



# 2014 PARTICIPANTS



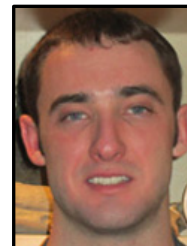
**Jordan Vervaeke**  
Acadia University



**Mark Hamilton**  
Brandon University



**Cameron Green**  
Brock University



**Timothy Chadwick**  
Carleton University



**Shevaun McGoldrick**  
Dalhousie University



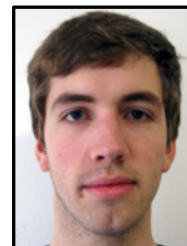
**Genevieve Laidlaw**  
Fleming College



**Jordan Baird**  
Lakehead University



**Paul Wawrzonkowski**  
Laurentian University



**Tom Barron**  
McGill University



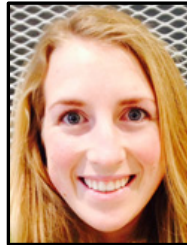
**Marina Schofield**  
Memorial  
University



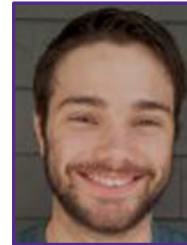
**Lauren Wilson**  
University  
of Victoria



**Stephanie Yager**  
Mount Royal University



**Emma Percy**  
Queen's  
University



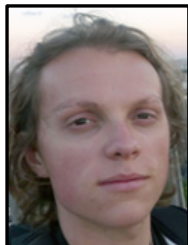
**Mark Garagan**  
Saint Mary's University



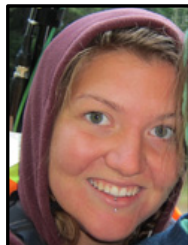
**Peter West**  
St. Francis Xavier  
University



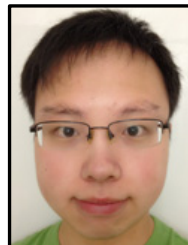
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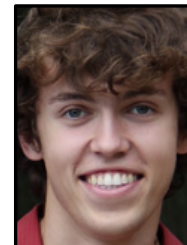
**Pierre-Hughes  
Lamirande**  
Université Laval



**Rachel Dockman**  
University of Alberta



**Ce Shi**  
University of British  
Columbia



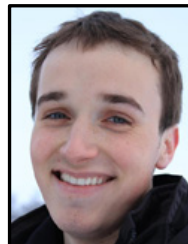
**Tyler Ciufo**  
University of  
Waterloo



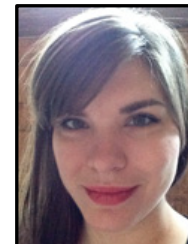
**Travis White**  
University of New  
Brunswick



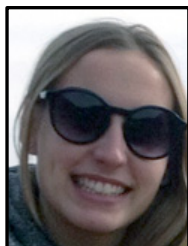
**Renelle Dubosq**  
University of Ottawa



**Jonathan Bertiaume**  
University of Regina



**Katia Jellicoe**  
University of  
Saskatchewan



**Audrey-Anne Fournier**  
University Quebec  
À Montreal



**Robin Wolf**  
University of Toronto



**Rosina Hiebert**  
University of Manitoba

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## The "F" Word

- FIT

- What is the "type" of organization that Fits with you? Ties back to the culture of the company.
- Difficult to quantify in advance, but research/networking is the best tactic to find out
- Often a judgment call, but it is two-sided call – either side can say NO.



**Rick Hutson talks on careers in the geosciences and is thanked on behalf of the students by Paul Wawrzonkowski (Laurentian University)**

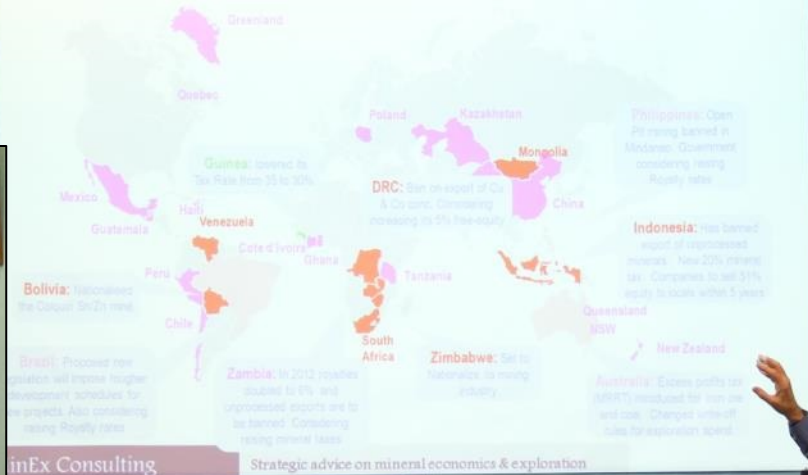


**Aftab Khan explains all about becoming a member of the APGO and is thanked on behalf of the students by Peter West (St. Francis Xavier University)**



## Recent actions by Governments

COUNTRIES THAT HAVE **DECREASED** / **INCREASED** THEIR TAXES & ROYALTY RATES  
OR INTRODUCED **NATIONALISM-TYPE** RULES SINCE 2011



**Tony Green presents a geoscience industry overview and is thanked on behalf of the students by Audrey-Anne Fournier (Université du Québec à Montréal)**





**Tony Green and Lauren Wilson (University of Victoria) conversing during a coffee break**

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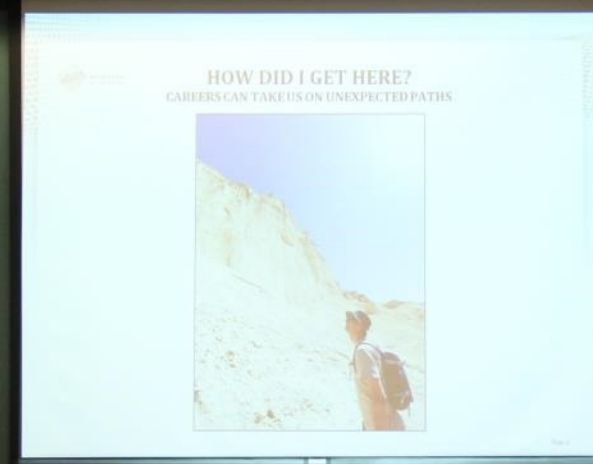
**Laurentian**University  
Université**Laurentienne**

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**GOODMAN** SCHOOL OF MINES  
ÉCOLE DES MINES

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**Dave Thomas introduces the students to the capital markets and is thanked on behalf of the students by Jonathan Berthiaume (University of Regina)**

Jonathan Berthiaume



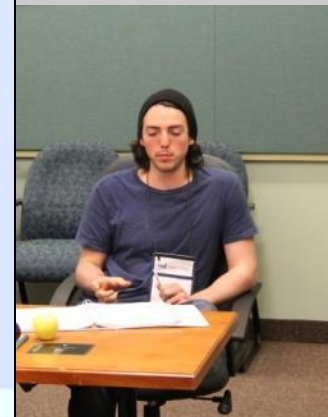
Shevaun McGoldrick



Travis White



Peter West



Students (above) asking questions on topics including option agreements, joint ventures and flow-through shares to a panel of experts (from left - Felix Lee, Dave Thomas, and Tony Green)





