DETAILED LECTURE PROGRAM: THE ROLE OF MINERAL WEALTH IN THE ENERGY TRANSITION - SOUTHERN AFRICA 8th SGA-IUGS-SEG-UNESCO SHORT COURSE ON AFRICAN METALLOGENY Monday 9th October Speaker Chair Time Program item 08H00 REGISTRATION JBS Foyer, JBS Park, Kinsgway. Please bring ID / passport for access. 08H50 Organising Committee Opening ceremony commences 09H30 Douglas Silver, Denver, USA Nikki Wagner Keynote Address: Being First on Planet Earth 10H15 Q&A and Discussion (15 mins) TEA BREAK 10H30 - 11H00 11H00 Judith Kinnaird, DSI-NRF CIMERA (South Africa) Keynote Address: Energy transition in southern Africa 11H45 Stefanie Weise, Shango Solutions (South Africa) Ismahane Chaouche Mineral commodities of southern Africa: review of resource and reserves, specific focus on minerals required 12H15 Sarah Gordon (online), SATARLA (United Kingdom) Environmental social governance (ESG) in the context of the low carbon economy: what does it mean? 12H45 Q&A and Discussion (15 mins) **13H00 - 13H45** 13H45 LUNCH DAY 1 Sumaya Khan, CSIR (South Africa) Placing the South African mining sector in the context of a circular economy transition 14H15 Malick Faye Sue Webb, Wits (South Africa) Advances in exploration geophysics and role in the energy transition 14H45 Jerry Ahadjie (online), ADBG (Cote d'Ivoire) Strengthening Africa's role in the battery and electric vehicle value chain. 15H15 Q&A and Discussion (15 mins) 15H30 - 15H45 BREAK 15H45 Rokhaya Samba Diene, Geological Survey (Senegal) Mineral resources in West-Africa: potentialities and opportunities for energy transition 16H15 Melba Wasunna, Base Titanium (Kenya) Beate Orbgerger Energy Transition in East Africa: Opportunities for the Mining Industry 16H45 Nikki Wagner, UJ (South Africa) Coal and the Energy Transition in South Africa 17H15 - 17H30 Q&A and Discussion; close of Day 1. Transfer to course dinner

	Tuesday 10th October				
	Time	Speaker	Chair	Program item	
	08H00	REGISTRATION		JBS Foyer, JBS Park, Kinsgway. Please bring ID / passport for access.	
	08H50	Lizzie Tau, DSI-NRF CIMERA (South Africa)		Welcome; announcements	
	09H00	Gavin Mudd (online), RMIT (Australia)		Use of mine wastes in the energy transition	
	09H30	Beate Orberger, Géosciences Conseils (France)	Lizzie Tau	Titanium dioxide-and Aluminium production residues: Important resources for Scandium, Gallium, Vanadium and Niobium	
	10H00	Daniel Franks (online), University of Queensland (Australia)		The development minerals and materials of development	
	10H30	Q&A and Discussion (15 mins)			
	10H45 - 11H15	TEA BREAK			
	11H15	Karen Hanghoj (online), British Geological Survey (United Kingdom)		Critical minerals for the energy transition: why critical minerals are different and why they are not	
	11H45	Jock Harmer, Rhodes University (South Africa)	Filadelphia Mbingeneeko	REE in permanent magnets: from source to use	
	12H15	Judith Kinnaird, Wits (South Africa)		PGE and their role in clean energy	
DAY 2	12H45	Q&A and Discussion (15 mins)			
	13H00 - 14H00	LUNCH			
	14H00	Desh Chetty, Mintek (South Africa)		Extraction of Li, Cu, Co, Mn, phosphates for the energy transition	
	14H30	Bertus Smith, UJ (South Africa)	Doro Niang	Manganese and South Africa – A match made in history, a relationship for the future	
	15H00	Markus Reichardt, Sustainability for NextSource Materials Inc (global)		The need for graphite in the energy transition and occurrence in Africa	
	15H30	Q&A and Discussion (15 mins)			
	15H45 - 16H00	BREAK			
	16H00	Mikhail Nikomarov (online), Bushveld Energy (South Africa)	Rokhaya Samba	Vanadium, uses now and in the future.	
	16H30	Mmilili M. Mapolelo (online), BiTRI (Botswana)	KOKIIAYA SAITIDA	Mineral Beneficiation: Towards Value Addition to the Mining Industry in Botswana	
	17H00- 17H45	Q&A and Discussion; close of Day 2. Explanation of field excursion groups. Transfer to Geoquizz (JBS Park)			

