

**DAY 1 -SUNDAY SEPTEMBER 28, 2014**

START	FINISH			
		<b>SESSION 1 (PLENARY)</b>		
0815	0830	Welcome and Introduction (Bart Sacchini)		
		<b>THEME 1 - FUNDAMENTAL ADVANCES IN ECONOMIC GEOLOGY</b>		
		Session Chair: Jon Hronsky		
0830	0900	Robert Hazen - Metallogensis, the supercontinent cycle, and mineral-forming processes through Earth history		
0900	0930	Philipp Weis - The physical hydrology of ore-forming hydrothermal systems controls the chemical enrichment of metals		
0930	1000	Massimo Chiaradia - Timescales of mineral systems - what have we learnt in the last decade?		
1000	1030	<b>MORNING TEA</b>		
		<b>SESSION 2: THEME 1 - FUNDAMENTAL ADVANCES IN ECONOMIC GEOLOGY</b>		
		Session Chair: Judith Kinnaid		
1030	1050	Clean-Hoel - Ore formation drives ore extraction: Economic geology is the foundation for geomot	1030	1050
1050	1110	Saunders - Textural and isotopic evidence for metallic nanoparticles in barium epithermal ores	1050	1110
1110	1130	Magnall - Widespread euxinic conditions are not a prerequisite for sedimentary exhalative mineralization in the Selwyn Basin, Canada	1110	1130
1130	1150	Selmann - Contemporaneous alkaline lamproites and carbonates in the Kalmakyr and Murantau ore districts, Tianshan, Uzbekistan: Mantle contribution for the formation of giant ore deposits	1130	1150
1150	1230	Burke - Investigation of the Quartz-Gold Interface Utilizing Electron Microscopy	1150	1230
1230	1230	Mickelthwait - Duration And Dynamics Of Orogenic-Type Gold Deposits	1230	1230
1230	1230	<b>LUNCH</b>		
		<b>SESSION 4 (PLENARY): THEME 4 - INNOVATIONS IN EXPLORATION TECHNOLOGY</b>		
		Session Chair: Jean Des Rivieres (JHPR)		
1330	1400	Richard Hillis- Coiled tubing drilling, logging-while-drilling, and top-of-hole sampling: breakthrough mineral exploration technology for the 21st century?		
1400	1430	Doug Bryman- Muon Tomography: Bringing new physics to ore-body imaging		
1430	1500	Mark Jessell- The next generation of 3D geological modelling and inversion		
1500	1530	<b>AFTERNOON TEA</b>		
		<b>SESSION 5: THEME 2 - DEPOSIT FOOTPRINTS</b>		
		Session Chair: David Kelley (MMG)		
1530	1550	Wood - Using Multi-Element Geochemistry to Map Multiple Components of a Mineral System: Case study from a sediment hosted Cu-Ni camp, NW Province, Zambia	1530	1600
1550	1630	Wilkinson - Chlorite chemistry as an exploration tool in the propylitic halo of porphyry-epithermal systems: A case study of the Batu Hijau porphyry Cu-Au system, Indonesia	1600	1630
1630	1630	Baxton - Copper Isotopic Vectors to Supergene Enrichment: Leached Cap Isotopic Footprint of the Quellaveco Porphyry copper Deposit, Southern Peru	1620	1640
1630	1650	Barton - Contrasting footprints and characteristics of IOCG-type and porphyry-type hydrothermal systems related to episodic Mesozoic arc magmatism in coastal northern Chile	1640	1700
1650	1730	Fernoux - Structural, mineralogical, geochemical and petrophysical characterization of mafic dykes: a key to define the Canadian Malartic gold deposit footprint	1700	1720
1730	1730	Muszbek - Geochemical Alteration Footprint of the Eskay Creek Sulfide and Sulfosalt Deposit, British Columbia		

