

\$1 million gift for oldest, largest mining school boosts mine engineering program

As 1 million gift from Inco Limited is allowing min ing engineering students at Queen's University in Kingston to benefit from four newly-refurbished undergraduate laboratories that were officially opened recently.

The funding has allowed Canada's oldest and largest mining school to purchase computer and other equipment for use in the rock mechanics and ground control, mineral extraction, mine ventilation, mine environment and computerized mine design laboratories.

Inco President Michael Sopkosaid at the opening ceremony this morning that Queen's School of Mines has been graduating mining engineers since the turn of the century and many of them have made their careers with Inco.

"It's in our best interests to develop mining engineers who will be able to handle the technologies of the next century," Sopko added.

"The student response has been outstanding" said Will Bawden, head of the university's Department of Mining Engineering. "It's something that was badly needed".

Inco's gift to the university's five-year Challenge Campaign fund-raising drive is another example of the mining industry's continuing support for a strong mining engineering program at Queen's, he added.

"This is an extremely significant contribution," said Bawden, citing the lack of base budget allocations faced by universities across Canada for the renewal and updating of laboratory undergraduate teaching equipment.

More than half of Canada's mining engineers hold degrees from the Queen's School of Mines, which celebrates its 100th anniversary in 1993. Graduates from the school can be found in all parts of the world, often quickly rising to positions of responsibility in major companies.



Employee attitudes impress visiting consultant

High-tech mining techniques, highly-skilled and motivated miners, the scope of Inco's operations and the enthusiasm of employees at their work.

That's what Price Waterhouse senior consultant study of the mining industry. The primary objective of the Price Waterhouse study is to determine possible courses of action to ensure that the industry will have the human resources capability to compete on a global scale.

The study is designed to

dustry stakeholders through interviews with industry experts, mine, mill and smelter managers, union representatives, technology experts and training providers, case studies, focus groups with workers and students in relevant min-

the most impressive things she learned in a two-day visit to Inco.

"But what struck me the most was the underground (South Mine) tour," she said. "I never thought there would be so few people down there to do the mining. The degree of automation below ground and the professionalism needed to do it was perhaps the most impressive thing I've come away with."

Marli's Inco tour was the first of about 10 visits to mine sites she'll make in a Employment and Immigration Canada human resources

Women Engineers

draw on a wide range of in-

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Volunteers wanted for Mining Week

Ontario celebrates Mining Week June 1 to 7 and Inco is looking for pensioners to join the fun.

Outdoor exhibits of mining equipment and indoor mining displays will mark the week at the New Sudbury Centre. Pensioners are invited to volunteer their time staffing the Inco display from Thursday, June 4 to Saturday, June 6.

Those interested can call Karen DeBenedet at 682-5432.

Saving Energy

Sault Ski Runners' Trish Reilly, 15, sharpens her skis before the final race of the Inco Cup season at the Adanac ski hill in Sudbury. The Sault Ste. Marie club won the overall team competition for the first time in seven years. For more pictures and story, see Pages 8 & 9.

Inco's 90th Birthday

Employee attitudes impress visiting consultant

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While at Inco, Marli visited South Mine, Clarabelle Mill, the Nickel Refinery, and the Canadian Alloys Plant. She interviewed instructors and apprentices to discuss skills, job requirements and career decisions. She was impressed by the attitudes, morale, pride and enthusiasm shown by the people she talked to.

"The Inco visit concluded with a personal interview with Vice-President of Human Resources and Administration Jose Blanco who described training and development at Inco, particularly in connection to the program developed in partnership with Cambrian College.

"He also gave me an insight into the global competitive view of the industry, how Inco plans to keep the competitive edge and the problems involved in that," Marli said of the Blanco interview. "It was very helpful.

"What I found amazing is how these people accepted the fact that they will have to keep learning the rest of their lives to keep up with rapidly changing technology. They've accepted it and they're willing to do it. Part of their job is lifelong learning."

She said the study is designed to help avoid any future shortages in skilled workers needed to keep the Canadian mining industry competitive. She's particularly frustrated with the attitude that only white collar work is worthwhile and that the trades are second-rate jobs.

She pointed to Inco as a good example of the appreciation, respect and desirability of skilled tradesmen, both financially and in terms of job satisfaction.

Employment and Immigration Minister Bernard Valcourt announced the joint government-industry study last summer, describing it as an assessment of the nature and extent of the industry's human resource requirements. He called the "partnership approach" to ensuring skilled labor the "wave of the future."

By means of a comprehensive analysis of critical industry concerns, the 10-month joint diagnostic review will focus on a thorough assessment of human resources in the mining industry and provide insights into possible courses of action.

"This initiative from the

mining industry is a significant step towards developing a coordinated approach to the human resources situation that could lay the groundwork for any needed cooperative remedial action," Valcourt said.

A preliminary study report is expected by August of this year.



Consultant Marli Ramsey gets an overview of the problems facing mining companies during an interview with Human Resources and Administration vice-president Jose Blanco.

How do you view the future for Inco's Sudbury mining operation?



Edward Fredette, maintenance mechanic, McCreedy West: "I can see that if the nickel price drops even more than it has been it could start to threaten our jobs. But it doesn't bother me now. The work force is leaner and the company is in better shape to weather it."



Allen Loughren, industrial mechanic, Levack: "I don't think it will ever get as bad as 10 years ago. I can't see Inco going the way it did before. The company is better prepared. The workforce has been greatly reduced and all the cuts have



Ron Marcotte, industrial mechanic, Levack: "We're a meaner, leaner outfit these days, but even though, we're a little too close to the line for my liking. When it started going down like this before, we darned



Maurice Dubreuil, heavy duty mechanic, McCreedy West: "Hard times are changing my plans for a lot of things. But 1 have 19 years with Inco, enough to ride it out without much concern about my job. The com-



Chris Cardinal, training instructor, Stobie: "I think our jobs are pretty stable. With the poison pill we took, we don't have to worry about any takeovers. The quarterly loss we took last time is temporary. We're in good shape to ride this out. already been made."



John Larsen, trainee foreman, Little Stobie: "We're in good shape. There's a lot of improvements coming on stream to cut costs, a lot of joint union-management cooperation. Everybody's got an interest in keeping this place going, from the working man to management. near lost the company. I can't see it getting that bad again."



Nancy Nadjiwon, shipping clerk, Copper Refinery: "I suppose there's a possibility we could get to the place we were in the early 1980s. I certainly don't think that we have as much job security as before. I'm just being realistic." pany seems geared up, able to cope."



Shirley Millan, senior shipper, Copper Refinery: "There's always a need for nickel in the market. But in this day and age we don't have the job security we used to have. Computers and high technology are replacing a lot of people."



Ontario Division president Jim Ashcroft (left) and Local 6500 president Dave Campbell paint a more environmentally-conscious future.

Bin Painting Day a colorful success

Waste Segregation Program arrives at Smelter Complex

I t could go down as The Great Inco Brush Off of 92. With paint brushes in hand, management and union representatives, public officials and community leaders gathered at the Smelter on March 24 to put a little time to ... waste.

It was the official send-off of the Waste Segregation Program, a joint company/United Steelworkers of America effort to meet environmental targets set by Inco's Environmen-



The Ministry of the Environment is targeting a 25 percent reduction in material sent to landfill sites by 1994, and 50 per cent by the year 2000. Both Inco and Local 6500 have decided to adopt a proactive stance with regards to this impending legislation.

Although Inco is not required to implement a source separation program until March 1994, management decided there is no time like the present.

tal Policy and the Ontario Government in the Waste Reduction Initiatives Paper.

Bin Painting Day marked the official start of the Waste Segregation Program for the managerial areas of the Copper Cliff Smelter, Copper Cliff Mill and Transportation.

Inco management, staff, Local 6500 members and other invited guests enthusiastically painted 75 bins, a fact verified by changing colors of the oncemonochrome coveralls donated for the day by Northern Uniform Service. Panko Paints provided the paint at a generous discount and donated painters' hats. NIM Disposals donated their trucks to move the bins to the painting locations and return them to their final destinations.

Inco's new waste segregation program got its official start with a bin painting event at the Smelter that saw company, union, government and business representatives grab brushes and spray cans. Under the expanded inco program, the boxes are colorcoded to receive different types of waste, allowing more effective disposal and recycling. Taking part are, from left; Rayside-Balfour mayor Lionel Lalonde, Sudbury and District Chamber of Commerce president Jeanne Warwick and Inco's Safety, Health and Environment manager Larry Banbury. The Waste Segregation Program was initially developed by Environmental Control in July 1991, after the department was approached by individuals at the Levack Complex. Management at Levack was concerned the landfill site would not meet the increasing industrial waste output of the Complex with Coleman Mine starting up in full force early in 1991.

