

Australasian Exploration Geoscience Conference 2023
MONDAY 13 March 2023 - SATURDAY 18 March 2023
Brisbane Convention & Exhibition Centre

As at 15 March 2023

Monday, 13 March 2023

Registration Open

Room	P1	P2	P3	P4	P5	Offsite
07:30	Registration Open					
	<i>Workshop 1</i>	<i>Workshop 2</i>	<i>Workshop 3</i>	<i>Workshop 4</i>	<i>Society Committee Meetings as required</i>	<i>Workshop 5</i>
08:30	Mineral Exploration Management. What are the priorities?	B-Field Technologies	Scaling MT acquisition, processing, interpretation, and people	Applied machine learning for geoscientists	Society Committee Meetings as required	Unlocking the Value of Structural Geology in Mining, Exploration & 3D Modelling Day 1
10:30	Morning Tea					
11:00	Mineral Exploration Management. What are the priorities?	B-Field Technologies	Scaling MT acquisition, processing, interpretation, and people	Applied machine learning for geoscientists	Society Committee Meetings as required	Unlocking the Value of Structural Geology in Mining, Exploration & 3D Modelling Day 1
12:30	Lunch					
13:30	Mineral Exploration Management. What are the priorities?	B-Field Technologies	Scaling MT acquisition, processing, interpretation, and people	Applied machine learning for geoscientists	Society Committee Meetings as required	Unlocking the Value of Structural Geology in Mining, Exploration & 3D Modelling Day 1
15:00	Afternoon Tea					
15:30	Mineral Exploration Management. What are the priorities?	B-Field Technologies	Scaling MT acquisition, processing, interpretation, and people	Applied machine learning for geoscientists	Society Committee Meetings as required	Unlocking the Value of Structural Geology in Mining, Exploration & 3D Modelling Day 1
17:00	End of Day					

Australasian Exploration Geoscience Conference 2023
MONDAY 13 March 2023 - SATURDAY 18 March 2023
Brisbane Convention & Exhibition Centre

As at 15 March 2023

Tuesday, 14 March 2023

Registration Open

Room	M1	M2	M3	M4	P1	P2	P3	P4	P5	Offsite
	<i>Workshop 1</i>	<i>Workshop 2</i>	<i>Workshop 3</i>	<i>Workshop 4</i>	<i>Workshop 5</i>	<i>RTS Course</i>	<i>Society Committee Meetings as required</i>	<i>Society Committee Meetings as required</i>	<i>Society Committee Meetings as required</i>	<i>Workshop 6</i>
08:30	Exploration for Natural Hydrogen	Geological Interpretation of Aeromagnetic Data	Passive Seismic – a tool for early stage exploration	Open source Geophysical Processing using Python and Geoscience ANALYST	Back to the New Basics	RTS Course	Society Committee Meetings as required	Society Committee Meetings as required	Society Committee Meetings as required	Unlocking the Value of Structural Geology in Mining, Exploration & 3D Modelling Day 2
10:30	Morning Tea									
11:00	Exploration for Natural Hydrogen	Geological Interpretation of Aeromagnetic Data	Passive Seismic – a tool for early stage exploration	Open source Geophysical Processing using Python and Geoscience ANALYST	Back to the New Basics	RTS Course	Society Committee Meetings as required	Society Committee Meetings as required	Society Committee Meetings as required	Unlocking the Value of Structural Geology in Mining, Exploration & 3D Modelling Day 2
12:30	Lunch									
13:30		Geological Interpretation of Aeromagnetic Data	Passive Seismic – a tool for early stage exploration	Open source Geophysical Processing using Python and Geoscience ANALYST	Back to the New Basics	RTS Course	Society Committee Meetings as required	Society Committee Meetings as required	Society Committee Meetings as required	Unlocking the Value of Structural Geology in Mining, Exploration & 3D Modelling Day 2
15:00	Afternoon Tea									
15:30		Geological Interpretation of Aeromagnetic Data	Passive Seismic – a tool for early stage exploration	Open source Geophysical Processing using Python and Geoscience ANALYST	Back to the New Basics	RTS Course	Society Committee Meetings as required	Society Committee Meetings as required	Society Committee Meetings as required	Unlocking the Value of Structural Geology in Mining, Exploration & 3D Modelling Day 2
Room	Exhibition Hall									
17:00-18:30	Welcome Reception									

Australasian Exploration Geoscience Conference 2023
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As at 15 March 2023

Wednesday, 15 March 2023

Registration and Exhibition Open

M3 + M4

Plenary

AEGC 2023 Official Opening Ceremony

Welcome to Country and Welcome to Delegates

Opening Address - Queensland's Role in Our Energy Future
Minister for Resources The Hon Scott Stewart MP

Exploration Initiatives in Queensland
Tony Knight, Chief Government Geologist

Plenary Keynote 1: More than Ore: The future of geophysics in mining
Michelle Thomas

Plenary Keynote 2: Women in Geoscience - fixing the Leaky Pipeline
Teresa Ubide Garralda

