INTERNATIONAL CLEANUP CONFERENCE
ADELAIDE 2024

# CLEANUP 2024 PROGRAM

## Sunday, 15 September 2024

**Sunday, 15 September 2024**

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|---|---|---|---|---|---|---|
| 8.00 - 17.00 | Exhibition and Poster Display Build, Hall L | | | | | |
| 09.00 - 12.30 | **Workshop 1** | **Workshop 2** | **Workshop 3** | **Workshop 4** | **Workshop 5** | |
| | City Room 1 | City Room 2 | City Room 3 | City Room 4 | Room 31 | |
| | Advances in PFAS Analytical Chemistry, Data Interpretation, and Effective Management of PFAS in Groundwater | Site Characterization, Mass Flux, Incremental Sampling Methodology, Artificial Intelligence in Site CleanUp, and Balancing Legacy and Emerging Contaminants in Site CleanUp | Human Health Risk Assessment – the How to Guide | Data and PFAS Analytics – AI Approach and Case Studies | Faster, Better, Cheaper: Risk-Based Investigation and Remediation **(STARTS 8.00am)** | |
| 13:30 - 17.00 | **Workshop 1** Continued | **Workshop 2** Continued | **Workshop 3** Continued | **Workshop 6** | - | |
| | City Room 1 | City Room 2 | City Room 3 | City Room 4 | - | |
| | Advances in PFAS Analytical Chemistry, Data Interpretation, and Effective Management of PFAS in Groundwater | Site Characterization, Mass Flux, Incremental Sampling Methodology, Artificial Intelligence in Site CleanUp, and Balancing Legacy and Emerging Contaminants in Site CleanUp | Human Health Risk Assessment – the How to Guide | ASBestos-IN-Soil (ASBINS) Master Class | | |
| 15.00 - 18.00 | Registration Foyer M | | | | | |
| 15.00 - 18.00 | Speaker Support, Foyer M | | | | | |
| 17.30 -18.30 | Welcome drinks, Foyer M | | | | | |

## Monday, 16 September 2024

**Monday, 16 September 2024**

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| 7.30 | Exhibition and Poster Displays Open, Hall L |
| 7.30 | Speaker Support, Foyer M |
| 7.40 | Registration Open, Foyer M |

### OFFICAL CONFERENCE OPENING

Hall N

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| 8.45 - 9.00 | **Traditional Welcome to Country Ceremony** |
| 9.00 - 9.15 | **Official Conference Opening & Welcome** |
| 9.15 - 10.00 | **Commemorative Brian Robinson Lecture: One Planet, One Health: Uncovering the impact of pollution from the soil to the soul**<br>Ms. Natalia Rodriguez Eugenio, Global Soil Partnership, Food and Agriculture Organization of the United Nations |
| 10.00 - 10.15 | **Global Soil Partnership and its Technical Network in Tackling Soil Pollution**<br>Sergejus Ustinov, Food and Agriculture Organization of the United Nations (FAO), Rome, Italy |
| 10.15 - 10.45 | **Morning Tea and Poster Viewing - Hall L** |

### CONCURRENT SESSION 1

| | | Session 1A PFAS Analytics | | Session 1B PFAS Fate and Transport | | Session 1C Advances in Site Characterisation and implications to Conceptual Site Models | | Session 1D Recent Advances in Remediation Technologies | | Session 1E Environmental Policy and Guidance |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Hall N | | City Room 1 | | City Room 2 | | City Room 3 | | City Room 4 |
| 10.45 - 11.00 | 259 | NONTARGET SCREENING FOR PFAS: A DETAILED LOOK BEHIND THE SCENES OF CONTAMINATED SITES, Prof. Christian Zwiener, University of Tuebingen | 293 | FATE AND TRANSPORT OF PFAS CONSIDERING BOTH PER- AND POLYFLUOROALKYL SUBSTANCES, FLUOROSURFACTANT PHYSICAL CHEMISTRY AND MULTIPLE BULK USES, Dr Ian Ross, CDM Smith | 193 | HIGH RESOLUTION SITE CHARACTERISATION AND IMPLICATIONS TO CONCEPTUAL SITE MODELS, Dr Jonás García-Rincón, Legion Drilling | 308 | EMERGING TECHNOLOGIES FOR CONTAMINATED SITES, Mengfang Chen, Chinese Academy of Sciences | 300 | LEGACY CONTAMINATION: EPA VICTORIA PERSPECTIVE, Dr Leki Mezzi, EPA VIC |
| 11.00 - 11.15 | | | | | | | | | | |
| 11.15 - 11.30 | 67 | NON-TARGETED SCREENING FOR PFAS USING DIRECT INFUSION ULTRAHIGH RESOLUTION FT-ICR MASS SPECTROMETRY, Robert Young, CSIRO | 53 | HYDRATED ELECTRONS: THE FUTURE OF PFAS DEGRADATION?, Ms Mabel Day, University of Adelaide | 31 | ACHIEVING CLEANLINESS: REVISING CONCEPTUAL SITE MODEL TO SUCCESSFULLY REMEDIATE AN ASBESTOS IMPACTED SITE, Mr Benedict Robinson, Stantec Australia | 111 | INNOVATIVE USE OF ALERTPRO TO ENHANCE ASBESTOS AND ASBESTOS-IN-SOIL (ASBINS) ASSESSMENT AND REMEDIATION PROJECTS, Mr Ross McFarland, Aecom | 41 | ENHEALTH GUIDANCE FOR THE HUMAN HEALTH RISK ASSESSMENT OF VOLATILE CHLORINATED HYDROCARBON VAPOUR INTRUSION, Dr Ian Delaere, SA Health |
| 11.30 - 11.45 | 217 | APPLICATIONS OF HIGH RESOLUTION MASS SPECTROMETRY IN PFAS ANALYSIS, Dr Jacob Jaine, Als Global | 152 | VOLATILE PFAS MONITORING IN OFFGAS FROM FULL SCALE FOAM FRACTIONATION AT A LIQUID WASTE FACILITY, Simon Dong, Arcadis | 60 | ADVANCEMENTS IN MONITORED NATURAL ATTENUATION ASSESSMENTS AT COMPLEX SITES WITH INCORPORATION OF ADVANCED DATA ANALYTICS AND INNOVATIVE CHARACTERISATION TOOLS, Dr Matthew Lee, Geosyntec Consultants International, Inc. | 63 | VETIVER FLOATING WETLANDS FOR CLEANUP OF LAKE WATERS, Dr Sara Parwin Banu Kamaludeen, Tamil Nadu Agricultural University | 255 | BIOAVAILABILITY BASED SOIL GUIDELINES, Laureate Prof Ravi Naidu, University of Newcastle |
| 11.45 - 12.00 | 91 | QUANTIFICATION OF PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS) CONCENTRATION IN ESTUARINE SYSTEM: UNDERSTANDING THE INFLUENCING FACTORS, Mr Navneet Singh, ADE Consulting Group | 163 | APPLICATION OF PFAS FORSENICS – EXAMINING THE DISTRIBUTION OF PFAS IN SOURCES AND RECEPTORS, Mr Jai Singh, Cdm Smith | 246 | IMPACT OF FLOW METERS ON GROUND GAS RISK ASSESSMENTS, Nick Woodford, Tetra Tech Coffey | 118 | REMEDIATION POTENTIAL OF MORUS ALBA L. INTERCROPPED WITH SEDUM ALFREDII H. AND ARUNDO DONAX L. FOR METAL-CONTAMINATED SOIL IN MINE, Professor Zhaohui Guo, Central South University | 71 | TECHNICAL CHALLENGES FOR CONTAMINATED LAND PRACTITIONERS WHEN CONSIDERING RECENT ENHEALTH VAPOUR INTRUSION GUIDANCE, Stanley Howell, Jacobs |
| 12.00 - 12.15 | 13 | CAPTURING FLUOROCARBON RADICALS DURING PFAS INCINERATION USING MOLECULAR-BEAM PYROLYSIS MASS SPECTROMETRY, Dr Wenchao Lv, CSIRO | 104 | ENHANCING PFAS IMMOBILIZATION IN CONTAMINATED SOILS USING ACTIVATED CARBON AND GRASS UNDER SIMULATED RAINFALL, Mr Minshu Liang, University Of Adelaide | 238 | FROM POLLUTION PATHWAYS TO SOLUTION PATHWAYS, Mrs Kirsty Dalton, Ghd Pty Ltd | 188 | AEROBIC CO-COMPOSTING DEGRADATION OF HIGHLY DIOXIN-CONTAMINATED FIELD SOIL, A STUDY OF BACTERIAL COMMUNITY, Dr. Huu Tuan Tran, Thai Nguyen University of Agriculture and Forestry (tuaf), Vietnam | 180 | PRIORITISE JET FUEL ADDITIVES USING CHEMS-1 AND IMAP, Yanju Liu, University of Newcastle |
| 12.15 - 13.15 | **Lunch and Poster Viewing - Hall L** | | | | | | | | | |