A color-coding system was developed, as well as written labels on the bins, with the goal that the system would eventually be in place throughout the Ontario Division. Now employees place scrap metals such as brass, copper and steel in grey bins, which are sent to a central

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Women in Engineering

Women in engineering play leading role in needed attitude shift: Ashcroft

I twas with enthusiasm and unbridled optimism that Jim Ashcroft viewed the concerns of the mostly female students, faculty and staff who gathered at a Women in Engineering conference at Laurentian University recently.

"Speaking as one whose company is rapidly coming to terms with the reality of global competition," Inco's Ontario Division president told the group, "I regard symposiums like this one with enthusiasm and with unbridled optimism. What is happening here today is exciting, vital and necessary to the process of change."

He told the group that Canadian businesses can no longer be indifferent to the challenges and opportunities that confront them nor afford to wait for something to break before they embark on crucial changes.

"And just as businesses are being forced to cope with change more swiftly than ever before, then the engineering profession is being compelled to break down barriers and embrace new values, ideas and issues," he said. "In focusing on the challenge to attract more women into our profession while meeting new societal and technological demands, engineering is embarking on a decade of historic change."

While rapid change is needed, he lamented that the changing of attitudes is sometimes the most time-consuming of all.

"If we were to look at some fairly recent statistics concerning our profession in Canada and the current status of women within it, then we can see that there is indeed a bright future for engineers and limitless opportunities for women if they can just be persuaded to give the profession a second and longer look in their career strategies."

He said that the Canadian Council of Engineers has estimated there will be a shortage of up to 30,000 engineers in the country by the end of the decade. "Yet of the approximately 158,000 engineers in Canada two years ago, only three per cent, fewer that 5,000, were women. That's despite the fact that women made up about 14.5 per cent of the students enroled in engineering schools across the country in 1990-91."

ing as accountants and car salesmen.

"I would jokingly wager that the television series Star Trek has had more impact in inspiring young people to pursue engineering, science and medicine than all of our engineering awareness camfemale engineering students were a rarity, not just a minority. Later, when we started our careers, not surprisingly we encountered few, if any, women in our business. Partly it was the inhospitable environment women encountered when they did penetrate this While he said that Inco has probably been no better historically than any other Canadian natural resource industry, it is changing. "We still have barriers to tumble, paradigms to shift, attitudes to change. For women at Inco, there is a great role to play in



should add, she was hired under new, tougher education, skill and aptitude guidelines we introduced to meet the future technological demands of underground mining."

While most of Inco's female employees are occupied in traditional staff functions, several females are in senior management, including the comptroller and about 18 per cent of the engineering, geological and planning force.

Getting better

"We are getting better," he said, "but there is still a long way to go."

He said Inco and other mining companies are willing and eager to hire qualified female engineers to fill vacancies and must create a more attractive and responsive work environment. "But the underlying responsibility for generating these new engineers must rest with an enlightened education system and the changing of societal conceptions of what is and what is not women's work."

As a "customer" of the educational system, the mining industry continues to foster strong links with community colleges and universities on issues such as course curriculum and standards.

Techniques to attract females are just part of an effort to ensure a secure source of highly-skilled and motivated employees to take the industry into the 21st century, he said.

"Three years ago, for instance, we launched an industry first in Canada with an Inco/Cambrian College program to develop our future mining, milling and refining employees."

He pointed to the more than 200 students who annually work at Inco during the summer, many of them female. "In time, many of them will become, I hope, Inco employees."

He said Inco people are beginning to embrace the changes with enthusiasm, and multi-disciplined, handpicked teams have already identified a score of opportunities for productivity and quality improvements across the Division.

Heroes needed

The engineering profession itself is largely to blame for its current dilemma, he told the group. "Where are our new heroes of engineering? Who are today's Madame Curies, Kodaks, Fords?"

He said the profession has "taken sanctuary" behind its technical and scientific credentials and comes across, to a skeptical public, as aloof, clinical and about as appeal-

Ontario Division president Jim Ashcroft addresses a Women in Engineering conference at Laurentian University.

paigns," he said.

Mr. Ashcroft said the nature of engineering and our past history have also worked against making the profession attractive to women. "From the days of the great Roman engineers until today, engineering has been looked upon as almost a male only occupation. Historically, there may have been practical and societal reasons why men dominated the profession. Increasingly today, this gender stereotyping should be irrelevant.

"Mining engineers of my generation came along when male bastion. More often than not, they were the lone female engineer on an engineering team. How many women here today have felt the chill winds on entering male sanctuaries? I bet there are countless women today in law, medicine or the media who have experienced similar rebuffs, hostility and obstacles to advancement."

He said engineering may be among the worst and the slowest to change and, in one sense, reflects society's inability to honestly deal with redressing generations of wrongs. dramatically improving our workplace."

While he said there are only 270 women among 7,400 employees in the Ontario Division, they are role models for another generation of women coming up. More than 30 of the women are employed on the hourly side of the business working in plants, refineries, mills and smelter in nontraditional roles as crane, furnace and flotation operators, refinery assistants and section leaders.

"Almost two years ago we hired our first female miner in more than a decade, and I "In this new scheme of things," he said, "the future is unlimited for women, especially in engineering and related disciplines.

"To get that brainpower the new generation of engineers — we must find ways to change the public and particularly young people's perception of our actions. We must stand up and tell our story.

It is a great one, even though we may take some lumps in the process. If we do that successfully, we will see the bright young people return to our profession. Failure to do so does not bear contemplation."



Samantha Espley relates her experiences as an engineer in the mining industry at the Laurentian University conference: She wouldn't trade her non-traditional career for anything.

Female engineer found acceptance lacking

"... Since the topic of the conference today is about women in non-traditional roles, such as engineering, I feel I can give you some firsthand news of how it feels to be within this women's minority. I am actually in a double minority — on top of being a professional engineer, I also work in the male-dominated mining industry. Because of b situation, I have orithis jo ented my commentary toward problems I have encountered being a female in a male working world. I hope I don't appear to be a radical feminist because that is not my intention. I am merely relating some of my experiences and personal opinions.

team. Again no big deal. But, the real cruncher came when my supervisor inadvertently let it slip that they would have preferred to hire a male from Queen's rather than a female from Toronto. It was almost as if he was apologizing to his peers for hiring me. There was definitely a prejudice between the universities and there was also a definite prejudice against women (I want to emphasize these points because I know the hiring personnel from Inco are here in this room today.) This was certainly not a terrific way to start my engineering career. After a year in Geomechanics, I was offered a position in ground control. This job requires almost daily travel underground and it was actually very good practical experience as far as I was concerned, with this position, it only took about four months to get an office at the minesite. I guess I was not very high priority to the mine. The only other major drawback to the job was the fact that there was no showering or changing facilities for women at the mine site. To compensate for this fact, I would travel almost every day to work in my underground

gear. I would then go underground to make inspections, return to surface at about noon, and then drive to another mine site to take a shower. I would then drive back to my office to finish my day's work. It was not very enjoyable in winter to come up from plus 30 degrees centigrade underground into minus 30 degree weather outside just so I could drive three kilo-

Inco engineer Samantha Espley recently spoke at a Laurentian University conference on Women in Engineering. This is an edited version of her remarks.

box. I had some trouble fitting all of my underground gear into that little space.

What wonderful respect we got from management, but, 1 guess we weren't as important as the underground miners since we were just a handful of women.

. . As for the underground miners, they were another story. This is where I actually got a lot of respect and coop eration. They were a very pleasant group of men to work with, even after I took down all of their decorative calendar girls. The company 1 worked for actually enforced a new policy that year: There was to be no pornography on company property. In my opinion, although it was a long time in coming, this new policy certainly alleviated some very uncomfortable situations for the women employees.

and quite honestly, this job has been terrific. I find that I'm working with a very progressive group of individuals where we all respect and treat one another equally and as professionals.

