



# GEO - EAST AFRICAN CONFERENCE AND EXPO 2024

## THEME

**Beyond 2030: East Africa's Geo-Resources Portfolio for Economic Development and Energy Transitions**

21st - 23rd February 2024  
Panari Sky Centre, Nairobi

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# Day 1 – 21st FEBRUARY

Time	PRESENTATION	SPEAKERS
8:00 - 8:30	Registration	GSK secretariat
8:35 - 8:45	<b>Conference opening</b> National Anthem A word of prayer	Geol. Dr. Christine Omuombo, VP, Geological Society of Kenya
8:45 - 8:55	Opening remarks	<ul style="list-style-type: none"> <li>• Geol. Joseph Kuria, President, Geological Society of Kenya</li> <li>• Geol. Prof. Daniel Olago, Chairperson, Geologists Registration Board</li> </ul>
9:00 - 9:30	<b>Keynote presentation:</b> The future of geosciences in Kenya	Geol. Prof. Daniel Olago, Chairperson, Geologists Registration Board
9:30 - 11:00	<p><b>Panel discussion session 1:</b> Geoscience, public awareness and sustainability</p> <p><b>Moderator:</b> Geol. Dr. Christine Omuombo</p>	<ul style="list-style-type: none"> <li>• Geol. Prof. Daniel Olago, Chairperson, Geologists Registration Board</li> <li>• Dr. James Njogu, CEO Kenya National Commission for UNESCO (KNATCOM)</li> <li>• Prof. Peter K. Muriungi; VC Tharaka University</li> <li>• Geol. Dr. Lydia Olaka The Technical University of Kenya</li> <li>• Geol. Evans Masachi, Senior Principal Superintending Geologist, Office of The Chief of Staff and Head of Public Service of Kenya</li> </ul>
11:00 - 11:30	<b>Coffee/ Tea Break</b>	
<b>Papers presentations on Geoscience, public awareness and sustainability</b>		
11:30 - 11:50	Application of Electrical Resistivity Tomography in Oil Spill Mapping in Kenya	Geol. Dan Odera
11:50 - 12:10	Public Awareness of Environmental Contaminants in Kenya: Status and Future Trends	Mr. Patrick Kirita Gevera, Ms. Edna Onyari
12:10 - 12:30	UNESCO Global Geoparks: Recognizing Kenya's rich geological, cultural and natural heritage for sustainable development	Dr. George Eshiamwata
12:30 - 13:30	<b>Lunch</b>	

## Day 1 – 21st FEBRUARY CONT/...

Time	PRESENTATION	SPEAKERS
13:30 - 14:00	<b>Keynote presentation:</b> Minerals and Fossil fuels in the Energy transition	<ul style="list-style-type: none"> <li>• Mr. Liban Mohammed, PS, State Department of Petroleum</li> <li>• Mr. Leparan Gideon ole Morintat CEO, National Oil Corporation of Kenya (NOCK).</li> </ul>
14:00 - 15:30	<p><b>Panel discussion session 2:</b> How can we use the expertise from mineral exploration and oil and gas as we transition into green energy?</p> <p><b>Moderator:</b> Geol. Edmond Makhanu</p>	<ul style="list-style-type: none"> <li>• Hon. Kiraitu Murungi NOCK chairman</li> <li>• Geol. Enoch Kipseba Director, Geological Survey</li> <li>• Geol. Chrispin Lupe, Chief Geologist, State Department of Energy</li> <li>• Eng. Elizabeth Rogo; President &amp; CEO, TSAVO Oilfield Services. Former Non-Executive Board Director NOCK (2022 - 2023)</li> </ul>
<b>Papers presentation on oil and gas and energy transition</b>		
15: 30 - 15:50	Natural gas as a transition fuel in kenya - kipeto natural gas field pilot case study.	Mr. Tony Mugo
15:50 - 16: 10	Unlocking Hidden Depths: The Cross-Industry Impact of Oil and Gas Data on East Africa's Geo-Resources Portfolio	Geol. Jehoshaphat Kioko
16: 10 - 16:30	Greening Kenya's Energy Future: Harnessing Jatropha Biofuels - A Strategic Initiative for the National Oil Corporation	Mr. Abiud Masinde
16:30 -17: 00	<b>Closing remarks</b>	
17:00 - 18:00	<b>Evening Tea and poster session</b>	