	Wednesday 11th October				
	Time	Speaker	Chair	Program item	
	07H45	REGISTRATON		JBS Foyer, JBS Park, Kinsgway. Please bring ID / passport for access.	
	08H20	Nikki Wagner, DSI-NRF CIMERA (South Africa)		Welcome; announcements	
	08H30	Peter Venn (online), Seriti Green (South Africa)		Coal company & the energy transistion	
	09h00	Tafeeq Dhansay, Council for Geoscience (South Africa)	Nikki Wagner	Geothermal energy and its potential role in the energy supply of southern Africa	
	09H30	Kgothatso Nhlengetwa, Imbokodo Mining Services (South Africa)		Artisanal and Small Scale Mining in Africa and its Potential Role in the Energy Transition	
DAY 3	10H00	Q&A and Discussion (15 mins)			
	10H15 - 10H45	TEA BREAK			
	10H45	Joel Gill (online), Cardiff University (United Kingdom)	Melba Wasunna	The UN Sustainable Development Goals: Driver and Beneficiary of a Just Energy Transition	
	11H15	Norton Titus (online), Ministry (Namibia)	ivieiba wasunna	Repurposing Thermal Power Plants from Coal to Nuclear. A case for SMRs or Traditional Reactors	
	11H45			Q&A and Discussion (15 mins)	
	12H00 - 12H30	Organising Committee		Closing; information regarding 2024	
	FIELD EXCURSIONS BEGIN				

	FIELD EXCURSION 1 Wednesday 11th October (Afternoon)					
	Wits Mining Institute - ADVANCES IN MINING TECHNOLOGY FOR THE LOW CARBON ECONOMY (max 60 people)					
Date	Time	Speaker	Affiliation	Program item		
	12H45			Transfer from the JBS to the Wits Mining Institute		
	13H15	Glen Nwaila	Director - WMI	Presentation on the 3rd floor of the Chamber of Mines		
	Group 1 (your group will be indicated on registration)					
	13H45	Lunch (Sponsored by the Wits Mining Institute)				
Wednesday	14H15			Digimine		
11th	14H45			Simulated tunnel visit		
Day 3	15H30			End of WMI visit		
	Group 2 (your group will be indicated on registration)					
(Afternoon)	13H45			Simulated tunnel visit		
	14H30	Lunch (Sponsored by the Wits Mining Institute)				
	15H00			Digimine		
	15H30			End of WMI visit		
	15H45			Transfer back to the JBS Park, and Garden Court, end of day		
	EVENING IS FREE					

	FIELD EXCURSION 2 Thursday 12th October Brits Vametco Mine, Bushveld Minerals and Elikhulu Operation, Pan African Resources (max 20 people per group)				
	Visitors to wear safety shoes, high visibility vest, safety glasses, and hard hat - items provided by CIMERA and mine				
	07H00	Transfer from Garden Court, Milpark, collect other delegates at JBS Park			
		Group 1 Elikhulu Operation, Pan African Resources (your group will be indicated on registration); Lead by Nikki Wagner			
	07H30 - 09H30	Travel to Elikhulu Operation, Evander (approx 120 km)			
	09H30 - 10H30	Overview presentation of Evander Underground and Elikhulu by the EGM teams.			
	10H30 - 12H00	Visit to Leslie/ Bracken TSF remining site — Elikhulu tailings deposition site			
	12H00 - 12H45	Visit through the Elikhulu plant			
12H45 Lunch (Sp		Lunch (Sponsored by Pan African Resources)			
Thursday	13H30 - 14H30	Visit to Solar plant			
12th	14H30 - 16H30	Travel back to JBS Park and The Garden Court			
Day 4		Group 2 Vametco Mine, Bushveld Minerals (your group will be indicated on registration); lead by Paul Nex and Judith Kinnaird			
	08H00 - 10H00	Travel to Vamecto Mine, Brits (approx 70 km)			
	10H00 - 10H10	General Manager Open and welcome			
	10H10 - 10H15	Introductions			
	10H15 - 10H20	Judith Kinnaird Purpose of the visit			
	10H20 - 12H15	Mining and Plant Visit			
	12H15 - 12H20	Simon Nethononda Closure			
	12H30 - 17H30	Depart for lunch and cutural visit, return to JBS Park, Garden Court			