**SESSION 3: THEME 3 - MINERAL SYSTEM SCIENCE**

Session Chair: Francois Robert

Brimhall - Syntectonic formation of giant porphyry copper and intrusion-related ore deposits in linear belts by decompression fluid saturation of regularly spaced diapiric plutons ascending fault ramps within the anticlinal hinge of the frontal cordilleran fold and thrust belt
Blaug - The physical and tectonic setting of Andean high-sulfidation epithermal gold-silver deposits and what it means for mineralizing processes and exploration targeting
Sparks - Volcanic processes in the formation Porphyry Copper Deposits
Piquer - Structural controls on the emplacement of porphyry systems: the case of the Rio Blanco-Los Bronces cluster, Andes of Central Chile
Mao - Porphyry copper deposits in China: Spatial - temporal distribution and their tectonic settings
Leal-Mejia - Jurassic gold metallogeny in the Colombian Andes

**SESSION 6: THEME 1 - FUNDAMENTAL ADVANCES IN ECONOMIC GEOLOGY**

Session Chair: Bill Chavez

Anthony Williams-Jones - Experimental and fluid inclusion constraints on the solubility of metals in ore-forming systems
Fliege - Mafic magma contributions to arc-related porphyry ore deposits
Gilmer - Pulsed intrusive events, magma mixing, and mineralization of the Don Manuel porphyry copper system, central Chile
Blundy - Generation of porphyry copper deposits by gas-brine reaction in volcanic arcs
Talich - Ore Metal Extraction During Magma Crystallization: A Dynamic Experimental Approach

**17.30 - 19.00: EVENING RECEPTION - DRINKS IN EXHIBIT HALL**

**DAY 2 - MONDAY SEPTEMBER 29, 2014**

START FINISH

**SESSION 7 (PLENARY): THEME 3 - MINERAL SYSTEM SCIENCE**

Session Chair: Perry Eaton

0830 0900  
0900 0930  
0930 1000

Cam McCuaig - The Mineral System Concept: Key to successful undercover targeting  
John Muntean - The Carlin gold system: Applications to exploration in Nevada and elsewhere  
Hartwig Frimmel - A giant Mesoarchean crustal gold-enrichment event: possible causes and consequences for exploration

1000 1030

**MORNING TEA**

**SESSION 8: THEME 3 - MINERAL SYSTEM SCIENCE**

Session Chair: Rich Goldfarb

1030 1050  
1050 1110  
1110 1130  
1130 1150  
1150 1210  
1210 1230

Forbes - Tectonic architecture of ca. 1.60-1.57 Ga IOCG mineralisation in Australia  
Hagemann - Orogenic gold systems in the Andes of South America  
Mortensen - Gold metallogeny of northwestern Iberia: Superimposed orogenic and intrusion-related mineralization in an evolving Variscan Orogen  
Bleeker - The Abitibi breaks: syn-orogenic extensional faults inverted as thick-skinned thrusts  
Sharman - Multiple Sulfur Isotope Geochemistry of Au-rich systems of the southern Abitibi subprovince, Québec, Canada  
Allan - Epizonal overprinting of mesozonal orogenic gold systems: Relating crustal exhumation and Yukon's gold endowment

**SESSION 9: THEME 4 - INNOVATIONS IN EXPLORATION TECHNOLOGY**

Session Chair: Amanda Butt (Rio Tinto)

1030 1100  
1100 1120  
1120 1140  
1140 1200  
1200 1220

Paul Agnew - Micro-analytical Innovation for Diamonds Exploration and Beyond  
Turner - Examples of seismic signatures of large mineral systems  
Barker - Finding the blind: targeting carbonate-hosted deposits using stable isotopes  
Myers - Core Orientation - Data QC as a Key to Discovery  
Holden - Improved Interface Designs for Automated Analysis of Potential Field Data

1230 1330

**LUNCH**

**SESSION 10 (PLENARY): THEME 2 - DEPOSIT FOOTPRINTS**

Session Chair: Murray Hitzman

1330 1400  
1400 1430  
1430 1500

David Cooke - Distal footprints of porphyry systems - defining the outer limits of the geochemical halo using epidote mineral chemistry  
Ravi Anand - Geochemical dispersion through transported cover in regolith-dominated terrains - towards a process-based understanding  
Ken Witherly - Deposit footprints: Moving off the path to see the way forward

