

SAGEEP 2011 TECHNICAL PROGRAM

Monday • April 11, 2011 • Morning • Afternoon

	EMERALD SALON 1	EMERALD SALON 2	EMERALD SALON 3	OPAL ROOM
	Best of Near Surface 2010 EAGE Zurich Chair Micki Allen Co-chair James LoCoco			
10:20 – 10:40 am	Combined Electrical Imaging and Distributed Temperature Sensing to Characterize Groundwater/Surface-Water Exchange, F.D. Day-Lewis, US Geological Survey			
10:40 – 11:00 am	Single-hole GPR Reflection Imaging of Solute Transport in a Crystalline Rock Aquifer, Brittany, France, Ludovic Baron, University of Lausanne			
11:00 – 11:20 am	Improving Surface-NMR Estimates of Nuclear-spin Relaxation, J.O. Walbrecker, ETH Zurich, Institute of Geophysics			
11:20 – 11:40 am	Cross-gradients Joint Inversion of Time-lapse Crosshole ERT and GPR Data, James Irving, Institute of Geophysics, University of Lausanne			
	Geophysical Studies of the Vadose Zone – Chair: Remke Van Dam, Co-chair: Anthony Endres	The Use of Geophysical Data for Evidence-Based Groundwater Management (AGU sponsored) Chair: Jessica Reeves, Co-chair: Rosemary Knight	New Developments In Frequency-Dependent Seismic and EM Analyses for Near Surface Geophysics (SEG sponsored) Chair: Ranajit Ghose, Co-chair: John Bradford	Seismic Refraction Shootout: Blind Test of Methods for Obtaining Velocity Models from First-Arrival Travel Times Chair: Colin Zelt; Co chair: Seth Haines
1:20 – 1:40 pm	Using Time-lapse Near Surface Geophysics to Image the Natural Capital and Ecosystem Services of Soils and the Vadose Zone, David Robinson, Inma Lebron, Aidan Keith, Centre for Ecology and Hydrology; Oliver Kuras, Barry Rawlins, Andrew Tye, Michael Raines, British Geological Survey	Groundwater Management based on sound Groundwater modeling tools, Duane Woodward, Central Platte Natural Resources District	Analysis of the Velocity Dispersion and Attenuation Behavior of Multi-Frequency Sonic Logs, Ludovic Baron, Klaus Holliger, Institute of Geophysics, University of Lausanne	1:20 - 1:25 Introduction 1:25 - 1:40 Seismic Refraction Tomography Inversion of Blind Test Model Traveltimes Using Two Commercial Programs, Michael Powers, Bethany Burton, U.S. Geological Survey
1:40 – 2:00 pm	Determining unsaturated hydraulic conductivity in the vadose zone using surface time-lapse seismic first-arrival tomography, Rachel Stornio, David P. Gaines, Gregory Baker, University of Tennessee	Integrating Hydrology and Geophysics to Evaluate The Impact of Artificial Recharge on Groundwater in Rural India, Stephen Moysey, Daniel Matz, & Sudershan Gangrade, Clemson Univ. ; Chiranjit Guha, Rangoori Ravindranath, & Meenakshi Choudhary, Foundation for Ecological Security	Simultaneous Estimates of In-Situ Porosity and Permeability in the Near-Surface Soil from Seismic Dispersion at the Low Frequencies, Alimzhan Zhubayev, Ranajit Ghose, Delft University of Technology	1:40 - 1:55 Blind Test of Methods for Obtaining Velocity Models from First-Arrival Travel Times using Refraction Tomography Methods, Julian Ivanov, Richard Miller; Shelby Peterie, Kansas Geological Survey
2:00 – 2:20 pm	Hydraulic Parameter Estimation using Geophysically-Constrained Analytical Flow Models, Dale Rucker, hydroGEOPHYSICS, Inc.; Andrew Hinnell, University of Arizona	Prospecting for a Municipal Water Supply using Multiple Geophysical Methods, Long Lake, NY, Doria Kutrubes, Radar Solutions International; John F. Kick, Kick GeoExploration/ Radar Solutions	Extension of the Poroelasticity Theory to Address In-Situ Stress in Shallow Subsoil, Ranajit Ghose, Alimzhan Zhubayev, Delft University of Technology	1:55 - 2:10 Interpretation of First-Arrival Travel Times with Wavepath Eikonal Traveltime Inversion and Wavefront Refraction, Siegfried Rohdewald, Intelligent Resources
2:20– 2:40 pm	Comparison of High Resolution Electrical Resistivity and Ground-Penetrating Radar Measurements in a Shallow Vadose Zone Environment, Cameron Toy, Colby Steelman; Anthony Endres, University of Waterloo	Comparison of MRS and Pumping Tests in Denmark, Mette Ryom Nielsen, Rambøll; Tom F. Hagensen, Danish Ministry of Environment; Anatoly Legchenko, LTHE; Konstantinos Chalikakis, UMR 1114 EMMAH (UAPV-INRA)	Estimating Liquid Water Content in Snow from Frequency Dependent Attenuation Analysis of Pulsed and FMCW Radars, John Bradford, Hans Peter Marshall, Boise State University	2:10 - 2:25 The Effect of Smoothing First Arrival Times and the Initial Velocity Model on Refraction Tomography Results, Curtis Link, Montana Tech 2:25 - 2:40 Non-Uniqueness in Seismic Refraction Analysis, Koichi Hayashi, Geometrics

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	Geophysical Studies of the Vadose Zone – Chair: Remke Van Dam, Co-chair: Anthony Endres	The Use of Geophysical Data for Evidence-Based Groundwater Management (AGU sponsored) Chair: Jessica Reeves, Co-chair: Rosemary Knight	Geophysics in Rivers and Streams Chair: Jonathan Nyquist	Seismic Refraction Shootout: Blind Test of Methods for Obtaining Velocity Models from First-Arrival Travel Times Chair: Colin Zelt; Co chair: Seth Haines
3:00 – 3:20 pm	Monitoring Vertical Soil Moisture Dynamics using GPR Reflection Travel- times, Colby Steelman; Anthony Endres, University of Waterloo	Geophysical Exploration for Water Resources in Buried Valleys in Western Canada, Paul Bauman, Brad Hansen; Christeen Nahas, WorleyParsons	Application of Airborne Electromagnet- ics for Hydrogeological Modeling Below Internal Surface Waters, Andrea Viezzoli, Aarhus Geophysics Aps; Timothy Munday, Andrew Fitzpatrick, CSIRO	3:00-3:15pm Tomographic Imaging of the Common Dataset, Don Zhao, Geogiga Technology Corp.
3:20 – 3:40 pm	Investigating Hillslope Hydrology with Electrical Resistivity Tomography, Erika Gasperikova, Rohit Salve, Daniella Rempe, John Peterson, Lawrence Berkeley National Laboratory	Use of the Skytem Airborne Electromag- netics (Aem) System and Item Fast Ap- proximate Inversion Software to Provide Robust and Rapid Data for Groundwater and Salinity Management, Ord River Ir- rigation Area, Western Australia, Ken Law- rie, Kok Tan, Larysa Halas, Heike Apps, and Jon Clarke, Geoscience Australia; Timothy Munday, Andrew Fitzpatrick, CSIRO	Panama Canal Expansion Project: How Marine Electrical Resistivity Was Used in Support of Canal Dredging, Gillian Noonan, Dale Rucker, hydroGEOPHYS- ICS, Inc.	3:15-3:30pm Seismic Refraction Shootout: Tomographic Inversion Using Geogiga Seismic Pro, Jacob Sheehan, Zonge Engi- neering & Research Org. 3:30-3:45pm Blind Testing of Deformable Layer Tomography Using Near-Surface First Arrivals, Hua-wei Zhou, Fang Yuan, Zhihui Zou, Texas Tech University; Hui Liu, BP America
3:40 – 4:00 pm	Assessing Water Storage Changes on the Field Scale Combining Superconducting Gravimeter Observations with a Hydro- logical Model, Benjamin Creutzfeldt, Andreas Güntner, Bruno Merz, German Research Centre for Geosciences (GFZ); Hartmut Wziontek, Federal Agency for Cartography and Geodesy (BKG)	Improved Predictions of Groundwater Salinisation in the SE of South Australia: A Case Study on the Combined Role of Geology and Geophysics Timothy Munday, Fred Leaney, CSIRO; Steve Barnett, Department for Water	Geophysics Imaging and Ecological Mapping of the Lower Hackensack River System, William F Murphy, W. Bruce Ward, Richard Nolen-Hoeksema, Daniel A Ro- sales Roche, Gary Flemming, e4sciences Earthworks	3:45-4:00 pm Inversion of Seismic Refrac- tion Shootout First-Arrival Times Using Simulated Annealing, Khiem Tran, Dennis Hiltunen, University of Florida
4:00 – 4:20 pm	Mapping Soil and Regolith Properties in 3-Dimensions Using Electromagnetic Imaging in the Lower Gwydir Valley, NSW, Australia, Kira Bruzgulis, John Triantafili- lis, The University of New South Wales; Fernando Acacio Monteiro Santos, The Universidade de Lisboa	Benefits of Airborne Geophysical Surveys to Water Resource Manager James Cannia, Jared Abraham, Bruce Smith, Steven Peterson, US Geological Survey	Using Hydrogeophysics to Map Temporal Changes in the Hyporheic Zone, Jona- than Nyquist, Laura Toran, Brian Hughes, Robert Ryan, Temple University	4:00-4:15 pm Phase Inversion Refraction Traveltimes, Bethany Burton, Karl Ellefsen, US Geological Survey
4:20 – 4:40 pm				4:20-4:40 pm Seismic Refraction Shootout: Presentation of True Model and Compari- son with Estimated Models, Colin Zelt, Rice University; Seth Haines, Michael Pow- ers, US Geological Survey; Jacob Sheehan, Zonge Engineering & Research Organiza- tion; William Doll, Battelle

