



**Sudbury
Soils
Study**

**Étude
des sols
sudburois**

metals • health • environment
métaux • santé • environnement

INDEPENDENT PROCESS OBSERVER'S REPORT No. 2

Fall 2002

This is the second quarterly report by the Independent Process Observer **Franco Mariotti**. The Observer is a completely independent reviewer who will regularly comment on the progress and decisions made by the Technical Committee that directs the Sudbury Soils Study.

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Introduction to the Sudbury Soils Study

Why a Study?

In recent years, several studies have shown that there are some areas in Sudbury - generally close to the historic smelting sites of Coniston, Falconbridge and Copper Cliff - with elevated metal levels (nickel, copper, cobalt and arsenic and others) in the soil.

Although these elements occur naturally in all soils, it is assumed that the higher amounts which are found in the top 5 cm. of soil (the surface soil) are the result of mining, smelting and refining operations from local mining companies.

Previous studies have not determined the possible health risks to humans and the environment that are associated with elevated metals in Sudbury soils. Therefore, the Ministry of the Environment (MOE) has asked Inco Limited and Falconbridge Limited to undertake the Sudbury Soils Study. It will include the most extensive soil sampling and analysis ever conducted in Ontario and comprehensive human health and ecological risk assessments.

The Sudbury Soils Study is an open, public process that will evaluate the levels of metals and chemicals such as nickel, copper, cobalt and arsenic and others that have been found in the local environment. It will be the most comprehensive assessment of its kind ever conducted in Ontario and will be reviewed by an independent panel of expert scientists.

From the assessment of thousands of soil samples, the community will learn of any possible risks these elements may pose to human health and/or the health of the environment. Both the Ontario Ministry of the Environment and local Medical Officer of Health believe that based on previous studies of a similar nature in other Ontario communities, "there is no expected immediate risk to human health". Today, the partners in the study agree a comprehensive Human Health Risk Assessment is a logical and necessary step to validate those beliefs.

Soil samples have been taken from throughout the region and are being carefully analyzed to assess their contents. A consulting firm will be evaluating the potential for human health and ecological risks due to the metal levels found in these samples. It is expected that final results of the study will be available by 2005.

The Study

More than 10,000 soil samples were collected in the summer and fall of 2001 from various locations randomly selected in the Sudbury area. These sample sites were chosen to scientifically represent the study area. Samples are being analyzed to provide data about the levels of nickel, copper, cobalt, and arsenic in local soils. A qualified consultant, will be evaluating the sampling information and comparing results with metal levels that would normally occur in soils of this type. Through further analysis and research, the consultant will examine the risks that these contaminants may pose to the health of people or the environment, and then conclusively evaluate the implications of the results in the context of the Ecological and Human Health Risk Assessment.

The Role of the Independent Process Observer

The Process Observer is an impartial component of the Sudbury Soils Study. His role is to advise on matters related to the Human Health Risk Assessment and the Ecological Risk Assessment as managed by the Technical Committee, with input from the Public Advisory Committee.

The Process Observer is Mr. Franco Mariotti. He represents the interests of the public and the environment, and regularly reports to the public on the assessment processes.

Comments on the Process Thus Far

As the Process Observer, I see my role as representing two key stakeholders: the general public and the environment. The two are, in my mind, inseparable because a healthy environment determines the health of the people and all other living things that inhabit that environment.

With this in mind, my comments, which are unbiased by either the Technical Committee or the Public Advisory Committee, follow.

Update

Since the release of the first Process Observer's Report on July 30th, 2002, a number of events have taken place:

1. Open House

On July 30th, 2002, an Open House was held in the INCO Cavern at Science North at which the Sudbury Soils Study was re-introduced to the public. Dr. David Pearson provided an excellent presentation on historical perspectives and the significance of metals in Sudbury soils. It was there that I released my first report. This Open House was well attended by about 175 people.

2. Bidders' Meeting

On August 27th, 2002, the Technical Committee (TC) held a "Bidders' Meeting" for all companies intent on applying to perform the Human Health Risk Assessment and Ecological Risk Assessment studies. Seven companies that had responded to the Request for Proposal (RFP) attended the meeting. Members of the TC were able to answer any questions that potential bidders had regarding the RFP.

3. Creation of the “Sudbury Environmental Data Bank”

At the August 27th meeting, Dr. David Pearson announced a proposal to create a central repository to house all data and information that results from the Sudbury Soils Study. It would also hold data from any other local environmental studies. These data would be accessible to the public, and would be housed and controlled by the Centre for Environmental Monitoring at Laurentian University. Information would be accessible through a website with links from the Sudbury Soils Study website. No timetable has yet been proposed for its creation, but further information will be presented to the TC in the near future.