### PLENARY SESSION 1

Hall N

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| 13.15 - 14.00 | **Plenary Session 1: Theory-to-Practice: Soil Ecosystem Services for Delivering a Healthy Environment,**<br>Dr Brent Clothier, Principal Scientist, Plant & Food Research, New Zealand Life Cycle Management Centre, Massey University |
| 14.00 - 14.05 | Move to sessions rooms |

### CONCURRENT SESSION 2

Sponsored by SGS

| | | Session 2A PFAS Analytics | | Session 2B PFAS Groundwater Modelling | | Session 2C Advances in Site Characterisation and Implications to Conceptual Site Models | | Session 2D Recent Advances in Remediation Technologies | | Session 2E Environmental Policy and Guidance |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Hall N | | City Room 1 | | City Room 2 | | City Room 3 | | City Room 4 |
| 14.05 - 14.20 | 155 | YOUR LABORATORY'S REQUIREMENTS FOR PFAS ANALYSIS IN NEMP DRAFT 3.0, Nathan Camilleri, SGS Australia | 160 | PROGRESS IN MODELING PFAS PLUMES IN GROUNDWATER, Dr Charles Newell, GSI Environmental INC | 86 | FACING THE BLACK BOX: EXPLORING THE BENEFITS AND CHALLENGES OF ARTIFICIAL INTELLIGENCE IN SITE CLEANUP, Jeremy Musson, Pinyon Environmental Inc. | 252 | NON-ORGANIC ONSITE REGENERATION OF PER- AND POLY-FLUOROALKYL SUBSTANCES-LADEN GRANULAR ACTIVATED CARBON , Mahsa Modiri, EA Engineering, Science and Technology | 264 | MASS FLUX-BASED CRITERIA FOR THE MANAGEMENT OF GROUNDWATER CONTAMINATION, Greg Davis, CSIRO |
| 14.20 - 14.35 | | | | | | | | | | |
| 14.35 - 14.50 | 245 | EMERGING TRENDS IN PFAS ANALYSIS: FOCUS ON VOLATILE PFAS AND OTHER FLUORINATED COMPOUNDS, Dr Courtney Milner, Agilent Technologies | 132 | SYSTEMATIC MASS FLUX REVIEW OF DEFENCE'S 28-SITE PFAS MANAGEMENT PROGRAM, Mr Jonathan Ho, AECOM | 113 | USE OF REAL TIME GROUND GAS MONITORING GASFLUX SENSORS TO SUPPORT RISK ASSESSMENT AND MITIGATION, Mr Alessandro Sica, Senversa Pty Ltd | 277 | INSIGHTS INTO THE FERRATE-SULFITE SYSTEM FOR THE DEGRADATION OF POLYCYCLIC AROMATIC HYDROCARBONS, Zhitang Zhao, Institute of Soil Science, Chinese Academy of Sciences | 309 | AN OVERVIEW OF PROGRESS FROM NICOLE'S PFAS WORKING GROUP, Mr Geraint Williams, ALS Laboratories |
| 14.50 - 15.05 | 29 | A RIGOROUS APPROACH TO PFAS ANALYSIS IN SOLID SAMPLES, Mr Alex Kettle, University Of Adelaide | 302 | THE U.S. DEFENSE DEPARTMENT'S PROGRAMMATIC EFFORTS TO ASSESS PFAS LEACHING FROM AFFF-IMPACTECD SITES, Dr Richard Anderson, SERDP/ESTCP | 206 | RAPID ON-SITE DETECTION OF UNDERGROUND PETROLEUM PIPELINE LEAKS AND RISK ASSESSMENT USING PORTABLE GAS CHROMATOGRAPHY-MASS SPECTROMETRY AND SOLID PHASE MICROEXTRACTION, Ying Cheng, University of Newcastle | 202 | HIGH-ENERGY INJECTION OF ACTIVATED CARBON SLURRIES FOR IN-SITU REMEDIATION OF ORGANIC CONTAMINANTS: THE AUSTRALIAN EXPERIENCE, Dr Jonás García-Rincón, Legion Drilling | | |
| 15.05 - 15.20 | 64 | DEVELOPMENT AND VALIDATION OF A DIFFUSION-BASED EQUILIBRIUM PASSIVE SAMPLER FOR PFAS DETECTION IN AQUATIC ENVIRONMENTS, Dr. Brent Paurtier, SIREM | | | 5 | APPLYING STATE-OF-THE-PRACTICE TOOLS TO DETERMINE THE PRESENCE AND TRANSPORT OF PFAS AT A FORMER AIR FORCE BASE, Mr. Ryan Samuels, AECOM | 96 | ADVANCEMENTS IN REDUCTIVE NANO MATERIALS FOR REMEDIATION OF DIVERSE EMERGING AND PRIORITY POLLUTANTS; EFFICACY OF REACTIVE MATERIALS DEVELOPED BY NAFAMURASTO CO., LTD., HIROSHIMA, JAPAN, Dr. Rahul Singh, Hochschule Wismar, Wismar, Germany | 226 | SUSTAINABILITY AND REMEDIATION: THE HIDDEN COST OF GOING TOO FAR, Geologist Kristina Hill, GHD |
| 15.20 - 15.35 | 135 | ANALYSIS OF PFAS IN AIR: VALIDATION & METHODOLOGY, Dr Andrew Wright, SGS Australia Pty, Ltd | 288 | ADVANCED PREDICTION AND DETECTION OF PFAS IN GROUNDWATER USING ENHANCED CONVOLUTIONAL NEURAL NETWORK (ECNN) TECHNIQUE, T G Uma, Sir M V Government Arts and Commerce College, Dr Leelavathy AM, Dr Y Ramesh | 177 | USING THE HYDRAULIC PROFILING TOOL (HPT) TO INVESTIGATE GROUNDWATER FLOW PATHWAYS AT A SITE WITH SALTWATER INTRUSION, Hannah Bennett, GHD | 218 | ROOT PROTEOME MODULATION REVEALS NOVEL INSIGHTS INTO CADMIUM TOLERANCE IN BRASSICA NAPUS L., Dr. Swapan Kumar Roy, International University Of Business Agriculture And Technology | 20 | WASTE DERIVED FILL AUDITS: WHAT ARE THEY AND WHEN COULD THEY BE APPLICABLE, Ms Kerry Kent, Australian Environmental Auditors |
| 15.35 - 16.05 | **Afternoon Tea and Poster Viewing - Hall L** | | | | | | | | | |