8:30 – 4:30 pm Monday April 11, 2011 P01: Poster Session 1 – Chair: Moe Momayez – Exhibit Hall Prefunction Area

1. **Police Cars Spatial Movements Modeling, Analysis and Presentation**
Anahid Bassiri, K.N.Toosi University; Pouria Amirian; Ali Bassiri
2. **True? 3D Acquisition Using GPR over Small Areas: A Cost Effective Solution**
Maurizio Lualdi, Politecnico di Milano
3. **An Integrated Geophysical Study to Characterize the Near-Surface of Barringer Meteorite Crater**
Soumya Roy, Robert Stewart, Arkadiusz Turofski, Susan Green, Li Chang, University of Houston
4. **Modelling Phosphates Disturbances Depth Using Analytical Signal Responses of Goelectrical Resistivity Data (Sidi Chennane, Morocco)**
Saad Bakkali, Faculty of Sciences & Techniques, Tangier
5. **Application of the Automatic Optimal Spline Smoothing Method to Optimizing Edges of Moroccan Bouguer Gravity Anomaly Map**
Saad Bakkali, Faculty of Sciences & Techniques, Tangier
6. **Application of Informational and Wavelet Approaches for Integrated Processing of Geophysical Data in Complex Environments**
Lev Eppelbaum, Dept. of Geophysics, Leonid Alperovich, Valery Zheludev, Alex Pechersky, Tel Aviv University
7. **Use of the Resolve Airborne Electromagnetic (AEM) Data In the Assessment of the Salinity Hazard and Risk to Iconic River and Wetland Ecosystems, Murray River, SE Australia**
Ken Lawrie, Kok Tan, Larysa Halas, Ross C. Brodie, Heike Apps, Laura Gow, Geoscience Australia
8. **Analysis of the Deformation of the Odessa, TX Meteorite Crater Using Time-Domain Controlled-Source Electromagnetics**
Mark Hickey, Mark E. Everett, Dept. of Geology and Geophysics, Texas A&M University
9. **Integration of Surface and Borehole Geophysical Methods to Develop a Bedrock Model**
Mario Carnevale, Alex Buller, Jutta Hager, Hager GeoScience, Inc.
10. **GPR Imaging in the Range of 40 to 400Mhz Applied to the Knowledge of Internal Geological Structures of Coastal Dunes in Fortaleza City-Brazil**
Mariano Castelo Branco, Federal University of Ceará - Brazil
11. **The WARRP Program Package**
Uni K. Petersen, Jardfeingi
12. **Seismic Refraction Shootout: Using Ray-Based Tomographic Inversion**
Nedra Bonal, Leigh Preston, Sandia National Laboratories
13. **Technology-Assisted Shared-Teaching and Instruction: Impact on Student Learning and Attendance**
Moe Momayez, University of Arizona
14. **Packaged Case Studies and Spreadsheet-Based Modules for Teaching Geophysics to Students Without Access to Field Experiences**
Sarah Kruse, University of South Florida
15. **Application of Geophysical Methods to Locate Buried Tunnel Channels Beneath the Glacial Drift Deposits in Texas Township, Kalamazoo County, MI**
Arthur Obiadazie, Western Michigan University
16. **Satellite-Based In SAR Measurements: A New Approach to Groundwater Monitoring**
Jessica Reeves, Rosemary Knight, Howard Zebker, Stanford University
17. **Investigating Proglacial Wetland-Groundwater Systems with Ground Penetrating Radar in the Yanamarey and Quilcayhuanca Pampas, Cordillera Blanca, Peru**
Laura Maharaj; Jeffrey McKenzie, McGill University
18. **Automated Leak Detection of Buried Tanks using Geophysical Methods at the Hanford Nuclear Site**
Shawn Calendine, Dale Rucker, James Fink, Marc Levitt, hydroGEOPHYSICS
19. **Regional, Reconnaissance Scale AEM Surveys to Better Define Surface Water - Groundwater Processes Beneath Large Unregulated River Systems**
Andrew Fitzpatrick, Timothy Munday, Glenn Harrington, CSIRO; Louise Stelfox, Department of Environment and Conservation (Western Australia)
20. **A New Marine Acoustics Prospecting Instrument with the Advantage of Sub-Bottom Profiler And Shallow Seismic Reflection Method on River and Sea**
Zhong Shihang, China Academy of Railway Sciences
21. **Goelectrical and Hydrogeological Modeling of The Fresh Water / Saline Water Interface in the Lower Florida Keys**
Albert Yeboah-Forson, Dean Whitman, Danielle Ogurrcak, Mike Sukop, Florida International University
22. **A Novel Approach for Continuous Monitoring of Diurnal and Seasonal Changes in Near-Surface Electrical Resistivity**
Kaya Diker, Remke Van Dam, Ajay Bhardwaj; Stephen Hamilton, William Johnson, Michigan State University