1500 1600

**SEG AWARDS (PLENARY)**

**SESSION 11: DEDICATED EXHIBITS AND POSTER SESSION**

Session Chair: Thomas Monecke

**AFTERNOON TEA (SERVED CONCURRENT WITH DEDICATED EXHIBITS AND POSTER SESSION)**

1600 1730

**DEDICATED EXHIBITS AND POSTER SESSION**

**17.30 - 18.30: EVENING RECEPTION - DRINKS IN EXHIBIT HALL**

**19.00: INDUSTRY OUTLOOK DINNER  
(GUEST SPEAKER - ROBERT FRIEDLAND)**



List of all Talks apart from previously Invited

Theme 1: Fundamental Advances	0393-000121	Ore formation drives ore extraction: Economic geology is the foundation for geomot	Karin Olson Hoal	USA	khoal@mines.edu
Theme 1: Fundamental Advances	0393-000245	Textural and isotopic evidence for metallic nanoparticles in bonanza epithermal ores	James Saunders	USA	saundja@auburn.edu
Theme 1: Fundamental Advances	0393-000273	Mafic magma contributions to arc-related porphyry ore deposits	Adrian Frége	USA	afrége@umich.edu
Theme 1: Fundamental Advances	0393-000305	Widespread exsicc conditions are not a prerequisite for sedimentary exhalative mineralization in the Selwyn Basin, Canada	Joseph Magnall	Canada	magnall@uswesta.ca
Theme 1: Fundamental Advances	0393-000130	Pulsed intrusive events, magma mixing, and mineralization of the Don Manuel porphyry copper system, central Chile	Amy Gilmer	United Kin	amy.gilmer@bristol.ac.uk
Theme 1: Fundamental Advances	0393-000141	Sources of Reduced Sulfur, Early Diagenesis, and Fine Lamination in the Currently Forming Metaliferous Sediment of the Brine-Covered Atlantis II Deep, Red Sea	Tea Laurila	Canada	laurilata@gmail.com
Theme 1: Fundamental Advances	0393-000236	Contemporaneous alkaline lamprotes and carbonates in the Kalmayr and Murtauou ore districts, Tianshan, Uzbekistan: Mantle contribution for the formation of gas ore deposits	Reimar Seltmann	United Kin	Reimar.Seltmann@nhm.ac.uk
Theme 1: Fundamental Advances	0393-000255	Investigation of the Quartz-Gold Interface Utilizing Electron Microscopy	Michelle Burke	USA	burkem2@miamioh.edu
Theme 1: Fundamental Advances	0393-000112	Ore Metal Extraction During Magma Crystallization: A Dynamic Experimental Approach	Brian Tattitch	United Kin	Brian.Tattitch@bristol.ac.uk
Theme 1: Fundamental Advances	0393-000111	Volcanostratigraphic controls on the occurrence of massive sulfide (VMS) deposits in the Semail ophiolite, Oman	Larry Diamond	Switzerland	diamond@geo.unibe.ch
Theme 1: Fundamental Advances	0393-000270	Dunation And Dynamics Of Orogenic-Type Gold Deposits	Steven Mickelthwait	Australia	steven.mickelthwait@uwa.edu.au
Theme 1: Fundamental Advances	0393-000186	Metal Mobility and Hydrothermal Alteration within the Kevitsa Ni-Cu-PGE deposit, Lapland Finland	Frank Santaguida	Canada	Frank.Santaguida@fcm.com
Theme 1: Fundamental Advances	0393-000214	Simon - Iron and oxygen isotope and element systematics of magnetite from the Los Colorados IOA deposit, Chile: A paradigm shift for IOA deposits?	Adam Simon	USA	asimon@umich.edu
Theme 1: Fundamental Advances	0393-000099	Generation of porphyry copper deposits by gas-brine reaction in volcanic arcs	Jon Blundy	United Kin	jon.blundy@bris.ac.uk
Theme 2: Deposit Footprints	0393-000075	Using Multi-Element Geochemistry to Map Multiple Components of a Mineral System. Case study from a sediment hosted Cu-Ni camp, NW Province, Zambia	David Wood	Chile	David.Wood@fcm.com