### CONCURRENT SESSION 3

Sponsored by GHD

| | | Session 3A PFAS Exposure | | Session 3B PFAS Remediation | | Session 3C Advances in Site Characterisation and Implications to Conceptual Site Models | | Session 3D Recent Advances in Remediation Technologies | | Session 3E Climate Change and Natural Disaster Management |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Hall N | | City Room 1 | | City Room 2 | | City Room 3 | | City Room 4 |
| 16.05 - 16.20 | 182 | DETECTION & (BIO) ACCUMULATION OF LEGACY AND NOVEL PFAS IN THE (MARINE) ENVIRONMENT, Dr Rainer Lohmann, University of Rhode Island's Graduate School of Oceanography | 279 | PROMISING TECHNOLOGIES FOR THE REMEDIATION OF PFAS IMPACTED SOIL AND GROUNDWATER, Ramona Iery, Navfac Ewwc | 87 | VARIABILITY AND UNCERTAINTY ASSOCIATED WITH SAMPLING, ANALYSIS, AND RISK ASSESSMENT , Mr Naji Akladiss, SCHOW Consultant | 97 | COMBINED REMEDIATION STRATEGIES FOR OIL AND HEAVY METAL CONTAMINATED SOILS, Dr Sitou Adejumo, University of Ibadan | 140 | THE IMPORTANCE OF CLIMATE TO REMEDIAL ACTIONS AND TECHNOLOGY PERFORMANCE FOR GROUNDWATER CLEANUP, Scott Warner, University of Newcastle, Australia / BBJ Group USA |
| 16.20 - 16.35 | | | | | | | 109 | MAGNETIC HALLOYSITE AND ITS AEROGEL FOR SUSTAINABLE REMEDIATION OF CONTAMINANTS FROM WATER, Dr Bhaba Biswas, GCER, University of Newcastle | | |
| 16.35 - 16.50 | 121 | AUSTRALIAN ENVIRONMENTAL PFAS EXPOSURE IN 2024, Dr Mark Bowman, GHD | 76 | APPLICATION OF MULTI-INCREMENTAL SAMPLING METHODOLOGY FOR VALIDATION OF PFAS SOIL REMEDIATION, James Guzman, Aecom | 184 | ASSESSING THE ROLE OF MACHINE LEARNING MODELS IN GROUNDWATER CONTAMINANT MONITORING AND MANAGEMENT, Dr ASADI SRINIVASULU, University of Newcastle | 237 | INNOVATIVE MOF-CHITOSAN INTEGRATION TO REDUCE MICROPLASTIC FOULING IN FORWARD OSMOSIS MEMBRANES, Mrs Mahadeseh Zargar, Edith Cowan University | 170 | UTILIZING AUSTRALIAN CLAY MINERALS TO COMBAT METHANE EMISSION FROM CATTLE BURPS, Dr Md Rashidul Islam, The University of Newcastle |
| 16.50 - 17.05 | | | 92 | PFAS AND WASTE WATER TREATMENT PLANTS – STRATEGIES FOR AN "END-OF-PIPE" PROBLEM, Dr Matthew Askeland, Ade Consulting Group | 4 | LEVERAGING PRISMS TO ASSESS CONTAMINANT MIGRATION PATHWAYS AT A COMPLEX GEOLOGIC SITE, WASHINGTON, D.C., Mr. Ryan Samuels, AECOM | 46 | REMOTELY SENSED LAND MANAGEMENT SOLUTIONS, Amy Steiger, Stantec Australia | 127 | EFFECTS OF MANAGEMENT PRACTICES ON SOIL ORGANIC CARBON DYNAMICS IN RANGELAND ECOSYSTEMS, Dr Somaz Bidari, University of Newcastle |
| 17.05 - 17.20 | 267 | A STUDY ON PFBA, PFHXA, AND PFOA TOXICITY IN CAENORHABDITIS ELEGANS EXAMINES TRANS- AND MULTIGENERATIONAL EFFECTS OF THESE PERSISTENT PER- AND POLYFLUORINATED COMPOUNDS, Dr Tanmoy Sana, GCER, The University of Newcastle | 21 | THERMAL DESTRUCTION OF PFAS: HEAD GROUP DEPENDENCE AND KINETIC BOTTLENECKS, Jens Blotevogel, CSIRO | 241 | MULTIPLE SOURCE EVALUATION FOR PFAS SUPPLEMENTED WITH EMERGING DIGITAL TOOLS, Tom Fewless, GHD | 77 | OPTIMISATION OF A GROUNDWATER TREATMENT SYSTEM DURING COMMISSIONING, Ali Ridho, Aurecon Indonesia | 138 | NATURAL HAZARDS, CLIMATE CHANGE & CONTAMINATED LAND, Mr Howard Weldon, Lahsearch Pty Ltd |
| 17.20 - 17.35 | 240 | LITHIUM-ION BATTERY COMPONENTS ARE AT THE NEXUS OF SUSTAINABLE ENERGY AND ENVIRONMENTAL PFAS RELEASE, Associate Professor Jennifer Guelfo, Texas Tech University | 47 | PFAS REMOVAL WITHIN A BIOLOGICAL PROCESS, Mr Darrin Stoker, Emerging Contaminants Treatment Technologies | 108 | COMBINING HANDHELD XRF ANALYSIS AND ARCGIS FOR RISK EVALUATION AND REMEDIATION PLANNING AT AN ABANDONED ARSENIC MINE, Dr Liang Wang, The University Of Newcastle | 55 | SYNERGISTIC ADSORPTION AND PHOTOCATALYTIC DEGRADATION OF METHYLENE BLUE (MB) DYE OVER DEFECTIVE MIL-88B(FE) MOFS, Samira Sadeghi, Ph.D. Candidate | 153 | CLIMATE RESILIENCE IN CONTAMINATED SITES REMEDIATION, Mr Ivan Kwan, CDM Smith Australia |
| 17.35 - 18.35 | **Drinks and Poster Session - Hall L**<br>**Sponsored By** VEOLIA | | | | | | | | | |
| 18.45 - Late | **CleanUp In The Pub** | | | | | | | | | |

INTERNATIONAL CLEANUP CONFERENCE
ADELAIDE 2024

## Tuesday, 17 September 2024

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| 8:00 | Exhibition and Poster Displays Open, Hall L |
| 7:00 | Speaker Support, Foyer M |
| 8:00 | Registration, Foyer M |

**PLENARY SESSION 2** — Hall N

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| 9.00 - 9.15 | **Welcome Day 2** |
| 9.15 - 10.00 | **Plenary Session 2: Anything But PFAS -** Professor Mark Taylor,Chief Environmental Scientist and Executive Director, EPA, Victoria |
| 10.00 - 10.30 | **Morning Tea and Poster Viewing - Hall L** |