Tuesday • April 12, 2011

	EMERALD SALON 1	EMERALD SALON 2	EMERALD SALON 3	OPAL ROOM
	Airborne Geophysics: Recent Advances & Novel Apps. Chair: Burke Minsley, Co-chair: Greg Hodges	Geophysical Engin. for Geotechnical Site Characterization Using Seismic Surface Waves Chair: Richard Williams Co-chair: Dayakar Penumadu	Advances in Classification Methods for Military Munitions Response Chair: Dean Keiswetter, Co-chair: Bruce Barrow	Application of Geophysics to Contaminant Studies Chair: Dale Werkema, Co-chair: Bill Brandon
8:00 – 8:20 am	An Improved Early-Channel VTEM Helicopter System for Near-Surface Applications. Jean Legault, Alexander Prikhodko, Harish Kumar Geotech Ltd.; Pavel Tishin, Geo Equip. Manu. Ltd.	The Development of a 2-Dimensional Micro-tremor Survey Method Based on SPAC Method Using Sequential Linear Arrays. Takaho Kita, TK Ocean-L&Investigations Ltd.; Koichi Hayashi, Geometrics; Haldun Bingol, Belirti Engineering & Consulting Co. Ltd.	Assessment Of The Cooperative Source Concept For Single Target Classification Using EM63 Metal Detector. Alfonso Benavides, Mark E. Everett, Dept. of Geology & Geophysics, Texas A&M Univ.	Experimental Evidence For The Dependence of Archie? S Law On Multiphase Flow Dynamics. Zuolin Liu, Stephen Moyses, Clemson Univ.
8:20 – 8:40 am	Recent developments in the SkyTEM System. Kurt Sorensen, Aarhus Univ.; Esben Auken, Hydrogeophysics Gr., Dept. of Earth Sciences, Aarhus Univ.; Max Halkjaer, SkyTEM ApS	Evaluation of Vibration Characteristics at Improved Soft Ground by Surface Wave Method. Tatsunori Ikeda, Toshifumi Matsuoka, Kyoto Univ.; Takeshi Tsuji, Kyoto Univ.; Koichi Hayashi, Geometrics	Alltem UXO Discrimination Results From the Aberdeen Proving Ground Using a Hybrid Generalized Neural Analysis & Standard Dipole Inversion & Classification Scheme. Ted Asch, Michael Friedel, US Geological Survey	A Feasibility Study On The Seismic Response Of Select Nanoparticles In Saturated Granular Media. Nihad Rajabdeen, USEPA; Barbara Luke, UNLV; Dale Werkema, Danney Glaser, USEPA
8:40 – 9:00 am	Aquifer Vulnerability Mapping with an Airborne Transient Electromagnetic System – Skytem. Esben Auken, Hydrogeophysics Gr., Dept. of E. S., Aarhus Univ.; Nikolaj Foged, Kurt Sorensen, Bjarke Rodth, Aarhus Univ.; Claus Ditlefsen, Anne-Mette Nielsen, Anders Vest Christiansen, Verner Soendergaard, Geo. Surv. of Denmark & Greenland; Elise Schmidt, Enviro.Ctr Aalborg	Application of the Multiaxial Perfectly Matched Layer to Near-Surface Seismic Modeling with Rayleigh Waves. Chong Zeng, Jianghai Xia, Richard Miller, Kansas Geological Survey; Georgios Tsoufias, The Univ. of Kansas	A Practical Tool to Quantify & Map The Effect of Magnetic Noise On the Detectability of Unexploded Ordnance (UXO). David White, Brian Barrett, Asger Eriksen, Zetica	Full Waveform Modeling of Time Domain Induced Polarization Data & Inversion. Gianluca Fiandaca, Aurélie Gazoty, Univ. of Palermo; HGG, Århus Univ.; Esben Auken, Hydrogeophysics Gr., Dept. of E. S., Aarhus Univ.; Hydrogeophysics Gr., Dept. of E. S., Aarhus Univ.; Anders Vest Christiansen, Geo. Surv. of Denmark & Greenl & Data & Inversion
9:00 – 9:20 am	Accurate AEM Data Processing in Hydrogeological Projects? Is it Worth the Time and Dollars? Andrea Viezzoli, Camilla Soerensen, Aarhus Geo. Aps	Estimation of Near-Surface Quality Factors by Constrained Inversion of Rayleigh-Wave Attenuation Coefficients. Jianghai Xia, Richard Miller, Julian Ivanov, Shelby Peterie, Kansas Geo. Survey	Classification of UXO By Principal Dipole Polarizability. Karl Kappler, Lawrence Berkeley Nat'l Lab	Reliability Of Time Domain Induced Polarization Data. Aurélie Gazoty, Hydro. Gr., Dept. of E. S., Aarhus Univ.; Esben Auken, Hydro. Gr., Dept. of E. S., Aarhus Univ.; Jesper Pedersen, Hydrogeophysics Gr., Dept. of E.S., Aarhus Univ.; Gianluca Fiandaca, Univ. of Palermo; researcher at HGG, Århus Univ.; Anders Vest Christiansen, Geological Surv. of Denmark & Greenland
9:20 – 9:40 am	Practical 3D Inversion of AEM Data for Environmental Applications in Complex Regolith Settings. Glenn Wilson, Michael Zhdanov, Leif Cox, Technolmaging; Timothy Munday, Andrew Fitzpatrick, CSIRO	Factors in Determing the Survey Depth from Passive Surface Waves. Don Zhao, Geogiga Technology Corp.	A Combined Joint Diagonalization & ONVMS Approach for ESTCP Live-site TEMTADS data Inversion & Classification Studies. Fridon Shubitidze, Alex Bijamov, Dartmouth College; Irma Shamatava, Dartmouth College / Sky Research	Use of Time-Domain Induced Polarization for Lithology Identification: Case Study from the Hanford 300-Area. Kisa Mwakanyamale, Rutgers Univ. Newark; Lee Slater; Dimitrios Ntarlagiannis, Andrew Binley, Lancaster Univ.; Frederick Day-Lewis, US Geological Survey; Andy Ward, Pacific Northwest Nat'l Lab.
9:40 – 10:00 am	Multi-Elevation Calibration of Frequency Domain Electromagnetic Data. Burke Minsley; Greg Hodges, Fugro Airborne; Bruce Smith, Jared Abraham, US Geological Survey	Vs Comparison of Near Surface MASW to SCPT Data From Ontario. Peter Hutchinson, Maggie Beird, The Hutchinson Group, Ltd.	A Comparison of Inversion Results from Cued EMI Sensor Platforms Used for UXO Discrimination. Bruce Barrow, SAIC	
	Airborne Geophysics: Recent Advances & Novel Apps. Chair: Burke Minsley, Co-chair: Greg Hodges	Geophysical Engin. for Geotechnical Site Characterization Using Seismic Surface Waves Chair: Richard Williams Co-chair: Dayakar Penumadu	Large-Scale Field & Lab. Liquefaction Experiments Involving NEES Equipment Sites Chair: Ken Stokoe, Co-chair: Farn-Yuh Menq	Application of Geophysics to Contaminant Studies Chair: Dale Werkema, Co-chair: Bill Brandon
10:20 – 10:40 am	A Global Measure for Depth Of Investigation. Anders Vest Christiansen, Geological Survey of Denmark & Greenland; Esben Auken, Hydrogeophysics Group, Dept. of Earth Sciences, Aarhus Univ.	Implementation of Rapid SASW Method. Soheil Nazarian, The Univ. of Texas at El Paso	Crosshole Testing at Paleoliquefaction & No-Liquefaction Sites in the South Carolina Coastal Plain. Ronald Andrus, Tahereh Heidari, Shimelies Aboye, Michael Esposito, Clemson Univ.; Akhter Hossain; Aaron Geiger; Hossein Hayati, Cal. Polytechnic State Univ.; Ronald Boller, S & ME	Characterization Of A Shallow Gasoline Release Over An Annual Cycle Using High Frequency GPR. Anthony Endres, Juliana Freitas, John Mosquera, Univ. of Waterloo; Cameron McNaughton, Golder Assoc. Ltd.
10:40 – 11:00 am	High-accuracy inversion of airborne transient electromagnetic data for hydrogeologic framework mapping related to climate change. Bas Peters, Paul Bedrosian, US Geological Survey	Application of MASW In Road Failure Investigation. Elijah Ayolabi, Bolaji Adegbola, Univ. of Lagos	In-Situ Measurements of Pore Pressure Generation & Nonlinear Shear Modulus Behavior at the Wildlife Liquefaction Array. Brady Cox, Univ. of Arkansas; Kenneth Stokoe, Ellen Rathje, Univ. of TX	High Frequency Ground Penetrating Radar Monitoring Of Ethanol Released Over Existing Gasoline Residuals. John Mosquera, Anthony Endres, Juliana Freitas, Univ. of Waterloo

