SEMINAR PROGRAMME

ONE DAY TECHNICAL SEMINAR

Improving Exploration Success; Trends, Technologies and Developments

THURSDAY 31 MAY 2018
CSA Global is proud to deliver this one day technical seminar.

WHO SHOULD ATTEND?
This seminar is designed for exploration and resource managers, senior geologists, mining and geotechnical engineers, metallurgists, and technical services managers.

DELIVERY MODE
- One day seminar
- Face to face presentations
- One on one post presentation discussions

WHAT’S INCLUDED?
Morning tea, lunch and afternoon tea.

HOW DO I REGISTER?
Email: marketing@csaglobal.com

OUR FACILITATORS
Our facilitators are experienced practitioners with a robust mix of academic and practical expertise across all mineral commodities.

Our substantial in-house capabilities comprises of many independent experts and experienced groups in related disciplines: Geochemistry, Structural Geology, Targeting, Geophysics, Resource Estimation, Mining, Data and Information Technology.

We provide a completely integrated and cost effective solution on any type of project, anywhere in the world.

CHAIRLED BY
MARCUS WILLSON - MANAGER OF EXPLORATION

Marcus has close to 30 years’ experience in the mineral industry, ranging from early stage exploration activities, exploration management, strategy development and implementation, through to senior corporate management roles.

Marcus has specialist expertise in Archaean and Birimian orogenic, intrusion related, and porphyry related gold (with copper), regolith interpretation and geochemistry as well as in litho-TECTONIC /structural analysis in the context of hydrothermal mineralisation. He uses these skills to deliver integrated, mineral systems-based, geological models and targeting advice.

He is a leader with strong analytical and problem solving skills and demonstrated competency for applying advanced techniques to enhance project value delivering an excellent track record of discovery. Marcus’ significant corporate experience provides excellent skills in project risk analysis, ranking and valuation.

OUR EVENT PARTNER
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<thead>
<tr>
<th>Time</th>
<th>Session/Topic</th>
<th>Speaker(s)</th>
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<tr>
<td>8:00 AM</td>
<td>OPENING ADDRESS</td>
<td>Managing Director, Jeff Elliott</td>
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<tr>
<td>8:10 AM</td>
<td>Managing Exploration Risk Through Integrated Geoscience</td>
<td>Marcus Willson</td>
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<tr>
<td>8:30 AM</td>
<td>Stream Sediment Geochemical Surveys; New Developments</td>
<td>Dr Dennis Arne</td>
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<tr>
<td>8:50 AM</td>
<td>Practical Application of Computational Geoscience</td>
<td>Dr Carl Brauhart</td>
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<td>9:10 AM</td>
<td>Modelling Regolith Cover for Effectiveness and Targeting</td>
<td>Leah Moore</td>
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<tr>
<td>9:30 AM</td>
<td>Best Practice, Tools and Methods for Quantitative 3D Ore and Gangue Mineralogy Characterization</td>
<td>Dr Scott Halley</td>
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<tr>
<td>9:50 AM</td>
<td>Building Truly Quantitative 3D Mineralogy Models for Effective Geometallurgical Domaining</td>
<td>Warren Potma</td>
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<td>10:10 AM</td>
<td>MORNING TEA</td>
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<tr>
<td>10:40 AM</td>
<td>Structural Interpretation and Solid Geology Based on Magnetics</td>
<td>Dr David Isles (Southern Geoscience Consultants)</td>
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<tr>
<td>11:00 AM</td>
<td>Building Large Scale Framework Models</td>
<td>Dr Jamie Robinson</td>
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<tr>
<td>11:20 AM</td>
<td>South American Birimian: Risks and Opportunities</td>
<td>Ian Stockton</td>
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<tr>
<td>11:40 AM</td>
<td>Integrated Geoscience: Adding Value Through Geological Modelling</td>
<td>Mark Pudovskis / Ilmar Tehnas</td>
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<tr>
<td>12:20 PM</td>
<td>Nickel Sulphides - Where To Look For It, How To Look For It, And Why</td>
<td>Tony Donaghy</td>
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<td>12:40 PM</td>
<td>LUNCH</td>
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SESSION 3
Battery Metals; Characteristics, Trends and Predictions for Future Metal Supply