**CONCURRENT SESSION 4**

| | | Session 4A PFAS Policy | | Session 4B PFAS Remediation | | Session 4C Diffuse Pollution | | Session 4D Recent Advances in Remediation Technologies (Sponsored by GHD) | | Session 4E Case Studies |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Hall N | | City Room 1 | | City Room 2 | | City Room 3 | | City Room 4 |
| 10.30 - 10.45 | 73 | PFAS: MANAGEMENT STRATEGY VIEWED THROUGH A GLOBAL LENS, Dr. Rosa Gwinn, AECOM | 169 | DATA EVALUATION FRAMEWORK FOR DELINEATION OF PFAS SOURCE ZONES AND "BACKGROUND" PFAS SOURCES, Jeff Gamlin, GSI Environment | 254 | DIFFUSE POLLUTION EXPOSURE: A "ONE HEALTH" PERSPECTIVE, Laureate Professor Ravi Naidu, GCER | 57 | OPTIMISING REMEDIAL OUTCOMES – USING NATURAL SOURCE ZONE DEPLETION AND GEOPHYSICAL SURVEYS TO SUPPLEMENT CONVENTIONAL SAMPLING FOR SITE CLOSE OUT, Mr Andre Smit, Ghd | 114 | EDUCATION AND TRAINING FOR CONTAMINATED LAND PROFESSIONALS: TIME TO RAISE OUR GAME?, Dr Sophie Wood, LTS |
| 10.45 - 11.00 | | | | | | | | | 137 | DETERMINING THE COST, TIME AND RISK INCLUDED IN A TRANSACTION FOR A CONTAMINATED LAND ASSET , Mr Noel Storan, Construction and Remediation Advisory Services Pty Ltd |
| 11.00 - 11.15 | 62 | HOW DOES EU'S POLICY FRAMEWORK TACKLE PREVENTION AND MANAGEMENT OF PFAS POLLUTION?, Dr Jussi Reinikainen, Finnish Environment Institute (Syke) | 95 | RAPID AND VIRTUALLY COMPLETE MECHANOCHEMICAL REDUCTIVE DEFLUORINATION OF PER- AND POLYFLUORO ALKYL SUBSTANCES (PFAS) IN CONTAMINATED SOIL USING SODIUM AND AMINES AS CO-MILLING AGENTS: A PROMISING FIRST APPROACH FOR THE DEVELOPMENT OF NOVEL NON-COMBUSTION PFAS REMEDIATION PROCESSES FOR SOILS, Dr. Rahul Singh, Hochschule Wismar, Wismar, Germany | | Soil health or OCP's approach to Fertilizer customization - leonardus Vergutz , OCP Group, Morocco | 141 | PHYTOREMEDIATION OF ICE BY EUCALYPTUS TREES, Mr Mark Chapman, Aecom Australia | 159 | DATA VISUALISATION – SHINING A LIGHT ON SUBSURFACE DATA TO OPTIMISE REMEDIATION OPTIONS ASSESSMENT, Mr Abe Wight, CDM Smith |
| 11.15 - 11.30 | | | 268 | NEW TECHNOLOGIES TO DEGRADE PFAS TOWARD SITE APPLICATIONS, Cheng Fang, Uon | 125 | PFAS MASS FLUX – A PLATFORM FOR DEVELOPING REALISTIC REMEDIAL GOALS AND SUSTAINABLE ACTION, Ms Rachael Casson, AECOM | 227 | INNOVATIVE ENVIRONMENTAL REMEDIATION TECHNOLOGIES (INERT) FOR IMPROVING SOIL HEALTH, Dr Md Nuruzzaman, GCER, University of Newcastle | 165 | APPLICATION OF CLOUD-BASED DIGITAL ENVIRONMENTAL AUDITING TO SUPPORT A LARGE-SCALE REMEDIATION PROJECT, AND HOW IT COULD BE FURTHER ENHANCED THROUGH GENERATIVE AI, Mr Christian Wallis, Cdm Smith |
| 11.30 - 11.45 | 262 | PFAS IN CHINA: OCCURRENCE, RISK, POLICIES AND MANAGEMENT, Fang Wang, Institute of Soil Science, Chinese Academy of Sciences | 151 | CLOSURE – WHEN IS ENOUGH ENOUGH? AN AUDITOR'S PERSPECTIVE FOR PFAS REMEDIATION, Jonathan Medd, CDM Smith | 224 | BIORATIONAL PEST MANAGEMENT STRATAGIES: A PREVENTION TOOL OF CHEMICAL PESTICIDES HAZARD, Dr. Md Mahbubur Rahman, Bangabandhu Sheikh Mujibur Rahman Agricultural University (bsmrau) | 80 | EXPLORING THE POTENTIAL: CAN ARSENIC TOLERANT SILICA SOLUBILING BACTERIA REDUCE ARSENIC TOXICITY IN RICE?, Ms Shreya Chakraborty, Indian Statistical Institute | 204 | PREDICTION OF SALTWATER INTRUSION USING NUMERICAL AND SURROGATE MODELING: CASE STUDY OF TAGABE COASTAL AQUIFER, VANUATU, Dr Alvin Lal, croCARE |
| 11.45 - 12.00 | | | 134 | TREATMENT OF COMPLEX PFAS EFFLUENT (FRANCE&AUS), Ms Carole Coudert, Veolia | 257 | A BRIEF OUTLOOK ON TECHNOSOLS: CURRENT ISSUES & CHALLENGES , Dr Jeyanny Vijayanathan, Forest Research Institute Malaysia | 167 | INTERACTION OF MCM-41 WITH IMIDACLOPRID TO REVEAL ITS MULTIFUNCTIONAL APPLICATION, Mr Saifullah Omar Nasif, University of Newcastle | 200 | CHALLENGES IN CONSTRUCTING A RESIDENTIAL SUBDIVISION ON A LANDFILL – A CASE STUDY, Dr Ian Swane, Ian Swane & Associates |
| 12.00 - 12.15 | 289 | ADDRESSING PFAS CONTAMINATION IN INDIA: POLICY PROGRESS AND PATHWAY FORWARD, Dr Nitin Verma, Chitkara University | 17 | TANTALUM-BASED METAL OXIDES FOR THE PHOTOCATALYTIC DEGRADATION OF PFAS, Mss Rachael Matthews, The University Of Adelaide | 162 | STATE OF THE PRACTICE: CASE STUDIES FOR DISTINGUISHING CONTAMINATION FROM BACKGROUND IN SOIL AND GROUNDWATER, Dr Hannah Mikkonen, Cdm Smith | 10 | AN ADVANCED DECISION SUPPORT TOOL TO FACILITATE PRELIMINARY TECHNICAL AND SUSTAINABILITY EVALUATION OF POTENTIAL REMEDIATION TECHNOLOGIES AT A CONTAMINATED SITE INVOLVING MULTIPLE CONTAMINANTS, Mr. Louis Chan, The Hong Kong University of Science and Technology | 235 | LANDFILL GAS MITIGATION TO FACILITATE DEVELOPMENT IN THE PERTH METROPOLITAN AREA, Ms Shandel Coleman, Australian Environmental Auditors |
| 12.15 - 13.15 | | **Lunch and Poster Viewing - Hall L** | | | | | | | | |