**Group photo at Dynamic Earth in front of the “Big Nickel” prior to the welcome reception**







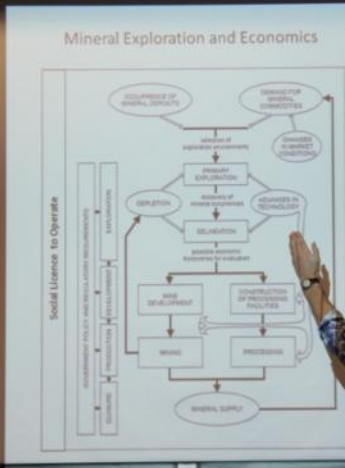


**Opening keynote speaker Glen Mullan, delivers a truly amazing, inspirational and at times very personal tale and is thanked on behalf of the students by Lauren Wilson (University of Victoria)**

# Gold Sponsors



•  
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Dr. Doggett and the mineral supply chart

Katia Jellicoe (University of Saskatchewan)



Ce Shi (University of British Columbia)

**What is the difference between geological quality and economic quality? Students are guided through the mineral supply chart by Dr. Michael Doggett and thanked on behalf of the students by Marina Schofield**





**Pierre-Hugues, Stephanie Yager, and Robin Wolf**



**Paul Wawrzonkowski, Travis White, and Timothy Chadwick**



**Renelle Dubosq and Rosina Hiebert**



**Robin Wolf**

**Dr. Doggett challenges the students to identify the mineralogy of porphyry copper ores, lateritic nickel ores, magmatic nickel ores, and volcanogenic massive zinc-copper ores to stress the importance of understanding how this potentially translates into economic quality**





Emma Percy and Tom Barron enjoying the exercise



Mark Hamilton and Katia Jellicoe contemplates on their investment strategy



Cameron Green and Jordan Vervaeke listens to a group member

Michael Durose talks about company evaluation before students are challenged to evaluate two fictitious gold companies and ultimately decide which they should invest in





**How can a company's stock price remain essentially the same for nearly 20 years? Travis White gets stock advice from Michael Durose during a coffee break**





**Students present their evaluations and investment decisions to their colleagues; speaker Michael Durose is thanked on behalf of the students by Rosina Hiebert (University of Manitoba)**

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**Bruce Brady asks the question: Can it be mined? Ce Shi (University of British Columbia) thanks Bruce on behalf of the students**



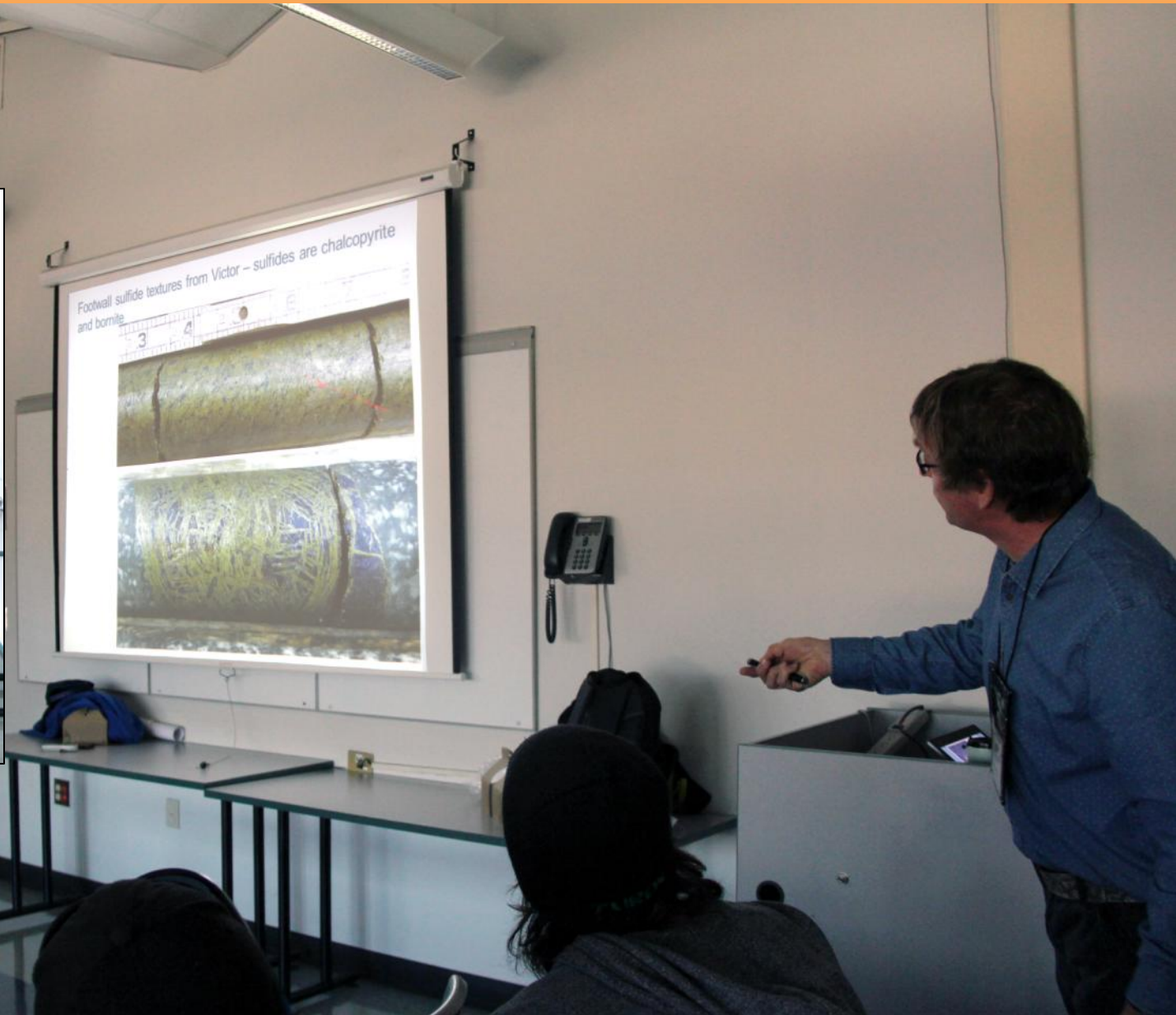


**Ross Gallinger takes questions from the students after his talk “Are we green? Are we safe? Are we good neighbours?”, and is thanked on behalf of the students by Cameron Green (Brock University)**



**Deborah McCombe explains the basics of NI 43-101 during her evening talk at Au Pied du Rocher, and is thanked on behalf of the students by Tyler Ciufo (University of Waterloo)**





Dr. Peter Lightfoot is introducing the Sudbury geology to S-IMEW participants, and is thanked on behalf of the students by Timothy Chadwick (Carleton University)





**Poses at the Sudbury nickel deposits discovery sight, and an introduction by Ed Pattison – First day in the field! Welcome to Sudbury!!**

# Silver Sponsors











**Thank you OSISKO! Krishana Michaud and Linette MacInnis in front of one of the rented vans**





**Sudbury in the eyes of the Group of Seven artist Alexander Young Jackson (Onaping Falls) – standing on the the Onaping Formation**





**Ed Pattison and Richard James introduce an outcrop of turbiditic basin fill during the Sudbury Basin field day, and students point out various features in the rocks**





**Bryston's on the Park acts a fitting venue for the evening speaker Dr. David Pearson who addresses Sudbury's environmental history and the Far North's environmental future**

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Ed Pattison's last year as S-IMEW Sudbury field trip leader. You will be missed Ed!