Morning Tea

Plenary

Plenary Keynote 3: Geophysics at Newmont - Past, Present and Future
Greg Walker

Society Awards and Announcements

Lunch Break

Room	M1	M2	M3	M4	P1	P2	P3	P4 + P5
	Petroleum 1 - Seismic Velocity Model Building <i>Chairperson: Andrew Long</i>	Petroleum 2 - Unconventional Hydrocarbon Exploration <i>Chairperson: Boris Gurevich</i>	Minerals Keynotes	Petroleum 3 - New Regional Concepts for Exploration: Offshore Case Studies <i>Chairperson: Victorien Paumard</i>	ASEG Publications Meeting	Near-Surface 1 - Engineering and Geotechnical Geophysics 1 <i>Chairperson: Takeshi Sato</i>	GGSSA AGM	Geoscience Education - Status of Tertiary Geoscience Education
13:30		45: Data analysis and interpretation of well logs in NDI Carrara 1, Northern Territory Liuqi Wang	Stream Keynote 1: The next generation of surface geochemistry; understanding what that means for covered exploration - a Newmont perspective. Simon Marshall	194: Recent Exploration in the Timor-Leste frontier Randall Taylor		41: Shear-Wave Seismic Reflection Case Study For Use In The Provision Of Shallow Seismic Profiles For Geotechnical Investigations Taylor Willick		13:30: Overview of Tertiary Geoscience Education in Australia - AGTEP 2021. David Cohen
13:50	181: Nonlinear LS-RTM based on seismic scale separation and full wavefield multi-parameter FWI Andrew Long	85: Impact of kerogen thermal maturity on rock-physics modelling of Toolebuc formation Partha Pratim Mandal		53: Controls on shelf-margin architecture and sediment partitioning in the Hammerhead shelf-margin (Bight Basin, southern Australia): Quantitative 3D seismic stratigraphy (QSS) John Shepherd	ASEG Publications Meeting	121: 3D Bedrock Model Utilising Multi-channel Analysis of Surface Waves to Assist the Land Development Industry in Greater Melbourne, VIC. Tavis Lavell	GGSSA AGM	13:45: Challenges for university geoscience departments Luke Nothdurft, Craig O'Neill
14:10	210: Seismic uncertainty analysis from the Pinhoe model building study Yuelian Gong	223: Unlocking the Canning Basin: Gas Resources for Western Australia Jarvis Moore	Stream Keynote 2: Keynote Recipe for Sedimentary-Basin Associated Copper Deposits. Bert de Waele	38: Quantitative, multi-scale characterization of modern depositional analogues of dryland deltas in response to increasing tidal range (Gascoyne, Ashburton & De Grey river deltas, Western Australia). Simon Lang		42: MASW and Microgravity – a novel approach to investigating Karstic features in a large Tailings Storage Facility. Aaron Tomkins, Benjamin Thomas		14:10: Graduate quality & quantity: Minerals, Hydrogeology, Geophysics, Energy Ned Howard, Chris Dickinson, Kate Selway, Helen Debenham
14:30	17: Data integration to quantify structural risk and GRV uncertainties over the western flank of the Cooper Basin Diogo Soares Cunha	174: Future exploration opportunities targeting Permian reservoirs on the western side of the southern Bowen Basin. Mel Wilkinson		191: Landscape and basin evolution modelling elucidates sediment supply and accommodation relationships in the Cretaceous Crayfish Sub-group of the Otway Basin. Matt Boyd		160: Application of high-resolution airborne EM and magnetic data for geotechnical information over tailings facilities, examples from the Quadrilatero Ferrifero area, Brazil Darren Burrows		14:45: Results of the AIG NGG survey "What industry wants" Katherine Gioseffi