**CONCURRENT SESSION 5**

| | | Session 5A PFAS Policy | | Session 5B PFAS Remediation | | Session 5C Diffuse Pollution | | Session 5D Mining and ESG | | Session 5E Case Study |
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| | | Hall N | | City Room 1 | | City Room 2 | | City Room 3 | | City Room 4 |
| 13.15 - 13.30 | 292 | PFAS POLICY UPDATE- UK, Paul Nathanail, Land Quality Management Ltd Nottingham | 298 | REMOVAL OF PER- AND POLYFLUOROALKYL SUBSTANCES FROM WASTEWATER VIA AEROSOL CAPTURE, Zoom Nguyen, CDM Smith | 234 | UTILIZING RISK BASED SAMPLING METHODS COUPLED WITH FIELD INSTRUMENTS FOR NEAR REAL TIME REMEDIATION, Marvin Heskett, Element Environmental | 284 | REGENERATIVE REMEDIATION: ESG IN PRACTICE, Frank Sweet, AECOM | 42 | UNRAVELLING CONTAMINANT MIGRATION PATHWAYS AT A FORMER CHEMICAL MANUFACTURING FACILITY, Mr Garry Masur, Helio Ehs Pty Ltd |
| 13.30 - 13.45 | | | | | | | | | 32 | DEMONSTRATION OF LNAPL NATURAL SOURCE ZONE DEPLETION TO ACHIEVE SITE CLOSURE – A CASE STUDY FROM REGIONAL WESTERN AUSTRALIA, Dr Daniel Boland, GHD |
| 13.45 - 14.00 | 88 | UNITED STATE ENVIRONMENTAL PROTECTION AGENCY FINAL PFAS NATIONAL PRIMARY DRINKING WATER REGULATION, Susan Schow, Retired, State of Maine Health Data Organization | 50 | REGENERABLE ION EXCHANGE TREATMENT WITH HYDROTHERMAL ALKALINE TREATMENT (HALT): FULL SPECTRUM PFAS CAPTURE AND DESTRUCTION, Dr David Kempisty, Emerging Contaminants Treatment Technologies | 231 | A PFAS MASS FLUX STUDY AND ITS USE IN SITE MANAGEMENT, Alice Walker, Ghd | 145 | MODELING MONITORING AND DETECTING GROUNDWATER FLOW AND CONTAMINANT TRANSPORT AT MINE SITES — WITH POSSIBLE EXTENSION TO OTHER MINING APPLICATIONS, Dr. Bithin Datta, James Cook University, Townsville, QLD | 187 | CELEBRATING THE WORLD'S MOST SUSTAINABLE GROUNDWATER REMEDY: THE PERMEABLE REACTIVE BARRIER AT 30 YEARS, Scott Warner, University of Newcastle, Australia / BBJ Group USA |
| 14.00-14.15 | | | 236 | NATURE-INSPIRED INNOVATION: LONG-TERM MANAGEMENT OF PFAS CONTAMINATED WATER USING FLOATING WETLANDS, Dr John Awad, Csiro | 203 | POLICY CHALLENGES RELATED TO DIFFUSE POLLUTION – CASE PFAS, Dr Jussi Reinikainen, Finnish Environment Institute (Syke) | 243 | ANTIMONY (V) COPRECIPITATION WITH SCHWERTMANNITE IN ACID-SULFATE SYSTEMS., Mohammad Rastegai, Southern Cross University | 56 | A CASE STUDY: INVESTIGATION AND REMEDIATION OF IMPACTED SOIL AND GROUNDWATER ON A MAJOR PETROLEUM HYDROCARBON AND CHEMICAL STORAGE AND DISTRIBUTION TERMINAL IN VICTORIA FOR REDEVELOPMENT AS NON-SENSITIVE COMMERCIAL LAND USE, Mrs Nina Aiovi, Australian Environmental Auditors |
| 14.15 - 14.30 | | PFAS Policy and Regulation in Australia: managing historical and preventing future contamination through the updated PFAS NEMP and ICHEMS, Dr Shaun Thomas, Principal Advisor Wastewater, Compliance and Regulatory Practice Branch EPA South Australia | 129 | CAN PREVIOUSLY SEQUESTERED PFAS BE RELEASED IN GROUNDWATER AFTER IN-SITU IMMOBILISATION?, Dr Anthony Umeh, Global Centre for Environmental Remediation, University of Newcastle | 249 | DILUTION IS THE SOLUTION TO THE POLLUTION (EQUATION), Mr Bryden Tiddy, Tetra Tech Coffey | | | 117 | ASSESSMENT OF IMPACT LEVELS FOR EFFECTIVE REHABILITATION OF THE OIL-POLLUTED MANGROVE SHORELINE OF OGONILAND, NIGERIA, PROFESSOR NENIBARINI ZABBEY, Hydrocarbon Pollution Remediation Project (Hyprep) |
| 14.30-14.45 | | | 85 | ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) CONTAMINATION IN DRINKING WATER SOURCES IN INDUSTRIAL AREAS (BADDI) OF HIMACHAL PRADESH, INDIA., Dr Nitin Verma, Chitkara University | 239 | DIRECT DRIVE HIGH RESOLUTION PASSIVE SAMPLING FOR CHARACTERIZING THE DISTRIBUTION OF PFAS IN GROUNDWATER AND SURFACE-GROUND WATER INTERFACES, Dr. William Jackson, Texas Tech University | | | 11 | THE ROLE OF SURFACTANTS (BRIJ 35 AND TWEEN 80) IN ELECTROKINETIC REMEDIATION OF POLYCYCLIC AROMATIC HYDROCARBONS FROM A NATURAL SOIL, Ms Sedigheh Mohammadi, Southern Cross University |
| 14.45 - 15.15 | | **Afternoon Tea and Poster Viewing - Hall L** | | | | | | | | |

**CONCURRENT SESSION 6**

| | | Session 6A Mining and ESG | | Session 6B PFAS Remediation | | Session 6C ACLCA Session for Early Career Professionals | | Session 6D Recently Emerged and Emerging Contaminants | | Session 6E Case Study |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Hall N | | City Room 1 | | City Room 2 | | City Room 3 | | City Room 4 |
| 15.15-15.30 | 84 | CONTAMINATED MINING SITE RISK ASSESSMENT AND BROWNFIELD REUSE IN NORTHERN TAIWAN, Mr. Yun-Jie Lai, Apollo Technology Co., Ltd. | 287 | PFAS IN DRINKING WATER: CHALLENGES WITH IMPLEMENTING THE NEW US REGULATIONS , Tamzen Macbeth, CDM Smith | | Introduction and brief about the session - Larissa Wiloughby, Australian Environmental Auditors | 294 | LET'S STOP THE WHACK-A-MOLE APPROACH TO EMERGING CONTAMINANTS, Dr Shaily Mahendra, University of California | 106 | REMEDIATING SUBSURFACE COMBUSTION IN COAL-WASH IN A SENSITIVE LAND USE SETTING – CASE STUDY, Matthew Barberson (Mart Barberogru), Wsp Australia Pty Ltd |
| 15.30 - 15.45 | 161 | CHEMICAL ANALYSIS OF RECYCLED RUBBER FROM END-OF-LIFE TYRES: IMPLICATIONS FOR CIRCULAR ECONOMY, Dr Divina Angela Navarro, Csiro Environment | | | | Sustainable Bioremediation in Remote South Australia, Ms Natalie Newman, EHS Support Pty Ltd. | | | 210 | TREATMENT OF SALINE EFFLUENT FROM COAL COMBUSTION ASH IMPOUNDMENTS: CASE STUDY OF PILOT-SCALE MINERAL RECOVERY FROM SALINE WATER OF AN ASH IMPOUNDMENT IN SOUTH AUSTRALIA, Dr Aharon Arakel, Pact Renewables Pty Ltd |
| 15.45 - 16.00 | 89 | THE PRECAUTIONARY PRINCIPLE - HAS IT HELPED OR HINDERED COMMUNICATING AND MANAGING PFAS RISKS?, Mr Andrew Thomas, GHD Pty Ltd | 27 | MATERIALS AND PROCESSES FOR PHOTOCATALYTIC DESTRUCTION OF PERSISTENT ORGANIC POLLUTANTS, Dr Cameron Shearer, The University of Adelaide | | Assessment of hydraulic profiling tool (HPT) results as part of a conceptual site model- Annaleise Murdoch, GHD | 214 | ADVANCES IN THE IDENTIFICATION OF DIFFERENT TYPES OF ASBESTOS: AN ANALYTICAL APPROACH, Dr Saisnand Gopalan, CRC CARE/GCER, The University of Newcastle | 201 | TELLUS HOLDINGS: AUSTRALIA'S SAFEST PLACE FOR THE PERMANENT ISOLATION OF HAZARDOUS MATERIALS. CASE STUDIES ON SOME OF THE SITES TELLUS HAS BEEN ABLE TO ASSIST WITH CLEANUP AND REMEDIATION OF LEGACY STOCKPILES OF HAZARDOUS MATERIALS AND LLW, Mr Tim Sheldon-Collins, Tellus Holdings |
| 16.00 - 16.15 | 275 | REGENERATIVE REMEDIATION: GENERATING SUSTAINABLE POST-REMEDIATION HUMAN AND ECOLOGICAL VALUE FROM IMPAIRED PROPERTIES, Paul Steinwede, AECOM | 48 | TREATMENT OF A 4 MLD LAGOON SYSTEM POTW EFFLUENT TO PFAS DRINKING WATER STANDARDS USING FOAM FRACTIONATION, Cameron Marshall, Emerging Contaminants Treatment Technologies | | Living with our legacy: Advancing sustainable waste management in Victoria - Matthew Barham, CDM Smith | 26 | DISCHARGE OF MICROPLASTICS AND PLASTIC ADDITIVES FROM MUNICIPAL SOLID WASTE OPEN DUMPS INTO THE ENVIRONMENT, Professor Meththika Vithanage, Ecosphere Resilience Research Center, University of Sri Jayewardenepura | 250 | RAPID ASSESSMENT AND REMEDIATION OF AN AIRCRAFT CRASH SITE ON TIWI ISLANDS, NT, Mr Liam Spurr, Jacobs |
| 16.15 - 16.30 | 190 | MINECARE: ADVANCED SOFTWARE SOLUTIONS FOR MANAGING CONTAMINATED MINE SITES, Dr Liang Wang, The University Of Newcastle | 49 | FOAM FRACTIONATION COUPLED WITH HYDROTHERMAL ALKALINE TREATMENT FOR REMEDIATION OF A PFAS-IMPACTED FIRE TRAINING POND, Charlie Gordon, Emerging Contaminants Treatment Technologies | | From Start to Finish (And a little bit in between) - Monique Hitchens, ADE Consulting Group | 36 | IMPACTS OF MUNICIPAL SOLID WASTE MANAGEMENT ON LAGOON GARBAGE: A CASE STUDY OF THALE NOI, THAILAND, Peeranart Kiddee, Department of Biological and Environmental Sciences, Faculty of Science and Digital Innovation, Thaksin University | 198 | REAL-TIME SOIL ASSESSMENT: REMSCAN IN KUWAITS ENVIRONMENTAL REMEDIATION PROGRAM, Dr Sean Manning, Zitek |
| 16.30 - 16.45 | 253 | ESG-DRIVEN ENVIRONMENTAL RISK ASSESSMENTS: IMPORTANCE OF ECOLOGICAL RECEPTORS FOR ACHIEVING UNESDGS , Abinandan Sudharsanam, The University of Newcastle | 61 | ELECTROCHEMICAL OXIDATION FOR ONSITE PFAS DESTRUCTION, Katie Henderson, Ovivo | | Fieldwork Survival Guide: Strategies for Health and Mental Resilience - Cheri van Rensburg, GHD | 40 | PFAS IN DUST MEASUREMENT – ENVIRONMENTAL AND OCCUPATIONAL CONSIDERATIONS, Tim Dowle, ADE Consulting Group | 52 | EVOLUTION OF A CSM – WHEN PLUMES COLLIDE: USING MULTIPLE LINES OF EVIDENCE TO ASSESS THE INTERACTION OF A CHLORINATED HYDROCARBON AND A PETROLEUM HYDROCARBON PLUME IN A FRACTURED ROCK AQUIFER, Mr Ben Kortlever, Stantec |
| 16.45 - 17.00 | 112 | INFLUENCES OF LAYERED SILICATE MINERALS ON THE RUMEN ECOSYSTEM FOR METHANE INHIBITION, Zubaer Hosen, University of Newcastle, NSW, Australia | 16 | REGENERABLE RESIN FOR PFAS REMOVAL – 5 YEARS LATER ... WHAT WE'VE LEARNED., Dr. David Kempisty, Ect2 | | Q&A and Open discussion | 69 | LABORATORY TREATABILITY STUDY FOR REMEDIATION OF LIGHT, NON-AQUEOUS PHASE LIQUID , Mr Matthew Tendam, Aurecon | 158 | STARTING AT THE END: OPTIMISING ENHANCED IN SITU BIOREMEDIATION FOR TCE, Mr Abe Wight, CDM Smith |
| 18.30 - 19.00 | | **Pre-dinner drinks** | | | | | | | | |
| 19.00 - 23.30 | | **Gala Dinner - Panorama Ballroom** Sponsored by AECOM | | | | | | | | |