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11:00–11:20 am	Using Airborne Electromagnetics (AEM) for Rapid Identification & Assessment of Managed Aquifer Recharge (MAR) Options in the Darling Floodplain, N.S.W., Australia , Ken Lawrie, Ross S. Brodie, David Gibson, Kok Tan, Aaron Davis, Yusen Ley-Cooper, Larvsa Halas, Jon Clarke, Geo. Australia	The Importance of the Apparent Dispersion Curve & the Higher Modes of Rayleigh Waves in MASW-REMI Methods for Seismic Geotechnical Site Characterization , Vitantonio Roma, Roma e Assoc.; Mario Foresta, Idrogeostudi	Recent Liquefaction Experiments Using 1-G Large-Scale Laminar Box System at UB-NEES , Sabanayagam Thevanayagam, Univ. at Buffalo, SUNY	Compare & Contrast Three Geophysical Instruments To Resolve The Location Of A Municipal Landfill , Jessica Ann Roe, John Triantafyllis, The Univ. of New So. Wales; ; Fernando Acacio Monteiro Santos, The Universidade de Lisboa; Oliver Kuras, British Geological Survey
11:20–11:40 am	Accurate Modeling of the System Transfer Function Is the Right Attitude: Using AEM to Map Clay Thickness & Extent for Groundwater Recharge Determination Is a Case in Point! Andrew Fitzpatrick, Timothy Munday, CSIRO; Andrea Viezzoli, Aarhus Geophysics Aps	Seismic Site Effect Studies Using Site-Specific Velocity Structure Information & Recorded Earthquakes with Ex. from E. Marmara Reg. & WA St., (USA) Recep Cakir, WA St. DNR Geo. & Earth Res.; Shelton Alexander, Dept. of Geo., PA State Univ.; Timothy, J. Walsh, WA St. DNR Geo. & Earth Res.	Use of the UTexas Vibroseis in the NEESR S & Aging Field Experiment , David Saftner, Univ. of Michigan; Russell Green, Virginia Tech; Roman Hryciw, Univ. of Michigan; Christopher Baxter, Univ. of Rhode Island	Application of Geophysics For Environmental Characterization, Remedial Design, & Implementation at Three Fractured Bedrock Sites Impacted by Chlorinated Solvents in New England , Peter Thompson, Kerry Tull, Scott Calkin, MACTEC Engin. & Consulting, Inc.
11:40–12:00 pm	Frequency Based Interpretation of Offshore Passive Electro Magnetic Survey Data , Marius J. Mes, David R. Bruns, NEMT as; Howard Barrie, Terraquest Ltd.	MASW Sounding as a 3D Mapping Tool , Peter Hutchinson, Bryan Teschke, The Hutchinson Gr., Ltd; Heather Krivos, Kent State Univ.		Integrated Geophysical Surveys in Support of Environmental Site Assessment at a Former Pintsch Gas Plant , Raye Lahti, Andri Hanson, Joe Renier, Micah Holzbauer, AMEC Earth & Environ.
	Airborne Geophysics: Recent Advances & Novel Apps. Chair: Burke Minsley, Co-chair: Greg Hodges	Geophysical Engin. for Geotechnical Site Characterization Using Seismic Surface Waves Chair: Richard Williams Co-chair: Dayakar Penumadu	Large-Scale Testing of Geotechnical and Structural Systems with NEES Equipment Chair: Farn-Yuh Menq, Co-chair: Ken Stokoe	Advances in Hydrogeophysical Monitoring Chair: Dale Rucker, Co-chair: Stephen Moyssey
1:40 – 2:00 pm	A Comprehensive Validation of the SkyTEM System , Esben Auken, Hydrogeophysics G., Dept. of E. S., Aarhus Univ.; Nikolaj Foged, Aarhus Univ.; Kurt Sorensen, Aarhus Univ.; and ers Vest Christiansen, Geological Surv. of Denmark and Greenland; Max Halkjaer, SkyTEM ApS	Inverting Surface Wave Data for Geotechnical and Geophysical Site Characterization: A Personal Perspective , Richard Williams, Dayakar Penumadu, Univ. of Tennessee	Geophysical Investigation Accompanying Soil-Structure Interaction Field Testing , Lisa Star, Jonathan Stewart, Robert Nigbor, Luis Leon, UCLA	Estimation of Aquifer Transport Parameters from Resistivity Monitoring Data within a Coupled Inversion Framework , Dylan Fowler, Stephen Moyssey, Clemson Univ.
2:00 – 2:20 pm	Fast and Effective Groundwater Mapping from 10 To 300 M Depth with Accurate Processing and Inversion of Skytem Data , Andrea Viezzoli, Aarhus Geophysics Aps; Jared Abraham, Paul Bedrosian, James Cannia, Burke Minsley, US Geological Survey; Bill Brown, SkyTEM Aps	MASW Investigations on Sites With Shallow Bedrock , Ali Nasser-Moghaddam, Inspec-Sol Inc.; Choon Park, Park Seismic; Giovanni Cascante, Univ. of Waterloo	Preliminary Results of Centrifuge and Opens-ees Modeling of Lateral Spreading Pressures Against Large, Rigid Foundation Systems , Scot Olson, Youssef Hashash, Mark Muszynski, Camilo Phillips, Univ. of Illinois at Urbana-Champaign; Carmine Polito, Valparaiso Univ.	Electrical Monitoring of Pressurized Injections into a Heap , Michael McNeill, Dale Rucker, James Fink, Chris Baldyga, Hydrogeophysics, Inc.; Thom Seal, Univ. of Nevada-Reno; Jeffrey Winterton, Cripple Creek & Victor Gold Mining Co.
	Interpretation using Multiple Methods: An Analogy to Mathematical Boundary-Value Problems (SEG-EEGS Joint Session) Chair: Steve Danbom, Co-chair: Thomas Dobecki	Geophysical Engin. for Geotechnical Site Characterization Using Seismic Surface Waves Chair: Richard Williams Co-chair: Dayakar Penumadu	Large-Scale Testing of Geotechnical and Structural Systems with NEES Equipment Chair: Farn-Yuh Menq, Co-chair: Ken Stokoe	Advances in Hydrogeophysical Monitoring Chair: Dale Rucker, Co-chair: Stephen Moyssey
2:20 – 2:40 pm	Using Multi-Electrode Resistivity to Reconcile Inherent Velocity-Depth Ambiguities of Refraction Traveltime Inversion for a Petroleum Waste Site , Stephen Danbom, Danbom Geophysics, Inc.	Multi Geometry Approach for MASW Survey-Field and Synthetic Data Results , Ali Nasser-Moghaddam, Inspec-Sol Inc.; Choon Park, Park Seismic; Giovanni Cascante, Univ. of Waterloo	Field Measurements of Shear Wave Velocity Profiles in the New Madrid Seismic Zone Using the NEES Field Shaker , Brent Rosenblad, Univ. of Missouri; Jianhua Li, MACTEC Engineering and Consulting; Jonathan Bailey, Ryan Goetz, US Army Corps of Engineers	Understanding behavior of Pb-PbCl2 electrodes for long-term SP monitoring studies , Peter Bumpus, Sarah Kruse, Univ. of South Florida
2:40 – 3:00 pm	Some Applications of Near Surface Geophysics to Earthquake Geohazards Investigations: Examples from Eastern Ontario Canada , James Hunter, Heather Crow, André Pugin, Geological Survey of Canada; Dariush Matazedian, Carleton Univ.	Comparison of Seismic Surface Wave Dispersion Results Obtained from Conventional Versus Random Receiver Arrays for Potential Lunar Exploration Applications , Prasanta Yeluru, Gregory Baker, Rachel Stormiolo, Univ. of Tennessee-Knoxville	Towards an In-situ Evaluation of Dynamic Properties of Municipal Solid Waste , Dimitrios Zekkos, Univ. of Michigan; George Zalachoris, Kenneth Stokoe, Univ. of Texas; Andhika Sahadewa, Richard Woods, Univ. Of Michigan	Multi-scale Monitoring of Ecohydrological Processes Using Electrical Resistivity Tomography , Remke Van Dam, David Hyndman, Anthony Kendall, Michigan State Univ., Dept. of Geological Sciences; Kaya Diker, MI St. Univ.; Bradley Christoffersen, Scott Saleska, Univ. of Arizona, Dept. of Ecology and Evolutionary Biology
3:00 – 3:20 pm	Seismic Surface Waves and Multioffset GPR for Sandy Soil Characterization , Alberto Godio, Claudio Piatti, Roberto Rege, Alessandro Arato, Laura Valentina Socco, Politecnico di Torino; Georgios Tsollias, The Univ. of Kansas	Multi-Channel Analysis Of Surface Waves (MASW) In Karst Terrain, Southwest Georgia: Implications For Detecting Anomalous Features and Fracture Zones , Elias Parker Jr., Robert B. Hawman, Univ. of Georgia	In-Situ Evaluations of Linear and Nonlinear Shear Moduli of Cemented Alluvium at Yucca Mountain , Kwangsoo Park, Fugro Consultant, Inc.; Kenneth Stokoe, Univ. of Texas; Wonseok Seo, GS Engineering and Construction; Michael Schuhen, Sandia National Laboratories	Time-lapse imaging of dynamic systems using multi-offset GPR reflection data , Adam Mangel, Stephen Moyssey, Clemson Univ.