Evening speaker Dave Pearson, and field trip leaders Ed Pattison and Richard James are thanked on behalf of the S-IMEW participants by Emma Percy (Queen's University), Jordan Vervaeke (Acadia





Jack Parker and Sonia Prefontaine explain all about the Ontario Geological Survey's activities, and Ben Berger, retired OGS, gives a group orientation on the first outcrop before S-IMEW participants





**Group photo at Laurentian University for OGS mapping day**





**Genevieve Laidlaw (Fleming College) points to a cross-cut relationship between Sudbury Breccia and Mississagi sandstone**





**Stephanie Yager (Mount Royal University)**



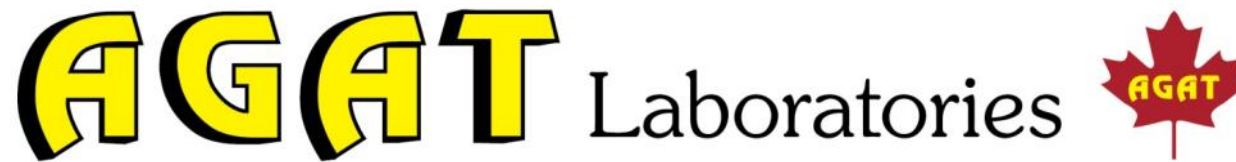
**Sonia Prefontaine assists her group as they plot their observations on their map**



**Ben Berger leads the map finalization**

**Observations collected from 5 field traverses are brought back to the classroom, plotted, interpreted and finally combined to form a finalized map – all accomplished in only a few hours**

# Workshop Sponsors



*Felix Lee • Glenn Nolan • Ed Thompson*





Bronwyn Azar (left) thanked by Stephanie Yager (Mount Royal University)



Manuel Duguet (left) thanked by Pierre Hugues Lamirande (Université Laval)



Seamus Magnus thanked by Renelle Dubosq (University of Ottawa)



Sara McIlraith (left) thanked by Genevieve Laidlaw (Fleming College)



Robert Lodge (left) thanked by Jordan Baird (Lakehead University)



Sonia Prefontaine thanked by Tom Barron (McGill Uni.)



Taus Jørgensen thanked by Stephanie Yager (Mount Royal University)



Ben Berger (left) thanked by Tom Barron (McGill Uni.)



Mike Fox speaks on aboriginal participation and partnership in the mining industry and is thanked on behalf of the S-IMEW participants by Robin Wolf

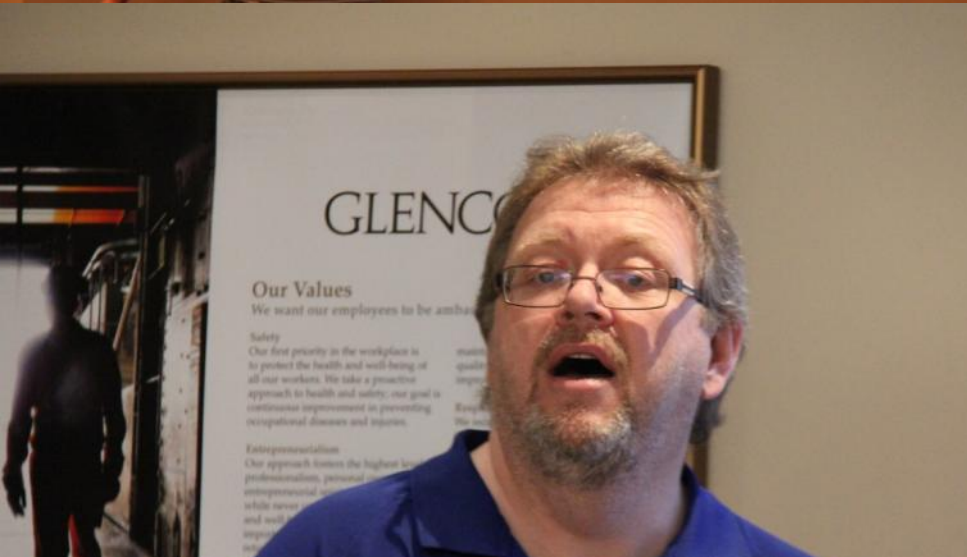




Source: [http://www.mining.com/wp-content/uploads/2011/01/shutterstock\\_56474050.jpg](http://www.mining.com/wp-content/uploads/2011/01/shutterstock_56474050.jpg)



**Sari Muonen, Sudbury Integrated Nickel Operations, goes through the smelter flowsheet before the tour of the facility. No photos allowed in the Smelter, but they did witness a pour.**



**Geoscientists, Guido Serafini (above) and Warren Hughes (below), Sudbury Integrated Nickel Operations, talk about target generation after the Smelter tour, followed by a BBQ lunch outside**





**S-IMEW participants enjoy a BBQ lunch – courtesy of Sudbury Integrated Nickel Operations**

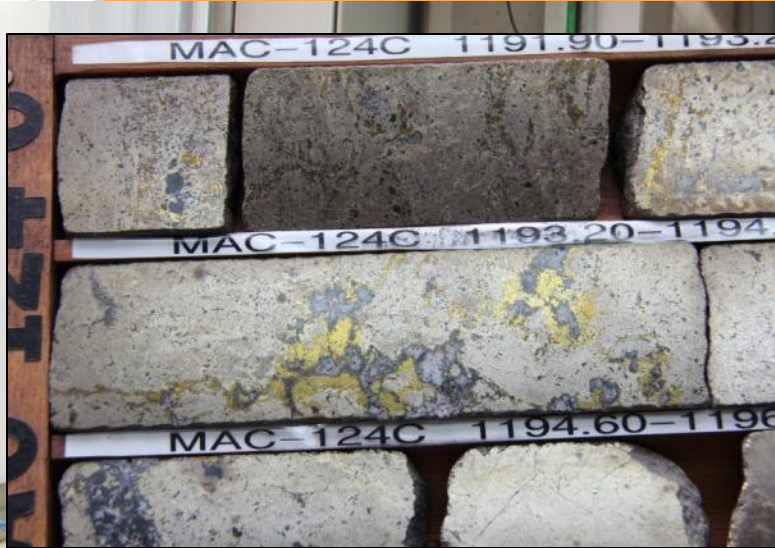
# In-Kind Contributors



Golden Valley Mines Ltd.  
Mines de la Vallée de l'Or ltée







**Mark Garagan (Saint Mary's University) checking out contact style mineralization from Sudbury**





**Renelle Dubosq (University of Ottawa) and Rachel Dockman (University of Alberta) inspect drill core**





**Foraco drill foreman goes through the X's and O's of diamond drilling including wedging**





**What is more attractive than a pile of core?**





**Jordan Vervaeke (Acadia University) checking out the cockpit of a Foraco drill (left) and a Foraco driller explaining how to break the drill core at depth before extraction (right)**