Tuesday, 17 September 2024

INTERNATIONAL CLEANUP CONFERENCE
ADELAIDE 2024

## Wednesday, 18 September 2024

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| 8:00 | Exhibition and Poster Displays Open, Hall L |
| 7:30 | Speaker Support, Foyer M |
| 8:00 | Registration, Foyer M |

**PLENARY SESSION 3** — Hall N

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| 9.00 - 9.15 | **Welcome Day 3** |
| 9.15 - 10.05 | **Plenary Session 3: Plastics, Endocrine Disrupting Chemicals and Health: Effects on the Neuroendocrine System**<br>Marina Fernandez, PhD, Associate Researcher, The Instituto de Biología y Medicina Experimental, Argentina |
| 10.00 - 10.30 | **Morning tea and Poster Viewing - Hall L** |

**CONCURRENT SESSION 7**

| | | Session 7A PFAS Risk and Toxicity (Hall N) | | Session 7B PFAS Biosolid (City Room 1) | | Session 7C Legacy Contaminants (City Room 2) | | Session 7D Recently Emerged and Emerging Contaminants (City Room 3) | | Session 7E One Health and Communication (City Room 4) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10.30 - 10.45 | 194 | RISK-BASED BENCHMARKS AND OTHER CONSIDERATIONS FOR ECOLOGICAL RISK ASSESSMENT OF PFAS , Greg Garvey, GSI Environment | 290 | UNDERSTANDING AND MANAGEMENT OF PER AND POLYFLUORINATED SUBSTANCES (PFAS) IN BIOSOLIDS, Distinguished Professor Andrew Ball, RMIT University | 291 | HALF A CENTURY OF SLOOOOW PROGRESS ON RISK BASED REMEDIATION - LESSONS AND OPPORTUNITIES TO ACCELERATE, Paul Nathanail, Land Quality Management Ltd Nottingham | 82 | CHARACTERIZATION AND ECOLOGICAL RISK ASSESSMENT OF MICROPLASTICS IN SEDIMENTS OF A TROPICAL WEST AFRICAN LAGOON ECOSYSTEM, Professor Lucian Chukwu, University of Lagos, Lagos - Nigeria | 260 | EFFECTIVE COMMUNICATION OF RISK - TO COMMUNITIES AFFECTED BY SOIL CONTAMINATION, Michael Stopford, ANCORED |
| 10.45 - 11.00 | | | | | | | | | | |
| 11.00 - 11.15 | 39 | EMERGING CONTAMINANTS IN WASTE INDUSTRY- CHALLENGES AND SOLUTIONS, Gus Martins, HUESKER Australia | 120 | PFAS IN BIOSOLIDS: TRANSFER TO SOIL AND CROPS PRESENTS RISKS TO CONSUMERS OF BEEF AND MILK, Summer Streets, Minnesota Pollution Control Agency | 66 | FROZEN IN TIME: DETECTING LEGACY HYDROCARBON CONTAMINATION USING PASSIVE SOIL GAS SAMPLING AT WILKES STATION, EAST ANTARCTICA, Kathryn East, Australian Antarctic Division | 79 | ADVANCED MATERIALS AND MEMBRANES FOR ENHANCED MICROPLASTIC/NANOPLASTIC AND SYNERGISTIC FOULING RESISTANCE, Dr Masoumeh Zargar, Edith Cowan University | 70 | DEVELOPING FRAMEWORKS THAT SUPPORT COMMUNICATON OF INDOOR AIR RISK AND RESPONSE , Mel Karistianos, Jacobs |
| 11.15 - 11.30 | 136 | ADDRESSING PFAS CHALLENGES IN WATER: VEOLIA RETURN OF EXPERIENCE IN NORTH AMERICA AND AUSTRALIA, Mr Matt Ead, Veolia | | | 205 | ARSENIC OXIDATION AND REMOVAL FROM WATER VIA CORE-SHELL MNO2@LA(OH)3 NANOCOMPOSITE ADSORPTION, Dr. Yulong Wang, The University Of Newcastle | 100 | OCCURRENCE AND DISTRIBUTION OF MICROPLASTIC POLLUTION IN PEATLAND AREAS, Dr. Ngoc Son Hai Nguyen, Thai Nguyen University Of Agriculture And Forestry (Tuaf), Vietnam | 174 | THE ART OF COMMUNICATING RISKS TO COMMUNITY: STRATEGIES FOR TECHNICAL PROFESSIONALS, Carla Pignatelli, GHD Pty Ltd |
| 11.30 - 11.45 | 166 | FIREFIGHTING FOAM TRANSITION – ARE WE DONE YET? STATUS AND STATE OF THE ART, Peter Storch, Arcadis Australia Pacific | 283 | EXPLORING THE FATE OF PFAS IN BIOSOLIDS PYROLYSIS THROUGH PYROCO PILOT PLANT, Aravind Surapaneni, RMIT University | 266 | POTENTIAL OF BUSHFIRES ON THE MINERALOGICAL TRANSFORMATION OF MOST USED ASBESTOS, Girish Choppala, GCER | 101 | MACHINE LEARNING APPROACHES FOR PREDICTING MICROPLASTIC POLLUTION IN PEATLAND AREAS, Dr. Huu Tuan Tran, Thai Nguyen University Of Agriculture And Forestry (Tuaf), Vietnam | 297 | ASSESSING THE IMPACT OF HEAVY CHEMICAL FERTILIZER USE ON SOIL HEALTH IN CAMEROON, Nzoana Georges Martial, University of Dschang |
| 11.45 - 12.00 | 176 | INVESTIGATING THE TOXICITY OF PERFLUOROOCTANE SULFONIC ACID (PFOS) ON GROUNDWATER ISOPODS AND AMPHIPODS , Dr M.A. Ayanka Wijayawardena, The University of Newcastle and crcCare | 107 | PFAS IN BIOSOLIDS - IS EVERYONE MEASURING THE SAME THING? INSIGHTS FROM A PROFICIENCY TESTING STUDY, Mrs Luminita Antin, National Measurement Institute | 28 | TOWARDS A RISK-BASED APPROACH TO THE TRANSPORT OF SOIL CONTAINING ASBESTOS, Simon Mason, Agon Environmental | 124 | CARBAMAZEPINE AND ELEMENTAL CONCENTRATION IN EFFLUENT WATER OF WASTEWATER TREATMENT PLANTS THAT FITS IN RECENT EMERGED AND EMERGING CONTAMINANT (DRUGS), Kenneth Sajwan, Department Of Marine And Environmental Sciences | 296 | HEAVY METAL IN INDONESIAN PADDY SOILS: STATUS AND IMPLICATION TO ONE HEALTH, Yiyi Sulaeman, National Research and Innovation Agency |
| 12.00 - 12.15 | 131 | KEY PFAS LAND USES IN THE YANGTZE RIVER DELTA OF CHINA: IMPLICATIONS FOR ENVIRONMENTAL MANAGEMENT PRIORITIES, Dr. Yuanyuan Cheng, Suzhou University of Science and Technology | | | 192 | BIOACCESSIBILITY AND HEALTH RISK ASSESSMENT OF ARSENIC IN CHILDREN'S DIETS FROM ARSENIC ENDEMIC AREA IN BANGLADESH, A/prof Mohammad Mahmudur Rahman, The University of Newcastle | 168 | DISTRIBUTION AND RISK ASSESSMENT OF MICROPLASTICS IN AGRICULTURAL SOILS, Ms Karthika Sangilidurai, Tamil Nadu Agricultural University | 256 | EFFECTIVE RISK COMUNICATION: WHAT DOES IT TAKE?, Dr Kate Hughes, Ecology Data Bank Services |
| 12.15 - 13.05 | **Lunch and Poster Viewing - Hall L** | | | | | | | | | |