As for other employees at Inco, I have constant interaction with the surface and underground personnel at the mine sites. Again, I have had specific problems in my relationship with people there. I feel that I haven't just been lucky at Inco with the good reception of my professional services. I honestly think Inco is attempting to become a leader in all respects. The hiring of female professionals is just one aspect of this and one that I highly encourage. ... I'd like to say that far, far outweighing the few disappointing encounters I've had with men, as a professional woman, are the many good experiences I have had while working in the mining industry. I have many good friends and excellent colleagues and I would just like you to know that I would never trade my non-traditional career for anything."

First mining job

... Although I was fortunate to be hired as a Geomechanics Engineer, right from day one, I felt as if I was not really accepted by some of my colleagues in the industry.

... I arrived, eager for my first day at work. But, they didn't have an office space for me. That was no big deal. Then at a meeting later that day I was not introduced to the other members of the metres to get a shower.

... The most disturbing occurrence happened when the mine was laying out blueprints for a new dry facility for the underground miners. The company was planning on starting construction of the dry during the summer shutdown.

We approached the mine superintendent and asked him if they could allocate space for a women's dry as well. Needless to say, they didn't do it . . . instead they revamped a tiny storage closet and installed a shower and toilet for us. It was totally ridiculous . . . one tiny women's washroom for two secretaries, two time keeping clerks and an engineer. However, the mine management did go all out and install a set of lockers for us, each one being about the size of a lunch

Hired by Inco

In June 1990 I was offered a position at Inco as mines research engineer and I accepted. I have been working in the rock mechanics department providing specialized services to the Sudbury mines,

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Women in Engineering

Male chauvinists in the workplace a dying breed say Inco engineers

or mining engineer Danielle Tardif, getting along in a predominantly male environment is a matter of attitude. Hers.

T've found that my own attitude has a lot to do with it. If I'm confident, I'll be treated that way. It sends a signal that I have a right to be there and people feel that."

The other part of the equation, she said, is that the confidence has to be authentic. "Miners can tell right away if you know what you are doing. It might take a half hour with a new group, but if you know what you are talking about you're accepted."

A planner at Coleman Mine, Danielle has been with Inco for three years. With Inco being the first permanent job in her chosen field, Danielle began at Stobie Mine where she served as a planner for two years, then transferred to McCreedy for a six-month stint before moving to Coleman.

"The first week is always a bit awkward," she said. "Although there are other female engineers at Inco, it is always a surprise at first for some when you walk in. It never lasts long, though."

A graduate of Ecole Polytechnique in Montreal, Danielle said she doesn't recall any serious problems with chauvinism. Her class at university was about 15 per cent female.

"I was always good at maths and sciences," she said. "It didn't really concern me that engineering was a male dominated field. When I was young, I always had a lot of male friends as well as girlfriends, so being around guys was hardly something new."

Chance encounter

Her interest in the mining field was accidental, she said. "In my first year when I had to decide on my specialty, I visited a mine in Quebec. The mine's chief engineer was a female, and I found her job interesting. I decided to go into mining."

Danielle figures the prob



Danielle Tardif (right) gives her input at the Coleman weekly production meeting. From left, geologist john Townsend, supervisor John Draper, mine foreman Andy Besserer, planners Robert Assabgul and Kris Malhotra.

sacrificing it in a male environment. "You sometimes get a bit more attention. People talk to you a little nicer and clean up their language a bit. I don't find that sexist. I don't mind that at all."

At the same time, she feels it is at least partly her responsibility to keep on-the-job relationships clearly on the professional side. "As a woman, l have to make sure that I signal clearly that I am interested only in a working relationship. Sending mixed signals isn't fair to the guy."

Relationships

For that reason, she said she recognizes that she will probably never have as close a relationship with a male coworker as two men could.

Laurentian University mining engineering graduate Katherine MacNeil has been with Inco for over two years. A mine planner at Creighton, she bears responsibility for the development of layouts of mine drifts, raise bore stations, ore passes and ventilation raises. While she does much of her work on a computer screen, Katherine goes underground to check on the in-thehole drilling, the blasting and to see the progress of the drift development relative to the laid out autocad drawings. Every month, along with a team composed of a geologist, the divisional supervisor, the general foreman and the foreman, she has to help plan what section of the mine will be mined in order to meet the scheduled tons per day and the grade for her "beat."

what she's gotten used to since her first year at Laurentian. "When I started my first year at university, there were 65 people in my class. I was one of only two women."

She said that while more

women are going into the engineering field today, it's still a very small number. "That's mainly because there's a lack of interest among women, especially in the mining disciplines. There was some good-



natured kidding at university, but no real resentment and discrimination."

Chose mining

It was Katherine's interest in geology, mathematics and physics that led her to her choice of mining. She considered metallurgy at one time because the field seemed more populated by women, but she decided against it because she didn't like the chemistry that was involved.

She said she's never regretted the decision, although she admits the predominantly male mining environment sometimes presents extra hurdles for a woman. "To be honest," she said with a smile, 'mining is still one of the last bastions of male bravado.

"When a woman comes into a male domain, there's bound to be some suspicions. To be totally accepted, I think you have to prove yourself a little more than a guy would have to. "I don't think it's an easy assimilation. It takes a lot of work and persistence to fit in. Any woman going into the field should realize that it is going to be difficult at times. But in the end, it is up to yourself to do it. If I was talking to girls in high school, I would tell them not to expect everything to go perfectly. At the same time, I'd hope that it wouldn't deter them. With determination and confidence comes acceptance, she feels. "I've had help, sup-port and acceptance from all levels," she said. "From the guys down in the mine to my fellow workers in the office. Sure I get teased sometimes,

lem of being accepted by coworkers is much the same for males and females. "First you have to prove you can do the job. There's perhaps more curiosity if you are young and female, but that never lasts long. I find the people here courteous and helpful. I've never run across anyone who told me engineering is a man's job.

"If a woman wants to be accepted in a male environment and it doesn't work, she can't always just blame the guys. It may come from the way you react.

"The jerks are one in a thousand these days. The percentage of chauvinists I've met here at Inco are insignificant compared to the number of great people I've met."

Danielle enjoys her femininity and has no intention of

Almost all the time, she's working alongside men. It's

Creighton Mine engineer Katherine MacNeil measures the height of a mine opening.

to go get the coffee. You can't be ultra-sensitive. You have to be able to recognize a goodnatured joke.

"Women have to start challenging the male-dominated areas, but with realistic expectations that, at times, it can be difficult. If that's where your interest is, then go for it no matter what. That's the way to change things.

First love

Smelter process engineer Nathalie Riendeau said it was her love of science that led her to Inco. The 25-year-old

can't help but stand out. But in the office, one to one, it makes no difference at all. I think attitudes are changing, not just at Inco, but in society in general. I think women have as good an opportunity at advancement as men."

Hands on

Nathalie doubts any of the female engineers at Inco are prone to staunch feminism. 'Why should we be?" she asked. "We don't have to. We're doing the work every day. We don't have to expound a philosophy."

be a problem. When it comes to advancement, I think I'll be on equal footing with the guys. Most people here are used to working with women, and most realize that there will be more and more women working on the job in the future."

Changing attitudes

Concerning the popular myths about women competing in a man's world, Chantal figures it's up to women themselves to work hard at changing them.

"I've heard the theory that women think a bit differently

"This is good," says Sue, an Incoengineer working in capital co-ordination.

"It needs to be brought to the forefront that women can do the job. So someday we won't have to talk about it, so that it no longer matters."

A Sudbury native and an engineering graduate of Laurentian University in 1979, Sue is watching the changes a decade has meant to her profession.

In 1979, she was the top of her class - "I was certainly different" - but she received only two responses to 50-job applications.

Recruiting females

Nowadays, Inco is actively recruiting female engineers. They have job offers coming out of their ears, she says.

The killing of female engineering students in Montreal in 1989 is only one fuel in the fires of change. Pay equity and trying to correct other imbalances of the past are also affecting hiring practices, she adds. A national shortage of engineers by the end of the decade is also a significant factor.

Several women have benefitted, including Angela Dorsey of Strat-

ford and Samantha Espley of Port Perry.

Angela was hired eight months ago and Samantha has worked in Sudbury for two years, turning down an offer to work in northern British Columbia.



Samantha was fortunate. Her counsellor suggested engineering: she describes him as pro-women. Girls can do the maths as well as the boys, but she believes they simply aren't encouraged. At the Grade 8 level, the girls especially need support, she adds.

"It all starts in the guidance counsellor's office," said Angela. "They don't know it's a career option."

Both believe women can make it on their own merits. Even though Sue was one of the original female engineers hired, she didn't see her job as an exercise in trailblazing.