Afternoon Tea

Room	M1	M2	M3	M4	P1	P2	P3	P4 + P5
	Minerals 1 - IOCG Gawler <i>Chairperson: Kathy Erhig</i>	Minerals 2 - Critical Metals <i>Chairperson: Tim Munday</i>	Petroleum Keynotes <i>Chairperson: Andrew Long</i>	Minerals 3 - Regional AEM Developments <i>Chairperson: Andrew King</i>	Minerals 4 - Geochemistry Applications <i>Chairperson: Dale Sims</i>	Near Surface 2 - Engineering and Geotechnical Geophysics 2 <i>Chairperson: Takeshi Sato, Simon Williams</i>	Minerals 5 - Airborne Gravity / Gradiometry <i>Chairperson: Michael Asten</i>	Geoscience Education - Future Directions
15:30	28: Monazite Chemistry for IOCG and ISCG Exploration Travis Batch	122: TIMA and LIBS automated techniques for the mineralogical characterisation of Li-Cu-Ni battery metals. Zofia Swierczek	Stream Keynote 3: A New Paradigm for Seismic Data Processing Using Machine Learning Tariq Alkhalifah (Pre-Recorded)	77: NSW's largest geophysical acquisition campaign Astrid Carlton	193: Using automated mineralogy to define indicator mineral signatures around the Julimar nickel-copper-PGE project, Western Australia Alexander Walker	21: Laterite resource definition through geophysics Chris Wijns	83: Exploring for Minerals under Murray Basin Cover with Airborne Gravity Gradiometry Luke Titus	15:30: Australian Geoscience Council Student Survey - aims, methods, progress report David Cohen
15:50	133: Geophysical synthesis of Iron-Oxide Copper Gold mineralisation: The influence of protolith, rheology, structural control and redox. James Austin	216: Whole rock geochemistry and hyperspectral mineralogy of Western Australian LCT pegmatites Carsten Laukamp		84: Revisiting legacy AEM data to generate new exploration opportunities in areas of outcrop or thin cover Andrea Viezzoli	288: AusGeochem Data Platform: Easily Visualise and Synthesise Data for Exploration Bryant Ware	263: Loupe Surveys for Mineral Exploration and TSF Study Andrew Duncan	125: Falcon vs FTG - Estimating Precision and Accuracy of Airborne Gravity Gradiometers Chris Van Galder	15:45: Future Directions for tertiary geoscience education – a case study Jessica Trofimovs
16:10	170: The tectono-stratigraphy of the Emmie Bluff/Oak Dam IOCG deposits: Exploring step-change ideas to expedite discovery John Anderson	235: Mineralogical characterisation of Lithium-Caesium-Tantalum pegmatites and implications for process optimization Martin Wells	Stream Keynote 4: Shelf-to-basin sediment transfer mechanisms in contrasted tectonic and climatic settings: Insights from quantitative 3D seismic stratigraphy Victorien Paumard	136: AusAEM is the world's largest airborne electromagnetic (AEM) survey undertaken A. Yusen Ley-Cooper	243: Isotope and geochemical fingerprinting of placer gold: insights into the provenance and age Svetlana Tossalina	79: Mapping historical tailings dams using electrical resistivity tomography: a case study from the Tommy Burns mine, North Queensland James Daniell	166: Evaluation of a survey style absolute quantum gravimeter Silvana Palacios	16:00: Models for post-tertiary and postgraduate specialist training: Nexus (<i>pre-recorded</i>), MTEC Masters' Program (<i>pre-recorded</i>), Camp for Applied Geophysics Excellence, The NGEA Challenge, EGRU Professional Development Program Richard Lilly, Rob Scott, Kate Selway, David Pratt, Kaylene Camuti
16:30	240: Improving predictive modelling of magnetite and gangue mineral content for IOCG and BIF deposits using hyperspectral data and controlled mixtures Heta Lampinen	274: Field Portable Analytical Options for Critical Minerals: Current Capabilities, Future Directions. Andrew Somers		253: Leveraging the value of historical AEM datasets with quantitative inversion Shane Mulé	92: Finding greenfield areas in the brownfield geochemical database, Queensland Joseph Tang	18: Monitoring the Mobility of Heavy Metals and Risk Assessment in Mine-affected Soils after Stabilization Jaeyoung Choi		16:25: Panel Discussion: "Where to from here?" Helen Debenham, Kate Selway, Luke Nothdurft, Sarah Gooley, Matthew Heskett

P3

IAGSA Meeting

Exhibition Hall

Happy Hour | Poster Session

Fortescue Metals Group Early Career Network Event

Australasian Exploration Geoscience Conference 2023
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Thursday, 16 March 2023

Registration and Exhibition Open

Room	M1	M2	M3	M4	P1	P2	P3	P4+P5
	Minerals 6 - AEM Methods <i>Chairperson: Astrid Carlton</i>	Minerals 7 - Deep Crustal Studies <i>Chairperson: Ned Stolz</i>	High School Student Session 1	Near Surface Keynotes <i>Chairperson: Alexander Costall</i>	Minerals 8 - Quantitative / ML Geology <i>Chairperson: Dale Sims</i>	Petroleum 4 - Exploration Insights into the Southern Margins of Australia <i>Chairperson: Andrew Long</i>	Petroleum 5 - Seismic Data Processing <i>Chairperson: Shaun Strong</i>	Wall-Hinman Symposium 1 <i>Chairperson: Kaylene Camui</i>
09:00	64: Application of natural field airborne electromagnetics in conductive geoenvironments Alexander Prikhodko	107: A new approach to imaging deep crustal structures across passive continental margins: Revisiting the crustal architecture of Southeast Australia's passive margin Chibuzo Chukwu		Stream Keynote 5: Applications of Passive Seismic Imaging & Monitoring Across Scales. Saygin Erdinc	184: Characterisation of metvolcanic megacryst structures within the Moyston Fault hangingwall mélange (Moomambool Metamorphic Complex), western Victoria: Insights from potential field modelling and machine learning. Tom McNamara	95: Towards a regional understanding of Sherbrook Supersequence Gross Depositional Environments, offshore Otway Basin Steve Abbott	103: Next Generation Land Processing Gives Confidence in Old Basin Graeme Eastwood	310: In memory of Vic Wall, an outstanding geologist Nicholas Oliver
09:20	102: Fixed-wing vs helicopter AEM systems: A Bayesian resolution analysis Anandaroop Ray	265: Insights into the deep crust across the Delamerian and Lachlan Orogens derived from new magnetotelluric data Stephan Thiel		39: Cause-and-effect of plate motion and crustal thickening using time-series analysis and data analytics Alex Farrar	98: Petroleum system modelling of the deep-water Otway Basin Oliver Schenk	209: Unveiling the Seismic Image Beneath Volcanics In The Bass Basin Shiping Wu	Mineral Systems and career discussions with Vic Wall (a video recorded in 2017). Greg Hall	
09:40	35: How many layers? A Bayesian Occam's Razor Andrew King	261: The nature of the Carpentaria Conductivity Anomaly Janelle Simpson		Stream Keynote 6: Geophysics in the Antarctic: reflections and futures. Adrian McCallum	262: Quantification of crystal size distribution in volcanic rocks with machine-learning image analysis: Mt Read Volcanics, Tasmania. Martin Jutzeler	131: Marked Depositional and Organic Facies Change across the Paleocene-Eocene in the Gippsland Basin, Australia Gregory Smith	99: Leveraging legacy data: An onshore reprocessing case study from the Bowen Basin Nigel Seymour	306: Mark Hinman's Pencil Case Geoff Phillips
10:00		78: The Delamerian NDI: Linking South and eastern Australia. Tom Wise		227: Using machine learning to generate an alternative geological interpretation Steven Sullivan	215: Resolving basement crustal architecture and extensional tectonics using 3D inversion modelling of airborne gravity data in the Otway Basin region, Victoria. Mark Mclean	267: Velocity Scan Migrations: A Valuable Addition to the Seismic Interpreter's Toolkit Peter Hoiles	297: Experimental petrology applications to mineral processing Mark Pownceby	