**CONCURRENT SESSION 8**

| | | Session 8A PFAS Risk and Toxicity (Hall N) | | Session 8B Waste and Circular Economy (City Room 1) | | Session 8C Legacy Contaminants (City Room 2) | | Session 8D Recently Emerged and Emerging Contaminants (City Room 3) | | Session 8E Risk Characterisation including Bio Availability (City Room 4) |
|---|---|---|---|---|---|---|---|---|---|---|
| 13.05 - 13.20 | 258 | USE OF RISK-BASED SAMPLING METHODS AND "TOTAL PFAS RISK" TO EXPEDITE ASSESSMENT AND REMEDIATION OF PFAS-CONTAMINATED SITES, Roger Brewer, Hawaii Department Of Health | 299 | WHAT'S UBIQUITOUS AND OPAQUE? A DISCUSSION OF CIRCULAR ECONOMY, ESG AND WASTE, Nate Smith, Tellus Holding Group | 175 | MANAGING PERSISTENT ORGANIC POLLUTANTS (POPS): LEGACY POPS, EMERGING CHEMICALS, PLASTICS, AND HOUSEHOLD DIRTY DOZEN, Prof Ming Hung Wong, The Education University of Hong Kong | 247 | LIVING WITH CHEMICALS: UNDERSTANDING THE SOURCES AND RISK FROM CONTAMINANTS IN HOMES AND GARDENS, Kara Fry, Environment Protection Authority Victoria | 119 | MINNESOTA'S APPROACH TO DERIVATION OF PFAS CRITERIA FOR THE PROTECTION OF HUMAN HEALTH, Summer Streets, Minnesota Pollution Control Agency |
| 13.20 - 13.35 | | | | | | | | | | |
| 13.35 - 13.50 | 276 | ADDRESSING KEY UNCERTAINTIES IN RISK ASSESSMENT THROUGH THE LATEST SAMPLING AND ANALYTICAL METHODS FOR CONCRETE IMPACTED BY PFAS AT FIRE TRAINING AREAS, Mr Geraint Williams, ALS | 230 | ESTABLISHING BASELINE CONTAMINATION OF MICROPLASTICS IN ORGANIC WASTES, Dr Mike Williams, Csiro | 99 | DEVELOPMENT OF AN ADAPTIVE FRAMEWORK FOR OPTIMIZING BIOREMEDIATION IMPLEMENTATION AT A FRACTURED BEDROCK CHLORINATED SOLVENT DNAPL SITE, Dr Matthew Lee, Geosyntec | 213 | EXTRACTION OF GLYPHOSATE AND AMINOMETHYLPHOSPHONIC ACID FROM CONTRASTING AUSTRALIAN SOILS , Mrs Wd.nipuni P. Welivitiya, GCER- University of Newcastle | 25 | THIRSTY WORK: CLIMATE-DEPENDENT STOCK WATER SCREENING LEVELS FOR THE BROAD PFAS FAMILY, Katie Richardson, Senvenso |
| 13.50 - 14.05 | 90 | ASSESSING THE DISTRIBUTION AND ENVIRONMENTAL RISK OF PFAS AT A HISTORICAL CONCRETE PAD, Dr Matthew Aaseland, Ade Consulting Group Pty Ltd | 33 | TOWARDS SUSTAINABLE WASTE MANAGEMENT: UNDERSTANDING HEAVY METAL ENRICHMENT IN MSWI BOTTOM ASH, MSc Thomas Kremlicka, Montanuniversität Leoben | 83 | OPTIMIZING CHEMICAL FIXATION TECHNIQUES FOR EFFECTIVE LEAD IMMOBILIZATION IN GARNET WASTE, Miss Emily Bloomfield, Veolia Environmental Services | 15 | MICRO-/NANOPLASTICS IN OUR DAILY LIVES, Cheng Fang, Uon | 58 | MEASURING THE IMPACT OF BIO-ACCESSIBLE HMS ON COOKED RICE FROM CHROMITE-ASBESTOS MINE WASTE CONTAMINATED SOIL: PREDICTING ANTHROPOGENIC AND DIETARY RISK BY EMPLOYING MODELS, Ms SONALI BANERJEE, Indian Statistical Institute |
| 14.05 - 14.20 | 18 | REDUCING PFAS LOADS IN STORMWATER AT A FUEL TERMINAL, Mr Stuart Derham, Aurecon | 173 | CLOSING THE LOOP ON NAPPIES: AN AUSSIE TRIAL, Dr Anu Kumar, CSIRO | 189 | CO-SORPTION OF ANTIMONY AND METALS ONTO IRON MINERALS, Ms Bridie Clelland, Gcer | 216 | ASSESSING THE RISK OF CONTAMINANTS OF EMERGING CONCERN IN WASTEWATER USING EFFECTS-BASED METHODS, Hung Tan, EPA Victoria | 143 | ASSESSING PFAS RISK FROM SITE SOURCES – A MASS FLUX APPROACH COMPARED TO BIOTA CONCENTRATION DATA, Kathleen Prohasky, ERM Australia Pty Ltd |
| 14.20 - 14.35 | 295 | BIOAVAILABILITY OF PFOA, PFHXS AND PFOS IN SOIL- METHOD DEVELOPMENT AND RECOMMENDATIONS: IN VIVO STUDY, Luchun Duan, University of Newcastle | 34 | SELECTIVE GENERATION OF PHYSICAL SEPARATION TRAITS FOR PROCESSING MATERIAL FROM LANDFILL , Dipl.-Ing. Paul Dernschar, Montanuniversitaet Leoben | 22 | ADVANCES IN THE CHARACTERISATION AND REMEDIATION OF LNAPL-CONTAMINATED SITES: INSIGHTS FROM A COLLABORATIVE EFFORT, Dr Jonás García-Rincón, Legion Drilling | 304 | QUANTITATIVE ANALYSIS OF FIVE PESTICIDES TO DETERMINE THEIR PRE-HARVEST INTERVAL IN SRI LANKA BITTER GOURD, Mrs Yashida Lakshani, University of Newcastle | 149 | VAPOUR INTRUSION RISK ASSESSMENT – DO YOU HAVE THE RIGHT DATA?, Mr Ken Kiefer, ERM |
| 14.35 - 14.50 | 301 | DYNAMICS OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) AND EXPOSURE PATHWAYS IN AFFF-IMPACTED MINING SITES OF WESTERN AUSTRALIA, Fangle Qi, University of Newcastle | | | 164 | ASBESTOS IN THE SOUTH PACIFIC: CLEAN-UP AND RISKS DURING NATURAL DISASTERS, Mr Alvin Chand, The University of The South Pacific | 248 | EMERGING CONTAMINANTS IN CROPS IRRIGATED BY RECYCLED WASTEWATER, Dr Sijig Li, CSIRO | 244 | SOIL BIOAVAILABILITY - THE MISSING (BUT POWERFUL) STEP, Dr Belinda Goldsworthy, enRISkS |
| 14.50 - 15.15 | **Afternoon Tea and Poster Viewing - Hall L** | | | | | | | | | |