"I wanted to make my own way. I always felt it was important for the first females to do a good job because other females might not even get a chance. If I failed, I might be ruining the chances of others.

Equal footing

Women are coming into the engineering field expecting the working world to be the same as their university world and planning on dealing with men on an equal basis.

Angela said male engineering students treated her equally at Queen's.

Her previous experiences, however, led to expectations that there would be problems because she is a female.

"There are some people who haven't worked with females before. They're not exactly sure how to handle a female or approach them. There are various reactions."

Mentoring

The most popular working relationship between the young women and the older veterans of Inco seems to be that of a father and daughter. It seems easier for the older men to accept advice from someone who becomes like a daughter, says Sue. She finds some of the younger women resent this attitude and don't want to use it as an approach to getting the job done.

She tells women a young man would face a similar father-child relationship if he was coming onto the job site and telling the older men what to do.

Angela enjoys this paternal work relationship, but only

for the time being. "It might be hard later,

Smelter engineer Nathalie Riendeau spends time behind the computer as well as carrying "buckets of sludge."

chemical engineering graduate said she knew engineering was a male-dominated field but didn't see that as a major problem.

"Not enough," she said, "to change my mind. I enjoy science and I didn't have the interest in health sciences which seems to attract most women," said Nathalie. "The prospects are not good in pure science, so I looked to the applied sciences from the side of job perspective.

I had no idea where I would end up when I started, but after a few years at univer-

When Nathalie talks about working, she doesn't just mean behind the terminal of a computer. "I went around with buckets of sludge and did all the dirty work, and I can't see that as a big problem. Sometimes people will offer to carry something for you, but not to test you, at least it hasn't happened to me. I can't recall running into anything that I had to call on a guy to do.

"I don't think I have to try any harder than a man to prove myself. I just do my best.'

Chantal Clement said she worked several years as a summer student at Inco. Her father was a miner at Inco and always spoke well of the company. She didn't know much about engineering but became interested when she won an Inco scholarship.

than men. That's differently, not better. I'm not sure that's true, but if so, maybe tackling a problem from a different angle could actually be an advantage for everybody."

Another myth, she said, is that women must leave their



sity the picture got clearer. 1 didn't want to go into research, so I decided on industry. Which one?" she added, "I didn't know."

It wasn't until Inco representatives came to McGill University that she became interested in the company. Ironically, it wasn't mining that caught her interest, it was the company's multi-million dollar Sulphur Dioxide Abatement Program.

"This wasn't research, it was actually doing something. Inco was attempting to do a major environmental project and at the same time improve their own process. It was an exciting idea."

She's been with Inco three years and still feels like an 'oddity" sometimes. "There's so few of us (women) that you

It wasn't until she attended her first class at Laurentian University that she realized engineering was a male-dominated field.

"I looked around the classroom on the first day and there were almost no women."

Although she's been at Inco less than two years, she has little apprehension about her career opportunities. "I haven't noticed any difference in treatment between the women and the men," she said. "After working here a couple of years, I know it won't Inco engineer Sue Tessier passes out ore sample cards during a talk to a school class. Her message is about careers for boys and girls alike.

femininity behind when competing with males. "That's not the way you compete," she said. "You can't afford to leave your personality behind in the development of your career."

Sue Tessier laughs that no one knew about her until a few years ago. She's never had so much attention.

If these women share anything besides a love of maths and sciences, it's the luck of receiving the right career advice. When it comes to women in engineering, there's not a lot of encouragement, especially from guidance counsellors, say Angela and Samantha.

when I've had a bit more experience. Hopefully, it may be able to change to (just being) a colleague." But there is still covert resentment at the workplace. And sometimes, as Samantha learned, some men do not even bother to hide it.

Samantha, a graduate of the University of Toronto, recalls one incident in which a man just wouldn't look at her or make eye contact. He went so far as to create a personal space of about 10 feet in diameter to avoid being close to her, all because she's female, said Samantha.

Dealing with that attitude isn't easy. It occupied her thoughts for the drive home. But she tries to forget about that kind of treatment.

"Underground, the guys are good."





Competitors line up for the ride to the top of the hill.

Ski Runner Jean-Marc Martel does the grunt work preparing for the races.

Sault Ste. Marie ends Inco Cup drought

The 1992 Inco Cup ski season ended with the Sault Ste. Marie Ski Runners taking away the team trophy for the first time in seven years.

Crowned top male skier this year was Robbie Fry of North Bay, while Sara Laamanen of Sudbury's Adanac Laurentian Ski Club was the top female.

Special guests at the awards night, held to wrap up this year's ski series, were Katarina Siska, coaching coordinator for Alpine Canada in Ottawa, Bob Rogers, president of the Canadian Ski Association, and Cheryl China, Alpine chairman for the Northern Ontario Ski Division.

An average of 90 racers competed at each of the four races, held at Sudbury, Timmins, Sault Ste. Marie and Mattawa. "Many of those who have graduated from Inco Cup (ages 12 to 17) and don't move on to higher levels stay with us to coach or help organize," said Karen.

She said that much of the hard work the young skiers put into the competitions is hard to see on the surface. "These kids miss a lot of school with long hours of training and going to competitions. They have to catch up on their schoolwork on their own time. These kids are very self-disciplined. The character building here isn't just in skiing."



Alpine Canada coaching coordinator Katarina Siska presents the top male trophy to Rob Fry of the North Bay Ski Club.



Inco Cup liaison Karen DeBenedet said the 20-year Inco sponsorship is one of the longest continuing sponsorships of an athletic event in the country, establishing a training ground that has helped develop a good number of provincial and national skiers.

Among skiers who have gone on to compete at higher levels are Kate Pace of North Bay and Kathy Kreiner of Timmins. Kate, a member of the Canadian Ladies ski team, won the U.S. Alpine Championships on March 28, while Kathy captured Canadians' hearts with a gold medal performance at the 1972 Winter Olympics.

Megan Bisset of Sudbury is another Inco Cup skier who has moved on to provincial competitions.

Occupational Health senior environmental analyst Jeff Grieve shows Sudbury team skiers Brad Richard, 13, son of Levack Miner Ken Richard and Brad Vezeau, 12, the line-up of skiers at the Adanac races. Jeff was chairman of the organizing committee for the competition.



Kristi Washchuk of the Adanac club gets off to a good start.

Top Inco Cup skier eyes greater heights

At the age of two, Sara Laamanen beheld her first pair of skis.

It was a love at first sight even though they were crosscountry skis. By four, she had strapped on downhill skis and has rarely taken them off since.

Laamanen, now 14, is a Grade 10 student at Lo-Ellen Park Secondary School. Her parents, Aino and Risto, own Laamanen Construction, one of Inco's contractors.

Sara has a much different association with Inco. She's a four-year veteran of the Inco Cup ski circuit. In fact, she captured the top female skier award this season.



Tom Tario of Divisional Training, a starter at the Adanac races, sets the timer display.

Having this four-race series allows skiers to stay at home and takes the pressure off when it comes to schooling, she says.

It's also the only option for skiers who want to compete seriously without leaving home. The Northern Ontario Division juvenile team was disbanded a few years ago, leaving no other option but Inco Cup for young skiers. They must be 15 to ski with the squad.

Laamanen also enjoys the warm social atmosphere pervading Inco Cup races.

"All my friends from skiing race Inco Cup. It's fun, not a lot of pressure. And if you have a good coach, you can have a really good year."

She does, however, have other goals in mind, namely finishing strongly at the Canadian Juvenile Alpine Championships in Mont Tremblant, Que.

Heading into the nationals, Laamanen was buoyed with confidence. The biggest win of her fledgling career came at Big Thunder during the Provincial Juvenile Alpine Championships in late February. Snow conditions in Thunder Bay were good, she said. The absence of slush or ruts made it easier for this technical skier. She won the slalom and giant slalom events.

"I was very focused. That's a huge factor in my racing. It all clicked together. I didn't think I would do that well."

What is even more surprising is the way her left knee has held up under the strain of competition. Laamanen is scheduled to undergo extensive knee surgery to repair her anterior-cruciate ligament. In the meantime, she wears a bruising brace to race. Somehow it fails to affect her skiing.

"Usually after skiing, it'll hurt,"

But there's a constant fear of injury with her questionable knee. So Sara will be out of commission for most of the summer and fall.

The injury has forced her to alter her dryland training but she still lifts weights and cycles to maintain her conditioning.