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	EMERALD SALON 1	EMERALD SALON 2	EMERALD SALON 3	OPAL ROOM
	Involving End Users in the Interpretation and Design of Geophysical Surveys Chair: Ty Ferre	Advances in Near-Surface Geophysics Chair: Bill Arant, CoChair: Megan Carr		
3:40 – 4:00 pm	Application of Geophysics to Refine the Hydrogeologic Framework of the Elkhorn-Loup Groundwater Model in Central Nebraska , Ted Asch, Paul Bedrosian, US Geological Survey; Christopher Hobza, US Geological Survey, Nebraska Water Science Center	The Use of Microtremors to Map Subsurface Structure of Shear wave Seismic Impedance boundaries in Unconsolidated Overburden: Examples from Eastern Canada , James Hunter, André Pugin, Susan Pullan, Didier Perret, Geological Survey of Canada; Karl Butler, Univ. of New Brunswick; Heather Crow, Gregory Brooks, Geological Survey of Canada	SASW Testing in the Salt Lake Valley, UT , Kenneth Stokoe, Univ. of Texas; Bradley Wilder; Brent Rosenblad, Univ. of Missouri; Ivan Wong, URS Corporation; James Bay, Utah State Univ.	A Guided Pilot Point Bayesian Inversion Approach for Monitoring Spatio-temporal Dielectric Permittivity Variation in the Shallow Subsurface Using GPR , Neil Terry; Zhangshuan Hou, Pacific Northwest National Laboratory
4:00 – 4:20 pm	Digital Soil Class Mapping at the Regional Level Using Gamma-Ray Spectrometry and a Numerical Clustering Algorithm , John Triantafyllis, Nina Earl, The Univ. of New South Wales	Preliminary Results of the Swept-frequency Acoustic Sound Source (SASS) Designed to Improve Near-Surface Imaging and Characterization , Williams Arant and Gregory S. Baker, University of Tennessee	Centrifuge Testing on Pile Foundations in Soft Clays , Chunyang Liu, University of South Carolina	Employing Airborne Electromagnetics for Spatial and Temporal Hydrogeophysical Monitoring: A View from Opposite Ends of the Globe? Andrea Viezzoli, Aarhus Geophysics Aps; Timothy Munday, CSIRO; Anders Vest Christiansen, Geological Survey of Denmark and Greenland
4:20 – 4:40 pm	Emerging Applications for Hydrogeophysical Surveys at Nuclear Power Plants , Joseph Kanney, Mark Fuhrmann, Thomas Nicholson, Jacob Philip, US Nuclear Regulatory Commission	Image Appraisal Tools for Electrical Resistivity Tomography , David Caterina; Jean Beaujean, Université de Liège; Tanguy Robert, Frédéric Nguyen, Université de Liège - Département ArGenCo - Geo ³ - Applied Geophysics	CPT-Based Ultrasonic Probe for P-wave Reflection Imaging of Embedded Objects , Joseph Coe, The Citadel; Scott Brandenburg, UCLA	
	Geophysics-Assisted Evaluation of Geotechnical/Transportation Process & Construction		Karst Geophysics Applied to Environ. & Geotechnical Problems Chair: Mustafa Saribudak CoChair: Rachel Storriolo	
4:40– 5:00 pm	New Generation TDR for Identifying and Characterizing Engineering Properties of Soils , Vincent Drnevich, Majdi Najm, Sochan Jung, Purdue University	Assessing the potential of GPR AVO/A analysis for fracture characterization , Aisha Kana, Leeds Univ.; Jared West, Leeds Univ.; Roger Clark	Determination of Main Barton Springs Groundwater Flow Path: 2-D Resistivity and Natural Potential Surveys at Barton Springs Swimming Pool, Austin, Texas , Mustafa Saribudak, Environmental Geophysics Associates	Using Superconducting Gravimeters For Local Water Storage Change Monitoring: Case Study Of The Geodetic Observatory Wettzell, Germany , Benjamin Creutzfeldt, GFZ German Research Centre for Geosciences; Ty Ferre, Univ. of Arizona; Andreas Güntner, German Research Centre for Geosciences (GFZ)
5:00– 5:20 pm	Seismic Methods for Quality Control and Quality Assurance of Civil Engineering Materials: Opportunities and Challenges , Soheil Nazarian, The Univ. of Texas at El Paso	Real-Time Augmented GPS Navigation Using a Dead Reckoning Module , Ryan North, U.S. Army Engineer Research and Development Center; Kelly Enriquez, Elise Goggin, US Army Corps of Engineers	Managing Residential Development in Karst Landscapes, Perth Metropolitan Area, South Western Australia , Andrew Spyrou, GB Geotechnics Australia; Benjamin Wilkins, GB Geotechnics Australia	Buried Valley Imaging Using 3-C Seismic Reflection, Electrical Resistivity and AEM Surveys , André Pugin, Greg Oldenborger, Susan Pullan, Geological Survey of Canada
5:20– 5:40 pm	Evaluation of Surface Wave Method for Assessment of Heterogeneous Improved Ground , Chun-Hung Lin; I-Lun Chen; Chih-Ping Lin, National Chiao Tung Univ., Taiwan	Mapping disturbed ground using compressional and shear wave reflection sections , Susan Pullan, André Pugin, James Hunter, Gregory Brooks, Geological Survey of Canada	A New Version Of Seismic Wave Reflection Method Fit for Urban Exploration Landsonar , Zhong Shihang, China Academy of Railway Sciences	

8:30 – 4:30 pm Tuesday April 12, 2011 P02: Poster Session 2 – Chair: Michael Powers – Exhibit Hall Prefunction Area

