



AEGC2019
Data to Discovery
Australasian Exploration Geoscience Conference
2-5 September 2019 • Perth, Western Australia
Incorporating the AIG, ASEG, PESA, and WABS

Program

Sunday 1 September

0700 – 1300	AEGC 2019 Exhibition Build					
0800 – 0845	AEGC 2019 Workshop Registrations <i>For registered attendees that have pre booked to attend a workshop, please proceed directly to the session rooms located at Crown Perth</i>					
0845 – 1015	Workshops Session 1					
	W2 Cover thickness estimate using geophysical inversion methods	W5 Applications of Geostatistical Inversion for Detailed Reservoir Characterization	W9 Opportunities and applications for machine learning in exploration geophysics	W10 QGIS for Geoscientists	W11 VSP & Borehole Sonic Interpretation and Application	W6 Exploring Presentation – Extracting Engagement
Room	Botanical 1, Lower Level	Botanical 2, Lower Level	Botanical 4, Lower Level	Meeting Room 1	Meeting Room 2	OFFSITE Mantra on Hay
1015 – 1045	MORNING TEA <i>Botanical Foyer, Lower Level</i>					
1045 – 1215	Workshops Session 2					
	W2 Cover thickness estimate using geophysical inversion methods	W5 Applications of Geostatistical Inversion for Detailed Reservoir Characterization	W9 Opportunities and applications for machine learning in exploration geophysics	W10 QGIS for Geoscientists	W11 VSP & Borehole Sonic Interpretation and Application	W6 Exploring Presentation – Extracting Engagement
1215 – 1315	LUNCH <i>Botanical Foyer, Lower Level</i>					
1315 – 1445	Workshops Session 3					
	W2 Cover thickness estimate using geophysical inversion methods	W5 Applications of Geostatistical Inversion for Detailed Reservoir Characterization	W9 Opportunities and applications for machine learning in exploration geophysics	W10 QGIS for Geoscientists	W11 VSP & Borehole Sonic Interpretation and Application	W6 Exploring Presentation – Extracting Engagement
1445 – 1515	AFTERNOON TEA <i>Botanical Foyer, Lower Level</i>					
1515 – 1645	Workshops Session 4					
	W2 Cover thickness estimate using geophysical inversion methods	W5 Applications of Geostatistical Inversion for Detailed Reservoir Characterization	W9 Opportunities and applications for machine learning in exploration geophysics	W10 QGIS for Geoscientists	W11 VSP & Borehole Sonic Interpretation and Application	W6 Exploring Presentation – Extracting Engagement

Monday 2 September

0700 – 1100	AEGC 2019 Exhibitor Build continues							
0800 – 1700	PESA Executive Committee Strategy Day <i>Studio One, Level 2</i>							
0800 – 0845	AEGC 2019 Workshop Registrations <i>For registered attendees that have pre booked to attend a workshop, please proceed directly to the session rooms located at Crown Perth</i>							
0845 – 1015	Workshops Session 1							
	W2 Cover thickness estimate using geophysical inversion methods (Continued)	W17 Mentoring: Networking, Confidence, Diversity	W16 Magnetotellurics for Resource Exploration and Monitoring	W19 Porphyry Copper-Gold Deposit Course	W12 3D Modelling and Inversion using VP Suite, UBC-GIF and GIFtools	W13 Digital Disruption in Exploration	W15 Forum on the relevance of geophysical uncertainty in exploration	W14 Drill Core Data Exploration and Integration
Room	Botanical 1, Lower Level	Botanical 2, Lower Level	Botanical 3, Lower Level	Botanical 4, Lower Level	Meeting Room 1	Meeting Room 2	Meeting Room 3	Meeting Room 4
1015 – 1045	MORNING TEA <i>Botanical Foyer, Lower Level</i>							
1045 – 1215	Workshops Session 2							
	W2 Cover thickness estimate using geophysical inversion methods (Continued)	W17 Mentoring: Networking, Confidence, Diversity	W16 Magnetotellurics for Resource Exploration and Monitoring	W19 Porphyry Copper-Gold Deposit Course	W12 3D Modelling and Inversion using VP Suite, UBC-GIF and GIFtools	W13 Digital Disruption in Exploration	W15 Forum on the relevance of geophysical uncertainty in exploration	W14 Drill Core Data Exploration and Integration
1100 – 1600	Exhibitor Move In							
1215 – 1315	LUNCH <i>Botanical Foyer, Lower Level</i>							
1300 – 1900	AEGC 2019 Conference Registration Desk Open							
1315 – 1445	Workshops Session 3							
	W2 Cover thickness estimate using geophysical inversion methods (Continued)	W17 Mentoring: Networking, Confidence, Diversity	W16 Magnetotellurics for Resource Exploration and Monitoring	W19 Porphyry Copper-Gold Deposit Course	W12 3D Modelling and Inversion using VP Suite, UBC-GIF and GIFtools	W13 Digital Disruption in Exploration	W15 Forum on the relevance of geophysical uncertainty in exploration	W14 Drill Core Data Exploration and Integration
1445 – 1515	AFTERNOON TEA <i>Botanical Foyer, Lower Level</i>							
1515 – 1645	Workshops Session 4							
	W2 Cover thickness estimate using geophysical inversion methods (Continued)	W17 Mentoring: Networking, Confidence, Diversity	W16 Magnetotellurics for Resource Exploration and Monitoring	W19 Porphyry Copper-Gold Deposit Course	W12 3D Modelling and Inversion using VP Suite, UBC-GIF and GIFtools	W13 Digital Disruption in Exploration	W15 Forum on the relevance of geophysical uncertainty in exploration	W14 Drill Core Data Exploration and Integration
1645	Workshops Conclude, please join us for drinks in the Gran Ballroom Foyer prior to the start of the Welcome Reception							
1730 – 1900	Welcome Reception <i>Grand Ballroom</i>							
From 1900	The Fortescue Metals Group Early Career Geoscientist Networking Evening <i>The Camfield</i> <i>A round service shuttle will operate from 1830 between Crown (pick up Coach Bays lower lobby Crown Towers), The Camfield and Burswood Station (operating at 15 minute intervals). The shuttle service will conclude at 2230.</i>							

0730 - 1800	AEGC 2019 Conference Registration Desk Open <i>register early and collect your name badge!</i>		
0730 – 0830	Arrival tea and coffee amongst the exhibition		
0730 – 1800	AEGC 2019 Exhibition Open		
0830 – 1010	OPENING PLENARY SESSION		
0830 – 0835	Welcome to Country Marie Taylor		
0835 – 0840	Welcome to AEGC 2019 Tim Dean and John Gorter, <i>Co-Chairs AEGC 2019 Organising Committee</i>		
0840 – 0850	Official Opening The Hon Bill Johnston MLA, <i>Minister of Mines and Petroleum</i>		
0850 – 0855	Australian Institute of Geoscientists Welcome Andrew Waltho, <i>President</i>		
0855 – 0900	Australian Society of Exploration Geophysicists Welcome Ted Tyne, <i>President</i>		
0900 – 0905	Petroleum Exploration Society of Australia Welcome Nathan Parker, <i>Federal President</i>		
0905 - 0935	WesternGeco Plenary Address David Seabrook, <i>Vice President, Technology, WesternGeco</i>		
0935 – 0940	Delegates to make their way to the various member society rooms to hear an update from the President as to what is happening in their Society. For ASEG members this will include the presentation of awards.		
0940 – 1010	Australian Institute of Geoscientists	Australian Society of Exploration Geophysicists	Petroleum Exploration Society of Australia
	Crown 3A	Crown 3B	Crown 3C
1010 – 1040	MORNING TEA <i>Grand Ballroom</i>		
1010 – 1040	ASEG Finance Meeting, <i>Studio Two, Level 2 (Invitation Only)</i> ASEG-SEG Meeting, <i>The Studio, Level 2 (Invitation Only)</i>		
1040 – 1220	Concurrent Sessions		