Morning Tea

Room	M1	M2	M3	M4	P1	P2	P3	P4+P5
	Minerals 9 - AEM Modelling <i>Chairperson: Yusef Ley-cooper</i>	Near-Surface 3 - Regional Hydrogeophysics and Basin Systems <i>Chairperson: Anandaroop Ray</i>	High School and Student Session 2	Petroleum Keynotes <i>Chairperson: Andrew Long</i>	Minerals 10 - Large Datasets and Machine Learning Applications <i>Chairperson: Steve Kuhn</i>	Minerals 11 - WA Provinces - Regional Studies <i>Chairperson: Mark Lowe</i>	Minerals 12 - New methods / Technologies <i>Chairperson: Peter Caristo</i>	Wall-Hinman Symposium 2 <i>Chairperson: Helen Debenham</i>
11:00	90: Enhancements to deterministic AEM inversion through better geometry constraints and a bunch-by-bunch algorithm Ross Brodie	165: Trusted environmental and geological information – stratigraphic frameworks for resource and hydrogeological assessments Carmine Wainman		Stream Keynote 7: Technology and Teamwork for Leveraging the Digital Revolution & Navigating Energy Transition Sandeep Chandola	94: Critical mineral prospectivity mapping on the Gawler craton using a new machine learning framework Ehsan Farahbakhsh	68: AEM Survey maps connection between the Camaron Basin and the Capricorn Orogen Ned Stolz	186: Application of 2D, 3D and in-situ techniques in quantitative characterisation and dating of sedimentary rocks Zhen Li	299: Volato-thermal processes in Archean Au systems: Implications for Earth Metallogeny John Walshe
11:20	132: 3D EM Inversion of UTEM Data to Recover Highly-Conductive Targets Devin Cowan	71: An integrated geophysical method approach to evaluating managed aquifer recharge potential in the Pilbara Nathan Tabain		178: Mantle to Mine: An integrated Machine Learning, Minerals Systems and Geomechanical Approach to Copper and Gold Exploration John McLellan	154: Insights into the Anketell and West Barncardny Faults, Paterson Province, using reprocessed legacy seismic data Helen Anderson	260: Application of Time-of-Flight Secondary Ion Mass Spectrometry to the Geosciences William Rickard	Thermal Aureole Gold Model Update. Greg Hall	
11:40	147: 3D inversion of Airborne EM using airborne magnetics as a structural guide Carsten Scholl	22: Development of a new basin-wide 3D hydrogeological model of the Great Artesian Basin for groundwater assessment Andrew Mcpherson		Stream Keynote 8: A seismic source field trial in the Bass Strait: testing the impact of several different source configurations on geophysical quality, received sound and direct impact on scallops and lobsters Jon Cocker	188: AI/ML to Unlock Potential of "Dormant Data" of Rock Chips Marina Pervukhina	196: Integration of regional scale geophysical data to generate a 3D geological model of the Paterson Province Antonio Huizi	217: Automating Feature Extraction from Model Ensembles Produced by Probabilistic Geophysical Inversion Gerhard Visser	311: Intrusive controversies and regional 3D targeting for TAG and IOCG mineralisation Richard Valenta
12:00	214: Airborne and Ground Induced Polarization integration: new insights for exploration Francesco Dauti	205: investigation Of Coastal Perth Basin North For Jurien Bay Town Water Supply With Airborne Electromagnetics Karen Gilgallon	232: Integration by design: A novel approach to the Multimodal "Big Data" Conundrum in Geoscience James Austin	270: Southern Canning Basin, Western Australia - Insights from public airborne electromagnetic data James Reid	142: Semi-automated identification of regolith/basement interfaces using hyperspectral and geochemical data: a MinEx CRC project Hamid Zekri	Discussion		