Injuries aside, Laamanen and her parents are facing several decisions about her skiing career and her education. Eventually, she'd like to pursue a university degree in business. But she's in no hurry and is planning to reduce her workload at school by dropping a computer course.

Balancing skiing and school is "very, very difficult," she says.

Although keen on skiing, she is cautious about her longterm goals. Not even Canada's recent glory in women's downhill at the Winter Olympics inspires thoughts of the Olympic team.

Still, Kerrin Lee-Gartner's win was a boost, she says.

"It gives everybody hope because we weren't doing that well (before)."

She has brushed shoulders with some of Canada's famous female skiers including Karen Percy, a double bronze medallist at the Calgary Olympics, and 1992 Olympian Lucie Laroche. The stars were friendly and supportive of the young skiers, she says.

"It was exciting to meet and watch them. They're great skiers, something to look up to and achieve."



A skier takes a spill during a practice run.



il cosecutor

Leanne MacCallum of Adanac Laurentian picks up speed.

Diane Acton of the Sault Ski Runners club drills holes for the gates that mark the course on the Adanac hill.



Women in Engineering

Inco participates in LU session on Women in Engineering



opper Refinery engineer Chantal Clement conducts a filtering experiment at the

Bin painting event a colorful success

continued from page 3

steel yard to be recycled, instead of being landfilled. Wood is placed into bins that are painted brown and is sent to a central wood depot. Instead of being landfilled, the wood is given to Inco employees who participate in the Waste Segregation Program, at no cost. Both the steel and wood bins are clearly labelled with the "Inco Recycles" logo, so that people are aware the material is not sent to landfill but is destined for another use.

All other types of industrial waste, that cannot be reused or recycled, is placed into bright yellow bins and sent to one of four industrial landfills that Inco operates.

Domestic waste, which is all material coming from a lunchrooms, offices and drys, is placed into domestic bins painted red and sent to a Regional landfill. Domestic waste is being reduced, because materials such as newsprint, cans and computer paper are now being recycled through the Inco Green Box Program. All other fine paper will be recycled in the near future.

The Waste Segregation Program begins with an Environmental Control representative outlining details of the program to all employees in the work area.

Employee input is encouraged and all ideas are studied for merit.

Since the program came into effect at the Levack Complex, which includes Levack, Coleman and McCreedy West Mines, the employees have reached a 55 per cent diversion of material from landfill. This surpasses the year 2000 target of 50 per cent.

The Creighton Complex is also adopting the Waste Segregation Program, with Levels 6800 - 7200 beginning to separate waste this month.



Fearless forecasters

One might be surprised to learn that subtly nestled in the confines of the EngineeringBuildingexistsahigh-tech, fully functional weather office, manned by real live, truthful weatherman. To the criticism that the weather report is not always right, this office is proud to boast a forecast accuracy rating of 100 per cent . . . However, the weather itself is occasionally wrong!

A variety of weather maps and coded weather traffic form a steady stream of data into this office via satellite reception from the Atmospheric Environment Service of Environment Canada.

In addition, continuous easurements of winds and temperatures at different altitudes in the local area are supplied through telephone lines. Daily balloon - or minisonde releases, as they are called - provide further information about the air above. This sophisticated weekend planning service, which Inco so generously provided to its personnel, is in fact an integral part of the Emission Reduction Program. This program, a control system for Sulphur Dioxide at ground level resulting from emissions from the Copper Cliff Smelter and the Nickel Refinery stacks, has evolved over the past two decades under auspices of both Inco management and government.

ity which, in turn, dictates the allowable level of plant operation, thus emission, to meet ground level SO2 criteria.

Computer programs incorporating complex dispersion models define the weather parameters and determine the allowable emission rates for each stack during the day.

The worst dispersion conditions occur during the summer when winds are light and sunny skies prevail. The characteristic looping plume is evident at this time and a definite sulphur taste is noticeable at locations where the loop contacts the ground. The Smelter operation is always sharply curtailed under these conditions.

Ministry of Environment continuous measurements of SO2 at 13 stations are onscreen at the Inco weather office (Emission Control) and two mobile monitors measure and report readings from each stack via cellular phones to complete the area coverage during the daytime. This data also forms a basis for emission cutback decisions. Refinements and fine tuning to the program are ongoing in an effort to maintain that critical balance between optimum operations and acceptable SO2 levels in the Sudbury Airshed. So the next time, when on that warm, sunny, summer day, the SO2 envelopes your barbecue, let's have a little heart for the weatherman at Emission Control who is obviously in a fierce battle with Mother Nature.

refinery laboratory.

A libough engineering is often considered male occupation, Laurentian University's School of Engineering strives to break traditional stereotypes by initiating special information sessions for young female students.

One such event was held last year on the Laurentian campus. Approximately 100 female high school students participating in the Northern Summer School for Excellence in Science and Technology attended a reception during which professional engineers as well as university engineering students discussed the merits of a career in this field.

The dinner, organized to give the students an idea of what lies ahead, provided them with an opportunity to openly discuss the profession and the work environment.

Special guests for the dinner were Laurentian mining engineeringstudents Lori-Ann Hay, Tiffany Dube and Pam Paradis; Inco civil engineer Samantha Espley and Inco metallurgical engineer Chantal Clement.

The students and professional engineers spoke enthusiastically about their studies, their work and their experiences.

According to Laurentian graduate Chantal, employment opportunities for engineers abound. "I only applied to three places" before obtaining employment at Inco, Chantal said. She also stated that engineering is a highpaying field, with engineers earning \$50,000 a year or more.

Samantha stressed that women are cautious about studying engineering because many think it is too difficult or too masculine a field. Engineering is no harder than many professions, she stated, and that message must get back to high school students.

Laurentian's School of Engineering promotes engineering as a viable career option for women and, through activities such as the information session last year, hopes to attract a greater number of female students to its program in the future.

The weather plays a key role in the ERP because it determines the dispersion capac-

1992 energy bill tops \$100 million

Conservation the key as energy costs escalate

ohn LeMay puts a lot of energy into ensuring other people use less.

And his efforts are justified.

Energy accounts for more than 10 per cent of operating costs in the Ontario Division, and electricity alone is 70 per cent of that.

So when someone wants to make changes to legislation governing Ontario Hydro, potentially influencing energy

supply and costs, Inco wants to be heard. John is anxious to be an industry voice on the issue.

Appearing before the Standing Committee on Resources Development in Timmins recently, John explained how energy costs affect the Ontario Divisprofitability

and outlined Inco's concerns with Bill 118, proposed amendments to the Power Corporation Act.

"Since Inco is unable to control the prices it receives for its products, it must control its costs in order to remain competitive," said John, assistant manager of General Engineering, responsible for Power.

"Energy is one of Inco's most important costs. In 1991, the Ontario Division spent \$92.3 million on energy. Of this, \$61.5 million was for purchased electric power. The remainder was for natural gas and oil.

"In 1992, the Ontario Division will spend \$105 million on energy, with \$73.6 million of that amount going to Ontario Hydro for electric power."

Viewed over a shorter period, Inco spent \$7.4 million on electricity in February alone. Considering there were 29 days in February, that breaks down to \$175 a minute, more than most people spend in a month at home. Despite this, Inco's Ontario Division is the world's most energy efficient nickel producer, John added. The copper flash smelting process is the most energy efficient in the world and that same technology will be used to smelt all Ontario Division nickel by 1994 when the \$600-million Sulphur Dioxide Abatement Project is complete.

Four of the generating plants — High Falls #1 and 2, Big Eddy and Nairn — are on the Spanish River, while the fifth, Wabageshik, is on the Vermilion River. In 1991, this system cost \$9.5 million to operate.

Due to the nature of Inco's process improvements, said John, the Division's success in total energy conservation has meant increased electrical use. The Ontario Division has of energy is very important," said John. "Everybody can do his or her part at work or home to conserve energy, something as simple as turning off a light. If we can make one out of 10 employees more energy-conscious it would make a difference."

The importance of energy, and particularly electricity, to Inco's Ontario Division operations, is such that even a short power failure could result in

hundreds of thousands of pounds in lost production. For that reason, said John, a reliable supply of electricity is vital. not only to Inco but to industry in general. Inco believes it is

of critical

importance

of fuel switching away from electricity, as proposed by Bill 118. This type of practice would be expensive to administer and there is no guarantee that switching will lead to greater overall fuel efficiency. This type of program focuses only on reducing the use of electricity without considering the impact on other forms of energy."