Tuesday 3 September

	New plays and areas	Coal	Seismic processing (O+G) 1	WABS NCB/Exmouth 1	Exploration Strategy/Innovations	Magnetotellurics I – General	Mineral Case Studies: Geophysics – Seismic	Deep Crustal Studies I
Room	Astral 1	Astral 2	Astral 3	Crown 1	Crown 2	Crown 3A	Crown 3B	Crown 3C
1040 – 1105	The Paleozoic Prospectivity of the offshore Canning Area, Australia Said Amiribesheli <i>Discover Geoscience Pty Ltd</i> <i>Paper# 92</i>	Electromagnetic and electrical methods applied to mapping coked coal – A case study from the Bowen Basin, Eastern Australia. Jonathan Lowe <i>BHP</i> <i>Paper# 206</i>	New insights into the Exmouth Sub-basin: Seismic acquisition, processing and imaging Alex Karvelas <i>WesternGeco</i> <i>Paper# 46</i>	Shooting for the stars. Unravelling a late Jurassic deepwater petroleum system - frontiers for the next generation of petroleum exploration Darren Ferdinando <i>Murphy</i>	The Science of Discovery – From Exploration 1.0 to Discovery 2.0 Tim Craske <i>Geowisdom Pty Ltd</i> <i>Paper# 48</i>	Keynote: Magnetotellurics – Status Quo and Quo Vadimus? Alan Jones <i>Complete MT Solutions Inc.</i>	Maximising the value of 2D hard rock seismic acquisition at Escondida Porphyry Copper Mine Heather Schijns <i>BHP</i> <i>Paper# 147</i>	Moho structure of Australia from probabilistic inversion of teleseismic P-wave coda autocorrelation Mehdi Tork Qashqai <i>CSIRO</i> <i>Paper# 244</i>
1105-1130	Exploring for the future: Kidson Sub-basin seismic interpretation Chris Southby <i>Geoscience Australia</i> <i>Paper# 129</i>	Lithology characterisation of the roof and floor of the Moranbah measures coal seam using post-stack and pre-stack seismic inversion Margarita Pavlova <i>BHP</i> <i>Paper# 109</i>	Application of high-end seismic imaging technologies for field development in NWS Australia Min Lee Chua <i>CGG</i> <i>Paper# 264</i>	Ginger - a little spice on the shelf: supra-s slump stratigraphic trapping in the Barrow Sub-basin Steve Moss <i>Santos</i>	The power of the crowd & open data – learnings from the OZ Minerals Explorer open innovation challenge Holly Bridgwater <i>Unearthed</i> Ian Anderson <i>OZ Minerals</i> <i>Paper# 107</i>		Case studies on the application of passive seismic horizontal to vertical spectral ratio (HVSR) surveying for heavy mineral sand exploration Nigel Cantwell <i>Resource Potentials Pty Ltd</i> <i>Paper# 282</i>	Integrating fault kinematics into implicit 3D modeling of fault networks Lachlan Grose <i>Monash University</i> <i>Paper# 118</i>
1130-1155	What lies beneath? Prospecting for Hydrocarbons under a metamorphic allochthon, Timor-Leste Mike Bucknill <i>Geovision Exploration Services</i> <i>Paper# 365</i>	High-productivity, high-resolution 3D seismic surveys for open-cut coal operations Eric Battig <i>BHP</i> <i>Paper# 151</i>	Processing the first full azimuth OBN survey in Australia: a step change in imaging quality Unnikrishnan Chambath <i>CGG</i> <i>Paper# 302</i>	The variation of Mesozoic rift impact on the Exmouth Plateau and the depositional response. Hayley Rohead-O'Brien <i>Curtin University</i>	What will it take to improve the characterisation of deep mineral deposits in order to assess “economic value” early in the discovery process? Joe Cucuzza <i>AMIRA International</i> <i>Paper# 57</i>	The Geosciences DeVL Experiment: New information generated from old magnetotelluric data of The University of Adelaide on the NCI High Performance Computing Platform Nigel Rees <i>National Computational Infrastructure</i> <i>Paper# 138</i>	Refraction tomography at the Nova Ni-Cu mine Ian James <i>Hiseis</i> <i>Paper# 293</i>	Metasomatic/depletion events affecting Cratons and “cratons” Tom Wise <i>Geological Survey of South Australia</i> <i>Paper# 49</i>
1155-1220		Passive seismic horizontal to vertical spectral ratio (HVSR) surveying to help define bedrock depth, structure and layering in shallow coal basins Tom Dronfield <i>Paper# 317</i>	All that wobbles isn't necessarily azimuthal anisotropy Helen Debenham <i>Debenham's Geophysical Consultancy</i> <i>Paper# 377</i>	Morphometrics of Channel Belts from the Mungaroo Formation, NWS, Australia Tobi Payenberg <i>Chevron</i>		Estimating interpretation uncertainty from magnetotelluric inversion Janelle Simpson <i>Geological Survey of Queensland</i> <i>Paper# 278</i>	Direct Imaging of Alteration With High Resolution Hard-Rock 3D Seismic Data at the Darlot Gold Mine Graeme Hird <i>Hiseis</i> <i>Paper# 345</i>	Imaging a mafic underplate in 3D: an example from the East Albany-Fraser Orogen and Yilgarn Craton margin Lucy Brisbout <i>Geological Survey of Western Australia</i> <i>Paper# 199</i>
1220 – 1320	LUNCH <i>Grand Ballroom</i>							
1220 – 1320	ASEG Research Foundation Meeting, Studio Two, Level 2 (Invitation Only) ASEG GGSSA Meeting, The Studio, Level 2 (Invitation Only)							
1320 – 1340	Poster Session <i>Meeting Rooms 1 - 4</i>							

	Exploration Strategy	Shallow Seismic Investigations	Petroleum Systems & Basin Modelling	WABS NCB/Exmouth 2	Mineral Case Studies: Geology – I – Gold	Magnetotellurics II Modelling	Mineral Case Studies: Geophysics - Cross-Disciplinary	Deep Crustal Studies II
Room	Astral 1	Astral 2	Astral 3	Crown 1	Crown 2	Crown 3A	Crown 3B	Crown 3C
1340 – 1405	Keynote: Jason Crusan <i>Woodside</i>	An assessment of array types and processing algorithms for microtremor observations, via the COSMOS Blind Trials Michael Asten <i>Monash University</i>	Using mud gas components to quantify hydrocarbon liquid yields for gas zones in the Patchawarra Formation of the Western Flank, Cooper Basin Belinda Wong <i>Beach Energy Ltd</i> Paper# 30	Sequence stratigraphy of the Wheatstone and Iago fields; implications for reservoir characterisation Bruce Ainsworth <i>Chevron</i>	Keynote: <i>Orogenic gold deposits: part of a global dynamic conjunction between subduction and gold</i> David Groves <i>Orebusters Pty Ltd</i>	Reliable 1D magnetotelluric probabilistic inversion considering modelling assumption violations Hoel Seille <i>CSIRO</i> Paper# 250	Geophysical expression of the Meyers Crater, a new meteorite impact crater discovered in the Coolgardie Goldfield of Western Australia Jayson Meyers <i>Resource Potentials</i> Paper# 186	The lithospheric structure and deep processes of the Mesozoic mineral systems in east China: constrained from integrated geophysical data Qingtian Lu <i>Sinoprobe Center, Chinese Academy of Geological Science</i> Paper# 395
1405-1430		A 10 kN portable electromagnetic vibrator for near-surface studies Tim Dean <i>BHP</i> Paper# 36	New insights into the Exmouth Sub-basin from basin and petroleum system modelling Craig Dempsey <i>BHP</i> Paper# 79	Sequence stratigraphy of the Wheatstone and Iago fields; implications for reservoir characterisation Bruce Ainsworth <i>Chevron</i>		Inversion of Magnetotelluric Data with Enhanced Structural Fidelity Federico Golfré Andreasi <i>Schlumberger</i> Paper# 263	Structural controls of the Ernest Henry IOCG deposit: Insights from integrated structural, geophysical and mineralogical analyses. Jim Austin <i>CSIRO</i> Paper# 303	A statewide 3D geological model for New South Wales Ned Stolz <i>Geological Survey of New South Wales</i> Paper# 371
1430-1455	Why storytelling matters...especially in mineral exploration Ahmad Saleem <i>Exploration Radio</i> Paper# 375	Surface passive seismic monitoring by the local use of semblance M. Javad Khoshnavaz <i>The University of Tehran</i> Paper# 167	Triassic petroleum systems on the central North West Shelf – Learnings from the greater Phoenix area seismic mapping and geochemical studies Nadege Rollet <i>Geoscience Australia</i> Paper# 177	3D Seismic Analysis of ancient subsurface fluid flow in the Exmouth Plateau Tayallen Velayatham <i>ASP</i>	The Pilbara Mesoarchean conglomerate gold versus Quaternary colluvial gold: are they genetically linked? Sam Spinks <i>CSIRO Mineral Resources</i> Paper# 359	Using finite dipole lengths in complete earth 3D MT modeling Wolfgang Soyer <i>CGG</i> Paper# 269	Update on the geophysical expression of the Abra sedimentary replacement Pb-Ag-Cu-Au deposit, Western Australia David Stannard <i>Resource Potentials</i> Paper# 351	Basin-scale fluid-flow models of the McArthur River mineral system: Constraints from geochemistry, geophysics and sequence stratigraphy Peter Schaub <i>CSIRO Mineral Resources</i> Paper# 344
1455-1520		The effects of seismic anisotropy on mining seismology Andrew King <i>CSIRO</i> Paper# 362 Paper# 184	Building a 3D Geomechanical Model for the Fitzroy Trough Oliver Gaede <i>Queensland University of Technology</i> Paper# 273	Imaging past depositional environments of the NWS: lesson from 3D seismic data Victorien Paumard <i>University of Western Australia</i>	Characterisation of the Neoproterozoic Fortescue Group Stratigraphy – Integrated downhole geochemical and mineralogical correlation from new diamond drilling Jessica Stromberg <i>CSIRO</i> Paper# 350	Magnetotelluric inversion strategies Ralf Schaa <i>Curtin University</i> Paper# 309	3D Interpretation of Geological, 3D Seismic, and Conventional Geophysical Data from the Darlot Gold Mine James Reid <i>Mira Geoscience</i> Paper# 356	Sub-basin architecture of the Proterozoic McArthur Group, southern McArthur Basin Teagan Blaikie <i>CSIRO</i> Paper# 217
1520 - 1550	AFTERNOON TEA <i>Grand Ballroom</i>							
1520 – 1550	ASEG Preview AE's, <i>Studio Two, Level 2 (Invitation Only)</i> ASEG Young Professionals, <i>The Studio, Level 2 (Invitation Only)</i>							