Lunch

Room	P3	P5
12:30-13:30	ASEG Council Meeting	ASEG Research Foundation

Room	M1	M2	M3	M4	P1	P2	P3	P4+P5
	Minerals 13 - Geophysical Case Studies 1 <i>Chairperson: Mark Lackie</i>	Near-Surface 4 - Environmental Geophysical and Groundwater Applications <i>Chairperson: Aaron Tomkins</i>	High School Student Session 3	Minerals 14 - Sediment Hosted Copper Studies <i>Chairperson: Bert De Waele</i>	Petroleum 6 - Seismic AVO Analysis and Inversion 1 <i>Chairperson: James Parsons</i>	Petroleum 7 - DAS and Passive Seismic 1 <i>Chairperson: Roman Pevzner</i>	Minerals 15 - Developments in Downhole Geoscientific applications <i>Chairperson: Jessica Stromberg</i>	Wall-Hinman Symposium 3 <i>Chairperson: Ned Howard</i>
13:30	54: Uranium exploration in the Athabasca Basin using low-noise airborne gravity gradient data Darren Burrows	89: Electrical imaging of solute transport dynamics to understand nutrient transport from flat agricultural landscapes Lee Slater		6: Sedimentary Copper Deposits : Which basin is hiding the next Big Copper Belt Bruce Hooper	19: Direct hydrocarbon indications from fluid contacts - Jarrod calling them "flatspots"! Jarrood Dunne	295: Passive Microseismic in the Canning Basin – Direct Hydrocarbon sensing Helen Debenham	11: UCS while drilling - actionable orebody intelligence for mining efficiency improvement. Roger Griffiths	303: The Radiogenic Nature of Intrusions Related to Proterozoic Thermal Aureole Gold and other 'oddlies' in Proterozoic tectonics. Lesley Wyborn
13:50	72: Assessing future exploration potential of the Cobar District using integrated 3D geological modelling and geophysical inversion. Giovanni Pietro Tommaso Spampinato	259: Informing groundwater resource potential for mining a magnetite resource using regional scale exploration data – The Braemar Corridor in South Australia. Timothy Munday		65: Sediment-hosted mineral potential mapping of Australia: Geoscience data integration for national-scale assessment Arianne Ford	56: Maximizing value from available data via advanced Geostatistical Inversion in the Gweller Field Alessandro Mannini	247: Observation of vibroseis signature repeatability at the single location Valeriya Shulakova	169: Drilling sensor systems for trajectory control toward a distant mineral target while drilling Aruni Rajanayake	307: Lithophile-Element Discriminants of Cu-(Au-Mo) Ore-Forming and Barren Arc Magmas Robert Loucks
14:10	175: Maximising value from aeromagnetics surveying in the pressing search for cleaner-energy and rare earth materials. Yvonne Wallace	126: Groundwater geochemistry as exploration tool through cover Joseph Tang		162: Mineral Systems Modeling – Opportunities and Solutions to De-Risk Green- and Brownfield Exploration Daniel Palmowski	180: Seismic facies and rock properties prediction using Direct Probabilistic Inversion: case studies from Australian basins Andre Eduardo Calazans Matos De Souza	249: Analysis of teleseismic earthquakes on nodal seismic surveys. Steve Hearn	206: Discriminating magmatic and hydrothermal processes in borehole data: implications for orogenic gold in Yilgarn Craton, Western Australia Mosayeb Khademi Zahedi	298: Porphyry copper systems: From sulfide-saturated mantle source to an effective ore fluid Christopher A. Heinrich
14:30	248: Petrophysical properties of the Cobar Province: key deposits to better understand magnetisation Andreas Bjork	199: Quantifying Subterranean Fauna Habitats And Geological Features Interconnections Maria Clara Lopes Paula	273: Geochemical signatures of key mineral systems and deposit types in north Queensland, Australia Vladimir Lisitsin	189: The Practical Application of Wave Equation Based AVO Inversion John Coffin	283: Advances in Geophysics While Drilling for Reverse Circulation Drilling Darren Palmer	250: Seismic While Diamond Drilling Anton Kepic	Discussion	

Afternoon Tea

Room	M1	M2	M3	M4	P1	P2	P3	P4+P5
	Minerals 16 - Drillhole Information Extraction Technologies <i>Chairperson: Anton Kepic</i>	Minerals 17 - Geophysical Case Studies 2 <i>Chairperson: Jared Townsend</i>	Panel session - Diversity and equity in geoscience	Minerals 18 - Magnetic methods <i>Chairperson: Kim Francombe</i>	Petroleum 8 - DAS and Passive Seismic 2 <i>Chairperson: Roman Pevzner</i>	Petroleum 9 - Geochemistry <i>Chairperson: Zhen Li</i>	Near-Surface 5 - Geothermal Exploration and MT Inversion Modelling <i>Chairperson: Michael Asten</i>	Wall-Hinman Symposium 4 <i>Chairperson: Kate Selway</i>
15:30	190: Integrated approach for downhole geophysical data interpretation: advanced characterisation using Borehole Magnetic Resonance, Acoustic Televiwer Images and Core data Lena Thrane	69: Best practices for ultra-high resolution magnetic and radiometric statewide merging Sam Matthews		182: Geophysical discovery of the Cerro de Maimon South VHMS Kate Hine	195: Numerical modelling of the effect of the borehole environment on seismic amplitudes measured by fibre-optic distributed acoustic sensors Boris Gurevich	116: Organic Depositional Facies Control on Hydrocarbon Occurrence in the Middle Triassic of the Roebuck Basin, WA. Greg Smith	276: Geothermal study using modeling of magnetotelluric data - A case study: Sabalan region, Iran Fatemeh Firooz	308: Unconformity-Type Uranium Deposits: Mineral Systems Models Then and Now Andy Wilde
15:50	213: Extracting consistent geotechnical data from drill core imagery using computer vision Sam Johnson	144: Distal, proximal and sweet-spot: limitations in source information content of magnetic field data Clive Foss		87: An Empirical Geophysical Model for Porphyry Copper Deposits in the Laramide Copper Province. Brendan Howe	197: Australia-wide downhole DAS array for observational seismology Roman Pevzner	286: Petrography and geochemistry of sandstones of the Permian Vryheid Formation, Highveld Coalfield of South Africa: Implications for provenance, palaeo-weathering and palaeo-redox conditions Lindani Ncube	291: Depth to basement mapping in Mount Isa using 2D MT constrained inversions Hoel Seille	309: Proterozoic unconformity-related REE in Browns Range, WA; fluid dynamics around an exhuming Archean dome Nicholas Oliver
16:10	226: Using computer vision and drill core photography to automate geological logging workflows and improve orebody knowledge Nathanael Pittaway	168: Evolution of depth estimation techniques by using potential field data Desmond Fitzgerald, Jeffrey B. Thurston		124: Regional mineral potential evaluation and fast track targeting using existing EM, magnetics and gravity – case study from the Eastern Goldfields, Western Australia Andrea Viezzoli	200: Feasibility of Seismic While Drilling without the use of a pilot signal based on synthetic modelling Emad Hemyari	86: A new origin for the hydrocarbon-bearing zones in the Goldwyer Formation on the Broome Platform, Canning Basin, WA, from Nanoscale ToF-SIMS geochemical characterization of organic petrology. Lukman Johnson	292: Evaluation of a depth to basement Bayesian model using cross-validation strategies Hoel Seille	304: Zircon as metal sources for unconformity-related mineral deposits Carl Spandler
16:30	264: Identification of Structural Features using Measure-While-Drill Data Lance Karlson	278: Airborne Magnetic Surveys - Everything you wanted to know but were afraid to ask Robert Hearst (Pre-recording)	161: Improving Nickel exploration with a purposefully designed airborne electromagnetic system, with an example from Julimar, Western Australia Darren Burrows	151: Application of generic segmented semblance in surface microseismic localization Javad Khoshnavaz	2: Isotopic fingerprinting hydrogen sulphide (H ₂ S) gas origins in unconventional reservoirs: the mitigation of environmental contamination in gas production. Gareth Chalmers	49: High Resolution Airborne Gravity Gradiometry, Electromagnetic and Magnetic data for Geothermal Assessment Craig Annison	Discussion	