## DAY 2 – 22nd FEBRUARY

Time	PRESENTATION	SPEAKERS
8:00 - 8:30	Registration and welcome refreshments	GSK Secretariat
8:35 - 8:45	Conference opening A word of prayer National Anthem	Geol. Dr. Christine Omuombo, VP, Geological Society of Kenya
8:45 - 8:55	Opening remarks	<ul style="list-style-type: none"> <li>• Geol. Joseph Kuria, President, Geological Society of Kenya</li> <li>• Geol. Prof. Daniel Olago, Chairperson, Geologist Registration Board</li> </ul>
9:00 - 9:30	<b>Keynote presentation:</b> Horn of Africa Groundwater for Resilience Program	Dr. Stephen Okoth Owuor, Principal Water Research Officer, State Department for Water and Sanitation
9:30 - 9:50	Effects of Rainfall on Groundwater Level Fluctuations in Kikuyu and Limuru Areas of Kiambu County, Kenya.	Ms. Cynthia Wacuka, Geol. Patrick Murunga Wakhungu
9:50 - 10:10	Structural Controls on Hydrogeological Dynamics along the Eastern Escarpment of the Great Rift Valley: A case of Kiambu County, Kenya	Geol. Sarah Gatobu, Geol. Samuel M. Kamau
10:10 - 10:40	<b>Coffee/tea break/Exhibition</b>	
<b>Papers presentation</b>		
10:40 - 11:00	Imaging possible subsurface structural trends impactful to the Olkaria geothermal reservoir system through the application of geophysical methods	Dr. Philip Omollo, Prof. Jun Nishijima
11:00 - 11:20	A Reappraisal Of The Structures, Alteration And Tectonic Setting Of Rambli Gold Target, Western Kenya	Geol. Maryce Obindah
11:20 - 11:40	Embedding good governance in mining operations and value chains	Geol. Dennis Achoki Obwocha
11:40 - 12:00	Probabilistic seismic hazard assessment of southern Kenya.	Geol. Emmanuel Achola Mulehane
12:00 - 12:30	<b>Poster Session</b>	
12:30 - 13:30	<b>Lunch/Exhibition</b>	

## Day 2 – 22nd FEBRUARY CONT/...

Time	PRESENTATION	SPEAKERS
13:30 - 14:00	<b>Keynote presentation:</b> Geothermal Energy Ambitions for Kenya	<ul style="list-style-type: none"> <li>• Mr. Alex Kamau Wachira, PS State Department of Energy</li> <li>• Eng. Peter Njenga CEO, KENGEN</li> </ul>
14:00 - 15:30	<p><b>Panel Discussion session 4:</b> Geothermal Exploration, Exploitation and Development</p> <p>Moderator: Geol. Dr. Anna Mwangi</p>	<ul style="list-style-type: none"> <li>• Eng. Peter Njenga CEO, KENGEN</li> <li>• Eng. Isaac Kiva, State Department for Energy</li> <li>• Dr. (Eng) John Muoki Mativo MBS; CEO, KETRACO</li> <li>• Geol. Dr. Peter Omenda SEPCO</li> <li>• Geol. Dr. Stephen Onacha Akiira Geothermal Energy Limited</li> <li>• Dr. Erick Rutto, President, Kenya National Chamber of Commerce and Industry (KNCCI)</li> </ul>
<b>Papers presentation on geothermal development</b>		
15:30 - 16:00	<b>Keynote presentation:</b> Sustainable Groundwater Development	Mr. Julius Korir CBS, PS State Department Water and Sanitation
16:00 - 17:30	<p><b>Panel discussion session 3:</b> Sustainable Groundwater Development</p> <p><b>Moderator:</b> Geol. Eliud Wamwangi</p>	<ul style="list-style-type: none"> <li>• Geol. Mohammed Shurie CEO, Water Resources Authority</li> <li>• Geol. Chrysanthus Gicheruh Earthwater ltd</li> <li>• Geol. Agnes Mbugua Groundwater Resource Center</li> <li>• Geol. Prof. Daniel Olago University of Nairobi</li> </ul>
17:30 - 18:00	<b>Evening Tea and Networking / Exhibition</b>	
18:00 - 20:00	<b>GSK@50 EVENT</b>	

## DAY 3 – 23RD FEBRUARY

Time	PRESENTATION	SPEAKERS
8:00 - 8:30	Registration and welcome refreshments	GSK Secretariat
8:35 - 8:45	Conference opening A word of prayer National Anthem	Geol. Dr. Christine Omuombo, VP, Geological Society of Kenya
8:45 - 8:55	Opening remarks	<ul style="list-style-type: none"> <li>• Geol. Joseph Kuria, President, Geological Society of Kenya</li> <li>• Geol. Prof. Daniel Olago, Chairperson, Geologist Registration Board</li> </ul>
9:00 - 9:30	Keynote address	Hon. Elijah Mwangi, PS State Department of Mining
9:30 - 11:00	<p>Panel discussion session 5: Fiscal, Legal and investments framework for Geo-resources in Kenya</p> <p>Moderators: Geol. Alice Githiomi and Geol. Prof. Daniel Ichang'i</p>	<ul style="list-style-type: none"> <li>• Geol. Sophia Kutiti Olesambu, Mineral Rights Board</li> <li>• Geol. Enoch Kipseba Director, Geological Survey</li> <li>• Mr. Thomas Mutwiwa Managing Director, National Mining Corporation</li> <li>• Hon. Johnstone Muthama, Rockland Kenya Ltd</li> <li>• Mr. kiprono Kittony, EBS, Chairman Nairobi Stock Exchange</li> <li>• Geol. Chrispus Sang, Shanta Gold</li> <li>• Dr. Patrick Kanyoro, Chairman KCM</li> <li>• Mr. Jason Brewer, Marula Mining</li> <li>• Mr. Patrick Nyangweso, CEO, Kenya National Chamber of Commerce and Industry (KNCCI)</li> </ul>
11:00 - 11:30	<b>Tea/ Coffee break/Exhibition</b>	
<b>Papers presentation on mining</b>		
11:00 - 11:20	Preliminary Report On The Bala Iron Ore Exploration, Kakdhimu Location, Homa Bay County	Geol. Martin Nyakinye
11:20 - 12:30	<b>Poster Session</b>	
12:30 - 13:30	<b>Lunch/Exhibition</b>	