	Unconventionals	Seismic processing (O+G) 2	Petroleum Systems & Basin Modelling II	WABS Bedout	Mineral Case Studies: Geology – II - Gold	Magnetotellurics – III – Case Studies	Induced Polarisation	Regional tectonic studies
Room	Astral 1	Astral 2	Astral 3	Crown 1	Crown 2	Crown 3A	Crown 3B	Crown 3C
1550 - 1615	Keynote Manika Prasad 	Understanding the causes of low frequency shadow below gas hydrates Ayman Noor Qadrouh <i>King Abdulaziz City for Science and Technology (KACST)</i> <i>Paper# 44</i>	Overpressure Transmission through Igneous Intrusions: An unrecognized drilling hazard in volcanic affected basins? Nick Schofield <i>University of Aberdeen</i> <i>Paper# 232</i>	Tectonics of the Bedout Sub-Basin and deposition of the Lower Keraudren Formation; influence of tectonics in a rapidly deposited succession Jon Minken <i>Santos</i>	The Mineral Factory: How to Build a Giant Quartz Reef Lisa Tannock <i>University of New South Wales</i> <i>Paper# 115</i>	Scale reduction using Magnetotellurics – a mineral exploration example from the Olympic Domain, South Australia Stephan Thiel <i>Geological Survey of South Australia</i> <i>Paper# 39</i>	IpeX: A lower-cost superior reconnaissance RES/IP/MT survey Steve Boucher <i>FQM Exploration (Chile) S.A.</i> <i>Paper# 103</i>	Exploring for the Future: new U–Pb geochronology for the South Nicholson region and implications for stratigraphic correlations Jade Anderson <i>Geoscience Australia</i> <i>Paper# 127</i>
1615-1640		Imaging challenges at Gulf of Papua (PNG) and their solutions through high-end imaging technology Zongying Gong <i>CGG Singapore</i> <i>Paper# 207</i>	Gippsland Basin 3D forward modelling in Badlands Xuemei(Linda) Yang <i>Curtin University</i> <i>Paper# 240</i>	Unravelling the Lower Keraudren Petroleum System in the Bedout Sub-basin: Some Early Observations Melissa Thompson <i>Santos</i>	Yamarna Geology: Foundations for Further Discoveries Janet Tunjic <i>Gold Road Resources</i> <i>Paper# 372</i>	Defining the Eyre Conductivity Anomaly with the Tumbay Bay MT transect Graham Heinson <i>Geological Survey of South Australia</i> <i>Paper# 111</i>	Induced Polarization Chargeability Calibration Standards John Kingman <i>Terrigena.</i> <i>Paper# 283</i>	Tectonic Analysis of regional potential field data Peter Betts <i>Monash University</i> <i>Paper# 145</i>
1640-1705	Using network topology to constrain fracture network permeability Rowan Hansberry <i>University of Adelaide</i> <i>Paper# 131</i>	4D Seismic Bandwidth and Resolution Analysis for Reservoir Fluid-flow Model Applications Rafael Souza <i>UWA</i> <i>Paper# 288</i>	Understanding the variability of sedimentary basin’s gravity response through stratigraphic modelling Vincent Crombez <i>CSIRO</i> <i>Paper# 276</i>	Fine-scale variations in distributary mouth-bar morphology in the Middle Triassic Caley Member of the Bedout Sub-basin, Western Australia John Lignum <i>MG Palaeo</i>	The genesis of Carlow Castle: A unique Australian orogenic Cu-Co-Au deposit in the Archean Pilbara Craton David Fox <i>CSIRO & Curtin University</i> <i>Paper# 162</i>	Resistivity structure of the Link East MT transect in the Southern Curnamona Province Ben Kay <i>University of Adelaide</i> <i>Paper# 116</i>	Sensitivity-based data reduction of large 3D DC/IP surveys Ken Witherly <i>Condor Consulting</i> <i>Paper# 379</i>	U-Pb ages of the Himalayan foreland basin Northeast India: Implications for the India-Asia collision (V2) Uendra Baral <i>Institute of Tibetan Plateau Research, Chinese Academy of Sciences</i> <i>Paper# 254</i>
1705-1725	Fraccing Onshore Australia 2019 Max Williamson <i>Wiltax Consulting Pty Ltd</i> <i>Paper# 135</i>	Fracture identification by reflected guided borehole radar waves Binzhong Zhou <i>CSIRO Energy</i> <i>Paper# 56</i>	Probabilistic modelling of sedimentary basin evolution using Bayeslands Danial Azam <i>University of Sydney</i> <i>Paper# 324</i>	Quantitative Interpretation in the Bedout Sub-Basin - The value of seismic inversion when seismic data quality is poor Margarita Kongawoin <i>Santos</i>	Geological investigations with high spatial resolution WV-3 satellite imagery and regional geophysics at the Haib Cu porphyry, Namibia Robert Hewson <i>University of Twente – ITC</i> <i>Paper# 224</i>	MT conductivity signatures of mineral systems: 3D MT over the Eastern Goldfields Super Terrane, Yilgarn Craton Kate Selway <i>Macquarie University</i> <i>Paper# 297</i>	“Is it pyrite, or a shed?”: intricacies of Induced Polarisation surveying near grounded metallic infrastructure Regis Neroni <i>Fortescue Metals Group</i> <i>Paper# 388</i>	Modelling the Palaeozoic tectonic evolution of the Lachlan Orogen Thomas Schaap <i>University of Tasmania</i> <i>Paper# 262</i>
1730 – 1830	HAPPY HOUR <i>Grand Ballroom</i>							
1730 – 1830	ASEG Council Meeting, The Studio, Level 2 (Invitation Only)							