Inco's 1992 Energy Budget	
Electricity (purchased) Natural Gas Diesel Coke Light Industrial Oil Other	\$ 73.6 (millions) \$ 25.6 \$ 2.3 \$ 1.7 \$ 1.0 \$
Total Sudbury Power Costs for Fe	\$104.9 bruary 1992
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Crean Hill Mine	\$ 73,801
Creichton #9	\$ \$43.671
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Hood Mine	\$ 152,308
C.C. South Mine	\$ 252,089
Corron Mine	\$ 36.963
Charson Mille	3 30,703
Little Stoble Mine	\$ 99,340
Stobie Mine	\$ 344.286
McCroady West Mine	5 54 012
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F.S. #9 Shaft	\$ 161,819
Levack Mine	\$ 285,176
Lounck Mill	8 55
Levuck Mill	3 33
C.C. North Mine	3 0,009
Murray Mine	\$ 74
Total Miner	\$2 107 908
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#3 Oxygen Plant	\$ 294,680
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Compressor Station	\$ 19,786
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Vermilion Water	\$ 27,388
Creichton Woter	¢ 18 202
Creighton Water	\$ 10,275
C.C.W.W. Treatment Plant	\$ 19,970
C.U. Sewage Plant	\$ 2.471
Total Water Treatment	\$ 68 123
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C.C. Sulphur Products	\$ 72,803
H2 Plant	\$ 7.748
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C.C. Acid Plant	\$ 89,570
C.C. Smelter	\$ 835,404
Matte Separation	\$ 109 284
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Fluid Bed Roasting	\$ 00,308
FBR Extension	\$ 192
Utilities Overhead	\$ 4 261
Intermediate Air	5 111 552
Intermediate Air	\$ 111,552
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Total MP and Smelter	\$1,394,487
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In February alone, Clarabelle Mill's hydro costs were in excess of \$1 million.

> reduced total energy use by 23 per cent since 1981, and expects a further eight to 10 per cent reduction by 1995. To achieve this reduction, however, electricity consumption has risen 15 to 20 per cent.

During that same period, electrical costs have almost doubled. If the trend continues, Inco will pay \$104 million in electricity costs alone by 1995.

"We are using an awful lot of electric power to save other forms of energy," said John. "Using oxygen in our flash smelting process, which is extremely energy-efficient, will decrease our natural gas usage substantially but requires a great deal of electric power to produce the necessary oxygen.

"There is very little scope in total for electric power conservation in an industry like ours, although we are involved in a number of large programs. Our lighting program, where we are changing some 24,000 lighting fixtures, will save us about 4,000 kilowatts of power. By comparison, one new oxygen plant uses 15,000 kilowatts. So electricity use, even if we do everything we can to curtail it, will continue to go up." Despite the inevitable rise in consumption and the limited scope for reduction, John said energy conservation measures are being actively pursued on all fronts. Ontario Division employees are currently involved in at least 40 conservation programs ranging from off-peak load shifting to the production of an energy awareness video.

to the economy of Ontario that Ontario Hydro have sufficient generating capacity to meet the needs of industry," he said. "Consequently, in forecasting demand, Ontario Hydro should err on the side of too much, rather than too little, capacity."

John told members of the standing committee that Inco feels Bill 118 will further erode the quality and reliability of Ontario's electricity supply. In a written brief, accompanying his presentation, he outlined three particular areas of concern.

Here are edited excerpts:

Power at Cost: "Historically, Ontario has grown and prospered in large measure due to the competitive advantage that Ontario Hydro's 'power at cost' mandate has given to industry. In recent years, however, this competitive advantage has been eroded to the extent that it now appears the cost and reliability of Ontario's power system may well become a deterrent to industry locating in the province. "Inco believes Bill 118's proposed amendments provide a means of further eroding this mandate." **Director's Obligations:** "Inco submits that the provisions of Bill 118 that excuse a director from accountability for the consequences arising from the implementation of a policy directive as long as he or she acted honestly and in good faith effectively eliminates the traditional obligations of directors of Ontario Hydro to the ratepayers and should be rejected."

Inco generation

In addition, the Ontario Division generates about 20 per cent of its own electric power needs through five hydroelectric generating plants, 225 miles of transmission lines and over 60 high voltage substations in the Sudbury area.

Education

"The need to educate our employees on the rising costs Energy Conservation Programs: "Inco submits that Ontario Hydro should not be permitted to finance the cost



It was a packed house for the In Touch Curling Bonspiel. These curlers are waiting for their turn on the ice.







Lionel Rochon, 65, puts a rock away. He retired from Frood in 1985 after 38 years with Inco.



Wilf Duguay, 76, cleans his rock before making his shot. He retired from Copper Cliff First Aid and Security in 1980 after 45 years with Inco.



The latest crop of Inco retirees is starting to be felt at pensioners' events like the In Touch Bonspiel held at the Copper Cliff Curling Club.

"We had 34 teams out this year and we had 28 teams last year," said bonspiel organizer and Pensioners Recreation Association secretary Jim Bryson. "The numbers are getting stronger every year."

While some pensioners, particularly those from out of town, have dropped out of the competition, the recent retirement of some 1,200 Inco employees is sure to swell the ranks of those taking part in special pensioners' events such as the curling bonspiel and golfing later in the year.

"We had about half a

dozen of the new bunch of retirees turn out," said Jim. "It usually takes about six months or so after retirement before they find their way to the pensioners' events."

He expects the golfing tournament later this year to reflect a surge in numbers as well.

Jim hopes it won't be necessary to turn people away from taking part in future events as the numbers climb. We'll try to expand the events rather than turn people away, but I hope that won't be necessary.

The winning team consisted of skip Nels Laframboise, vice Bob Furlotte, 2nd Jack Heit and lead Dennis Cunningham.



Bonspiel organizer Jim Bryson and Pensioners' Recreation Association president Wes Hart do the tabulations.





Central Mills pensioner Hilton Fowler, 67, and retired Smelter foreman Super Bertuzzi, 69, talk over strategy before the rocks start flying. Hilt retired in 1982 after 30 years and Super in the same year after 41 years.



Stan Smith, a maintenance worker at Creighton and the Nickel Refinery until he retired after 40 years with Inco, gives directions to a teammate.

13

Ontario Division president jim Ashcroft was on hand to greet the pensioners before the curling began.



Beyond a doubt, I'm one of the lucky ones.

During nearly 34 years at Inco, I visited a lot of places and met scores of people. All kinds of people — and there are precious few that I don't remember with some measure of affection.

And, by wonderful coincidence, I was reminded again this morning that some of them remember me.

Birthday greetings

Today's my birthday, although that's not why I happened to be at home. I'm doing a little contract writing job and I figured my day would be more productive at my own computer, so I was here when George "Stats" Stewart called from the Power Department. As he has for most things, including cards and horse racing, George has a system for remembering birthdays — but this one works.

That I still merit a space in George's little stats book is pleasing indeed, and his call on behalf of the old gang really brightened my day. I can do no less than say thanks, right here.

Another call

Which reminds me of a previous call I received, the December day my name appeared in the paper with the long, long list of retirees. Even so many years after his own retirement, I still recognized the voice of Norm Miles. You just don't forget people you enjoyed and respected that much.

I worked for him back in the early's, when he was Maintenance Superintendent at Frood-Stobie, and my late brother George was his assistant. A little later, I had the pleasure of doing projects with and for Norm after we both ended up in Copper Cliff. He was one of those supervisors who made you want to go that extra mile, because he wasn't afraid to let you run with an assignment. He empowered people before the word had even been invented.

Business travel

Those were exciting days, like when Charlie Hews sent me on my firstever business trip for the company — to help with the maintenance budget at Shebandowan. I don't know if it was that trip or a later one, to be honest, but I did have an embarrassing experience with a rented Buick Regal. It was the most awkward thing I'd ever driven and my arms were aching after the 60-mile drive from Thunder Bay to the mine site. It wasn't until I went to shut the beast off that my hand hit some lever, making the tilt steering almost drop into my lap.

It was years before I could admit that. It's right up there with ambling into the ladies' room at MacDonald's.

Those years had their share of irony. Around that time, and for several rewarding years, I worked a lot with Charlie Nicholson. We even made a

Odds 'n Sods from The Seventies

by Marty McAllister

"consulting" trip to Port Colborne. Charlie was in Accounting and I was in Maintenance Industrial Engineering — but I gave a budgeting spiel and he outlined a maintenance management system.

Go figure.