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<tr>
<th>Time</th>
<th>Session/Topic</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>1:30 PM</td>
<td>Nickel - Cobalt Laterites - Geology, Technology and Economics - Finding the Balance</td>
<td>Mick Elias</td>
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<tr>
<td>1:50 PM</td>
<td>Cobalt; Capturing Opportunity From Shifting Focus and Diversifying Risk</td>
<td>Tony Donaghy</td>
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<tr>
<td>2:10 PM</td>
<td>Industrial Minerals - They Are Not All Created Equal</td>
<td>Dr Andrew Scogings</td>
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<tr>
<td>2:30 PM</td>
<td>Geophysics for Battery Minerals</td>
<td>Anne Tomlinson (Southern Geoscience Consultants)</td>
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<tr>
<td>2:50 PM</td>
<td>AFTERNOON TEA</td>
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SESSION 4
From Data Integration to Compliance

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<tr>
<td>3:10 PM</td>
<td>Early Integration of Other Disciplines in Exploration Projects</td>
<td>James Potter / Kent Bannister</td>
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<tr>
<td>3:30 PM</td>
<td>Data Integrity and Geological Understanding: Key Requirements for Successful Resource Estimation</td>
<td>Aaron Meakin</td>
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<td>3:50 PM</td>
<td>Deriving Value from your Data</td>
<td>Dale Harris</td>
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<tr>
<td>4:10 PM</td>
<td>Field Portable Infrared Spectral and XRF Analysis - Applications in Exploration and Mining</td>
<td>Nik Sergeev</td>
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<tr>
<td>4:30 PM</td>
<td>Dodging the Bullet, Compliance Can Be Your Friend / Reporting Exploration Results Under JORC</td>
<td>Graham Jeffress</td>
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<tr>
<td>4:50 PM</td>
<td>CLOSING REMARKS</td>
<td>Marcus Willson</td>
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<td>5:00 PM</td>
<td>CSA GLOBAL SUNNDOWNER</td>
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AARON MEAKIN  
BSc (Hons) Geology, Grad Dip AppFin, MAppFin, MAusIMM CP (Geol), F Fin  
Aaron is a geologist with over 24 years’ experience in mining, resource development and exploration. Aaron has broad geological knowledge which enables him to meet JORC Competent Person requirements across a range of styles of mineralisation. His geological knowledge is complimented by significant mine production experience.

Dr ANDREW SCOGINGS  
MSc (cum laude), PhD Geology, MAIG, MAusIMM, RPGeo (Industrial Minerals)  
Dr Scogings is a geologist with more than 25 years’ experience in industrial minerals exploration, product development and sales management. Andrew has published several papers on the requirements of the JORC Code 2012, with specific reference to Clause 49. He is a regular contributor to Industrial Minerals Magazine.

ANNE TOMLINSON  
Southern Geoscience Consultants  
BSc (Hons) Geology, MAIG  
Anne is Principal Geophysicist with more than 15 years’ experience. She is involved in all aspects of geophysical exploration with a specialisation in modelling and interpreting potential field data. Anne has worked across a wide range of mineral commodities on both domestic and international projects and has particular expertise in epithermal and orogenic gold mineralisation.

Dr CARL BRAUHART  
PhD, MAIG  
Carl is an exploration geologist with more than 20 years’ experience in gold and base-metal exploration, spending much of that time working in frontier areas of Western Australia on grassroots projects. He has a particular interest in geochemistry, both exploration geochemistry and ore deposit geochemistry, and a passion for field work, particularly mapping.

DALE HARRIS  
BSc (Applied Geology), Grad Dip Data Science, MAIG  
Dale is a geologist with more than 20 years’ experience in Exploration / Mining software including Micromine, QGIS, ArcGIS, MapInfo and SQL databases. He has focused on the development of data management and GIS solutions for clients and employers from grassroots exploration projects through to feasibility studies and mining projects.

Dr DENNIS ARNE  
BSc (Hons) Geology, MSc, Grad Diploma  
Dennis has more than 30 years’ experience in applied geochemistry in a wide range of environments, in both the minerals and the petroleum industries, and as an academic and in geological surveys. He has been involved as a consultant in the development of geochemical exploration programs for precious and base metals Australia, Americas & Africa.

Dr JAMIE ROBINSON  
BSc (Hons) Applied Geology, RPGeo (Mineral Exploration), FAIG, FAusIMM, FSEG, MGeS  
Jamie is a geologist who with more than 10 years’ experience. He obtained his PhD in lithostructural controls on ore shoots within orogenic gold systems and has spent more than 10 years working on deposit to regional scale controls on structurally controlled hydrothermal mineral systems.

IAN STOCKTON  
BSc, FAIG, RPGeo (Expl.), MAIM  
Ian is an experienced exploration geologist with more than 25 years’ experience and has been involved in several discovery teams across Australia, Asia and South America. He has significant knowledge with low sulphidation epithermal deposits, orogenic gold mineralisation and intrusive related exploration experience ranging from Greenfields to near mine projects.