0730 - 1800	AEGC 2019 Conference Registration Desk Open								
0730 – 0830	Arrival Tea and Coffee amongst the exhibition								
0730 – 1800	AEGC 2019 Exhibition Open								
	Stratigraphy & Sedimentology Permian	Experimental and digital RP	CO2 Monitoring and modelling 1	WABS Regional and Historical	Mineral Case Studies: Geology – III – Base Metals	Groundwater & Near Surface I	Regional Targeting Studies Using Machine Learning	Regional Potential Field Studies	High School Student Day
Room	Astral 1	Astral 2	Astral 3	Crown 1	Crown 2	Crown 3A	Crown 3B	Crown 3C	Botanical 2 & 3
0830-0855	Sea level controls on buried geomorphology within the Swan River Estuary during the Late Quaternary Giada Bufarale <i>Curtin University</i> <i>Paper# 187</i>	Keynote: Complete gas-brine imbibition relative permeability curves increase confidence in gas field performance Ben Clennel <i>CSIRO</i> <i>Paper# 332</i>	Keynote: CCS in Australia: Activities and Lessons Learned Linda Stalker <i>CSIRO</i>	New observations on paired end Permian impacts craters in the Bedout Sub-basin, offshore Western Australia: relevance to local prospectivity and global plate tectonics Dariusz Jablonski <i>Finder Energy</i>	Century Zn deposit – the world’s largest meteorite impacted orebody Finbarr Murphy <i>Fractore Pty Ltd</i> <i>Paper# 64</i>	Backing up the AEM – unravelling a palaeovalley fill for groundwater exploration in the APY Lands Carmen Krapf <i>Geological Survey of South Australia</i> <i>Paper# 239</i>	Keynote: Exploration Research for Australia’s future mineral production Sandy Occhipinti <i>CSIRO</i>	Utilising potential field modelling to better inform on the 3D structural architecture in regions of excellent structural control Robin Armit <i>Monash University</i> <i>Paper# 161</i>	An important and continuing focus of the AEGC2019 is to foster student and young professional participation and showcase the geoscience community. Two days of interactive presentations, career insight talks, and guided exhibition tours, will be run concurrently with the AEGC2019 proceedings – High school students will be hosted on Wednesday the 4th of September, and tertiary students on Thursday the 5th of September.
0855-0920	Internal Architectural Analysis of Mass Transport Deposits to Unravel Deepwater Dispersal Fairways; A Novel Approach to an Old Challenge Roland Dashti <i>QTEQ</i> <i>Paper# 203</i>			New observations on paired end Permian impacts craters in the Bedout Sub-basin, offshore Western Australia: relevance to local prospectivity and global plate tectonics Dariusz Jablonski <i>Finder Energy</i>	Litho-structural Controls on Mineralisation at the Pillara Carbonate-hosted Zn-Pb Deposit, Lennard Shelf District, Western Australia Dennis Arne <i>Telemark Geosciences</i> <i>Paper# 84</i>	Mapping the hydrostratigraphy and groundwater salinity of the Ord Bonaparte plains from AEM and NMR data Kok Piang Tan <i>Geoscience Australia</i> <i>Paper# 313</i>	Mapping IOCG-related Alteration using 3D Gravity and Magnetic Inversion: An example from the Tennant Creek – Mount Isa region, northern Australia James Goodwin <i>Geoscience Australia</i> <i>Paper# 214</i>		
0920-0945	Are stromatolites in the northern Perth Basin following the End Permian mass extinction? Liam Olden <i>Curtin University</i> <i>Paper# 314</i>	The sample boundary effect in the low-frequency measurements of the elastic moduli of rocks Vassily Mikhaltsevitch <i>Curtin University</i> <i>Paper# 193</i>	In-Situ Laboratory for CO2 Controlled-Release Experiments and Monitoring in a Fault Zone in Western Australia Ludovic Ricard <i>CSIRO</i> <i>Paper# 354</i>	Permo-Triassic hydrocarbon source potential of the NWS: new insights from regional palaeogeographical analyses and source kitchen modelling Jarrad Grahame <i>CGG</i>	Hydrothermal dolomite distribution in the Emanuel Range as a constraint on timing of fault movement during mineralisation on the Lennard Shelf, Western Australia Heather Middleton <i>Department of Primary Industries NSW</i> <i>Paper# 140</i>	A series of confusing measurements in the search for water Chris Wijns <i>First Quantum Minerals</i> <i>Paper# 204</i>	Integrating a Minerals Systems Approach with Machine Learning: A Case Study of ‘Modern Minerals Exploration’ in the Mt Woods Inlier – northern Gawler Craton, South Australia Mark Rieuwers <i>SRK Consulting</i> <i>Paper# 301</i>	Magnetic and gravity source models of the Gairdner Dolerites Philip Heath <i>Geological Survey of South Australia</i> <i>Paper# 227</i>	High school students will have a guided tour of the exhibition, see the latest in exploration technologies, and have an opportunity to interact with established geoscientists. Two scheduled information sessions will cover an introduction to geoscience and provide a variety of career insights.
0945-1010	Formation of Very Thick Permian Coal Seams, Cooper Basin, Australia Gregory Smith <i>Curtin University</i> <i>Paper# 363</i>	Ultrasonic wave velocities measurements and seismic anisotropy at Karari gold deposit: Implications for gold exploration Andre Souza <i>Curtin University</i> <i>Paper# 132</i>	Transforming an abandoned well into a permanent downhole receiver array: Harvey-3 case study Evgenii Sidenko <i>Curtin University</i> <i>Paper# 168</i>	The Forgotten Story of Australia’s First offshore Wells – Princess Royal Harbour, Albany, 1906. Don Poynton	Nova – Bollinger Ni – Cu Sulfide Ore Deposits, Fraser Zone, Western Australia: Petrology of the Host Intrusions, Sulfide-silicate Textures and Emplacement Mechanisms of the Ores Valentina Taranovic <i>CSIRO – Mineral Resources</i> <i>Paper# 202</i>	AEM, Seismic and Power-lines: A hydrogeological case study in Peel, Western Australia Andrew Pethick <i>Curtin University</i> <i>Paper# 300</i>	Orogenic gold prospectivity mapping using machine learning. Mike Mcmillan <i>Computational Geosciences Inc</i> <i>Paper# 143</i>	Mapping Sub-Volcanic Geology Using Magnetic Data Stephen Markham <i>Archimedes Consulting</i> <i>Paper# 352</i>	
1010- 1040	MORNING TEA <i>Grand Ballroom</i>								

1010 – 1040									
ASEG History Committee Meeting, <i>Studio Two, Level 2</i> ASEG Conference Advisory Meeting, <i>The Studio, Level 2</i>									
	Petrophysics and borehole technologies	Experimental and digital RP II	CO2 Southwest Hub Case Study	WABS Geophysics and tectonics	Mineral Case Studies: Geochemistry I – Applications	Groundwater & Near Surface II	Artificial Intelligence in Minerals Exploration	Regional Geophysical Surveys	High School Student Day
Room	Astral 1	Astral 2	Astral 3	Crown 1	Crown 2	Crown 3A	Crown 3B	Crown 3C	Botanical 2 & 3
1040-1105	Quantified Detection of Carbonate Cementation in Sandstones using Standard Wireline Log Data Mark Bunch <i>University of Adelaide</i> <i>Paper# 328</i>	Experimental acid and scCO2 reactions of Roseneath, Epsilon and Murteree gas shales: Opening or closing of gas accessible pores and metal release to water Julie Pearce <i>University of Queensland</i> <i>Paper# 306</i>	The South West Hub: Carbon Storage in the Lesueur Formation in the South West of Western Australia Deidre Brooks <i>Geological Survey of Western Australia</i> <i>Paper# 397</i>	Reviving an old Buffalo – breathing new life into an old dataset with modern technology Roisin McGee <i>CVN, DUG</i>	Keynote: The geological characteristics, geochemical signature and geophysical expression of porphyry copper-(gold) deposits in the circum-Pacific region Steve Garwin	Keynote: Whiskey is for drinking, water is for fighting Michael Hatch <i>Flinders University</i>	Using machine learning to interpret 3D airborne electromagnetic inversions. Mike Mcmillan <i>Computational Geosciences Inc</i> <i>Paper# 96</i>	Geological insights of Northern Australia’s AusAEM airborne EM survey Yusen Ley-cooper <i>Geoscience Australia</i> <i>Paper# 312</i>	An important and continuing focus of the AEGC2019 is to foster student and young professional participation and showcase the geoscience community. Two days of interactive presentations, career insight talks, and guided exhibition tours, will be run concurrently with the AEGC2019 proceedings – High school students will be hosted on Wednesday the 4th of September, and tertiary students on Thursday the 5th of September.
1105-1130	Recent advances on the inversion of deep directional borehole resistivity measurements Vladimir Puzryev <i>Curtin University</i> <i>Paper# 155</i>	Investigating rock micro-structure of sandstones by pattern recognition on their X-ray images Ankita Singh <i>UNSW Sydney</i> <i>Paper# 308</i>	Time Lapse In-Hole Electrical Resistivity Surveying during a Shallow Release of CO2 Gas: Harvey Western Australia Brett Harris <i>Curtin University</i> <i>Paper# 316</i>	Tectonic, geodynamic and surface process driving forces of Australia’s topography since the Jurassic Carmen Braz <i>University of Sydney</i>		Artificial Intelligence Techniques to the Interpretation of Geophysical Measurements Desmond Fitzgerald <i>Intrepid Geophysics</i> <i>Paper# 121</i>	Regional Airborne Gravity Surveys in Western Australia: Considerations for the End User Martin Bates <i>Sander Geophysics</i> <i>Paper# 94</i>		
1130-1155	What You Need to Know to Drill a High Pressure, High Temperature Well. Jonathan Slade <i>Woodside</i> <i>Paper# 189</i>	Rock Physics for Multiscale, Multiphysics Data Assimilation from molecular to laboratory scale Klaus Regenauer-Lieb <i>UNSW</i> <i>Paper# 346</i>	Reservoir flow modelling to constrain CO2 plume- fault interaction. South West Hub Carbon Capture and Storage Project, WA. Laurent Langhi <i>CSIRO</i> <i>Paper# 70</i>	Analysis of intraplate earthquake dynamics on the North West Shelf, Australia: new strike-slip focal mechanisms Victoria Holloway <i>University of Western Australia</i>	The role of geochemistry in understanding mineral systems Carl Brauhart <i>CSA Global</i> <i>Paper# 18</i>	A practical approach used to quantify and qualify effective clean-up strategy Benjamin Birt <i>QTEQ</i> <i>Paper# 261</i>	An AI approach to automated magnetic formation mapping beneath cover David Pratt <i>Tensor Research</i> <i>Paper# 122</i>	Collaborating on pre-competitive geophysical projects in the Northern Territory, Australia Tania Dhu <i>Northern Territory Geological Survey</i> <i>Paper# 274</i>	
1155-1220	3D Inversion of Electromagnetic Logging-While-Drilling Data David Marchant <i>Computational Geosciences Inc</i> <i>Paper# 233</i>	X-ray Computerized Tomography for fracture and facies characterization and slab orientation in cores stored within aluminium tubes Lionel Esteban <i>CSIRO</i> <i>Paper# 387</i>	Subsurface characterisation for future CCS applications using uncommon 3D surface and borehole seismic survey geometries at Harvey, Western Australia Sasha Ziramov <i>Curtin University</i> <i>Paper# 331</i>	Tectonostratigraphy and structure of the southern Perth Basin Charmaine Thomas <i>Geological Survey of Western Australia</i>	Application of multi-element geochemistry in the weathered environment: Controls, considerations and implications for exploration Fiona Best <i>South32</i> <i>Paper# 374</i>	Groundwater applications of towed TEM in diverse geology at farm scale. David Allen <i>Groundwater Imaging Pty Ltd</i> <i>Paper# 148</i>	Efficient borehole targeting for ground-control of airborne electromagnetic (AEM) survey results Yusen Ley-Cooper <i>Geoscience Australia</i> <i>Paper# 226</i>	Supporting data-driven exploration in NSW Keith Gates <i>Geological Survey of New South Wales</i> <i>Paper# 391</i>	High school students will have a guided tour of the exhibition, see the latest in exploration technologies, and have an opportunity to interact with established geoscientists. Two scheduled information sessions will cover an introduction to geoscience and provide a variety of career insights.
1220-1320	LUNCH <i>Grand Ballroom</i>								
1220 – 1320	ASEG Technical Standards Meeting, <i>Studio Two, Level 2 (Invitation Only)</i> ASEG-SAGA Meeting, <i>The Studio, Level 2 (Invitation Only)</i>								
1320-1340	Poster Sessions <i>Meeting Rooms 1 - 4</i>								