1. **Creating 3D Models of Clay Content - An Inversion Approach Using Geophysics and Borehole Information**
Anders Vest Christiansen, Geological Survey of Denmark and Greenland
2. **Combining Tomography and Reverse Time Migration for Improved Near Surface Seismic Imaging**
Nedra Bonal, Lewis Bartel, Sandia National Laboratories
3. **Using Dispersive Migration to Improving GPR Image Resolution in Lossy Ground**
Charles Oden, Earth Science Systems, LLC
4. **Application of an Artificial Neural Network for Airborne Magnetic Data Discrimination**
Jeannie Norton, Battelle Memorial Institute; Les Beard, Jacob Sheehan, Zonge Engineering & Research Organization
5. **Application of an Airborne HEM System on a Freshwater Lake**
Davis Smith, Maria Deszcz-Pan, Bruce Smith, US Geological Survey
6. **An Intercomparison of Airborne Electromagnetic Systems for Hydrogeologic Studies**
Paul Bedrosian, Jared Abraham, U.S. Geological Survey; Burke Minsley; Esben Auken, Hydrogeophysics Group, Department of Earth Sciences, Aarhus University; Anders Vest Christiansen, Geological Survey of Denmark and Greenland
7. **Determination of The Near-Surface Structure Using Multimodal Ground-Roll Inversion**
Soumya Roy, Robert Stewart, University of Houston
8. **Opportunities for Improved Collaboration between Hydrologists and Geophysicists**
Ty Ferre, University of Arizona
9. **Fractional Diffusion Analysis of The Electromagnetic Fields Generated by a Straight Current Source Over a Porous Geological Media**
Jianchao Ge, Mark E. Everett, Dept. of Geology and Geophysics, Texas A&M University; Chester J. Weiss, Virginia Polytechnic Institute and State University
10. **Monitoring the Spatial and Temporal Evolution of the Self-Potential Field produced by Pumping in a Fractured Aquifer**
Aaron DesRoches, Karl Butler, University of New Brunswick
11. **Geophysical Bed Sediment Characterization of the Androscoggin River downstream of a Superfund Site in northern New Hampshire, August 2009**
James Degnan, Andrew Teeple, Craig Johnston, Ann Chalmers, Mark Marvin-DiPasquale, USGS; Darryl Luce, US EPA
12. **Searching for Sources of Natural Gas In River and Water Wells by Radiometric Methods**
Daniel Palacios, Emidio Fusella, Yininber Avila, Jhonny Salas, Diana Teixeira, Alexander Rangel, Universidad Simón Bolívar
13. **Integrated Surface and Borehole Geophysics to Map Subsurface Cavities and Fractures Near A Superfund Site South of Rockford, Illinois**
Ryan Adams, Philip Carpenter, Northern Illinois University
14. **Instrument Assisted Criteria for Freezing Damage Prevention**
Yan Liu, CWRU; Xiong Yu, Case Western Reserve University
15. **Evaluation of EM38 As a Tool for Improving Irrigation Practices in Rural India**
Sudershan Gangrade, Stephen Moysey, Clemson University
16. **Restoring a National Treasure: Recovering Airborne Geophysical Data from Antiquated Data Tapes for GEOSURV Iraq**
David Smith, Benjamin Drenth, Jared Abraham, US Geological Survey; Janan Saffo, GEOSURV
17. **Nitrate Contamination in Drinking Water from Farming Activities in Rural Communities in the Nsawam District, Ghana: Environmental Geoscience, Education and Civic Engagement**
Fred Boadu, Frederick Owusu-Nimo, Duke University
18. **GPR and Others Techniques Applied to Forensic Studies: The Araguaia Guerrilla Warfare in Brazil 40 Years Ago**
Mariano Castelo Branco, Federal University of Ceará - Brazil; Welitom Borges, University of Brasilia; Marcelo Blum, Federal Brasiliam Police; Nilo Pedrosa Junior, Federal University of Ceará State, Brazil
19. **Detecting Graves in a Lime Marl Environment: A Comparison of Soil Resistivity and Ground Penetrating Radar Methods**
Patrick Gleason, Christy Goffinet, Niki White, George Harrivel, Bethany Rinard Hinga, Tarleton State University; Lynn Smith, Collier Consulting, Inc.
20. **Geophysical Investigations at a Potential Mass Grave Site in Bethlehem, PA**
Charles Messler, Laura Sherrod, James Higgins, Kutztown University
21. **Multi-tool Geophysical Investigation of Karst Features on Intramural Fields of the University of Tennessee, Knoxville**
Noah McDougall; Caitlyn Williams; Gregory Baker, University of Tennessee
22. **Istanbul Geotechnical Downhole Arrays**
Aslı Kurtulu, Atilla M. Ansal, Gokce Tonuk and Barbaros Çetiner, Bogaziçi University, Kandilli Observatory and Earthquake Research Institute

Wednesday • April 13, 2011

	EMERALD SALON 1	EMERALD SALON 2	EMERALD SALON 3	OPAL ROOM
	Development & Applications of Nuclear Magnetic Resonance Tech. for Near-Surface Investigations (SEG-EEGS Joint Session) Chair: Kristina Keating, Co-Chair: Elliot Grunewald	Near-Surface Geophysics in Cold Climates (AGU sponsored) Chair: Beth Astley, CoChair: Bruce Smith	Advances in Archaeological Applications of Near-Surface Geophysics Chair: Megan Carr, Co-chair: Caitlyn Williams	Funding Opportunities for Near Surface Geophysical Research Chair: William Doll
8:00 – 8:20 am	Noise Cancellation for Surface NMR: A Comparison of Time And Frequency Domain Approaches, Mike Mueller-Petke, Ugur Yaramanci, Leibniz Institute for Applied Geophysics	The Development of Geophysical Surveying Techniques in Permafrost at the Geological Survey of Canada: A Historical Perspective, James Hunter, Geological Survey of Canada	Advances in GPR Imaging with Multi-Channel Radar Systems from Engineering to Archaeological Sites, Dean Goodman, Geophysical Archaeometry Lab. ; Alexandre Novo, Henrique Lorenzo, Univ. of Vigo Spain; Gianfranco Morrelli, Geostudi; Doria Kutrubes, Radar Solutions Int'l.	DOE's Subsurface Biogeochemical Research (SBR) Program: Challenges and Opportunities for Environmental Geophysics David Lesmes, DOE BER
8:20 – 8:40 am	Magnetic Resonance Soundings In the Central Platte River Basin for Groundwater Models, Jared Abraham, James Cannia, US Geological Survey; Trevor Irons, Colorado School of Mines/USGS; Greg Steele, John Williams, US Geological Survey; Duane Woodward, Central Platte Natural Resources District	Characterizing Permafrost Thaw Anomalies with GPR and Electrical Resistivity - Field and Model Studies; Emily Park, John Bradford, Boise State University; William Bowden, University of Vermont	Identifying and Protecting Native American Graves Using Electromagnetic Induction: A Case Study from Central Georgia, Daniel Bigman, Univ. of Georgia	Funding Opportunities within the U.S. Army Terrestrial Sciences Program Russell Harmon, US Army Research Office, ESD
8:40 – 9:00 am	Applications and Advantages of a Short Dead-Time for Surface Nuclear Magnetic Resonance (SNMR) Measurements, David Walsh, Elliot Grunewald, Peter Turner, Vista Clara, Inc.	Remote Sensing, the Archival Record, and Modeling Ecosystem Processes in the Yukon River Basin, Larry Tieszen, Bruce Wylie, Jennifer Rover, US Geological Survey; Lei Ji, ASRC Research and Technology Solutions, contractor to the USGS EROS Center; Laura Bourgeau-Chavez, Michigan Technological Univ.; Z Tan, USGS-EROS	Human Riverine and Lacustrine Adaptations, Gail Heath, INL; Clayton Marler; Julie Williams; Holley Gilbert; Brenda Pace; Joshua Keene, Texas A&M	Funding Opportunities within SERDEP & ESTCP Herb Nelson, SERDP & ESTCP
9:00 – 9:20 am	Application of Remote Filtering to Magnetic Resonance Sounding Using Multi-Channel Data Acquisition, Jean-Francois Girard, BRGM; Jean Bernard, Benoit Texier, IRIS-Instruments	An Integrated Geophysical Program to Map Permafrost Extent, Fort Wainwright, Alaska, Beth Astley, U.S. Army Cold Regions Research and Engin. Lab; Colby Snyder, Opalia Environ. LLC; Seth Campbell, Univ. of Maine/CRREL; Steven Arcone, U.S. Army Cold Regions Research and Engin. Lab; Bruce Smith, US Geological Survey	Quantitative Integration of Multiple Near-Surface Geophysical Techniques for Reduced Uncertainty in Discrete Anomaly Detection, Megan Carr, Gregory Baker, Univ. of Tennessee	U.S. Environmental Protection Agency Environmental Geophysics Funding Opportunities, Dale Werkema, USEPA
9:20 – 9:40 am	Locating Water Accumulated in Tête Rousse Glacier (French Alps) Using Large-Scale Magnetic Resonance Imaging, Anatoly Legchenko, LTHE; Hélène Guyard; Marc Descloitres; Christian Vincent; Jean-Michel Baltassat; Stephan Garambois	Results from Two Helicopter Electromagnetic Test Lines to Map Permafrost, Ft. Wainwright, Fairbanks, Alaska, Bruce Smith, Burke Minsley, Jared Abraham, US Geological Survey; Greg Hodges, Fugro Airborne; Beth Astley, U.S. Army Cold Regions Research and Engin. Lab; Colby Snyder, Opalia Environmental LLC	Improving Multi-Tool Surveying Efficiency for Archaeological Geophysics by Integrating Google Earth, Caitlyn Williams; Gregory Baker, Bradley A. Ault, Univ. of Tennessee	FHWA Technology Deployment of Geophysics, Roger Surdahl, FHWA-CFLHD
9:40 – 10:00 am	Using Data From Multiple Loop Sizes Simultaneously In A 1D Surface Nuclear Magnetic Resonance Inversion, Trevor Irons, Colo. School of Mines/USGS; Yaoguo Li, Colorado School of Mines; Jared Abraham, US Geological Survey	Preliminary Results from an Airborne Electromagnetic Survey of Permafrost in the area of Fort Yukon, AK, Jared Abraham, Bruce Smith, Michelle Walvoord, James Cannia, US Geological Survey	Important New Archaeological Finds Resulting from Shallow Seismic Anomalies at the Ancient Hierakonpolis Temple-Town Site In Upper Egypt, Shelton Alexander, Dept. of Geosciences, Penn State Univ.; Elizabeth Walters; Recep Cakir, Washington State DNR Geology and Earth Resources	Opportunities with the Geoscientists Without Borders * Program, Rhonda Jacobs, SEG - Geoscientists Without Borders Program

