Draft Program for NORDROCS 2022

2022-04-28 Minor changes may occur

	Monday, September 5, 2022
11.00 – 16.00	**Short Course 1 – Capping Design -The art of designing isolation layers to reduce environmental risk associated with contaminated sediments** *NGI and Texas Tech University,* *Scandic Holmenkollen hote* • Contaminant mobility and intended cap functionality • Elements of cap design • Modeling using CapSim • Constructional considerations • Monitoring cap performance
11.00 – 16.00	**Short Course 2 – In Situ Thermal Desorption by Conductive Heating** *Haemers Technologies,* *Scandic Holmenkollen hotel* • Introduction to thermal desorption • Scientific principles underlying thermal desorption • Overview of different in situ thermal desorption • Technologies • Conception and design – feasibility – lab and pilot • Tests • Conductive heating (TCH) • Sustainable development and thermal desorption
11.00 - 16.00	**Workshop - Sustainability assessment as a tool for more sustainable and resilient remediation of soils, groundwater, and sediments** *Ramboll,* *Scandic Holmenkollen hotel* • What is sustainable remediation? • Methods for sustainability assessment? • Introduction to SURE • Applying sustainability assessment • Stakeholder dialogue best practices
18.30	**Welcome reception with refreshments in Oslo City Hall**
	Tour and talk about the history of the building and its art

	Tuesday, September 6, 2022 **Venue: Scandic Holmenkollen hotel**	
08.30 – 09.30	**Registration and coffee**	
10.00 – 11.00	**Opening session, SAGA HALL A/B/C**	
	Welcome: Marianne Borgen, Major of Oslo **Paul S. Cappelen, Coordinator for NORDROCS 2022** **Morten Jartun, President of Miljøringen, Norway** **Keynote speaker:** **Dietmar Müller-Grabherr: EU Common Forum**	
10.50 - 11.00	**Gymnastics**	
	SAGA HALL A/B/C	
11.00 - 12.00	**EPA session from 4 Nordic countries – Topic PFAS** **Chair: Vanja Alling, Norwegian Environment Agency** Presentations and discussion.	
12.00 – 13.00	**Lunch**	
13.00 - 13.30	***Poster session and exhibition***	
	Parallel session 1 ***SAGA HALL A/B***	**Parallel session 2** ***SAGA C***
13.30 – 14.50	**Session A – Remediation of soil, rock and groundwater** **Chair: Mette M. Broholm** **Keynote speaker:** **Mike Annable, University of Florida** **Nina Tuxen (Capital Region of Denmark)** Innovative remediation of contaminant plumes as a sustainable alternative to traditional pump and treat. **Gary Wealthall (Geosyntec Consultants)** Advances in the Bioremediation of DNAPL source zones in fractured bedrock.	**Session B – Soil as a resource** **Chair: Jarno Laitinen** **Stefan Ritter (NGI)** Reuse of waste and surplus masses as impermeable geological materials: Potential of pressfilter residual and excavated lime cement stabilized clay for landfill barriers. **Klaus Weber (NIRAS)** LCA screening of remediation methods - a simplified approach using life cycle profiles. **Erika Kämäräinen (Ramboll)** Biochar for managing sulphide bearing geomaterial. **Cathrine Eckbo (NGI)** Reuse of end of life concrete: The problem of hexavalent chromium leaching.

14.50 – 15.50	**Poster session and exhibition, matchmaking, coffee break**	
15.50 - 17.10	**Session C – PFAS** **Chair: Linda Karlsson** **Keynote speaker:** **Hans Slenders, Arcadis** PFAS in soil and water: deal with it! **Ingvild H. Nygård (Norconsult)** PFOS-sorption in the groundwater fluctuation zone. **Julie Kofoed (Danish Regions)** PFAS findings in close to 1 100 site investigations at various businesses.	**Session D – Urban challenges** **Chair: Ulrika Larson** **Outi Hyttinen (FIN)** The Viinikanlahti Bay case - when contaminated lake sediments meet an international urban ideas competition. **Agnieszka T. Bentzen (Region of Southern Denmark)** Integrated water management in the future climate change for robust risk assessment from contaminated point sources. **Hanna Almquist (WSP)** From gas works site to residential area – challenges and solutions in assessing vapour intrusion of PAH. **Louise Skytte Clausen (DK)** UV technology – A new way to remove chlorinated compounds from air.
18.30 –	**Drinks in the exhibition area**	
19.00 -	**Conference dinner in SAGA HALL A/B/C**	

	Wednesday, September 7, 2022		
	SAGA A/B/C	**SAGA A/B/C**	**SAGA A/B/C**
8.30 – 09.50	**Session E – Remediation – Soil, rock and groundwater** **Chair: Aura Noisiainen** **Katerina Tsitonaki (WSP)** Reagents for in situ remediation: State of the art and latest innovations. **Azariel Ruiz-Valencia (University of Lyon)** Bioelectrochemical Remediation of Petroleum-Contaminated Soil and Groundwater. **Daniel Leigh (Evonik)** Combining Biogeochemical Processes to Enhance Reductive Treatment of Chlorinated Organics and Metals. **Peter Harms-Ringdahl (Envifix)** Investigation and remediation of soil at marinas and boat maintenance sites.	**Session F – Emerging contaminants** **Chair: Patrick van Hees** **Hans Peter Arp (NGI)** Prioritizing emerging Persistent and Mobile organic substances in groundwater and drinking water through hazard and risk assessment for substitution and remediation. **Mahdiyeh Mohammadzadeh (University of Oulu)** Adsorption performance of surface-modified biosorbent for removal of antibiotics from wastewater. **Henning Jensen (NGU)** Microplastic in marine sediments –Results from the MAREANO mapping program and some analytical challenges encountered. **Gøril Aasen Slinde (NGI)** The environmental legacy of disposable paper plates - PFAS contamination in Tyrifjorden.	**Session G – Site Investigations – Sediments** **Chair: Marianne Olsen** **Leo Regazzoni (SGF)** Certified sampling in practice - 10 years with certified environmental sampling according to Nordic standard. **Jens Laugesen (DNV)** Trends and developments in innovative investigations and monitoring of marine sediments. **Nils Ekeroth (NIRAS)** Monitored natural recovery (MNR) in Drammensfjorden, Norway. **Hubert de Jonge (Eurofins)** A Danish case study for sampling in surface water with volume-based passive sampling – Sorbisense method.
09.50 – 10.35	**Coffee Break**		