Exhibition Hall

Happy Hour | Poster Session

Conference Dinner - Queensland Art Gallery - A Night of Art and Magic

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As at 15 March 2023

Friday, 17 March 2023

Registration and Exhibition Open

Room	M1	M2	M3	M4	P1	P2	P3	P4	P5
	Minerals 19 - Regional Exploration Geophysics <i>Chairperson: Stephan Thiel</i>	Petroleum 10 - Seismic AVO Analysis and Inversion 2 <i>Chairperson: Jarrod Dunne</i>	Near-Surface Keynotes <i>Chairperson: Alexander Costall</i>	Minerals 20 - Geophysical Studies - Deposit Scale <i>Chairperson: Kate Hine</i>	Petroleum 11 - CCS Monitoring <i>Chairperson: Andrew Long</i>	Minerals 21 - New Developments / Methods <i>Chairperson: Kim Francombe</i>	Minerals 22 - Regional Prospectivity Studies <i>Chairperson: Arianne Ford</i>	Petroleum 12 - Land Seismic Survey Design & Acquisition <i>Chairperson: Alan Meulenbroek</i>	
09:00	139: An Example of Country Scale Airborne Geophysics - Angola John Bell	296: Optimizing Seismic Inversion Results Through Fully Seismic Driven Background Model Generation Karl Hosgood	Stream Keynote 9: The Future of Near-Surface Geophysics is Tiny Jan Francke	271: Integrated 3D modelling and associated machine learning targeting: the Jaguar Greenstone Belt example. James Reid	280: The role of CSEM in Carbon Capture and Storage Monitoring Naima Yilo	106: Passive Mineral Exploration at the Speed of Light: How a Space Company is Using ANT to Map the Earth's Subsurface Gerrit Olivier	179: Geochronology for mineral exploration Hugo Olierook	113: Designing Seismic Surveys for Reduced Environmental Impact Alyson Birce	
09:20	279: The economics of looking deep with geophysics - Why look deep when I'm only interested in the first XXXm? Robert Hearst <i>(Pre-recording)</i>	230: Automatically identifying lithofacies from wireline logs: A case study in Cuu Long Basin, Vietnam Duy Thong Kieu		80: Geophysical Responses of Devoncourt Prospect - A Granite Hosted LOGC In North-West Queensland, Australia James Alderman, Nikhil Prakash	128: Overview of the Barrow Island Land Seismic Acquisition and 4D Processing of the First Gorgon CO2 Time-Lapse Monitor Survey. Paul Phythian	185: An Airborne Heterodyne Sulphide Exploration Test James Macnae	187: Heavy mineral exploration on a continental scale: The GA-Curtin Heavy Mineral Map of Australia project Brent McInnes	231: Going off the grid – defining the new standard – 3D modelling for today's challenges Claudio Strobbia	
09:40	20: WA_ARRAY: a State-wide passive seismic imaging campaign in Western Australia Ruth Murdie	100: The advantages of an automated well-to-seismic tie calibration process Andrea Paxton	Stream Keynote 10: Near Surface Geophysics in the Mining Life Cycle Ashley Grant	256: Integrated interpretation applied to the Nardoo prospect, QLD. Glenn Pears	177: Integrated workflow for characterization of CO2 subsurface storage sites Andrew Long	246: LithoSpace - a Geochemical Data Platform for Extra-terrestrial Mineral Exploration Wayne Noble	27: 1.60-1.57 Ga suprasubduction zone model for metal endowment in eastern Australia Caroline Tiddy	225: Assessing and reducing the environmental impact of onshore geophysical surveys Tim Dean	
10:00	105: Geometry of the North Australian Craton margins and correlations with upper crustal structures Fatemeh Amirpoorsaeed	236: Why accelerating the rush towards seismic for prospecting? Mosayeb Khademi Zahedi		25: Identifying and Quantifying Uncertainty Inherent in Mineral Resource Estimates Andrew Waltho	16: Computation of vertical fluid mobility: Implications for CO2 storage and hydrogen exploration Bhavik Harish Lodhia	109: A development of an unbiased spiral array for MASW data acquisition Koya Suto	137: De-risking Salar and Paleosaline Lithium-Brine rich targets in the Lithium Triangle using Satellite Imagery. Olivia Rhind	228: The importance of geophone emplacement for onshore seismic surveys Tim Dean	