**Foraco driller thanked on behalf of the S-IMEW participants by Audrey-Anne Fournier (Université du Québec à Montréal) after a group photo in front of the drill site**





**“Explorationists” Guido Serafini (far left) and Brad (far right) thanked on behalf of the S-IMEW participants by Travis White (University of New Brunswick) and Pierre-Hugues Lamirande (Université Laval)**





**Chief Mine Geologist with Sudbury Integrated Nickel Operations, Dave Richardson, talks about his experience at Nickel Rim South and Fraser mines in Sudbury**





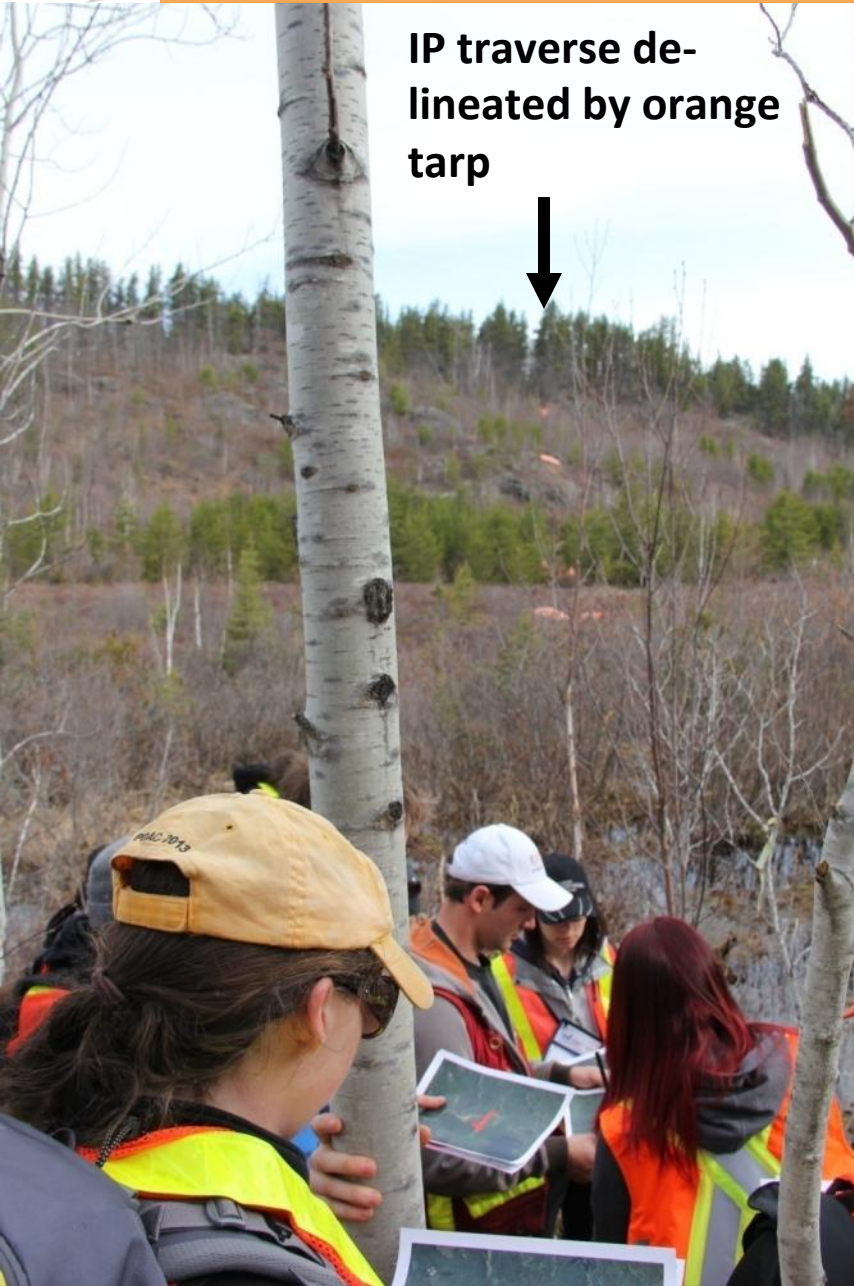
**Chief Mine Geologist Dave Richardson shows off one of his favorite ore samples during the evening presentation and is thanked by Rachel Dockman (University of Alberta)**





**Rachel Dockman (University of Alberta) and Tom Barron (McGill University) showing their appreciation for Linette MacInnis' (S-IMEW Coordinator) sample collection**





**Multi-collector switch box collecting the raw survey data**



**S-IMEW participants huddle around Pam Coles as she explains how to conduct an IP survey**





**It is rarely a walk in the park to get good shots of the S-IMEW participants; photographer Marg Serenglyi, crossing a swamp with the students, during Exploration Geophysics Day**





**Jonathan Berthiaume (University of Regina) leads the way through the swamp**





**A few people made it out of the swamp with dry feet during Geophysics Day**





**Sean Dickie, Area Geophysicist, Vale, explains the EM survey to students (left). Emma Percy (Queen's University) and Robin Wolf (University of Toronto) setting up a survey station (right).**





**Pam Coles (Abitibi Geophysics Inc.) and Co-chair Tim Dohey (Newmont Mining Corp.) ensured safe passage through the swamp for the S-IMEW students.**





**The mood is still high after spending most of the morning in a swamp during Geophysics Day**





**Rob Gordon gives an introduction to exploration geophysics**

**Bob Lo speaks on Airborne EM**

**John McGaughey addresses multi-disciplinary data integration**





**Chris Drielsma during his presentation: "Value from the Borehole"**



**Krystal O'Neil talks about EM methods**



**Pam Coles speaks about Gravity and IP methods**





**Dr. Richard Smith (Laurentian University & MERC) is thanked on behalf of the S-IMEW students by Genevieve Laidlaw (Fleming College) after his evening talk at restaurant Verdicchio**









**Pierre-Hugues Lamirande (Université Laval) and Nadim Kara (PDAC Senior Program Director) are looking at diamond indicator minerals during Geochemistry Day**





Troy Richardson demonstrates the fire assay technique at the GEOLABS





**S-IMEW participants are introduced to various geochemical analytical methods that can be used to investigate the whole rock and mineral geochemistry of a sample**