Wednesday 4 September

	Maximising Value From Existing Data	RP and Machine Learning	DAS and VSP imaging part1	WABS Canning	Mineral Case Studies: Geochemistry II – Applications & Signatures	Groundwater & Near Surface III	Mineral Case Studies: Industrial & Strategic Minerals – I	Regional Mineral Exploration Under Cover I	High School Student Day
Room	Astral 1	Astral 2	Astral 3	Crown 1	Crown 2	Crown 3A	Crown 3B	Crown 3C	Botanical 2 & 3
1340-1405	<p>Adapting Agile Workflows to Accelerate Geoscience Study Results Lendyn Philip Woodside Energy Ltd Paper# 165</p>	<p>Facies classification with different machine learning algorithm – An efficient artificial intelligence technique for improved classification Partha Pratim Mandal Curtin University Paper# 22</p>	<p>DAS seismic monitoring of the shallow CO2 controlled-release experiment at the South West Hub In-situ Laboratory Konstantin Tertysnikov Curtin University Paper# 38</p>	<p>Hydrocarbon and helium prospectivity of the Amadeus and Murraba basins, Western Australia Peter Haines Geological Survey of Western Australia</p>	<p>Using Zircon Geochemistry to Map Alteration in the Gawler Craton, South Australia Adrienne Brotodewo Future Industries Institute/University of South Australia Paper# 149</p>	<p>Multi-physics, Inter-disciplinary approaches for Groundwater System Investigations and Hydrogeological Assessments in Northern Australia Ken Lawrie Geoscience Australia Paper# 342</p>	<p>Keynote: Geophysics of Industrial Minerals and Specialty Minerals David Turvey Equant Resources</p>	<p>Keynote: Twenty years of pre-competitive geoscience data in the Capricorn Orogen: the link between mineral systems and crustal evolution Simon Johnston Geological Survey of Western Australia</p>	<p>High school students will have a guided tour of the exhibition, see the latest in exploration technologies, and have an opportunity to interact with established geoscientists. Two scheduled information sessions will cover an introduction to geoscience and provide a variety of career insights.</p>
1405-1430	<p>Faster play-based exploration, Petrel Sub-basin, Australia Laura Phillips Woodside Energy Ltd Paper# 173</p>	<p>Log Dependent Approach To Predict Reservoir Facies and Permeability In A Complicated Shaly Sand Reservoir Rahman Elkhateeb Curtin University of Technology Paper# 33</p>	<p>Subsurface seismic imaging using drill bit noise Mehdi Asgharzadeh Curtin University Paper# 106</p>	<p>Placing key casing points using wellsite chemostratigraphy in the Ungani Field, Canning Basin, Western Australia Anne Forbes Chemostrat</p>	<p>Mineralization signatures of the magnetite-dominant Acropolis prospect, Olympic Dam IOCG district, South Australia Marija Dmitrijeva The University of Adelaide Paper# 180</p>	<p>Geophysics used to help find good quality groundwater in the Vientiane Plain, Lao PDR Michael Hatch Flinders University Paper# 361</p>			
1430-1455	<p>Maximising value from seismic using new data and information management technologies Jess Kozman Woodside Energy Ltd Paper# 237</p>	<p>Identification of Deep Coal Seam Families using Machine Learning Tauqir Moughal CSIRO Paper# 119</p>	<p>Resolving Structural Uncertainty using DAS VSP Survey in Central Australia Konstantin Galybin Schlumberger Australia Pty Ltd Paper# 248</p>	<p>Seismic interpretation of salt occurrences in the southern Canning Basin, Western Australia Alex Zhan Geological Survey of Western Australia</p>	<p>Indicator minerals for magmatic sulfide mineralisation Louise Schoneveld CSIRO Paper# 230</p>	<p>Realtime analysis and well planning using wireline logs in a hydrogeological context Benjamin Birt QTEQ Paper# 238</p>	<p>Pilgangoora Lithium-Tantalum Project: Deposit geology and new constraints on rare-metal pegmatite genesis John Holmes Pilbara Minerals Limited Paper# 182</p>	<p>Strategic electromagnetic geophysical prospecting across a belt – an example over the Albany Fraser Orogen Andrew Fitzpatrick Independence Group Paper# 215</p>	
1455-1520	<p>Colour Amplifies Relief Shading Peter Kovesi Centre for Exploration Targeting, University of Western Australia Paper# 178</p>	<p>Using Machine Learning to Predict Total Organic Content – Case Study: Canning Basin, Western Australia. Russell Menezes RadixGeo Paper# 381</p>	<p>Anisotropy analysis from 3D VSP surveys acquired at Otway site Sofya Popik Curtin University Paper# 259</p>	<p>Paleozoic to Triassic continental scale sediment provenance of the Canning, officer and Northern Carnarvon Basins, Western Australia Sara Moron University of Melbourne</p>	<p>Old Data, Changed Times, New Resource? A Case Study. Barrytown New Zealand, Ilmenite Garnet Gold Zircon Graham Lee Graham Lee & Associates Pty Ltd Paper# 67</p>	<p>Determining petrophysical and hydrogeological parameters from historical bore logs for the Leederville-Parmelia aquifer, northern Perth Basin, using regression methods Olga Filiptsova Department of Water and Environmental Regulation Paper# 252</p>	<p>The Discovery and Geology of Sinclair, Australia's first Caesium Deposit. David Crook Pioneer Resources Limited Paper# 88</p>	<p>The Geological Survey of NSW's approach to the MinEx Cooperative Research Centre's National Drilling Initiative Astrid Carlton Geological Survey of NSW Paper# 307</p>	
1520-1550	AFTERNOON TEA <i>Grand Ballroom</i>								
1520 - 1550	ASEG Near Surface Meeting, <i>Studio Two, Level 2 (Invitation Only)</i>								