4. New Public Advisory Committee Members

In September four new members of the Public Advisory Committee (PAC) were chosen to fill vacancies and expand the committee to 12 from 10 members-at-large.

5. New Logo for the Sudbury Soils Study

At the September 9th meeting of the TC, the Sudbury Soils Study ‘Logo’ designed by *PG Advertising & Design* was approved.

6. Trail, B.C. HHRA and Public Consultation Program

On September 9th, Steve Hilts from Teck Cominco in Trail, British Columbia, made a presentation to the TC. Mr. Hilts provided background on the public process that was used in that community’s multi-year study of lead contamination in local soil. Their methods for public accessibility to the study are similar to our own process here in Sudbury.

Ongoing Issues

1. Selection of a Qualified Consulting Firm

Status: As of October 2002 no consulting group has been chosen to carry out the HHRA and ERA. According to the initial timetable put forth by the TC, a company was to have been chosen in June of this year. Reasons for the delay are:

- ▶ Lengthy discussions within the TC as to the details and content in the RFP resulting in its late distribution;
- ▶ Time required to establish the criteria for the selection and evaluation process of an appropriate company.

For the most part these delays are justified. Some of the questions and issues raised as the RFP was being formulated were not foreseen. There are few models to emulate, and a commitment by all TC members to ensure that this study be done right the first time has, in my opinion, justified the delay. The ramifications may well be that the first release of the study’s results will also be delayed by the same period

of four to five months. It was initially planned for the spring of 2004. The TC meeting of October 15th determined the evaluation criteria for the companies still under consideration, and by mid-November the TC will have chosen a successful candidate. It is important that this decision be made no later than mid-November.

2. Start Date for the HHRA and ERA studies

Status: According to the initial Sudbury Soils Study timetable, the HHRA and ERA studies were scheduled to start in July 2002. Because of the delays mentioned above, it is now realistic to assume that the HHRA and the ERA will begin in December.

3. Establishment of a Scientific Peer Review Group

Status: Members for the Scientific Peer Review Group have not yet been chosen. TC members have long recognized that greater value and credibility would be given to the science and process of the Sudbury Soils Study by the creation of an independent scientific peer review committee. Members of this committee would be men and women who have established reputations in the fields of health and environmental assessment, and would be in a position to provide independent and valuable input to our process.

The creation of the RFP and the subsequent search for the company to do the HHRA and ERA has been time consuming. But now it is time for TC members to determine who should be sitting on a peer review committee and what process it should use. According to the study's original timetable, the first interim report was to be reviewed by the Peer Review Committee in February 2003. This is unlikely to happen since the HHRA and ERA will begin five or six months later than planned. Once the consultants have been chosen for the HHRA and ERA, the TC then needs to focus serious attention on membership of the Scientific Peer Review Committee. To this end, I believe the TC should devote time to this issue in January/February, 2003.

4. Attendance at PAC Meetings

Status: Poor attendance at meetings has plagued the PAC since its inception. Attendance averages four or five out of a possible 10 members. This may be due to the fact that meetings were held more frequently than initially scheduled. For example, in January 2002, members were told meetings would occur quarterly, but the reality was they met monthly in the first seven months, no doubt due to the tremendous amount of information they were required to absorb. Clearly this kind of commitment for a volunteer is much more demanding. The nature of the Sudbury Soils Study is an evolving, ongoing process and there is a large learning curve, even for TC members (who are the most qualified). The challenge for PAC members is to absorb pertinent information, usually a great deal, and still provide quality advice to the TC.

As a result, in September, members agreed to return to a regular quarterly schedule. Meeting dates for the next year were chosen and are:

- ▶ **November 19, 2002**
- ▶ **February 18, 2003**
- ▶ **May 20, 2003**
- ▶ **September 16, 2003**

All meetings are scheduled for 6:30 p.m. and are held at Cambrian College, an excellent venue as either small or large groups can be accommodated. With the refocus to scheduled quarterly meetings, I believe attendance will improve.

5. Public Announcement of PAC Meetings

Status: According to the PAC Terms of Reference, each PAC meeting was to have been publicly announced. The public can attend meetings as observers, but are not permitted to participate without making prior application. Thus far, PAC meetings have not been advertised or announced. This issue has arisen several times at past TC and PAC meetings and was turned over to the Communications Subcommittee for resolution. A decision was made that the November PAC meeting, and all future meetings, will be advertised in the local media.