**PLENARY SESSION 4 & 5** — Hall N

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| 15.15 - 15.45 | **Plenary Session 4: Caring for Land and Water as Cherished by the Indigenous Community**<br>Professor Peter Radoll FRSN MACD, Radoll & Associates Willaroo town, Australia |
| 15.45 - 16.15 | **Plenary Session 5: Preventing and managing soil contamination: the EU approach,**<br>Dr Bavo Peeters Policy officer - Soil team Directorate-General for Environment of the European Commission, Brussels (Virtual) |
| 16.15 - 16.45 | **Conference Closing -**<br>Award Presentations, Delegate Prize Announcements, Closing Remarks |

## Thursday, 19 September 2024

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| 9.00 – 10.30 | Technical Tour<br>departing from<br>West entrance of<br>Adelaide Convention Centre<br>(Meet at 8:30am for a 9.00AM departure) | **PFAS Research Symposium (invite only)**<br>**City Rooms 1-3** |
| 11.00 – 12.30 | | |
| 13.30 – 15.00 | | |
| 15.30 – 17.00 | | |

# POSTER PRESENTATIONS

| | | |
|---|---|---|
| 229 | P54 | MINING IN THE UNITED STATES, Professor And Director Kenneth Sajwan, Savannah State University |
| 232 | P55 | QUANTIFYING GROUNDWATER PROCESSES ALONG THE MURRAY VALLEY BY INTERPRETING TIME SERIES DATA USING IMPULSE RESPONSE FUNCTIONS, Dr Mark Hocking, Tetra Tech Coffey |
| 242 | P56 | TRANSFORMATION OF PFAS-PRECURSORS BY CO-METABOLIC BACTERIA CULTURES RELEVANT TO AQUEOUS FILM FORMING FOAM (AFFF) SITES, Jessica LaFond, Texas Tech University |
| 251 | P57 | ADSORPTION BEHAVIOR OF GLYPHOSATE TO SURFACE MODIFIED MONTMORILLONITE NANOCLAYS, Mr Saifullah Omar Nasif, University of Newcastle |
| 263 | P58 | SANDBAR CROPPING SYSTEMS: AN INNOVATIVE ORGANIC APPROACH TO SUPPORT LIVELIHOOD OF THE CLIMATE VULNERABLE PEOPLE IN BANGLADESH, Dr. Mohammed Sarker, Bangladesh Agricultural University |
| 265 | P59 | NEW SOLUTION FOR TCE GROUNDWATER CONTAMINATION: THE PROMISE OF "NANO-MATCARETM PLUS", Dr Mezbaul Bahar, University Of Newcastle |
| 270 | P60 | USING A NUCLEAR ANALYSIS TECHNIQUE TO RAPIDLY SCREEN FOR PFAS IN FIBRE-BASED FOOD PACKAGING, Dr Armand Atanacio, Australian Nuclear Science and Technology Organisation |
| 271 | P61 | PERFORMANCE EVALUATION OF PILOT-SCALE TRIAL OF PFAS REMEDIATION USING A SUBSURFACE HORIZONTAL REACTOR WITH MATCARE™ TECHNOLOGY , Mr Danidu Kudagamage, University Of Newcastle |
| 272 | P62 | DAPHNIDS AS A SURROGATE FOR ASSESSING THE TOXICITY OF WEATHERED HYDROCARBONS. , Dr Anithadevi Kenday Sivaram, The University of Newcastle |
| 274 | P63 | CHALLENGES OF GREEN REMEDIATION: AN AFRICAN PERSPECTIVE, Dr Beatrice Otunola, University Of The Witwatersrand |
| 278 | P64 | NOVEL ENHANCED DEFLUORINATION OF PFAS BY BIOCHAR-ASSISTED ULTRASOUND COUPLING FERRATE: PERFORMANCE AND MECHANISM, Dr Yongjia Lei, Sichuan Agricultural University |
| 280 | P65 | FATE AND BEHAVIOUR OF JET FUEL ADDITIVES IN SOIL, Dr Chamila Samarasinghe, Global Centre for Environmental Remediation |
| 282 | P66 | THERMAL DESORPTION OF PFAS-CONTAINING SOIL: IN SITU & EX SITU , Gorm Heron, TRS Group |
| 285 | P67 | TOWARDS AN APPROPRIATE LEGAL FRAMEWORK FOR GREEN AND SUSTAINABLE REMEDIATION IN THE NIGER DELTA REGION OF NIGERIA: LESSONS FROM AUSTRALIA, Dr Izuoma Egeruoh-Adindu, Nigerian Institute Of Advanced Legal Studies Abuja/lagos Nigeria |
| 286 | P68 | ADVANCED PREDICTION AND DETECTION OF PFAS IN GROUNDWATER: A COMPARATIVE STUDY USING ECNN AND ERNN TECHNIQUES, Mr Asadi Srinivasulu, Indian Institute Of Information Technology |
| 142 | P69 | UNVEILING THE PAST THROUGH HISTORICAL BUSINESS DIRECTORIES, Mr Howard Waldron, Lotsearch Pty Ltd |
| 78 | P70 | THE USE OF DECISION UNIT MULTI-INCREMENT SAMPLING (DUMIS) AT A PAHS-CONTAMINATED SITE IN CHINA, Jing Song, Institute Of Soil Science, Chinese Academy Of Sciences |
| 68 | P71 | **WITHDRAWN** SOLID ORGANIC ACID DELIMING TO REDUCE NITROGENOUS COMPOUND IN TANNERY WASTEWATER, Dr. Md. Abul Hashem, Khulna University of Engineering & Technology |
| 186 | P72 | LOW COST MACHANOCHEMICAL SYNTHESIS OF ORGANOCLAYS FOR REMEDIATING PFOS AND METAL CO-POLLUTANTS, Dr Bhabananda Biswas, University Of Newcastle |
| 303 | P73 | TRANSFORMATION AND FATE AND BEHAVIOUR OF ZINC OXIDE NANOPARTICLES RELEASED FROM PERSONAL CARE PRODUCTS TO ENVIRONMENTAL WATERS, Anwar Khan, Global Centre for Environmental Remediation (GCER) |
| 126 | P74 | MICROPLASTIC REMOVAL USING BIOCHAR DERIVED FROM LOW-COST AGRICULTURAL RESIDUES , Mr Aderemi Adeleye, University Of Newcastle |
| 305 | P75 | BIO-REACTIVE MATERIAL-SUPPORTED DELIVERY OF PHOSPHATE SOLUBILISING BACTERIA FOR SUSTAINABLE BIOFERTILIZERS, Rafique Uddin, Global Center for Environmental Remediation (GCER) |
| 307 | P76 | EFFECTS OF MICROBUBBLE OZONATION PROCESS ON EFFLUENT FROM PAPER RECYCLING INDUSTRY WASTEWATER, Aaima Iftikhar, COMSATS University Islamabad |