Wednesday 4 September

	Maximising Value From Existing Data II	Use of RP for seismic Interpretation and Basin Modelling	CO2 Monitoring and Modelling	Petroleum exploration and dev case studies	Mineral Case Studies: Geochemistry III – Cross Disciplinary	Mineral Case Studies: Geophysics - Electrical Methods	Mineral Case Studies & New Technologies: Industrial & Strategic Minerals – II	Regional Mineral Exploration – Under Cover II
Room	Astral 1	Astral 2	Astral 3	Crown 1	Crown 2	Crown 3A	Crown 3B	Crown 3C
1550-1615	The Mineral Systems Atlas – delivering greater value from precompetitive geoscience data Sidy Morin-Ka <i>Geological Survey of Western Australia</i> <i>Paper# 357</i>	Statistical Rock Physics Analysis and Modelling in The Browse Basin Shuichi Desaki <i>INPEX</i> <i>Paper# 60</i>	Assessment of the permanent seismic sources for borehole seismic monitoring applications: CO2CRC Otway Project Sinem Yavuz <i>Curtin University</i> <i>Paper# 299</i>	Keynote: Neil Young	Integrating hyperspectral and radiometric remote sensing, spatial topographic analysis and surface geochemistry to assist mineral exploration Alicia Caruso <i>The University of Adelaide</i> <i>Paper# 117</i>	Delineating cobalt targets using galvanic and inductive source Sub-Audio Magnetics (SAM) at the Carlow Castle project Western Australia Daniel Eremenco <i>Gap Geophysics Australia</i> <i>Paper# 76</i>	Characterising Lithium Host Minerals within the Lateritic Duricrust, Greenbushes, Western Australia Sophie Vuleta <i>CSIRO</i> <i>Paper# 221</i>	Which anomaly should I drill? Using spatial statistics to inform exploration in covered IOCG terranes. Laszlo Katona <i>Department for Energy and Mining</i> <i>Paper# 183</i>
1615-1640	Petrophysical “Big Data” – case study from the Stavely Project, western Victoria Phil Skladzien <i>Geological Survey of Victoria</i> <i>Paper# 198</i>	A Geological Pressure Model for the Browse Basin and the southern Vulcan Sub-Basin, NWS Australia Shi-Yuan Toh <i>Ikon Science</i> <i>Paper# 34</i>	Pore-scale study of fluids flow and fluid-fluid interactions during near-miscible CO2 EOR and storage in oil reservoirs Mojtaba Seyyedi <i>CSIRO</i> <i>Paper# 120</i>		A multi-disciplinary approach for defining nickel and gold mineral systems; Halls Creek Orogen, Western Australia Fariba Kohanpour <i>The University of Western Australia</i> <i>Paper# 51</i>	Co-operative inversion of geoelectrical data sets acquired from different electrode arrays Duy Thong Kieu <i>Hanoi University of Mining and Geology</i> <i>Paper# 236</i>	Rapid field identification of LCT pegmatite mineralogy: Application of portable Raman spectroscopy Sophie Perring <i>Portable XRF Services</i> <i>Paper# 164</i>	Application of Audio-Magnetotelluric Method to Cover Thickness Estimation for Drill Site Targeting Wenping Jiang <i>Geoscience Australia</i> <i>Paper# 191</i>
1640-1705	Discovering and Using Geophysical Data in the 21st Century Alex Ip <i>Geoscience Australia</i> <i>Paper# 336</i>	Assessing mineral composition and permeability of a shale seal Marina Pervukhina <i>CSIRO</i> <i>Paper# 322</i>	Feasibility of the quantitative time-lapse seismic characterisation of a heterogeneous CO2 injection Roman Isaenkov <i>Lomonosov Moscow State University</i> <i>Paper# 341</i>	The geology of the Brecknock, Calliance and Torosa gas fields, Browse Basin, Western Australia Robert Seggie <i>Woodside Energy Ltd</i> <i>Paper# 19</i>	New insights on chimney growth model and native gold enrichment in modern seafloor hydrothermal chimneys Siyu Hu <i>CSIRO</i> <i>Paper# 59</i>	The Discovery of the Bumblebee and Grapple Mineralisation and Impacts on Exploration at the Lake Mackay Project Mike Whitford <i>Independence Group</i> <i>Paper# 270</i>	Application of micro-XRF to characterise diamond drill-core from lithium-caesium-tantalum pegmatites Naomi Potter <i>Portable XRF Services</i> <i>Paper# 279</i>	Biochemical and mechanical dispersion mechanisms of Au and As in areas covered by Permian glacial sediments and aeolian sand Walid Salama <i>CSIRO</i> <i>Paper# 61</i>
1705-1725	Legacy Data – Hidden Opportunity Keith Reeves <i>L & T Technology Services</i> <i>Paper# 392</i>			The Road to Dorado: Factors Leading to a Play-Opening Hydrocarbon Discovery Frederick Wehr <i>Wehr Advisory Pty Ltd</i> <i>Paper# 208</i>	Access to geological structures, density, minerals and textures through novel combination of 3D tomography, XRF and sample weight Mikael Bergqvist <i>Orexplore AB</i> <i>Paper# 286</i>	Frequency and Current Analysis of Non-Linear Electrical Effects in Mineralised Rocks Alan Oertel <i>Fender Geophysics</i> <i>Paper# 390</i>	The Butcherbird High Purity Manganese Project Justin Brown <i>Element 25 Limited</i> <i>Paper# 389</i>	Geochemical dispersion processes in deep cover and neotectonics in Coompana, Nullarbor plain, South Australia Ignacio González-Álvarez <i>CSIRO</i> <i>Paper# 98</i>
1730 – 1830	HAPPY HOUR <i>Grand Ballroom</i>							
1730 – 1830	ASEG State Branches Meeting , <i>Studio Two, Level 2 (Invitation Only)</i>							
1830 – 2200	AEGC 2019 Conference Dinner <i>Astral Ballroom, Crown Perth</i>							

0800 - 1800	AEGC 2019 Conference Registration Desk Open								
0800 – 0830	Arrival Tea and Coffee amongst the exhibition								
0800 – 1600	AEGC 2019 Exhibition Open								
	Petroleum exploration and dev case studies II	Artificial Intelligence in Energy Exploration	Seismic Acquisition Onshore	Stratigraphy & Sedimentology Bight	Mineral Case Studies: Geochemistry IV - New Technologies	Electromagnetics – I – Innovation and Limitations	Iron Ore Exploration II: Mine Scale	Developments in Inverse Modelling	University Student Day
Room	Astral 1	Astral 2	Astral 3	Crown 1	Crown 2	Crown 3A	Crown 3B	Crown 3C	Botanical 2 & 3
0830-0855	Eromanga Oil Traps – A Multi Field Post Mortem Keith Martens <i>Martens Petroleum Consulting</i> <i>Paper# 58</i>	Viability of Long-Short Term Memory Neural Networks for Seismic Refraction First Break Detection – A Preliminary Study Tasman Gillfeather-Clark <i>University of Western Australia</i> <i>Paper# 91</i>	Drones as a support tool for seismic acquisition Shaun Strong <i>Velseis Pty Ltd</i> <i>Paper# 23</i>	Keynote: The seven rocks that made Australia Marita Bradshaw <i>National Rock Garden Steering Committee</i>	PhotonAssay – Efficient & Bulk Gold Analysis in the Modern World Chenoa Tremblay <i>CSIRO</i> <i>Paper# 205</i>	Target detectability in regional-scale AEM surveys David Annetts <i>CSIRO</i> <i>Paper# 144</i>	Drillhole Rugosity Correction for Gamma-Gamma Density Tools – A Space Modelling Approach Dragos Gavrilu <i>Terra Logging Data Services</i> <i>Paper# 21</i>	Application of growing-body potential-field inversion from drillholes Kristofer Davis <i>Mira Geoscience</i> <i>Paper# 63</i>	The AEGC2019 welcomes undergraduate, honours, masters and PhD students to attend the sponsored AEGC2019 University Student Day. All conference delegates are welcome to attend any part of the University Student Day programme.
0855-0920	Managing uncertainty to deliver complex development wells Peter Van Ruth <i>Woodside Energy Ltd</i> <i>Paper# 242</i>	An AI approach to using magnetic gradient tensor analysis for quick depth and property estimation David Pratt <i>Tensor Research</i> <i>Paper# 124</i>	Quaternary buried valley characterization on the Canadian Prairies using a Shear Land-streamer. Robert Hearst <i>Southern Geoscience Consultants</i> <i>Paper# 95</i>		Driving the paradigm shift of near surface exploration geochemistry using ultrafine soils Ryan Noble <i>CSIRO</i> <i>Paper# 195</i>	Making EM systems and bore logs speak the same language Aaron Davis <i>CSIRO</i> <i>Paper# 212</i>	Machine Assisted Drillhole Interpretation of Iron Ore Resource Evaluation Holes in the Pilbara Daniel Wedge <i>Centre For Exploration Targeting, The University of Western Australia</i> <i>Paper# 42</i>	Beyond chi-squared: Additional measures of the closeness of a model to data Alan Jones <i>Complete MT Solutions Inc.</i> <i>Paper# 87</i>	
0920-0945	Pyxis: a study in cost-efficient near-field exploration, discovery and appraisal Megan Slade <i>Woodside Energy Ltd</i> <i>Paper# 247</i>	Geophysics and neural networks: learning from computer vision Mark Grujic <i>Solve Geosolutions</i> <i>Paper# 246</i>	Observations of Geophone Spurious Resonance Steve Hearn <i>Velseis Pty Ltd</i> <i>Paper# 339</i>		Seismic Evidence for Seal and Reservoir in the Late Cretaceous Ceduna Delta, Great Australian Bight Benjamin Tredrea <i>Murphy Australia Oil Pty Ltd</i> <i>Paper# 383</i>	pXRF assessment of new magmatic fertility indicators in the Macquarie Arc Tristan Wells <i>University of Tasmania</i> <i>Paper# 81</i>	AusAEM Year 1: Some aspects of quality control and calibration Ross Brodie <i>Geoscience Australia</i> <i>Paper# 272</i>	A high resolution seismic investigation for shallow iron ore. Ashley Grant <i>BHP</i> <i>Paper# 315</i>	