10.35 - 11.55	**Session H – Remediation – Soil, rock and groundwater** **Chair: Annika Fjordbøge** **Bertil Ben Carlson (WSP)** Pump & treat – Lessons learnt from the reassessment and optimization at more than 40 sites and best practice from current projects. **Helena Hinrichsen (Envytech Solutions)** Surface Active Foam Fractionation (SAFF): Effective PFAS removal from water using only air **Lars Været (Norconsult)** Remediation of PFAS contaminated ground at a former fire-fighting facility. From initial investigations to completed remediation. Lessons learned. **Helena Nord (RGS Nordic)** Remediation of a 1 km long PCE plume in the woods of Lappeenranta, Finland, using a PlumeStop barrier with colloidal active carbon for in situ sorption and HRC for enhanced reductive dichlorination.	**Session I – Site Investigations – Soil, rock and groundwater** **Chair: Paul S. Cappelen** **Jesper B. Nielsen (NIRAS)** Revisiting an old oil spill – new high resolution tools provide data for a new and much different conceptual model. **Lars Davidsson (WSP)** Evaluation of High Resolution Methods for VOC Contaminant and Flux Distributions in Igneous / Metamorphic Rock Settings. **Simon Ross Stenger (NGI)** Interpretation and visualization of contaminated soil at a former ferrosilicon smelter using implicit 3D modelling – is it worth the effort? **Gro Lilbæk (NIRAS)** High-resolution site characterization using new groundwater profiler.	**Session J – Risk assessment – Sediments** **Chair: Morten Jartun** **Keynote speaker: Marianne Olsen (NIVA)** **Ann-Sofie Wernersson (SGI)** Swedish Sediment Risk Assessment Strategy. **Arto Itkonen (Sitowise)** Lead shots in a sensitive spring lake – case Onkilampi, Suonenjoki, Finland.
11.55 - 12.55	**Lunch**		
12.55 – 13.25	**Poster session and exhibition**		

13.25 – 14.45	**Session K – Remediation – Soil, rock and groundwater** **Chair: Mette Christoffersen** **Tove Mallin (RISE)** Testbed PFAS - evaluation of remediation techniques for PFAS contaminations and PFAS-free fire extinguishing agents **Michel Hubert (NGI),** Optimizing soil washing as a remediation method for PFAS contaminated soil **Søren Eriksen (Krüger)** Thermal Conductive Heating for PFAS remediation. **Jack Shore (Regenesis)** Installation and operation of an injectable in situ permeable reactive barrier to prevent the advection of per- and polyfluoroalkyl substances at an airport.	**Session L – Remediation – Sediments** **Chair: Jens Laugesen** **Hilde Trannum (NIVA)** Long-term biological effects of capping with thin layers of activated carbon in the Grenland fjords, Norway **Jarno Laitinen (Ramboll)** Minimizing sustainability impacts throughout dredging project – from decision making to stabilization. **Sissel Ranneklev (NIVA)** Identifying the most contaminated sediments along the coast of Norway. **Alizee Lehoux (University of Uppsala)** Remediation of contaminated fibrous sediments combined with energy production.	**Session M – Risk assessment – Soil, rock and groundwater** **Chair: Jenny Norrman** **Jussi Reinikainen (Finnish Environment Institute)** Risk assessment of PFAS contaminated sites as a result of firefighting activities. **Leo Yeung (Örebro Univ.)** Comprehensive assessment of poly-/perfluoroalkyl substances (PFAS) in contaminated soil. **Mette M. Broholm (DTU)** Degradation of pharmaceutical compounds in the plume emanating from the factory site in Grindsted **Torunn Hønsi (Western Norway Research Institute)** Contaminated sites at risk: A GIS-based identification and assessment of possible increased pollution and reduced water quality due to climate change.
14.45 – 15.25	**Poster session and exhibition, Coffee Break**		
15.25 – 16.35	**Session N – Sustainability** **Chair: Peter Harms-Ringdahl** **Keynote speaker:** **Alan Thomas (SuRF UK)** Sustainable Remediation - a review of recent SuRF UK guidance and a look forward to future trends. **Paul Drenning (Chalmers)** A risk management framework for gentle remediation options.	**Session O – Mining** **Chair: Mari Dahl** **Keynote speaker:** **Pia Lindström (Boliden)** **Title:** **Paul S. Cappelen (NGI)** Reclamation of Arctic landscape after 100 years of coal mining.	**Session P – Environmental Geotechnics** **Chair:** **Keynote speaker:** **Suzanne Lacasse (NGI)** **Title:** **Marius Søvik (NGI)** Stepwise preloading to expand the capacity at Langøya waste disposal site.

	Closing session with prize for best posters
	Thursday, September 8, 2022
08:00 – 14.00	**Technical tour/Expedition** Visit to Langøya landfill site. https://en.noah.no/for-clients/treatment-area/langoya/