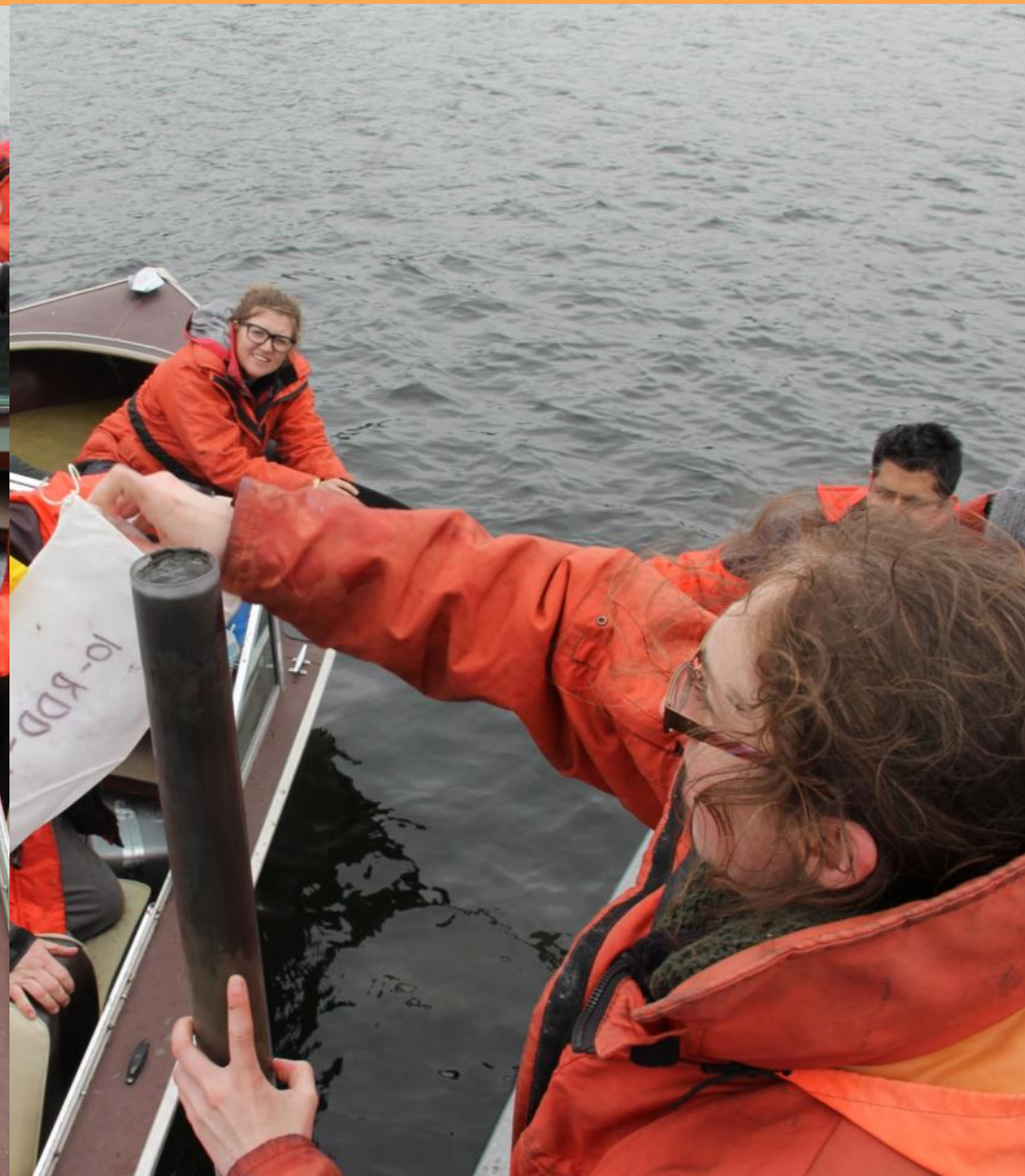
**Ron Cardinall (AGAT Labs) speaks during Geochemistry Day**





**Cameron Green (Brock University), Pierre-Hugues Lamirande (Université Laval) and Rachel Dockman (University of Alberta) on their way out to collect lake sediment samples on Ramsey Lake, Sudbury**





**Shevaun McGoldrick (Dalhousie University) and Pierre-Hugues Lamirande (Université Laval) help each other collect a lake sediment sample**





**Vale geochemist, Noelle Shriver, demonstrates which soil horizon to sample in a soil sampling**





**The Augers – “Drill on trough to the other side”**





Beth McClenaghan (GSC)  
and Ce Shi



Richard Dyer (OGS) and  
Emma Percy



Sarah Wilson (AGAT) and  
Pierre Hugues Lamirande



Ron Cardinal (AGAT)  
and Shevaun McGoldrick



Noelle Shriver (Vale) and  
Katia Jellicoe



Dr. Stewart Hamilton  
(OGS) and Mark Garagan



Ed Deicki (far left) with  
S-IMEW students

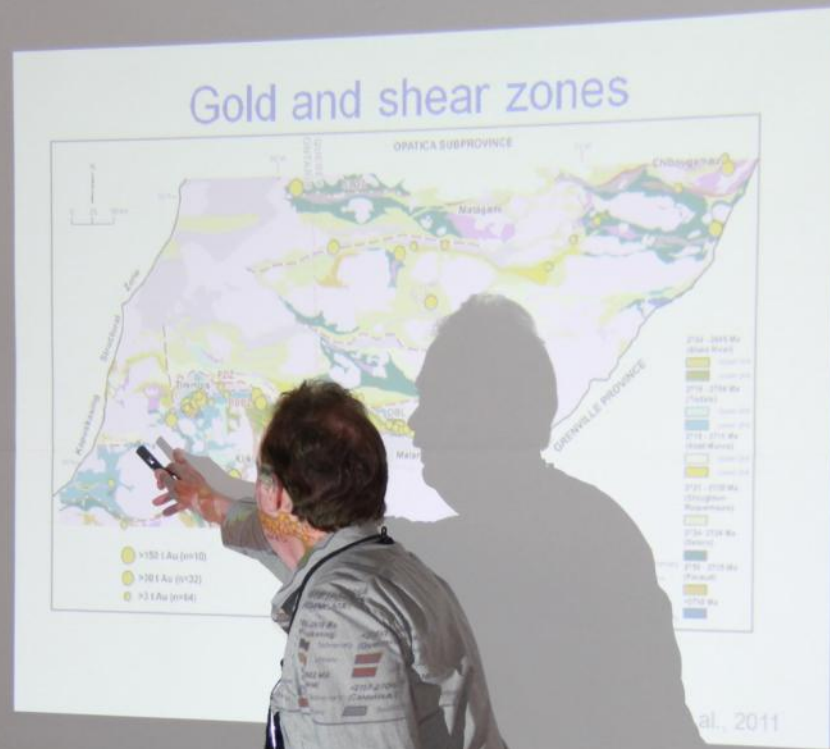






**S-IMEW participants are given an opportunity to network while surrounded by the works of Christopher Pratt at the Art Gallery of Sudbury**