Morning Tea

Room	M1	M2	M3	M4	P1	P2	P3	P4	P5
	Minerals 23 - Deposit Scale <i>Chairperson: Craig Anison</i>	Minerals 24 - EM Methods and Modelling <i>Chairperson: Andrew Duncan</i>	Early Career & Student Session 1: Industry Q&A Panel <i>Panelists:</i> Dr Kate Brand Dr Jan Francke Jaime Livesey Dr Helen Degeling	Minerals 25 - Geophysical Case Studies 3 <i>Chairperson: Janelle Simpson</i>	Petroleum 13 - Reservoir Depletion Monitoring <i>Chairperson: Paul Phythian</i>	Near-Surface 6 - Cover Mapping <i>Chairperson: Chris Wijns</i>	Petroleum 14 - New Regional Concepts for Exploration: Onshore Case Studies <i>Chairperson: Tehani Palu</i>	Near-Surface 7 - Soil Geochem and Novel Applications <i>Chairperson: Simon Williams</i>	ASEG Technical Standards Meeting
11:00	333: Revealing Geological Details in Hard Rock Seismic Volumes using Medical Imaging Technology Andrew Pethick	66: Low-frequency, B-field, TDEM exploration in North America for high-conductivity, base and precious metal ore deposits Dennis Woods		272: EM success in the Carajás – Geophysical results of the Jaguar Nickel deposit, Brazil Grant Couston	30: Hourly 4-D Subsurface Time-Lapse Monitoring using Seismic Ambient Noise Peng Guo	135: New data, new insights into the Tasmanian cover Mark Duffett	37: Increasing the prospectivity of northern Australia; impacts from the recent Exploring for the Future seismic acquisition and regional geology studies in the South Nicholson region, Northern Territory. Lidena Carr	81: Adapting our Traditional Geochemistry Workflows to Cope with a Data Tsunami Michael Whitbread	ASEG Technical Standards Meeting
11:20	140: Imaging complex geology using 3D seismic: Unique depth imaging workflows applied to the Carosue Dam gold deposit, Western Australia. Sasha Ziramov	76: New developments with the HeliSAM and UAVSAM systems, for use in mineral exploration Daniel Eremenco		120: mineral Exploration Under Cover And The Value Of Petrophysics – A Case Study From East Albany-fraser Orogen, Western Australia. Katherine Mckenna	108: Monitoring of the Producing Reservoir Pressure and Saturation Changes Using Extended Elastic Impedance From Time-Lapse Seismic Data: Enfield Field, NW Australia. Sergey Shevchenko	152: Onshore Basin Inventories: Building foundational understanding of energy resources for Australia's Future Adam Bailey	255: How to infer soil density from radiometric data Anton Kepic	ASEG AGM	
11:40	212: 2D forward seismic modelling at the Thunderbox gold mine, Western Australia, using laboratory petrophysical data Andre Eduardo Calazans Matos De Souza	110: Complete Earth 3D Modelling of Land Controlled-Source EM Stephen Hallinan		4: Geophysical response and exploration methods for Callie-style targets in Tanami, NT, Australia_final Tim Dohey	233: Monitoring subsurface changes using amplitudes of active and passive seismic signals recorded by downhole distributed acoustic sensors: CO2CRC Otway Stage 3 field study Pavel Shashkin	275: Passive seismic methods for obtaining shear-wave velocity profiles and depth to basement in an urban-industrial area, Marmara region, Turkey Michael Asten	156: Is a reinterpretation of the basin architecture for the Perth Basin required? A case study of how reprocessed gravity and magnetic data is providing critical new insights Helen Anderson		14: Understanding space weather hazard in Australia using geomagnetic and magnetotelluric data Liejun Wang
12:00	203: Hardrock 3D Seismic Imaging of the Mawson Prospect Jie Jian Leong	158: Broadband Tempest Upgrades Eric Steele			269: Optimising 4D Signal Where Environmental Conditions Hinder Survey Repeatability Hui Zhang	305: Terrestrial Water and Groundwater Storage Variability Estimation using GRACE and GRACE-FO Time Variable and GLDAS-LSM Products for Enhancing Sustainable Integrated Surface Water-Groundwater Management in Thailand Aksara Putthividhya	183: Anatomy of a land release Sue Slater		