And politics

This seems to be the week for reminders of those times. A couple of days back, I said hello to Elie Martel and his wife in a local restaurant. Elie, of course, was the long-time MPP for the provincial riding of Sudbury East. He was at his prime in 1977, when I suffered the illusion that I too belonged in Queen's Park — only I would challenge his Nickel Belt colleague.

Sometimes the universe unfolds the way it should. I lost the election, Floyd and I remained friends, and now he has all the headaches. Please don't tell him I used to fool around with budgets!

But that campaign had some memorable moments — like the dinner I attended in Chapleau, where the mayor of Timmins introduced me as "Marty McCluskey". You can see how my fame had spread.

Those were the days, my friend

My superintendent was Paul Revey, head of that section of Industrial Engineering. Peter Souter was the manager, and the other section heads were Bob Haworth, Joe Pancel and Don Seville.

One stifling day in July, while Peter was on vacation and still recovering from a severe leg fracture, he invited all of us over to his lakeside home for lunch. He would provide the lunch, but we had to provide our own modest refreshments. We arrived en masse. The food was delicious, the water was divine, and the refreshment was something more than modest. Somewhere around two o'clock, Joe Pancel asked if it wasn't about time to go back to work. Hooked across the northwestern skyline, and pointed to the superstack: "Tell you what. As soon as the smoke stops coming out, we'll get out of here on the double."

I'm sure it's a coincidence, but that department doesn't exist any more.

And a winter escape

Last week, my wife and I were at a restaurant (sure, we eat at home sometimes) along Toronto's airport strip and I spied former electrician and local hypnotist Gary Lott, pacing up and down out front, obviously waiting for something. When I finally caught his eye, Gary came in to say hello. He must drink the same stuff as Les Parr, because he looks younger than I, but he was already an electrician when I was just an apprentice. Anyhow, he was waiting for a California tour bus, which did show up on time. I didn't even get a chance to ask him to help me quit smoking. I sincerely hope he's enjoying his trip — says I, as I stand up to blow smoke over the snow on my window sill.



The GST and cross border shopping

Generally, all imports are subject to the GST, if, of course, they would have been hit with the GST if they had been purchased in Canada. As might be expected, there are a number of exceptions.

The tax is usually payable at the time of import or when relevant customs duties must be paid. For example, if you ordered a home computer from the United States and it is shipped to Canada, GST will be payable at the time it clears through customs.

Duty-free imports when returning to Canada

Any goods you are permitted to bring into Canada dutyfree, because you have been out of the country for a certain period of time, do not attract the GST. The rules change occasionally, but currently the limits are as follows. Away for at least 24 hours
 \$20 worth of goods dutyfree, not including tobacco and alcohol.

 Away for more than 48 hours — \$100, no exclusions

Away for at least 7 days
 — \$300 once each calendar year, no exclusions.

Special limits apply to tobacco and alcohol products. If you plan to bring goods back to Canada, you should pick up the government printed brochure "I Declare" before leaving. It will explain the rules and give you the most recent limitations.

If you exceed these limits duties may become payable and GST will be payable on taxable items in excess of your limit. Don't forget that tobacco and alcohol are taxable. Excise taxes may also apply. GST Tactic - Make the most of your annual \$300 limit by importing exclusively taxable goods under your exemption. For example, if you import \$400 worth of goods, of which \$100 is GST - exempt food, don't include your food in your duty-free \$300.

Casual gifts and importing by mail

More and more Canadians are buying from foreign catalogues and shipping goods into Canada by mail or private courier whether for their own use or as a gift. GST will not apply if the value of the good does not exceed \$40 or the aggregate of taxes and duties is \$5 or less. However, this rule will not apply to books and magazines since they compete directly with Canadian products. Mail order books and magazines will be subject to GST at the time you normally pay for the item or subscription. This exemption also does not apply to alcohol or tobacco products.

Note again that GST applies only to goods that would be taxable if purchased in Canada. Basic grocery items, for example, ordered by mail, do not attract GST no matter what the value.

GST Tactic - When ordering by mail, it might pay to separate your orders so the value for customs purposes is less than \$40. This must be balanced against extra shipping charges you might incur, although if the goods are sent to different people at the same address, this problem may be overcome.

GST Tactic - Gift giving at

holiday time, or for birthdays or anniversaries could be GSTfree if you use foreign mailorder catalogues and the value of the gift is below \$40.

Prizes

If you happen to win a prize or medal or trophy of some variety outside Canada, there is no GST levied when you bring it back, even though your prize may be valuable. However, if you win merchandise, perhaps on a game show, GST will apply to the value for duty as determined by the people at Customs.

GST Tactic - If you have a choice, always go for the cash on game shows. It crosses into Canada GST and duty free, and could prove to be more useful than a fourth or fifth television set.

Ragtime and Robber Barons

N inety years ago this month, the Interna tional Nickel Company — the forerunner of Inco Limited — was formed. Just how that came about is a story with many dimensions. This, telling a yarn behind the yarn, is one of them.

Inventive times

In many ways, it was a time not unlike our own.

People had to keep moving just to stay where they were. Technology was piling invention upon invention, and the tempo of life was growing steadily swifter. Trolley parks were offering urban funseekers a way out of the city, to magical places with roller coasters, merry-go-rounds, band concerts and — for the first time at Coney Island hot dogs.

Strauss waltzes and H.M.S. Pinafore gave way to Scott Joplin. The New York Sun would ask: "Are we going to the dogs by the ragtime route?"

It seemed, as the century turned, that good old-fashioned capitalism was alive and well. The depression of the mid-1890s was a bad memory. The idea of national and international markets was coming of age, and companies got bigger. The Sherman Antitrust Act was conveniently forgotten — and adroitly bypassed, using a 'device' invented by a cheerful New Jersey lawyer.

Legal change

Back in 1889, the governor of New Jersey had asked James Dill how the state's revenues might be increased. Dill suggested a law allowing one corporation to hold the stock of another corporation. The law was passed and the state's coffers swelled as businessmen saw a new and perfectly legal route to company combinations. Some, believe it or not, were quite honorable about it, wanting to create companies of productive strength --and make some money in the bargain. Others, like promoters most of us have met at one time or another, were only

all developed in the American steel industry.

Andrew Carnegie was, to put it mildly, ticked off. Trying to relax at Skibo Castle in Scotland, the great steel baron was incensed over cable messages arriving from the United States.

Everything had been going fine: Carnegie sold crude steel and outfits like American Steel & Wire or National Tube made finished products.

by Marty McAllister

now part of the plan to make Morgan sweat a little?

We'll never know for sure. But one thing is sure: at a dinner held for Schwab on December 12, 1900, Morgan was seated next to the guest of honor, who made a convincing after-dinner speech on the future of the American steel industry.

The two men talked privately that evening — and many times more over the million more than his partners wanted to pay, he got it.

As a postscript, shortly after the agreements had been made, Morgan congratulated Carnegie on being "the richest man on earth."

The Scot responded in good humor: "I should have asked for \$100 million more than I did."

To which the great facilitator replied: "If you had, you would have received it."



The stance of the first management team in this archival photograph suggests their confidence in the future. From left are director, vice-president and secretary-treasurer J.A. Ashley; director and chairman of the board R.M. Thompson; director and president A. Monell; general manager Orford Works, director and first vice-president E.F. Wood and S. Benner of the Orford Works.

Now the ingrates were intending to acquire their own sources of iron ore and build their own blast furnaces — to make their own crude steel. This meant war!

Carnegie's cables back to Pittsburgh made it clear that his company would retaliate by making all kinds of finished products. With his immense resources and the expertise at his disposal, he could put his rivals out of business. His right-hand man, the brilliant Charles M. Schwab, was authorized to proceed.

But Carnegie was also mad at the Pennsylvania Railroad for raising freight rates, so he was working toward construction of another railroad between Pittsburgh and the Atlantic seaboard. In New York, at 219 Madison Avenue, J. Pierpont Morgan was not pleased: "Carnegie is going to demoralize railroads just as he has demoralized steel." weeks that followed. The key to the plan they were hatching was Carnegie Steel and the moment finally came when Schwab had to see if his boss really was ready to sell. He was. Carnegie named his price — nearly \$493,000,000 — and Morgan accepted.

With the biggest piece in place, the others fell in rather more quickly. And, on March 3, 1901, the United States Steel Corporation was incorporated (yep, in New Jersey), capitalized at just under one-and-ahalf billion dollars (its assets were worth about \$790 million). Schwab would be its president.