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	EMERALD SALON 1 Development & Applications of Nuclear Magnetic Resonance Tech. for Near-Surface Investigations (SEG-EEGS Joint Session) Chair: Kristina Keating, Co-Chair: Elliot Grunewald	EMERALD SALON 2	EMERALD SALON 3	OPAL ROOM Role of Geophysics in addressing Civil - Geotechnical & Geoenvironmental Engineering Problems Chair: Fred Boadu, CoChair: Frederick Owusu-Nimo
10:20 – 10:40 am	Magnetic Resonance Soundings And NMR Logging of a Limestone Aquifer - The Tamala Limestone, Western Australia , Andrew Fitzpatrick, CSIRO; Kevin Cahill, Timothy Munday, CSIRO	Integration of Ground Penetrating Radar with Real Time Kinematic - Global Positioning System Receivers for Efficient Mapping of Drainage Pipe Systems Beneath Golf Course Greens , Barry Allred, USDA/ARS-SDRU; Robert Freeland, Univ. of Tennessee	High Resolution ERI Evaluation of Injectate Used to Remediate a Dry Cleaning Site, Jackson, Tennessee , Todd Halihan, Oklahoma State Univ.; Stuart McDonald, Aestus, LLC.; Phil Patey, ERM	Refuse Conductivity Variations Following Leachate Injection in a Bioreactor Landfill Cell: Modeling EM Results and Comparison with Well Logs , Philip Carpenter, Northern Illinois Univ.; Krishna Reddy, Univ. of Illinois Chicago
10:40 – 11:00 am	Nuclear Magnetic Resonance Logging to Estimate Permeability in the High Plains Aquifer , Rosemary Knight, Katherine Dlubac, Elliot Grunewald, Stanford Univ.; Ben Grau, Schlumberger Water Services; Nate Bachman, Schlumberger Oilfield Services; Yi-Qiao Song, Schlumberger-Doll Research; Greg Steele, John Williams, US Geological Survey	Monitoring Tree Roots Over Time with GPR , John Butnor, USDA Forest Service, Southern Research Station	Correlation of High Resolution ERI Results to Geochemical Zonation at a Degraded LNAPL site in Grand Junction, Colo. , Marcy Stonecipher, Stuart McDonald, Aestus, LLC	Shallow Geophysical Methods: Helping to Solve Geotechnical Problems, an Australian Perspective , Andrew Spyrou, Simon Williams, GB Geotechnics Australia
11:00– 11:20 am	MRS Tests In Eastern Canada - Coping With Magnetite Dissemination , Jean Roy, IGP; Anatoly Legchenko, LTHE; Alain Rouleau, Julie Menier, UQAC; Michel Bureau, MBG; Michel Chouteau, Ecole Polytechnique; Yves Leblanc, UQTR; Denis Richard, Ageos; Erwan Gloaguen, INRS-ETE; Yamina Benhouhou, Ageos	Seismic Surface Wave Technique for Agricultural Applications , Zhiqiu Lu, National Center for Physical Acoustics, Univ. of Mississippi; Glenn Wilson, USDA-ARS National Sedimentation Laboratory; Tianyu Zhang, School of Geography, Beijing Normal Univ.	Time-Domain Induced Polarization for NAPL Detection and Delineation , Boyce Clark, Clay Harwell, Mike Gefell, ARCADIS	Seismic Velocity - What Geotechnical Engineers Need to Assess Excavatability , Michael Rucker, AMEC Earth & Environmental, Inc.
11:20– 11:40 am	Evaluation of Surface-NMR Spin Echo Measurements of T2 , Elliot Grunewald, Rosemary Knight, Stanford Univ.; David Walsh, Vista Clara, Inc.	A Vertical Electrical Sounding Method for Agricultural Soil Survey , Larisa Golovko, Landviser, LLC; Antonina Pozdnyakova, Landviser, LLC; Anatoly Pozdnyakov, Moscow State Univ. (Lomonosov)	Biogeophysical Monitoring of the Microbial Degradation of Crude Oil from the BP Deep Horizon Oil Spill , Cameron Ross, Estella Atekwana, Eliot Atekwana, OK State Univ.; James Nolan, Rutgers Univ.; Lee Slater; Dimitrios Ntarlagiannis, Jeffrey Heenan, Rutgers - Newark	Artificial Neural Networks Models for Determining the Basic Geotechnical Properties of Soils from Electrical Measurements , Fred Boadu, Duke Univ.
11:40– 12:00 pm		Noise Reduction In a Multi-Channel SP Monitoring System , Karl Butler, Aaron DesRoches, Univ. of New Brunswick; Peter Simpkin, IKB Tech. Ltd	Long Term ERT Monitoring of Remediation at an LNAPL Site, Enid, OK , Shannon Jeffries, Todd Halihan, Oklahoma State Univ.	
	Development & Applications of Nuclear Magnetic Resonance Tech. for Near-Surface Investigations (SEG-EEGS Joint Session) Chair: Kristina Keating, Co-Chair: Elliot Grunewald	Recent Advances in Agricultural Geophysics Chair: Larisa Golovko, CoChair: Barry Allred	Earthen Dams and Levees: Geophysical Reconnaissance - Exploration and Monitoring Chair: Craig Hickey, Co-chair: Lewis Hunter	Role of Geophysics in addressing Civil - Geotechnical & Geoenvironmental Engineering Problems Chair: Fred Boadu, CoChair: Frederick Owusu-Nimo
1:40 – 2:00 pm		Sensing Vertical Profiles of Apparent Electrical Conductivity in Soils Using an Angular Scanning Approach , Viacheslav Adamchuk, McGill Univ.; Ahmad Mat Su; Roger Eigenberg, USDA, ARS, U.S. Meat Animal Research Center; Richard Ferguson, Univ. of Nebraska-Lincoln	Overview of the Workshop on Monitoring and Failure Detection in Earthen Embankments , Craig Hickey, James Sabatier, NCPA, Univ. of Mississippi	An Investigation of the Ability of Induced Polarization to Resolve Aquifer Heterogeneity in an Unconsolidated Sedimentary Aquifer , Lee Slater, Rutgers; Andrew Binley, John Keery, Lancaster Univ.; Warren Barrash, Michael Cardiff, Boise St. Univ.; Jeanette Montrey, Rutgers-Newark
2:00 – 2:20 pm	Nuclear Magnetic Resonance (NMR) Properties of Unconsolidated and Unsorted Materials Under Low-Field and Mid-Field Conditions , Kathryn Martin, Colorado School of Mines; M; Ryan North, Jason McKenna, US Army Engineer Research & Development Center; Yaoguo Li, CSM	Use of a Resistance Meter to Define Depth Effects of Manure , Roger Eigenberg, Bryan Woodbury, David Parker, Mindy Spiels, USDA, ARS, U.S. Meat Animal Research Center	Towards an Integral Approach of Levee Safety: Smart Levees Combining Geophysics and In-Situ Instrumentation , Andre Koelewijn, Deltares; Robert Meijer, Univ. of Amsterdam & TNO	Integration of Geological and Geophysical Data To Improve the Understanding of a Deep-Seated Landslide , Diego Arosio, Davide Brambilla, Laura Longoni, Monica Papini, Giovanni Savazzi; Luigi Zanzi, Politecnico di Milano
2:20 – 2:40 pm	Interpreting Nuclear Magnetic Resonance Data In Inhomogeneous, Water-Saturated, Unconsolidated Material , Kristina Keating, Rutgers Univ.	Fourth Year Subsurface Drip Irrigation Monitoring Using Gem2 Electromagnetic Surveys, Powder River Basin, Wyoming , James Sams, Garret Veloski, National Energy Tech. Lab.; Bruce Smith, Burke Minsley; Bethany Burton, U.S. Geological Survey	Monitoring earthen dams and levees using wireless geophysical sensors , Charles Oden, Earth Science Systems, LLC	Integrating Geophysical Surveys with Geotechnical Investigations at Offshore Wind Facilities , John Madsen, Univ. of Delaware