6. Omissions from the ERA

Status: At the Bidders' meeting of August 27th, INCO and Falconbridge expressed their belief that mining properties located within the study area should not be included as part of the ERA study. Their reasoning is that mining closure plans are covered by the Mining Act, under the jurisdiction of the Ministry of Northern Development and Mines, and therefore should be separate from the ERA. This raises several concerns. If heavy metals and other pollutants escape beyond said properties and contaminate lands in the ERA study, how is this impact to be studied and subsequently dealt with? This issue, although discussed at the September 9th meeting of the TC, was not clearly defined. I believe the study boundaries need to be determined and articulated clearly.

7. Boundary for the HHRA and ERA

Status: A consulting firm at the August 27th Bidders' Meeting raised the question of what the geographical boundary will be for the HHRA and ERA. Although suggestions were offered by representatives of INCO and Falconbridge, this very important issue needs to be decided by the TC in the next few months. Data collected by the consultants early in the study may help to clarify and determine specific boundaries.

8. Next Public Open House

Status: Community forums are important for making the Sudbury Soils Study an ongoing, open and transparent process for the public. They allow the public to

interact with TC and PAC members who should have a higher profile at these forums. A date needs to be set for the next public Open House.

9. The Sudbury Soils Study Website

Status: The public will soon be able to obtain information and updates about the Sudbury Soils Study from www.sudburysoilsstudy.com. It is hoped that by mid-December this site will be totally operational.

Decisions/Actions Required in the Next Few Months

1. November: Company chosen to do HHRA and ERA.
2. November/December: Study boundaries and geographical boundaries for the HHRA and ERA to be established.
3. December: Sudbury Soils Study website fully operational.
4. December: Original timetable for the Sudbury Soils Study to be updated.
5. December/January: HHRA and ERA study begins.
6. December/January: Next Process Observer's Report due.
7. January/February: Scientific Peer Review Committee and process to be established.
8. January/February: Date for next public Open House to be set.

Project Timetable

2002

- Selection of qualified company to do HHRA and ERA
- HHRA and ERA begin
- Three Process Observer's Reports released to the public

2003

- Ongoing HHRA and ERA study
- Scientific Peer Review Group functioning and ongoing review of the study continues.
- Public consultations continue with Open Houses and quarterly Process Observer's Reports.

2004

- Spring or Summer, Process Observer's Final Report to be completed and released to the public.
- Public consultations continue.

Members of the Sudbury Soils Study Technical Committee

City of Greater Sudbury

Bill Lautenbach, Director, Planning Services
Dr. Stephen Monet, Coordinator of Environmental Initiatives

Falconbridge Limited.

Marc Butler, Environmental Coordinator
Dr. Gord Hall, Director of Occupational Health and Hygiene
Denis Kemp, Director, Environmental Development

Health Canada First Nations & Inuit Health Branch

Ray Alatalo, Environmental Health Officer

INCO Ltd.

Glen Watson, Environmental Biologist
Dr. Bruce Conard, Vice President, Environmental & Health Sciences
Dr. R.W. (Bob) Francis, Medical Director

Ministry of the Environment

Brian McMahon, Sudbury Soils and SO₂ Assessment Program
Dale Henry, Manager, Human Toxicology and Air Standards
Mary Ellen Starodub, Senior Advisor, Risk Management

Sudbury & District Health Unit

Dr. Penny Sutcliffe, Medical Officer of Health
Ido Vettoretti, Community Environmental Health Specialist
Ed Wierzbicki, Environmental Support Officer

Chair, PAC

Ivan Filion, (non-voting), Academic Vice-president, Cambrian College

Communications Sub-Committee Chair

Cory McPhee, (non-voting), Manager, Communications, INCO Ltd.

Process Observer

Franco Mariotti (non-voting) Science North

TC Facilitator

Dick DeStefano (non-voting)

Administrative Support

Julie Sabourin (non-voting)

Members of the Sudbury Soils Study Public Advisory Committee:

Norris Artuso	Joe Cimino
Ronda Gougeon	John Hogenbirk (Vice Chair)
Gary Hrystak	Aino Laamanen
Larry McGregor	Rubina Nebenionquit
Paul St. Jean	Ivan Fillion (Chair)
Vacant Position	Vacant Position
Franco Mariotti (Process Observer)	Julie Sabourin (Recorder)

Contact Information

For any comments or questions regarding this report, the Sudbury Soils Study, the Technical Committee or Public Advisory Committee, please contact us at the following:

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through our web site
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to be launched soon.