Theme 2: Deposit Footprints	0393-000089	Chlorite chemistry as an exploration tool in the propylitic halo of porphyry-epithermal systems: A case study of the Batu Hijau porphyry Cu-Au system, Indonesia	Jamie Wilkinson	Australia	j.wilkinson@nhm.ac.uk
Theme 2: Deposit Footprints	0393-000301	Copper Isotopic Vectors to Supergene Enrichment: Leached Cap Isotopic Footprint of the Quellaveco Porphyry copper Deposit, Southern Peru	David Braxton	Chile	dave.braxton@angloamerican.com
Theme 2: Deposit Footprints	0393-000264	Contrasting footprints and characteristics of IOCG-type and porphyry-type hydrothermal systems related to episodic Mesozoic arc magmatism in coastal northern Chile	Mark Barton	USA	mbarton@email.arizona.edu
Theme 2: Deposit Footprints	0393-000098	Structural, mineralogical, geochemical and petrophysical characterization of mafic dykes: a key to define the Canadian Malartic gold deposit footprint	Stéphane Perrout	Canada	sperrout@uwo.ca
Theme 2: Deposit Footprints	0393-000321	Geochemical Alteration Footprint of the Eskay Creek Sulfide and Sulfosalt Deposit, British Columbia	Tom Meuzelaar	USA	Tom.Meuzelaar@golder.com
Theme 3: Mineral Systems	0393-000020	Syn-tectonic formation of giant porphyry copper and intrusion-related ore deposits in linear belts by decompression fluid saturation of regularly spaced diapiric plutons ascending fault ramps within the anticlinal hinge of the frontal cordilleran fold and thrust belt	George Brimhall Jr.	USA	brimhall@berkeley.edu
Theme 3: Mineral Systems	0393-000043	The physical and tectonic setting of Andean high-sulfidation epithermal gold-silver deposits and what it means for mineralizing processes and exploration targeting	Thomas Bissig	Canada	tbissig@eos.ubc.ca
Theme 3: Mineral Systems	0393-000109	Proterozoic basement structures and thermogenic sulfate reduction-derived H <sub>2</sub> as key controls on economic Laisvall-type Pb-Zn deposits, eastern erosional front of the Scandinavian Caledonides, Sweden	Nicolas Sainflan	Switzerland	nicolas.sainflan@unige.ch
Theme 3: Mineral Systems	0393-000124	The chonolith Ni-Cu model: expanding the footprint of Ni-Cu deposits and chasing weaknesses in the Nickel mineral system model	Steve Beresford	Australia	Steve.Beresford@fcm.com
Theme 3: Mineral Systems	0393-000125	Mineral systems and area selection: Application to IOCG, Ni and other mineral systems in Australia	Roger Skirrow	Australia	roger.skirrow@ga.gov.au
Theme 3: Mineral Systems	0393-000151	Volcanic processes in the formation Porphyry Copper Deposits	Stephen Sparks	United Kin	Stephen.Sparks@bristol.ac.uk
Theme 3: Mineral Systems	0393-000306	The Abitibi breaks: syn-orogenic extensional faults inverted as thick-skinned thrusts	Wouter Bleeker	Canada	wbleeker@rcan.gc.ca
Theme 3: Mineral Systems	0393-000037	Structural controls on the emplacement of porphyry systems: the case of the Rio Blanco-Los Bronces cluster, Andes of Central Chile	Jose Piquer	Australia	jose.piquerrromo@utas.edu.au
Theme 3: Mineral Systems	0393-000053	Mesoproterozoic carbonatic magmatism in the Bayan Obo deposit, Inner Mongolia, North China: Constraints for the mechanism of super accumulation of rare earth elements	Kuileng Yang	China	yangkuileng@mail.scggcas.ac.cn
Theme 3: Mineral Systems	0393-000219	Jurassic gold metallogeny in the Colombian Andes	Hildebrand Leal-Mejia	Canada	hildebrand@eos.ubc.ca