**Dr. Phil Thurston presents the geology of the Abitibi, Val d'Or and the Rouyn-Noranda camp at the Art Gallery of Sudbury and is thanked on behalf of the S-IMEW participants by Tyler Ciufo (University of Waterloo)**





**S-IMEW participants crossing a beaver dam on the way to their mapping areas**





**Cameron Green (Brock University) points out Sudbury Breccia developed in a gabbro unit on his traverse**





**From left - Travis White (University of New Brunswick), Jonathan Berthiaume (University of Regina), and Mark Hamilton (Brandon University) at a station along their mapping traverse**





**The anticipation intensifies as a group of S-IMEW explorationists stumble upon an outcrop with Sudbury Breccia development .**





**Stephanie Yager (Mount Royal University), Robin Wolf (University of Toronto), and Emma Percy (Queen's University) interpret their observations from a traverse at the Wisner property (Wallbridge) in Sudbury**





**Group photo at the Wisner property in Sudbury with Wallbridge geologists**





**Dr. Catharine Farrow (TMAC Resources) who met Prime Minister Harper at the 2014 PDAC stopped by Collège Boréal to talk about her career in exploration**









**Dr. Richard James walks through the regional geology from Sudbury to Val D'Or at a pit stop in Temagami at the beginning of the Val D'Or and Noranda Field Trip**





**A couple of brave souls went for a swim in Lake Temagami - unfortunately they brought no towels**









**Mike Rosatelli welcomes S-IMEW to Val d'Or and to Golden Valley Mines Ltd.**





**Mike Rosatelli explains what it takes to be successful in the exploration business**

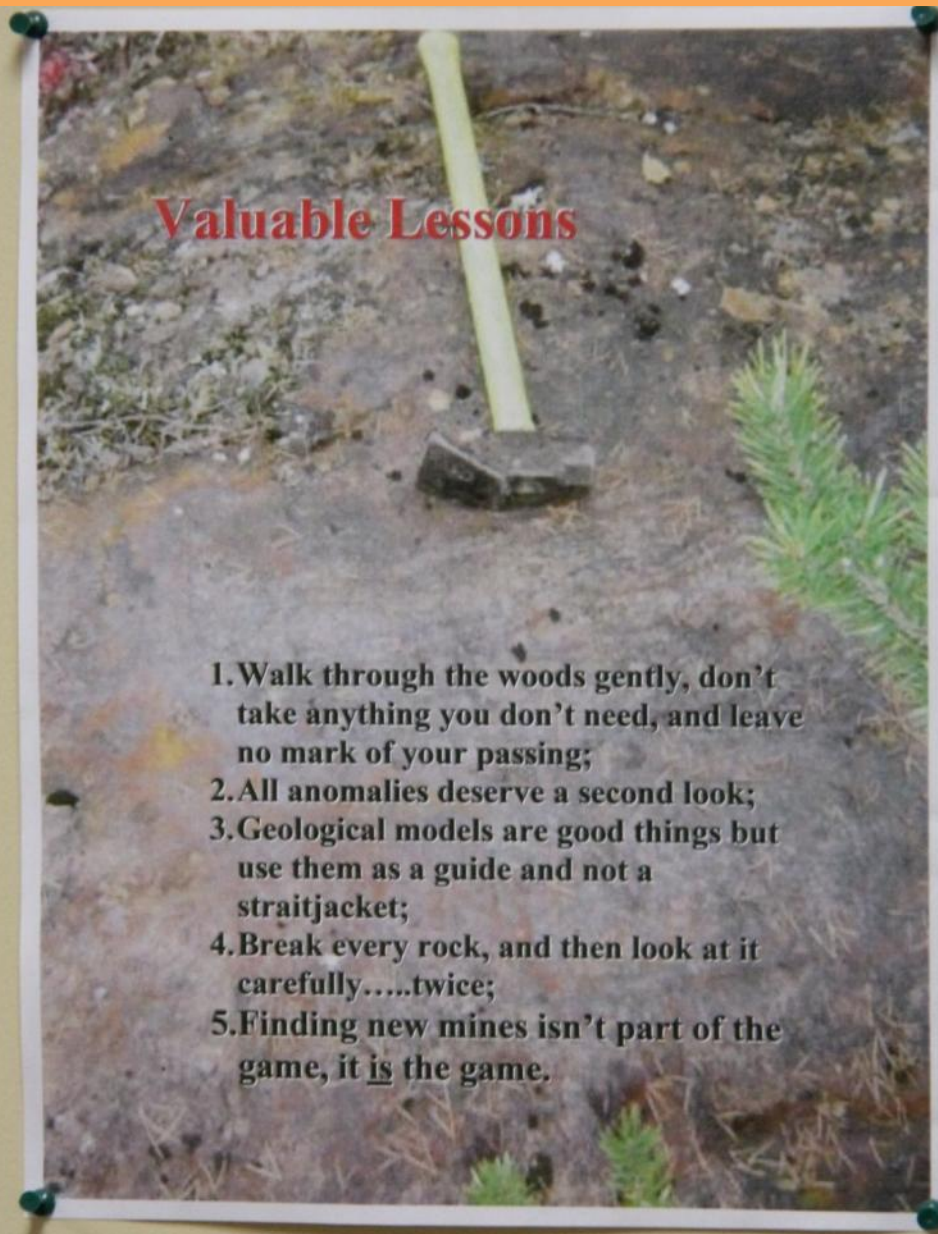


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**Ce Shi (University of British Columbia) thanks Mike Rosatelli on behalf of the S-IMEW participants for the lessons learned (e.g., right photo)**





**The S-IMEW participants experience the hospitality of Glen Mullan, as he hosts the group for dinner**





**S-IMEW participants meets Guy Bourgeois (Parliamentary Assistant to the Minister of Energy and Natural Resources) at Glenn's home.**





**Val d'Or Mayor, Pierre Corbeil, together with S-IMEW participants Pierre-Hugues Lamirande (Université Laval) and Audrey-Anne Fournier (Université du Québec à Montréal).**