Dr ISLAM TEHNAS  
BAppSc (Geology), MAusIMM  
Ilmar is a principal geologist who has spent more than 35 years working in iron ore, and has extensive experience of the Pilbara region of West Australia, West Africa and Brazil. His experience ranges over the full cycle of projects, from managing greenfields exploration programmes through to mine development and technical mentoring.

GRAHAM JEFFRESS  
BSc (Hons) Applied Geology, RPGeo (Mineral Exploration), FAIG, FAusIMM, FSEG, MGeS  
Graham is a geologist with more than 28 years’ experience in mineral exploration sector for 40 years on projects for gold, base metals, diamonds and iron ore projects through Australia, Africa, Canada, India, the Middle East and Southeast Asia. He has substantial involvement with R&D and training activities, and is well known globally for his courses on aeromagnetic interpretation.

JAMES POTTER  
BSc (Hons) Geology, MBA, MAIG, MAusIMM  
James is an experienced geologist with more than 13 years’ experience in minerals project management. He has worked in technical and leadership positions in exploration and resource development projects for precious and base metals. He is a mineral systems generalist with a strong background in structural geology, data management and leadership.

Dr DAVID ISLES  
Southern Geoscience Consultants  
PhD (Economic Geology), MAIG  
David is consultant geophysicist who has worked in the mineral exploration sector for 40 years on projects for gold, base metals, diamonds and iron ore projects through Australia, Africa, Canada, India, the Middle East and Southeast Asia. He has substantial involvement with R&D and training activities, and is well known globally for his courses on aeromagnetic interpretation.
KENT BANNISTER  
BEng [Mining] ARMIT, FAusIMM (CP)  
Kent has over 40 years’ experience in iron ore, base metals, gold, uranium, manganese, mineral sands and nickel projects worldwide. Kent has held various managerial positions from General Manager to Company Director. He has provided consulting services since 1988 and managed over 500 mineral project studies.

NIK SERGEEV  
MSc Geochemistry, AIG  
Nik is a senior geologist with more than twenty five years of experience in mineral exploration, specialising in managing and providing technical geological expertise for exploration projects. He possesses high level expertise in exploration geochemistry and regolith geology, including JORC reporting, GIS and data management.

LEAH MOORE  
BSc (Hons), Grad Cert (Min Econ), MAIG  
Leah is a multi-skilled geologist with 10 years’ experience in the gold mining industry. She possesses experience in underground production and grade control modelling through to early and late stage exploration. She has expertise in Archaean lode/ orogenic gold, regolith interpretation, geochemistry and 3D detailed software and interpretation.

MARK PUDOVSKIS  
BSc [Geology], MSEG, MAusIMM  
Mark is a geologist with more than 20 years’ multi-commodity experience. He has worked across a variety of geological terranes, with specialist expertise in the exploration for and the evaluation of iron ore, manganese and potash deposits. He has worked on more than 100 iron deposits across the Pilbara in Western Australia, West Africa and Latin America.

Dr SCOTT HALLEY  
PhD, FAIG  
Scott has consulted to more than 100 mining and exploration companies in more than 25 countries in the last six years. Having worked as an exploration geologist for 20 years prior to specialising as a geochemist means that Scott understands how geochemistry can be practically and effectively applied to exploration and mining problems.

MARK PUDOVSKIS  
BSc [Geology], MSEG, MAusIMM  
Mark is a geologist with more than 20 years’ multi-commodity experience. He has worked across a variety of geological terranes, with specialist expertise in the exploration for and the evaluation of iron ore, manganese and potash deposits. He has worked on more than 100 iron deposits across the Pilbara in Western Australia, West Africa and Latin America.

TONY DONAGHY  
BSc [Hons], P.Geo  
Tony is an internationally recognised expert in the global search for nickel and platinum group elements, with more than 15 years’ experience covering all continents and all aspects of the industry - from leading continental-scale grassroots targeting exercises through to greenfields and brownfields exploration project design and execution.

WARREN POTMA  
MSc Structural Geology, MAIG  
Warren is a geologist with more than 20 years’ experience in exploration and mining geology, management and technical R&D. He specialises in structural geology, integrated mineral system analysis, 3D modelling, and technical mentoring. Warren has extensive exploration, mine production and technical projects experience.

Join CSA Global at the POST TECHNICAL SEMINAR SUNDOWNER and meet our whole team!  
VENUE: Celtic Club  
TIME: 5:00pm to 6:00pm