The new steelmaking colossus, controlling three-fifths of that industry in America, combined Carnegie Steel, -Federal Steel, --- National Steel, - National Tube, — American Steel and Wire, - American Tin Plate, — American Steel Hoop, -American Sheet Steel, - American Bridge, and, with some difficulty, Lake Superior Consolidated Iron Mines. Lake Superior (no connection to Lake Superior Power that surfaced around Sudbury shortly afterward) controlled much of the vast Mesabi iron range in northern Michigan and was owned by the Rockefellers. For years, these mining lands had been leased to Carnegie, but Morgan was eventually convinced that the new corporation had to have outright ownership. For \$5 The deal done, Morgan headed off in April on his annual trip to Europe. Then came the afternoon of September 14, 1901. Succumbing to gunshot wounds sustained the week before, William McKinley died. Theodore Roosevelt was the new President of The United States.

In the name of good alloys

Not quite as cooperative with the captains of industry as his predecessor had been, Roosevelt began sharpening the teeth in the Sherman Act. This added some urgency to the plans of one Robert Means Thompson, president and principal owner of the Orford Copper Company. In his 1960 book "For The Years To Come", Inco Chairman Dr. John F. Thompson (no relation) talked about the formation of International Nickel, and how the earlier Thompson had first gone to the Rockefellers in search of backing for his grand new scheme. Maybe he thought the oil magnate and his son would be receptive because they had been neighbors for some time. His Orford refinery was right next door to the Standard Oil refinery, across the harbor in New Jersey. He thought wrong. Having just divested themselves of the Mesabi range in the U.S. Steel merger, the Rockefellers weren't interested in getting into something as

untried as nickel. Indeed, this part of the story has maybe been overplayed through the years. Travelling in the highbrow circles he did, Colonel Thompson would have been aware of the mood of the Rockefellers — and of the contrasting optimism at U.S. Steel.

Anyway, up at 71 Broadway, the new offices of U.S. Steel itself, the reception was very different. There, Schwab and his colleagues knew about Sudbury and about nickel and its importance to the steel alloys that were in increasing demand. It would be extremely useful, they reasoned, to help establish a comprehensive nickel concern over which the dominant force in the steel industry could have some influence. They might also make a dollar or two.

Rampant gossip

In Sudbury, and in North American headlines, gossip ran rampant in the early months of 1902.

N.Y. Herald, Jan. 1: "Steel Trust Gets Control of Nickel."

Engineering and Mining Journal, Jan.25: "A Rumored Nickel Trust."

Boston News Herald, March 26: "United States Steel — Its Shrewd Move To Control Supplies of Nickel."

Toward the end of March, 1902, Colonel Thompson spelled out what he could do in terms of bringing together Orford Copper, Canadian Copper (the jewel in the proposed crown), the AngloAmerican Iron Company, the Vermilion Mining Company, the Nickel Corporation of Great Britain, the American Nickel Works and Societe Miniere the Caledonienne.

In a similar position to that of Morgan a year before, only on a scale one-fiftieth the size, Schwab agreed. He, and certain of the U.S. Steel directors, would on their own account back Thompson's company. Contrary to popular belief at the time, it would not be a subsidiary of the huge steel corporation — but a number of the same personalities would be involved.

And, yes, this deed too

interested in the latter.

How did it work? How were the owners of several businesses persuaded to sell out to a new holding company? Simple. They were offered, say, twice as much value in stock of the new company as they had had in their old one. Then, given the booming stock market of the day, the appeal was obvious. What's more, it was easy to add on a little more of the new stock - which was kept by the ones pulling the deal together, as compensation for their services.

As Frederick Lewis Allen wrote, "The idea began to get around that there was nothing so remunerative as promoting New Jersey holding companies."

Then, in the summer of 1900, something of a free-forThe financier invited Schwab to visit.

A hidden agenda?

After all, earlier in the year, he had tried to sell the idea of a New Jersey-style supermerger in the steel industry, believing Carnegie was ripe to retire. But Morgan had been unimpressed with some of the players in the scheme and had panned the idea. So, was it would be done in the State of New Jersey.

There were rumors, some persisting even today, that J.P. Morgan himself was behind 'the nickel trust'. Hardly. He was far too busy with bigger things to become personally involved in establishing an enterprise worth less than his art collection. He might have approved the purchase of some securities or bonds, but that would be the extent of it.

On March 29, 1902, the International Nickel Company was incorporated, with an issued capital of about \$28 million, considerably more than the asset value of the old companies. It was an investment in the future, in an idea whose time had come — an investment that paid off handsomely, over and over again.



Mucking machine ages gracefully

10 Years Ago

When Atlas-Copco, a mining machine manufacturer, went looking for the oldest mucking machines still operating in Canada in 1982, it found the oldest machine functioning at Inco.

Identified by its serial number, 772705, it was working on drift development on the 4,800-foot level at Creighton Mine, the first mucking machine delivered to Canada by the company in 1961.

"We consider seven years as the write-off value of a mucking machine," stated Bob McLeod, branch manager for Atlas-Copco.

How did this one manage to last so long? Well Isadore 'Izzy' Seguin, a drift driller, who had operated old number 772705 for 16 years might have had the answer. "It was in 1966 that I first got my hands on it," he remembered. "It was in good shape then and we kept it that way."

Taking care of his machine for Izzy meant lubricating it regularly, washing it after every shift and, when anything went wrong with it, immediately calling the drill fitter to repair it.

When Atlas-Copco officials visited the mine to look at the machine they thought it had been scrubbed spotless and clean for their benefit. No siree they were told, that's the way we always keep it.

25 Years Ago

In March of 1967 the Inco Triangle featured a story on the 1,200 ton hydraulic suction dredge that would remove 15,000,000 cubic yards of muskeg, silt and clay down to an average depth of 160 feet over the Pipe orebody at Thompson, Manitoba.

The dredge was to make an elliptical excavation about 3,700 feet long by 2,000 feet wide to remove overburden above the ore, so open pit mining could commence. Floating on water pumped through a 10,000 foot pipeline from the Upper Ospawagan Lake, the dredge was equipped with a nine-foot diameter rotary cutter, which could operate at a depth of 45 feet, to churn up the overburden. A 4,000-horsepower motor would pump out the sludge at a rate of 35,000 gallons a minute. The water would then be replaced in the reservoir from the lake at the same rate it was taken out to maintain the water level.

The hull of the dredge was 40 feet wide and 133 feet long and would take 95 railroad cars to transport in dismantled parts to a point 22 miles from Thompson, where they would be hauled the rest of the way by trailer.

Dredging was targeted to start July 1, 1967 and be completed by December 1, 1969.

40 Years Ago

New star boarders at the Fielding Sanctuary 40 years ago were four Canada geese brought from the famous Jack Miner haven for wildfowl near Kingsville, Ontario. They joined 11 mallard ducks, who were already there, and would be joined later in the year by snow geese and blue11 mallards, operating as decoy hosts for other birds, brought in hundreds of ducks to enjoy the food and hospitality of the preserve.

The purpose of the geese, their wing tips paralysed so they could only fly short distances, was to attract other geese on their annual migration to and from James Bay.

Fifteen hundred evergreens were planted in the preserve in 1951, and 7,000 were slated to be planted in 1952. To accommodate migrating birds, fields had been crosscut with water-filled ditches and grain sown on the 2,500-acre preserve.

Although the Fielding Sanctuary, a short distance from Copper Cliff, is a public park today, many species of waterfowl still dwell in the area.

Award Winners

Mines Exploration superintendent Lawrence Cochrane presented \$3,640 in engineering awards to five Cambrian College engineering students on behalf of Inco. From left are, Joseph Cirelli, Danny Boyuk, Lawrence Cochrane, Kevin Thompson, Gregg Colasimone and Michel Brideau.

Fond Farewell

Friends and colleagues gathered at the Copper Cliff Club earlier this month to bid farewell to four retiring Inco veterans. Special guest 'Estaire Bindaire' (centre), alias Gaston Binnette of the Copper Cliff Smelter, dropped by to say goodbye to Graham Ross, former



manager of the Frood-Stoble-Garson Complex, Don McLeod, former manager of Mines Engineering, Mark Martin, former Ontario Division comptroller, and Norm Anderson, former manager of Mines Exploration.



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Letters and comments are welcomed and should be addressed to the editor at Inco Limited, Public Affairs Department, Copper Cliff, Ontario POM 1NO. Phone 705-682-5428