Theme 3: Mineral Systems	0393-000297	Controls on the formation of a large Zn-Pb Irish-type deposit: evidence from the Navan halo	Freya Marks	Ireland	freymarks21@gmail.com
Theme 3: Mineral Systems	0393-000160	Multiple Sulfur Isotope Geochemistry of Au-rich systems of the southern Abitibi subprovince, Québec, Canada	Elizabeth Sharman	Canada	ilizabeth@gmail.com
Theme 3: Mineral Systems	0393-000225	Porphyry copper deposits in China: Spatial – temporal distribution and their tectonic settings	Jingwen Mao	China	jingwenmao@263.net
Theme 3: Mineral Systems	0393-000240	Gold metallogeny of northwestern Benin: Superimposed orogenic and intrusion-related mineralization in an evolving Variscan Orogen	James Mortensen	Canada	jmortensen@eos.ubc.ca
Theme 3: Mineral Systems	0393-000153	Orogenic gold systems in the Andes of South America	Steffen H. Hagemann	Australia	steffen.hagemann@uwa.edu.au
Theme 3: Mineral Systems	0393-000189	Mesoproterozoic iron oxide-apatite and iron oxide-copper-gold-rare earth element deposits of southeast Missouri, USA: Geology, geophysics, and exploration potential	John Slack	USA	jslack@usgs.gov
Theme 3: Mineral Systems	0393-000208	Epizonal overprinting of mesozonal orogenic gold systems: Relating crustal exhumation and Yukon's gold endowment	Murray Allan	Canada	mallan@eos.ubc.ca
Theme 3: Mineral Systems	0393-000285	Tectonic architecture of ca. 1.60-1.57 Ga IOCG mineralisation in Australia	Caroline Forbes	Australia	caroline.forbes@adelaide.edu.au
Theme 4: Innovations in Expl Tech	0393-000167	Examples of seismic signatures of large mineral systems	Greg Turner	Australia	g.turner@hiseis.com
Theme 4: Innovations in Expl Tech	0393-000171	Finding the blind: targeting carbonate-hosted deposits using stable isotopes	Shaun Barker	New Zealand	sbarker@waikato.ac.nz
Theme 4: Innovations in Expl Tech	0393-000177	Improved Interface Designs for Automated Analysis of Potential Field Data	Eun-Jung HOLDEN	Australia	eun-jung.holden@uwa.edu.au
Theme 4: Innovations in Expl Tech	0393-000033	Core Orientation – Data QC as a Key to Discovery	Russell Myers	USA	rmyers@convsugold.com
Theme 5: Expl Mgt & Targeting	0393-000198	The Role of Organizational Culture and Its Link to Strategy in Mineral Exploration Management	Eric Seedorff	USA	seedorff@email.arizona.edu
Theme 5: Expl Mgt & Targeting	0393-000092	Curvature attribute from surface-restoration as predictor variable in Kupferschiefer copper potentials: an example from the Fore-Sudetic Region (Poland)	Pablo Mejia-Herrera	France	mejia.pablo@gmail.com
Theme 5: Expl Mgt & Targeting	0393-000025	Data mining – a powerful tool for exploring under cover in mature districts	Colin Barnett	USA	colin@bwmninc.com
Theme 5: Expl Mgt & Targeting	0393-000224	An innovative structural hypothesis established during target generation for gold and copper mineralisation in the Cobar district, NSW Australia	Lize Stander	Australia	lize.stander@newgold.com
Theme 6: Discovery Case studies	0393-000039	Discovery History of the Sakatti Cu-Ni-PGE Deposit, Finland	Jim Coppard	United Kin	jim.coppard@btinternet.com
Theme 6: Discovery Case studies	0393-000120	Geology and Discovery of Escondida Este Porphyry Cu-Mo Deposit, Escondida Cluster District, Northern Chile	Marco Ipinza	Chile	marco.ma.ipinza@bhpbilliton.com
Theme 6: Discovery Case studies	0393-000238	Geology and Discovery History of the Chukaua Peak Cu-Au deposit, Timok Magmatic Complex, Serbia	Veerles 'N Canby	USA	mcanby@fcm.com