Lunch

Room	M1	M2	M3	M4	P1	P2	P3	P4	P5
	Minerals 26 - High resolution surveys <i>Chairperson: Sophie Hancock</i>	Petroleum 15 - Seismic AVO Analysis and Inversion 3 <i>Chairperson: John Coffin</i>	Early Career & Student Session 2: The GeoPitch <i>Dr Bahvik Harish Lodhia</i> Oliver Mowbray Laureano Gonzalez Rodrigue Kosuke Tsutsui Carra Williams Ao Chang Nuray Oncul Mahtab Rashidifard Matt Scipione Tianjiao Yu	Minerals 27 - Seismic - Gawler <i>Chairperson: Denis Sweeney</i>	Petroleum 16 - Digital Frameworks for Better Practices <i>Chairperson: Shastrī Nimmagadda</i>	Petroleum 17 - CO2 and Hydrogen Storage <i>Chairperson: Andrew Long</i>	Minerals 28 - Geophysical modeling and case studies <i>Chairperson: Clive Foss</i>	Minerals 29 - Airborne Applications <i>Chairperson: Melanie Fitzell</i>	ASEG AGM
13:30	115: Optimization of 3D RES/IP/MT surveys to efficiently follow-up previously identified "Recon-Type" RES/IP anomalies Steve Boucher	33: New insights into Australian NW Shelf Upper Triassic Mungaroo Formation depositional systems based on the deep exploration well Ironbark-1 and a regionally merged 3D seismic data set. Dan Bishop		143: Seismic guided minerals exploration Greg Turner	8: Digital Petroleum: Perspectives of Industry Big Data Integration and Automation - Managing Non-renewable and Renewable Energy Sources Shastrī Nimmagadda	282: Hydrogen Gas Storage Prospects in the offshore Gippsland Basin Mark Bunch	13: Deep Learning Based Geological Interpretation Using Geophysics Michael Rodda	118: interpreting Aeromagnetic Data In Areas Of Limited Outcrop, An Update From 1997 Desmond Fitzgerald	ASEG AGM
13:50	167: Drone enhanced capabilities applied to gradient magnetics Adam Kroll	12: Rapid Play Evaluation Through AI Interpretation Jacob Smith		224: Seismic velocity (Vp) vs alteration mineralogy in the Olympic Dam IOCG deposit Kathy Ehrig	104: Repurposing Geotechnical Data for Energy Transition Jess Kozman	207: Feasibility of conformance monitoring for CO2 geosequestration using refracted waves Roman Pevzner	47: Geology-geophysics integrated inversion in Mount Isa South, Queensland Mahtab Rashidifard	208: Mapping A Paleochannel On The Edge Of The Darling Fault In Western Australia Using Airborne EM And Passive Seismic Karen Gilgallon	
14:10	218: Alunite Characterization with Ultra High Resolution SWIR Andrew Somers	234: Rock Physics driven Machine Learning for quick & improved Reservoir Characterization Jyoti Jyoti		127: 3D Seismic Feasibility Study of Olympic Dam Jared Townsend	111: Building a National High-Resolution Geophysics Reference Collection for 2030 Computation Nigel Rees	88: Assessing geochemical reactivity during CO2 geological storage: An example from the Surat Basin Julie Pearce	134: Comparison of resistivity and chargeability inversions integrating rock physical properties and geological models Carlos Peña	43: Conductivity-depth imaging in the Ord Basin, Western Australia Alex Zhan	
14:30	36: Heterodyne Method of Sulphide detection. Latest field results. Steve Collins	238: Automate lithology prediction process from well log data using Machine Learning and Deep Learning: A case study from Ha Lam coalfield, Vietnam Duy Thong Kieu		237: The First Sparse 3D Hardrock Seismic Survey at Olympic Dam Jared Townsend	9: Information System Articulated Techno-economic Decision Tree Template – Managing Digital Drilling Campaigns and Prospect Analytics Shastrī Nimmagadda	284: Cost effective high-resolution marine streamer seismic acquisition and imaging solutions for new energy applications Andrew Long	93: A geophysically relevant proton conduction model for the upper mantle Sarath Patabendigedara	302: A first-pass inspection of regional airborne electromagnetic data in Western Australia Klaus Gessner	

Afternoon Tea

Room	M3 + M4
	Closing Plenary Session
15:30	Summary, Awards, AEGC24 update and final presentations
Room	Mezzanine Foyer
17:00-18:00	Closing Reception

Australasian Exploration Geoscience Conference 2023
MONDAY 13 March 2023 - SATURDAY 18 March 2023
Brisbane Convention & Exhibition Centre

As at 8 March 2023

Saturday, 18 March 2023

07:30	Registration Open				
Room	P1	P2	P3	P4	P5
	<i>Workshop 1</i>	<i>Workshop 2</i>	<i>Society Committee Meetings as required</i>	<i>Society Committee Meetings as required</i>	<i>ASEG Strategy Meeting</i>
08:30	AusGeochem: An Exploration Tool to Archive, Synthesise, Find and Extract Geochemistry Data	Advances in Seismic Acquisition: Innovations, Resolution, and Sustainability Applications for Mining	Society Committee Meetings as required	Society Committee Meetings as required	ASEG Strategy Meeting
10:30	Morning Tea				
11:00	AusGeochem: An Exploration Tool to Archive, Synthesise, Find and Extract Geochemistry Data	Advances in Seismic Acquisition: Innovations, Resolution, and Sustainability Applications for Mining	Society Committee Meetings as required	Society Committee Meetings as required	ASEG Strategy Meeting
12:30	Lunch				
13:30	AusGeochem: An Exploration Tool to Archive, Synthesise, Find and Extract Geochemistry Data		Society Committee Meetings as required	Society Committee Meetings as required	ASEG Strategy Meeting
15:00	Afternoon Tea				
15:30	AusGeochem: An Exploration Tool to Archive, Synthesise, Find and Extract Geochemistry Data		Society Committee Meetings as required	Society Committee Meetings as required	ASEG Strategy Meeting
17:00	End of Day				