## Day 3 – 23rd FEBRUARY CONT/...

Time	PRESENTATION	SPEAKERS
13:30 - 15:00	<p><b>Panel Discussion session 6:</b> Engineering geology, geotechnics, seismology and hazards</p> <p><b>Moderator:</b> Geol. Dr. Lydia Olaka</p>	<ul style="list-style-type: none"> <li>• Geol. Prof. Daniel Olago, Chairperson, GRB</li> <li>• Arch. Florence Nyole Chairperson AAK</li> <li>• Eng. Erastus Mwongera Chairperson EBK</li> <li>• Geol. Prof. Edwin Dindi University of Nairobi/CTBTO</li> <li>• Geol. Prof. Zacharia Kuria The Technical University of Kenya</li> <li>• Geol. Dan Odera Georama Engineering Services</li> </ul>
<b>Presentation of on Engineering geology, geotechnics, seismology and hazards</b>		
15:00 - 15:20	Assessing Failure Mechanisms and Possibility of Large Scale Flank Collapse At Tenerife Volcano, Canary Islands (Spain).	Geol. Michael Mwanja
15:40 - 16:00	Landslide and Mitigation Measures of Kapkese-Fort Ternan area, Kipkelion District, Kenya	Geol. Prof. Bernard Kipsang Rop
16:00 - 16: 20	Managing Vibratory Structural Damage in Construction and Mining	Geol. Dan Odera
16:20 -17: 00	<b>Closing remarks and way forward</b>	<p><b>Geol. Joseph Kuria</b></p> <p><b>Geol. Prof. Daniel Olago</b></p>
17:00 - 18:00	<b>Evening Tea and Networking</b>	

# LIST OF POSTERS

Poster	Title and Presenter	SERIAL #
<b>A - SUBTHEME: Exploration techniques, technology and implementation, Geo-science, Public Awareness and Sustainability</b>		
A1	Geological exploration and analysis of rock samples by <b>Byanne Milongo</b>	24001
A2	Groundwater exploration with PQWT water detector machines by <b>Regina Mageria, Ann Kamau</b>	24003
A3	Exploration techniques, technology and instrumentation by <b>Elizabeth Gakunga</b>	24005
<b>B - SUBTHEME: Minerals and Fossil fuels in Energy transition</b>		
B1	Sustainability of copper mineral in generating wind power energy in Kenya by <b>Amos Ngaira</b>	24009
B2	Breaking the Mold: Fossil Fuels in the Context of a Low-Carbon Energy Future by <b>Laureen Ochieng</b>	24011
B3	Capitalizing on the Present: Critical Minerals in the Energy Transition Era by <b>Selly Rono</b>	24014
B4	Minerals and Fossil fuels in Kenya's Energy Transition by <b>James Waringa</b>	24015
B5	A Synopsis of Impact of Mining on Environment In Kenya by <b>Bernard K. Rop, Caroline W. Maina, Wycliffe H. Namwiba and Philemon K. Koskey</b>	24016
B6	Applied Geology in Mining and Mineral Exploration: A Synoptic Overview by <b>Bernard K. Rop, Caroline W. Maina, Wycliffe H. Namwiba and Philemon K. Koskey</b>	24017
B7	Role of Geothermal and Nuclear Energy in Decarbonation by <b>Mbugua Githae</b>	24022
B8	Envisioning Beyond 2030: East Africa's Geo-Resource Synergy for Sustainable Development and Environmental Resilience by <b>Susan Wanjugu</b>	24025
B9	The Role of Mineral and Fossil Fuels in Energy Transition on Climate Change and Impact on Natural Resources by <b>Carren Menya</b>	24026
B10	Incorporating Clay Soils in Mitigation of Soil and Water Pollution caused by Landfills and Dumpsites by <b>Citrin Andoy</b>	24027
<b>C - SUBTHEME: Geo-resources and their value chains</b>		
C1	Mapping Geophysical Value Chains for Entrepreneurial Development in Kenya by <b>Charles Malack Oloo, Evance Ouma</b>	24028
C2	Gas and Oil Petrophysical Analysis of the Sala Well in Anza Basin, Northern Kenya, Using Techlog Software by <b>Kim Penninah, Jerop, Bernard Kipsang Rop</b>	24032
C3	Geoenviron Tourism Sites in Northern Kenya Rift Valley: The case of Lake Bogoria, Lake Baringo, Kerio Valley and Silali by <b>Bernard K. Rop, Enock K. Kipseba and Loice J. Kipkiror</b>	24033