SNOLAB Grand Opening

May 17, 2012 -

SNOLAB is excited to announce the official Grand Opening of the Underground Facilities! Todays event will celebrate the completion of all construction and the clean status of the entire laboratory space. The SNOLAB underground laboratory is an expansion of the original SNO (Sudbury Neutrino Observatory) facility and at a depth of two km below ground, it is the deepest and cleanest laboratory in the world dedicated to this type of work. SNOLAB provides an opportunity to conduct experiments in an environment with the lowest possible interference from environmental and solar radioactivity.

SNOLAB is an international, unique and collaborative facility; oversight and governance of the SNOLAB facility and the operational management is through the SNOLAB Institute Board of Management, whose member institutions are Carleton University, Laurentian University, Queen's University, Université de Montréal and the University of Alberta. Researchers at these institutes are fully active participants in the research programme at the SNOLAB facility. The SNOLAB Institute, on behalf of these member institutions and other stakeholders, provides direction in all affairs of the organization to ensure the organization has the means, quality, depth and continuity of management required to realize its major scientific and operational objectives.

Dr. David Sinclair, Director of Facility Development for SNOLAB expressed his excitement regarding the opening. "We are delighted to have reached the point in this project where the construction of the laboratory is complete and the implementation of the scientific program can proceed. The science of SNOLAB addresses fundamental questions about the universe we live in – what is the matter which fills the universe but which has so far evaded detection? What are the properties of neutrinos which are the most abundant particles in the universe? Can we exploit the neutrinos to learn more about energy production in the Sun, the make-up of the Earth, or distant astrophysical events such as Supernovae? Can we understand why the universe is made of matter? These questions go to the very roots of our understanding of physics. Finding answers will be challenging but the facilities we open today provide the infrastructure in which we can carry out the search. We look forward to an exciting period of discovery in the years ahead."

While particle astrophysics is the primary focus for SNOLAB, there is a growing interest in other scientific fields to exploit deep underground laboratories and their associated infrastructure. In particular, there has been interest expressed in the fields of seismology and geophysics with interest in precision, long-term measurements at great depths, and in the field of biology where there is a growing interest in deep underground life.

"SNOLAB puts Canada at the forefront in the international search for new forces and forms of matter." Said Dr. Pekka Sinervo, Chair of the SNOLAB Institute Board of Management. "It also has been designed to provide researchers from numerous disciplines and countries the opportunity to perform experiments that can only be done with the shielding provided by the 2 km of rock."

The research being undertaken at SNOLAB is designed to answer some of the critical questions in science today:

- *Why does matter dominate over anti-matter in the universe?*
- *What is the nature of "dark matter"?*
- *What physics, if any, exists beyond the Standard Model of Particle Physics?*
- *What are the mechanisms by which heavy elements are produced in the universe?*

"As SNOLAB marks its formal opening, our science workshop has given us the chance to reflect on the vibrant international science programme that we host, with world leading science results already being delivered by projects at SNOLAB, and great promise from the future projects being developed," says Dr. Nigel Smith, Director of SNOLAB. "SNOLAB provides a tremendous opportunity for Sudbury and for Canada to lead the world in the rapidly evolving field of astroparticle physics, a testament to the foresight of those who developed, and our partners who funded, the SNOLAB facility."

Building on the international success of an original sunset project (SNO), the SNOLAB project was granted funding from several partners for a significant expansion of physical space, as well as the construction of a surface building, which celebrated its grand opening in the fall of 2005. The construction of the underground laboratories of SNOLAB has been funded by the International Joint venture program of the Canada Foundation for Innovation (CFI), The Northern Ontario Heritage Fund Corporation, Ontario Research Fund (ORF), Vale and FEDNOR. Operating costs have been supported by The Ontario Research Fund's research Excellence Program, by the Natural Sciences and Engineering Research Council (NSERC), Vale by CFI and by the member institutions. The city of Sudbury is providing a 5-year grant for public education for the new developments at SNOLAB.

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Watch the news conference live starting at 11am EST:
www.snolab.ca/about/snolab-grand-opening-event
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