0945-1010	Carbonate reservoir development in the Canning Basin, Western Australia Moyra Wilson University of Western Australia Paper# 268	Deep neural networks for 1D impedance inversion Vladimir Puzyrev Curtin University Paper# 330	Recent advances in nodal land seismic acquisition systems Tim Dean BHP Paper# 382	New insights on the Upper Cretaceous Tiger Supersequence of the Bight Basin from International Ocean Discovery Program Hole U1512 Carmine Wainman University of Adelaide Paper# 146	A framework for multi-sensor image segmentation using fuzzy collaborative clustering Tauqir Moughal CSIRO Paper# 153	Low-Base Frequency Helicopter AEM Data from a Square-Wave System – Helitem Squared Adam Smiarowski CGG MultiPhysics Paper# 294	Using Corona to test NMR response of iron ore chip samples Kazimierz Trofimczyk BHP Paper# 349	Bayesian joint inversion of controlled source electromagnetic and magnetotelluric data to infer presence of a freshwater aquifer offshore New Jersey Anandaroop Ray Geoscience Australia Paper# 75	
1010- 1040	MORNING TEA Grand Ballroom								
1010 – 1040	ASEG Publications Meeting, Studio Two, Level 2 (Invitation Only)								
	Tectonostratigraphy	QI2 – Seismic inversion – case studies	Stratigraphy & Sedimentology Western Margin II	FWI	Australian Ore Deposit Volume: Mineral Case Studies I – Overview Papers	Electromagnetics – II – Modelling	Iron Ore Exploration I: Regional	Groundwater & Near Surface IV	University Student Day
Room	Astral 1	Astral 2	Astral 3	Crown 1	Crown 2	Crown 3A	Crown 3B	Crown 3C	Botanical 2 & 3
1040-1105	Keynote: Tectonic and structural challenges in the understanding of the evolution of rift and passive margin basins' Ken McClay Terra Tectonics	Depth conversion and seismic inversion of the Scarborough gas field Joseph Kremor Woodside Energy Paper# 110	New insights into the offshore Canning Basin using a seamless onshore/offshore seismic stratigraphic model. Christopher Yule James Cook University Paper# 163	Keynote: Denes Vigh WesternGeco	Keynote: Geology of Australian Ore Deposits Neil Philips University of Melbourne & Stellenbosch University RSA	Augmenting 1D conductivity depth sections to include information pertaining to 2D/3D conductors Magdel Combrinck NRG Paper# 99	Hyperspectral imaging of sedimentary iron ores – Beyond borders Lionel Fonteneau Corescan Pty Ltd Paper# 348	Passive seismic HVSR surveying for groundwater exploration at the Chilalo Graphite Project, Tanzania Sharna Riley Resource Potentials Pty Ltd Paper# 296	Four information sessions are scheduled on the University Student Day: 1) A discussion on honours, masters and PhD geoscience degree programmes; 2) Career insights and advice from experienced geoscientists from varied disciplines; 3) Local mentoring and development programmes; 4) Exciting geoscience challenges, including the Frank Arnott Award.
1105-1130		Integrating Seismic Inversion in Static Models to Capture Geological Heterogeneity and Improve Exploration Outcomes Cristina Angheluta Woodside Energy Ltd Paper# 213	Palaeogeographic evolution of the Triassic succession, central North West Shelf Steve Abbott Geoscience Australia Paper# 192			Overly steep decays in airborne TEM data and their link to charge-ability: example from the Howards East District, NT, Australia Klara Steklova Aarhus University Paper# 223	Preliminary Dating of Martite Goethite Iron Ore in the Hamersley Province (Western Australia) Erick Ramanaidou CSIRO Mineral Resources Paper# 229	Dude, Where's My Gun? A near-surface geophysics case-study Tim Dean BHP Paper# 14	
1130-1155	The Bight Basin, Evolution & Prospectivity I: gravity, deep seismic & basin morphology Jane Cunneen Curtin University Paper# 260	Dude, where's my AVO? A case study from the Browse Basin, North West Shelf, Australia Said Amiribeshli Discover Geoscience Pty Ltd Paper# 166	Significance of Early Triassic Conodont Zones from Western Australia John Gorter Consultant Paper# 256	Resolving complex velocity and gas absorption features with full-waveform inversion in the Taranaki Basin, New Zealand Yuelian Gong Schlumberger - WesternGeco Paper# 210	Known, absent and potential mineral deposit types in Australia David Groves University of Western Australia Paper# 83	Insight from AIP modelling of VTEM ET data from Colorado Andrea Viezzoli Aarhus Geophysics Aps Paper# 320		Geophysical investigation of mine waste in the King River Delta, Macquarie Harbour, Tasmania Matthew Cracknell University of Tasmania Paper# 50	An expert Q&A-style panel will round out the proceedings and allow both students and conference delegates to tackle front-of-mind questions and share experiences.

