to the junction house, a slightly smaller cousin at 1,172 feet, that ran from the junction house to the surge bin, and the baby of the family, a Lilliputian 864 feet long, that ran from the surge bin to the crushing plant.

Conveyors were used all over Inco, and as a mover of material, made a man with a wheelbarrow look like a flea in an elephant race. Of the more than 40 that were operating in the crushing plant at the smelter, the workhorse was No. 12, 443 feet long, with a capacity of 1,620 tons per hour.

The heaviest in service was a 442-foot conveyor at the Froid Open Pit that ran between the crushing plant and the Froid-Stobie No. 3 shaft rockhouse. It had a 10-ply belt, was 54 inches wide and weighed 34 pounds per foot.

Other stories that month: "Sudbury's Big Festival of Music an Unqualified Success" "Inco Tonnage Mined in 1953 Set A New Record" "Slushing in Cut-and-Fill Stope at Garson Mine"

25 Years Ago

"Busy on many fronts to assist Inco's operating departments and improve the way we do things." The spotlight was on the process technology department, whose responsibility it was to monitor process efficiency and improve production techniques.

To cope with the burgeoning expansion program that was occurring 25 years ago, all plant research personnel, metallurgical and sampling departments and plant control

laboratories were now coordinated to provide mutual assistance and prevent a communication gap.

And their roles were also expanding. Besides providing continuous sampling and analytical service from rockhouse to refinery, the process technology department was also assisting in plant research.

A recent contribution was the monitoring of the new electric furnace in the Thompson smelter. Soon to be a project, was the task of evaluating techniques and equipment on the new Inco pressure carbonyl process at the Copper Cliff Nickel Refinery.

Other stories that month: "Cliff Skaters Drew 1,400 to Club Matinee" "Youngsters Learn Judo and Mothers Enjoy Slimnastics" "36 Rinks in Froid-Stobie 'Spiel'"

14 Years Ago

The objective was to upgrade existing supervisors and develop new supervisors. The mechanism put in place to accomplish it was the new supervisory development program.

"There is no guarantee that each new trainee will become a supervisor," said Doug McMoran, one of the designers of the program. "However, the participants will have significantly improved themselves and will come away with a better understanding of the company and their role in it."

Candidates, who went through a pre-selection program, were required to have a good basic knowledge of their own immediate work area and have a desire to improve themselves. It was also necessary that they have leadership qualities and be people oriented.

The program, which offered both classroom and field supervisory training, emphasized training in person-to-person communication, coaching and counselling and instructional training for supervision, with the objective of turning out candidates who could effectively communicate.

Being a good listener and sympathetic to a worker's needs were also desirable qualities.

Other stories that month: "Bunker C Oil... Pipeline on Wheels" "Show 'N' Tell Popular For History Buffs" "Oxy-Fuel, Smelter Innovation"

INCOME ideas

by Susan LeMay, CMA

Getting down to the details

Last month we discussed the planning aspect of budgeting. Now it is time to get down to the real details. The first item was — Have a specific goal. Thinking about your long and short term goals is not enough. You really need to write them down. Until you do this, the goals won't seem real because you can change them in your mind and you will forget what the original goal was as you adapt it to suit the changes in your situation. When you make any big decision in your life, it doesn't seem real until you've told someone else. This applies to your goals as well.

Your net worth

Most of us are pleasantly surprised when we calculate our net worth. What is "Net Worth"? It is the total of all your assets minus all your liabilities at a specific point in time. There are three major points here.

1. What are all your assets? Include possessions which could be sold or converted into cash: bank accounts, RRSPs, GICs, stocks and bonds and of course your home and/or cottage if you own them. Don't include clothing, unless it is something like a fur coat, which could be sold for a significant amount of money. Don't include jewellery or home furnishings which would sell for much less than you paid for them, or which you couldn't bear to part with.

2. What are all your liabilities? Include the mortgage on your home or cottage, any loans you are paying off, credit card balances, and any overdraft on your bank accounts.

3. Net worth is measured at a point in time. This means that it changes constantly. When you make a mortgage payment, your net worth

goes up because the mortgage goes down. Similarly, when you borrow money for home improvements or a vacation, your net worth goes down since you owe more.

Available income

We know how little our weekly or monthly wages have to do with the amount we can actually spend. There are deductions taken before we ever see wages. The most significant one of these is, of course, the deduction for income taxes. These deductions represent monies we can't spend even if we wanted to. Start the calculation of your available income with take-home pay. If there are two partners working, then include both take-home pays. You also need to include any other income such as interest from savings or GICs, government tax credits, business income. Total all this income and you have your "disposable income".

Calculating your expenses

Expenses are more difficult to calculate. There are some that you know for sure, like your mortgage payment, and any loan payments. Then there are those you can guess pretty closely like your car and house insurance, your hydro bill, and your basic phone bill. These are your fixed expenses. The others like food, clothing, entertainment, car expenses are discretionary expense since you can decide how much to spend on any of them and you have some flexibility in the timing.

How do you know how much your discretionary expenses are? There is no easy answer. This is where the work of budgeting comes in. You need to take a one or two month period and keep track of all your expenses no matter how small. Keeping a record in a notebook is prob-

ably the easiest way to do this. After you have done this and totalled it all up, you should have a good idea of exactly how much you are spending and what you are spending it on.

Putting it all together

Once you have all the information gathered, you'll be able to see your current budget position. Set up a column for each month. In the top section of each column, list your income for that month and total it. Your wages won't likely change, but other sources of income may only come two or three times a year. Only include them in the months you receive them.

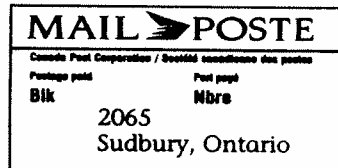
The next section will include your fixed monthly expenses. Some of these like a mortgage payment or your phone and hydro bills for example will appear every month. Others like insurance premiums or property taxes will appear less regularly. Check your records to see when these payments occur and include them in the appropriate months.

Now, total all the expenses for each month and deduct them from the month's income. (If you can use a computerized spreadsheet program, this step will be easy.) The result will tell you about your current cash flow for each month. There may be some

months when there are more expenses than income. You cover these months with the surplus from earlier months. If you find all the months are overspent, then you need to check your calculations and then your spending habits.

What you have done so far is simply analyze your current position. If you can meet your short and long-term goals with your current budget, then you are all set. If you are going to miss your goals, you have to work at increasing your available cash. This is what many people call the painful part of budgeting.

You have to examine all your expenditures and see which ones you can reduce. This is not just putting off painting the house, it is shopping differently, even eliminating certain items from your discretionary spending. There are shelves of books written about how to do this, but the only person who can decide this for you is you. If the goals are yours, then you will want to make the changes. If the goals aren't yours, then all the books written won't really help you change your spending habits because it won't be worth your while.



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