	FIELD EXCURSION 3 Friday 13th October					
	Brits Vametco Mine, Bushveld Minerals and Elikhulu Operation, Pan African Resources (max 20 people per group)					
	Visitors to wear safety shoes, high visibility vest, safety glasses, and hard hat - items provided by CIMERA and mine					
	07H00	Transfer from Garden Court, Milpark, collect other delegates at JBS Park				
	Group 2 Elikhulu Operation, Pan African Resources (your group will be indicated on registration); Lead by Nikki Wagner					
	07H30 - 09H30	Travel to Elikhulu Operation, Evander (approx 120 km)				
	09H30 - 10H30	Overview presentation of Evander Underground and Elikhulu by the EGM teams.				
	10H30 - 12H00	Visit to Leslie/ Bracken TSF remining site – Elikhulu tailings deposition site				
	12H00 - 12H45	Visit through the Elikhulu plant				
	12H45	Lunch (Sponsored by Pan African Resources)				
Friday 13th	13H30 - 14H30	Visit to Solar plant				
Day 5	14H30 - 16H30	Travel back to JBS Park and The Garden Court				
Day 5	Group 3 Vametco Mine, Bushveld Minerals (your group will be indicated on registration); lead by Paul Nex and Judith Kinnaird					
	08H00 - 10H00	Travel to Vamecto Mine, Brits (approx 70 km)				
	10H00 - 10H10	General Manager Open and welcome				
	10H10 - 10H15	Introductions				
	10H15 - 10H20	Judith Kinnaird Purpose of the visit				
	10H20 - 12H15	Mining and Plant Visit				
	12H15 - 12H20	Simon Nethononda Closure				
	12H30 - 17H30	Depart for lunch and cutural visit, return to JBS Park, Garden Court				

DETAILED SOCIAL PROGRAM: THE ROLE OF MINERAL WEALTH IN THE ENERGY TRANSITION - SOUTHERN AFRICA				
8th SGA-IUGS-SEG-UNESCO SHORT COURSE ON AFRICAN METALLOGENY				
Date (October 2023)	Time	Venue	Program item	
	17H00	JBS Park University of	Transfer shuttle available for delegates staying at The Garden Court. Please bring ID / passport for access.	
	17H00	Johannesburg, Kingsway Road,		
Sunday 8th Welcome Function	17H30	Auckland Park (old Media24	Welcome reception - cocktail dinner, drinks, and entertainment from Diphala Traditional Group	
	20Н00	campus)	End of evening; transfer shuttle available for delegates staying at The Garden Court.	
	17H45	School of Tourism and	Transfer shuttle available for delegates from JBS Park (for Garden Court delegates).	
	18H00	Hospitality, Bunting Road	Arrival at course dinner	
Monday 9th		Campus, University of		
Course Dinner		Johannesburg (opposite the		
	20H30	Egoli Gas works)	End of evening; transfer shuttle available for delegates staying at The Garden Court.	
	18H00	JBS Park University of	Geoquiz Evening at JBS	
Tuesday 10th		Johannesburg, Kingsway Road,		
Geoquizz Evening		Auckland Park (old Media24		
	20H30	campus)	End of evening; transfer shuttle available for delegates staying at The Garden Court.	