Theme 6: Discovery Case studies	0393-000191	Boliden's Garpenberg Zn-Pb-Ag mine, Sweden - Critical factors behind the discoveries that turned mine closure into a large expansion project	Rodney Allen	Sweden	rodney.allen@boliden.com
Theme 6: Discovery Case studies	0393-000304	Discoveries of Fresnillo Plc: The Silver Giant in Mexico	DAVID GILES	Mexico	david_giles@fresnillopc.com
Theme 6: Discovery Case studies	0393-000031	Discovery of The Nuevo Chaquiro Porphyry Cu-Au-(Mo) Deposit, Antioquia Department, Colombia	Paul Bartos	USA	pbartos@anglogoldashantina.com
<b>List of Invited Talks</b>					
Invited KeyNote	USA	Robert Hazen - Metallogenesis, the supercontinent cycle, and mineral-forming processes through Earth history			
Invited KeyNote	Switzerland	Philipp Weis - The physical hydrology of ore-forming hydrothermal systems controls the chemical enrichment of metals			
Invited KeyNote	Switzerland	Maximo Chiaradia - Timescales of mineral systems - what have we learnt in the last decade?			
Invited KeyNote	Australia	David Cooke - Distal footprints of porphyry systems - defining the outer limits of the geochemical halo using epithermal mineral chemistry			
Invited KeyNote	Australia	Ravi Anand - Geochemical dispersion through transported cover in regolith-dominated terrains - towards a process-based understanding			
Invited KeyNote	USA	Ken Witherly - Deposit footprints: Moving off the path to see the way forward			
Invited KeyNote	Canada	Anthony Williams-Jones - Experimental and fluid inclusion constraints on the solubility of metals in ore-forming systems			
Invited KeyNote	Australia	Richard Hillis - Coiled tubing drilling, logging-while-drilling, and top-of-hole sampling: breakthrough mineral exploration technology for the 21st century?			
Invited KeyNote	Canada	Doug Bryman- Muon Tomography: Bringing New physics to ore-body imaging			
Invited KeyNote	Australia	Mark Jessell- The next generation of 3D geological modelling and inversion			
Invited KeyNote	Australia	Cam McCuaig - The Mineral System Concept: Key to successful undercover targeting			
Invited KeyNote	USA	John Muntean - The Carlin gold system: Applications to exploration in Nevada and elsewhere			
Invited KeyNote	Germany	Hartwig Frimmel - A giant Mesoproterozoic crustal gold-enrichment event: possible causes and consequences for exploration			
Invited KeyNote	Australia	Paul Agnew - Micro-analytical Innovation for Diamonds Exploration and Beyond			
Invited KeyNote	Canada	Randall Oliphant - What does the global exploration industry need to deliver in the 21st Century? - A shareholder's perspective			
Invited KeyNote	Australia	Richard Schodde - The Global Shift to Undercover Exploration - How fast? How effective?			
Invited KeyNote	Australia	John Sykes - What will the Copper mine of the future look like?			
Invited KeyNote	China	Kai Hui Yang - The business of Exploration in China (SEG Distinguished Lecture)			
Invited KeyNote	USA	Clinton Scott - The role of geobiology and metallogenesis through Earth's history, with emphasis on sediment-hosted deposits			
Invited KeyNote	UK	Graham Brown - AngloAmerican exploration: Key ingredients to a decade of success			
Invited KeyNote	Canada	David Broughton - The Ivanhoe Group - two decades of global discoveries			
Invited KeyNote	Australia	Mark Bennett - The Nova greenfields NIS discovery - key success factors for a junior explorer			