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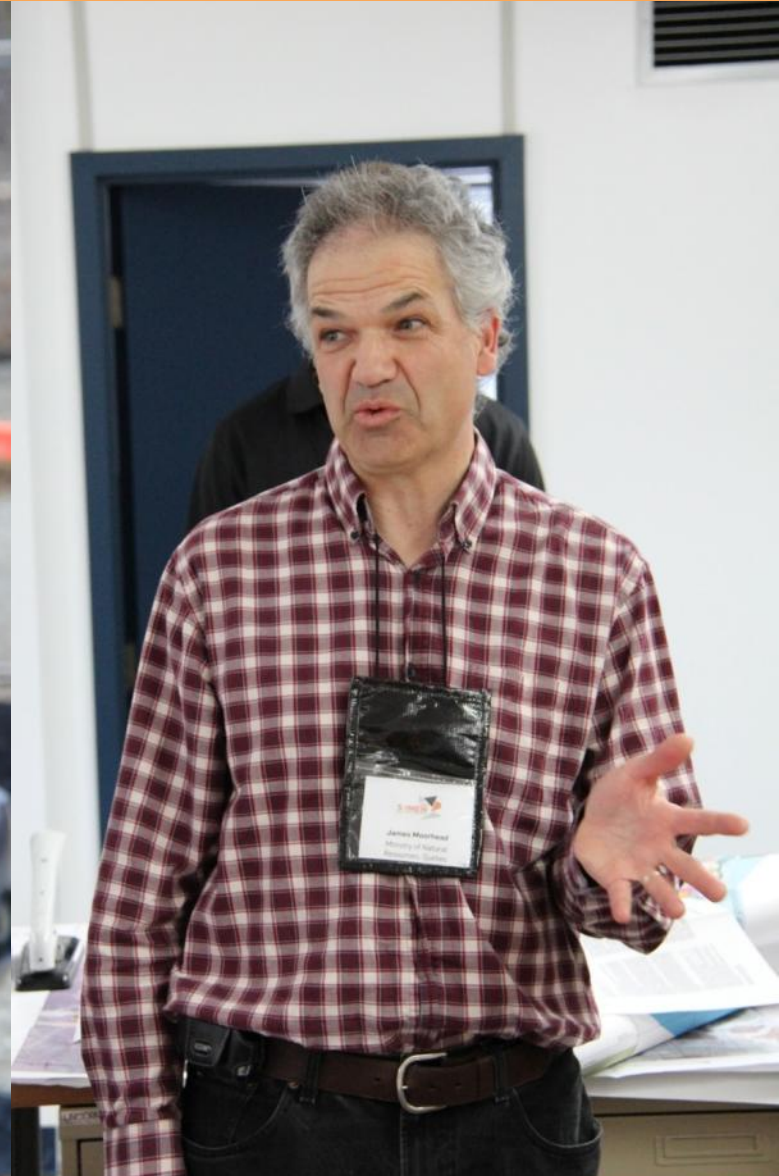
**From left - Rosina Hiebert (University of Manitoba), Mark Garagan (Saint Mary's University), Marina Schofield (Memorial University of Newfoundland), and Paul Wawrzonkowski (Laurentian University) at Osisko's Malarctic open pit mine in Val d'Or**





**Group photo in the Osisko open pit**





**From left - Hervé Thiboutot (Integra Gold Corp.) welcomes S-IMEW participants to the Lamaque gold project and James Moorhead (Ministry of Natural Resources, Québec) introduces the Abitibi regional geology**





**On the left picture François Chabot (Integra Gold Corp.) presents the Mining Project Cycle of Integra Gold Corp. to the students. On the right, students inspect visible gold in the core shack**



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The logo for Osisko is displayed on a dark grey rectangular background. It features a small orange dot centered above a horizontal orange line. Below the line, the word "OSISKO" is written in a large, orange, serif typeface.





**James Moorhead (Ministry of Natural Resources, Québec, far left), François Chabot (Integra Gold Corp., middle right), and Hervé Thiboutot (Integra Gold Corp., far right) are thanked on behalf of the S-IMEW students by Tom Barron (McGill University), Mark Garagan (Saint Mary's University), and Rosina Hiebert (University of Manitoba), respectively**





**Rosina Hiebert (University of Manitoba) and Timothy Chadwick (Carleton University) inspecting core from Integra Gold Corp's Lamaque gold project**





**Group photo with Integra Gold Corp. around a boulder of their characteristic Au mineralization**





**My precious! S-IMEW visits the Lamaque Mine Museum where you can get a feel for the density of gold**





**Gérald Riverin (Cogitore Resources Inc.) introduce the volcanic stratigraphy and VMS mineralisation of the Noranda Caldera at the Quality Inn Rouyn-Noranda, and is thanked on behalf of the S-IMEW participants by Cameron Green (Brock University)**



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**Field trip leader Gérald Riverin (Cogitore Resources Inc.) speaking to the S-IMEW participants on a spectacular outcrop of dalmatinitite (upper right) with porphyroblasts of cordierite that replaced a former VMS-style alteration assemblage**





**Breccia formed during steam generation when cold seawater comes into contact with hot solidified rock – an example of syn-volcanic fluid pathways that are important to VMS exploration**





**View from the top of an outcrop exposing evidence for a syn-volcanic fluid pathway in the Noranda camp**





**Renelle Dubosq (University of Ottawa) next to the only surface expression of a VMS deposit 1.2 km down dip – a ca. 10 cm wide exhalite (arrow) that you would hate to miss when doing your exploration mapping**





**From left - Cameron Green (Brock Univeristy) and Tom Barron (McGill University) point out more or less obvious volcanic textures in the Noranda camp – can you see them?**



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**Marc Legault (Agnico Eagle) talks on the cyclical nature of the mining industry at the Quality Inn, Rouyn-Noranda, and is thanked on behalf of the S-IMEW students by Renelle Dubosq (University of Ottawa)**





**S-IMEW participants spends a day with Dr. Harold Gibson (Laurentian University & MERC) mapping volcanic stratigraphy in the Noranda camp**





**Contacts are key when interpreting the deposition mechanisms of ancient volcanic rocks - Dr. Harold Gibson (Laurentian University & MERC) and Timothy Chadwick (Carleton University) looking at a contact**





Could this volcanic bomb (top center) help decide between sill or flow? S-IMEW is mapping volcanic stratigraphy with Dr. Harold Gibson (Laurentian University & MERC)



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**Jordan Baird (Lakehead University) summarizes the mapped volcanic sequence, and Dr. Harold Gibson (Laurentian University & MERC) is thanked on behalf of the S-IMEW students by Robin Wolf (University of Toronto)**