1155-1220	The Bight Basin, Evolution & Prospectivity II; seismic, structure and balanced sections. Kevin Hill <i>University of Melbourne</i> Paper# 234	Using Recursive Inversion as input for gross-rock volume extraction from lithology prediction volumes: How bad can it be? James Shadlow <i>KUFPEC</i> Paper# 396	The Foura Sandstone type section (Samaropollenites speciosus Zone, Carnian–early Norian; early Late Triassic), Timor-Leste: preliminary correlation between Timor and the Bonaparte Basin Daniel Peyrot <i>University of Western Australia</i> Paper# 291	Full Waveform Inversion of simultaneous long-offset data Andrew Long <i>PGS</i> Paper# 43	Structural setting and controls on Ni-Cu sulphide mineralisation at Nova-Bollinger, Fraser Zone, W.A. Jonathan Standing <i>Model Earth Pty Ltd</i> Paper# 245	Handling noise in AEM inversion – implications for subsurface characterisation Shane Mulè <i>CSIRO</i> Paper# 326		Analysis of Geophysical Datasets for Coastal Vulnerability and Asset Management Peter Eccleston <i>GBGMAPS</i> Paper# 281	
1220 – 1320	LUNCH <i>Grand Ballroom</i>								
1220 – 1320	President’s Meeting (AIG, ASEG, PESA) , <i>Studio Two, Level 2 (Invitation Only)</i>								
1320 - 1340	Poster Sessions <i>Meeting Rooms 1 - 4</i>								
	Tectonostratigraphy II Tectonostratigraphy II	Q11 - Machine learning and attributes	Stratigraphy & Sedimentology- Western Margin I	Seismic Aquisition offshore and FWI	Australian Ore Deposit Volume - Mineral Case Studies II – Commodities	Mineral Case Studies: Geophysics – Electromagnetics	Regional Geophysical Case Studies	Potential Fields: Innovations and Limitations	University Student Day
Room	Astral 1	Astral 2	Astral 3	Crown 1	Crown 2	Crown 3A	Crown 3B	Crown 3C	Botanical 2 & 3
Chair									
1340-1405	Structural and lithological controls on the geometry and morphology of igneous intrusions: a 3D seismic case study from the Exmouth sub-basin, NW Shelf Simon Holford <i>University of Adelaide</i> Paper# 72	Cimatti Field - An example of using seismic amplitude to determine in-place resource Michael Micenko <i>Mitsui E&P Australia</i> Paper# 90	Keynote: Sequence Stratigraphy, Seismic Geomorphology and Depositional Analogues in Hydrocarbon Exploration and Reservoir Characterization Simon Lang <i>University of Western Australia</i>	Improved HSEQ and survey efficiency demonstrated with a new remotely operated streamer cleaning tool Andrew Long <i>PGS</i> Paper# 41	West Australian Gold Resources: Crisis or Hubris? Julian Vearncombe <i>SJS Resource Management</i> Paper# 181	DHEM at Las Cruces, Spain – Successes and Failures Gavin Selfe <i>GeoFocus</i> Paper# 85	Metal Earth: role of multidisciplinary geophysical methods to improve knowledge of mineral deposition across Precambrian rocks Esmail Eshaghi <i>Thomson Aviation</i> Paper# 26	Keynote: Estimation of magnetization direction from magnetic field data Clive Foss <i>CSIRO</i>	Students are offered a guided tour of the exhibition and will see the latest in exploration technologies, while having an opportunity to further interact with established geoscientists. Thereafter, students are encouraged to sit-in on technical sessions of their choosing, or continue to explore the exhibition hall or adjacent poster sessions.
1405-1430	New Insights into the Exmouth Sub-basin: Tectono-Stratigraphic Evolution Robbie Benson <i>BHP</i> Paper# 125	Bayesian geophysical inversion with Gaussian process machine learning and trans-D Markov chain Monte Carlo Anandaroop Ray <i>Geoscience Australia</i> Paper# 77		Current and future multicomponent towed streamer design Susanne Rentsch <i>Shearwater GeoServices</i> Paper# 378	Gold metallogeny of the northern Capricorn Orogen Imogen Fielding <i>Geological Survey of Western Australia</i> Paper# 179	A brief description of the Andromeda Zn-Cu prospect in the Albany-Fraser Orogenic belt: A geophysical discovery using HT SQUID Paul Polito <i>Independence Group</i> Paper# 93	What Lies Beneath? A Reflection on the Porphyry Copper Exploration Model Ken Witherly <i>Condor Consulting</i> Paper# 380		

1430-1455	<p>The structural architecture of the central North West Shelf – insights from regional scale mapping of the Triassic succession Claire Orlov <i>Geoscience Australia</i> <i>Paper# 152</i></p>	<p>Porosity Distribution Prediction of Untapped Gumai Formation by Applying Multi-Attribute Analysis: A Case Study in South Sumatra Basin Mohammad Risyad <i>Petrochina International Companies In Indonesia</i> <i>Paper# 27</i></p>	<p>Regional Stratal Slice Imaging of the Northern Carnarvon Basin, Western Australia Tony Marsh <i>Chevron</i> <i>Paper# 194</i></p>	<p>Structural modification of the Jaguar VHMS Zn-Cu-Ag deposits, Yilgarn Craton, W.A. Jonathan Standing <i>Model Earth Pty Ltd</i> <i>Paper# 280</i></p>	<p>The Borden Gold Deposit, northern Ontario: Contributions of VTEM helicopter time-domain EM and magnetics leading to discovery Jean Legault <i>Geotech Ltd.</i> <i>Paper# 100</i></p>	<p>Combined potential field and airborne electromagnetic interpretation to unravel the geological history of the Curaca Valley Region, Bahia, Brazil Jean-Philippe Paiement <i>Mira Geoscience</i> <i>Paper# 311f</i></p>	<p>Full Spectrum Falcon – Measuring wide broadband airborne gravity data Chris Van Galder <i>CGG</i> <i>Paper# 292</i></p>	
1455-1520	<p>Rift initiation on Australia’s southern margin: insights from the Bremer Sub-basin Jane Cunneen <i>Curtin University</i> <i>Paper# 323</i></p>		<p>Jurassic Igneous Activity in the Exmouth Sub-basin: Insights from new 3D Seismic Gerry O’Halloran <i>BHP Petroleum</i> <i>Paper# 47</i></p>		<p>VMS and Ni-Cu exploration using an integrated geophysical and drilling method Flemming Effersø <i>Skytem Surveys Aps</i> <i>Paper# 158</i></p>	<p>Application of passive seismic and AEM to 3D paleochannel imaging: Capricorn Orogen Sara Jakica <i>Geological Survey of Western Australia</i> <i>Paper# 200</i></p>	<p>Learnings from the Gawler Craton Airborne Survey Quality Control Matthew Hutchens <i>Geoscience Australia</i> <i>Paper# 310</i></p>	
1520 – 1535	<p>Afternoon Tea <i>Grand Ballroom</i></p>							
1535 – 1630	<p>CLOSING PLENARY SESSION <i>Crown 1</i></p>							
	<p>Closing Plenary including presentation of awards Announcement of AEGC 2021 Conference Farewell Comments</p>							
1630 – 1730	<p>Farewell Drinks <i>Join us at the conclusion of the Conference for a farewell drink before heading home.</i></p>							

0800 – 0845	AEGC 2019 Workshop Registrations <i>For registered attendees that have pre booked to attend a workshop, please proceed directly to the session rooms located at Crown Perth</i>						
0845 – 1015	Workshops Session 1						
	W30 Uncertainty in 3D modelling and inversion	W21 Deposits and Ore Textures of the Mount Isa and Cloncurry Districts	W23 Informing Geophysical Exploration with Petrophysics: Processes, Pitfalls and Tools	W26 Physics and Mechanics of Rocks: A Practical Approach	W22 Discovering and Accessing Geophysical Data in the 21st Century	W25 Inversion of Time Domain EM Data with Geosoft's VOXI Earth Modelling	W27 Seismic for Everyone – an exploration with fibre optic cables
Room	Botanical 1	Botanical 2	Botanical 3	Botanical 4	Meeting Room 1	Meeting Room 2	OFFSITE, ARRC Building
1015 – 1045	MORNING TEA <i>Botanical Foyer, Lower Level</i>						
1045 – 1215	Workshops Session 2						
	W30 Uncertainty in 3D modelling and inversion	W21 Deposits and Ore Textures of the Mount Isa and Cloncurry Districts	W23 Informing Geophysical Exploration with Petrophysics: Processes, Pitfalls and Tools	W26 Physics and Mechanics of Rocks: A Practical Approach	W22 Discovering and Accessing Geophysical Data in the 21st Century	W25 Inversion of Time Domain EM Data with Geosoft's VOXI Earth Modelling	W27 Seismic for Everyone – an exploration with fibre optic cables
1215 – 1315	LUNCH <i>Botanical Foyer, Lower Level</i>						
1315 – 1445	Workshops Session 3						
	W30 Uncertainty in 3D modelling and inversion	W21 Deposits and Ore Textures of the Mount Isa and Cloncurry Districts	W23 Informing Geophysical Exploration with Petrophysics: Processes, Pitfalls and Tools	W26 Physics and Mechanics of Rocks: A Practical Approach	W22 Discovering and Accessing Geophysical Data in the 21st Century	W25 Inversion of Time Domain EM Data with Geosoft's VOXI Earth Modelling	W27 Seismic for Everyone – an exploration with fibre optic cables
1445 – 1515	AFTERNOON TEA <i>Botanical Foyer, Lower Level</i>						
1515 – 1645	Workshops Session 4						
	W30 Uncertainty in 3D modelling and inversion	W21 Deposits and Ore Textures of the Mount Isa and Cloncurry Districts	W26 Physics and Mechanics of Rocks: A Practical Approach	W23 Informing Geophysical Exploration with Petrophysics: Processes, Pitfalls and Tools	W22 Discovering and Accessing Geophysical Data in the 21st Century	W25 Inversion of Time Domain EM Data with Geosoft's VOXI Earth Modelling	W27 Seismic for Everyone – an exploration with fibre optic cables