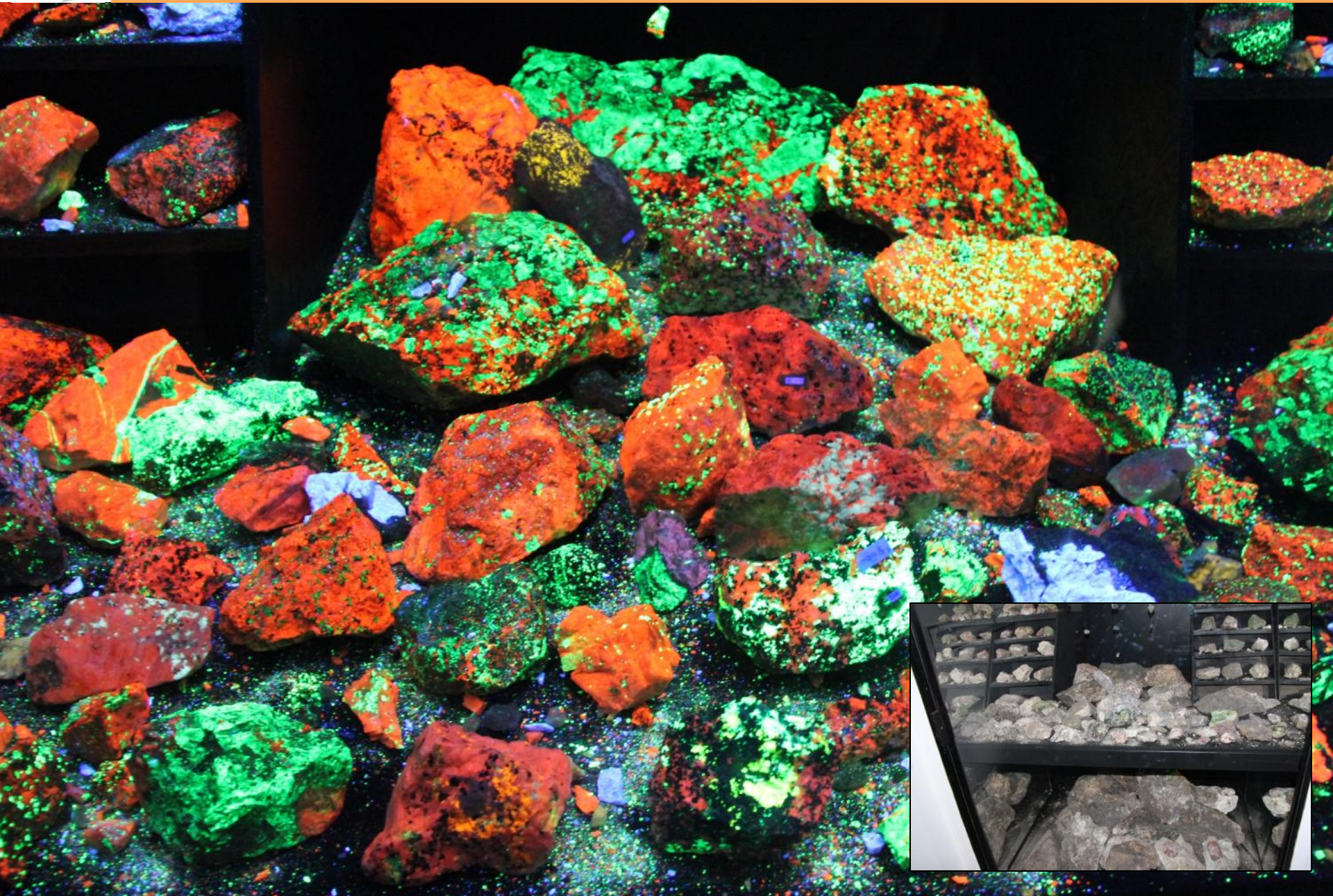






Paul Wawrzonkowski (Laurentian University) at the Cobalt Mining Museum posing with ca. \$41k worth of silver





**Spectacular fluorescent minerals at the Cobalt Mining Museum**



# Workshop Sponsors



*Felix Lee • Glenn Nolan • Ed Thompson*





**An ancient seafloor with ripple marks in Cobalt**





**Dr. Mike Easton (OGS) and Dr. Richard James introduces the regional geology before departing on a field trip to the River Valley intrusion**





**S-IMEW troopers defy the Sudbury monsoon to look at the River Valley intrusion with field trip leaders Dr. Mike Easton (OGS) and Dr. Richard James**





**Dr. Mike Easton (OGS) points to a more deformed part of the intrusion with a well-developed foliation fabric**



# In-Kind Contributors



Golden Valley Mines Ltd.  
Mines de la Vallée de l'Or ltée







**Drillin' and Grillin' BBQ – S-IMEW participants enjoys a networking evening with industry professionals at the 6<sup>th</sup> Avenue Golf Club in Lively**





The evening takes an interesting turn after dinner at the Drillin' and Grillin' BBQ....





**Ian Trinder (ACA Howe International Ltd.) explains the ABC's of core logging at the Wallbridge Mining Company Ltd. core logging facility**





**Lauren Wilson (University of Victoria) takes the rock saw for a spin – VRRROOM VROOM!**





**From left – Wallbridge Mining Company Ltd. staff Nick Wray, Attila Pentek, Györgyi Tuba, and Joshua Bailey with S-IMEW participants Jordan Baird (Lakehead University) and Mark Hamilton (Brandon University)**





**Ian Trinder (ACA Howe International Ltd.) talks about choosing the right analytical method, and is thanked on behalf of the S-IMEW students by Stephanie Yager (Mount Royal University)**





**Julie Selway (Caracle Creek International Consulting) share her insights on quality assurance and quality control and is thanked on behalf of the S-IMEW participants by Robin Wolf (University of Toronto)**





**Elisabeth Ronacher (Caracle Creek International Consulting) share her insights on quality assurance and quality control and is thanked on behalf of the S-IMEW participants by Robin Wolf (University of Toronto)**





**Tyler Ciufu (University of Waterloo) and Stephanie Yager (Mount Royal University) during the student presentations on Closing Day**





Emma Percy (Queen's University) and Ce Shi (University of British Columbia) during the student presentations on Closing Day





The S-IMEW girls are ready for the Closing Day cocktail reception and dinner





**Keynote speaker Maureen Jensen (OSC Executive Director) during her keynote at the S-IMEW closing dinner in the Vale Cavern, Science North (Sudbury)**





**Ed Pattison is thanked by Felix Lee (A.C.A. Howe International Ltd.) on behalf of S-IMEW for his tremendous volunteer work and involvement with the workshop since its beginning 8 years ago.**





**Field trip leaders, from left – Dr. Richard James is thanked by Tyler Ciufo (University of Waterloo), and Dr. Phil Thurston is thanked by Ce Shi (University of British Columbia) for their volunteerism and tireless efforts to make the four-day field trip a memorable one.**





**S-IMEW participants posing in the vivid lights of the Vale Cavern, Science North (Sudbury) during the Closing Day reception**





**S-IMEW coordinators Linette MacInnis (far left), Marisue James (left in upper-right photo), and Taus Jørgensen (left in bottom-right photo) thanked for their work by Marina Schofield, Cameron Green, and Timothy Chadwick, respectively**





**Student Program Manager, Krishana Michaud, (middle) is thanked for all her hard work by Rachel Dockman (University of Alberta) and Paul Wawrzonkowski (Laurentian University)**





**S-IMEW Certificates are handed out individually by PDAC President Rod Thomas (Votorantim Metals Canada Inc.) as Felix Lee (A.C.A. Howe International Ltd.) acknowledges the S-IMEW 2014**





**Jonathan Berthiaume (University of Regina) speaks on the S-IMEW experience, on behalf of the students, during the Closing Dinner**





**PDAC Director and S-IMEW 2014 Co-Chair, Felix Lee, with Tom Barron (McGill University), as he is presented with a hard hat signed by the 2014 S-IMEW students on the bus ride home after the Closing Dinner in recognition of his efforts during the two weeks.**