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	EMERALD SALON 1	EMERALD SALON 2	EMERALD SALON 3	OPAL ROOM
	Development and applications of nuclear magnetic resonance techniques for near-surface investigations (SEG-EEGS Joint Session) Chair: Kristina Keating	Recent Advances in Agricultural Geophysics Chair: Hamid Farahani, CoChair: Barry Allred	Earthen Dams and Levees: Geophysical Reconnaissance - Exploration and Monitoring Chair: Craig Hickey, Co-chair: Lewis Hunter	Role of Geophysics in addressing Civil - Geotechnical & Geoenvironmental Engineering Problems Chair: Fred Boadu, CoChair: Frederick Owusu-Nimo
2:40 – 3:00 pm	Multiple Receiver Loop SNMR Surveys Applied To Geo-Technical And Civil Engineering Problems , Trevor Irons, Colorado School of Mines/USGS; Yaoguo Li, Colorado School of Mines; Jason McKenna, US Army Engineer Research & Development Center	Effect of Soil Texture, Water Content and Temperature on Apparent Soil Electrical Conductivity , Hamid Farahani, Clemson Univ.	Time-Lapse Seismic Tomography of a Small Embankment Dam with Possible Zones of Weakness , Leti Teklu Wodajo, Craig Hickey, Nat'l Center for Physical Acoustics, Univ. of Mississippi; Gregory J. Hanson, USDA-ARS, Hydraulic Engineering Research Unit (HERU); Chung R. Song, Univ. of Mississippi	Integration Of Seismic Surveys To Investigate An Abandoned Mine Site , Diego Arosio, Laura Longoni, Monica Papini, Luigi Zanzi, Politecnico di Milano
3:00 – 3:20 pm		An Assessment of Sodium- and Salt-Affected Soils in the Northern Great Plains of the USA with EMI , James Doolittle, Michael Ulmer, USDA-NRCS; Eric Brevik, Dickinson State Univ.; Jeanne Heilig, John Kempenich, USDA-NRCS	Electrical Resistivity Tomography Used to Inspect Earthen Embankment Dams , Jared Case, Craig Hickey, NCPA, Univ. of Mississippi; Gregory J. Hanson, USDA-ARS, Hydraulic Engineering Research Unit (HERU)	Utilizing Continuous Resistivity Profiling for Characterization of Canal Seepage in El Paso, Texas , Wesley Brown, Stephen F. Austin State Univ.; Amanda Cegon; Zhuping Sheng, Agriculture Research and Extension Center at El Paso, TAES
	Advances in Borehole Geophysics Chair: John Stowell, Co-chair: Jim LoCoco	Recent Advances in Agricultural Geophysics Chair: Hamid Farahani, CoChair: Barry Allred	Earthen Dams and Levees: Geophysical Reconnaissance - Exploration and Monitoring Chair: Craig Hickey, Co-chair: Lewis Hunter	Role of Geophysics in addressing Civil - Geotechnical & Geoenvironmental Engineering Problems Chair: Fred Boadu, CoChair: Frederick Owusu-Nimo
3:40 – 4:00 pm	Augmenting Dense Geologic, Hydrologic, & Geotechnical Data with Late-Stage Surface & Borehole Geophysics at a Low-Level Radioactive Waste Repository in West Texas , Jeffrey Paine, Sojan Mathew; Changbing Yang, Bureau of Economic Geology, UT-Austin	Detailed Low-Induction-Number EM Sounding to 9-m Depth , Richard Taylor, Dualem Inc., Scott Holladay, Geosensors Inc.	An Overview On Geophysical Investigations of Earthen Dam Foundations In California for The U.S. Army Corps of Engineers , Lewis Hunter, Ronn Rose, Sacramento District, US Army Corps of Engineers; Michael Powers, US Geological Survey	Seismic Refraction Tomography Using a Landstreamer for Estimating Void Volume In a Reclamation Project , Curtis Link, Montana Tech; Will Goldberg, Pioneer Technical Services Inc.
4:00 – 4:20 pm	Radon As an Indicator in Borehole Geophysics , Leonid Anisimov, VolgogradNIPImorfeft; Irina Vorontsova, LUKOIL-VolgogradNIPImorfeft	Digital Soil Mapping with Depth Using EM38 and EM31 Signal Data and a 1-D Laterally Constrained Inversion Model , John Triantafyllis, The Univ. of New South Wales; Fernando Acacio Monteiro Santos, The Universidade de Lisboa	Utilization of Integrated Geophysical Surveying for the Safety Assessment of Levee Systems , Tomio INAZAKI, Public Works Research Institute; Koichi Hayashi, Geometrics	Characterizing Fracture Infill from Its Seismic Response: Synthetic Modelling and Laboratory Experiments , Ranajit Ghose, Carlos Almagro Vidal, Joost van der Neut, Delft Univ. of Technology, The Netherlands
4:20 – 4:40 pm	Field Demonstration of Nuclear Magnetic Resonance (NMR) Logging Tools for Groundwater and Environmental Investigations , David Walsh, Peter Turner, Elliot Grunewald, Vista Clara, Inc.; Jim Butler, Kansas Geological Survey; Rosemary Knight, Stanford Univ.; Ed Reboulet, Steve Knobbe, Kansas Geological Survey; Tom Christy, Wesley McCall, Geoprobe	Digital Soil Mapping of Available Water Content In the Lower Macquarie Valley, Australia , John Triantafyllis, Liam Gooley, The Univ. of New South Wales	Investigation of Source of Seeps beneath Earthen Dam, Central Massachusetts , Mario Carnevale, Jutta Hager, Alex Buller, Hager GeoScience, Inc.	Geophysics for Rock Properties & Material Separation During Dredging & Expansion of the New York and New Jersey Harbors , William F Murphy, W. Bruce Ward, e4sciences Earthworks; Ben Baker, Formerly US Army Corps of Engineers, New York District; Richard Nolen-Hoeksema, Daniel A Rosales Roche, e4sciences Earthworks
4:40– 5:00 pm	Borehole IP Response Using Variable Injection Times , John Stowell, James LoCoco, Mount Sopris Instrument Company; Jean-Luc Deltombe, Advanced Logic Technology, S.A.; Robert Crowder, Crowder Consulting LLC; Damian Hennesy, Newmont Mining Corp.	Agricultural Drainage Pipe Detection Using Ground Penetrating Radar: Effects of Antenna Orientation Relative to Drainage Pipe Directional Trend , Barry Allred, USDA/ARS-SDRU	Shallow (0-10 m) Seismic Investigation of a Distressed Earthen Levee, New Orleans, USA , Juan Lorenzo, Jason Hicks, Louisiana State Univ.; Emilio Vera, Universidad de Chile	Engineering Site Characterisation Using 2-D Electrical Resistivity Tomography , Elijah Ayolabi, Adetayo Folurunso, Mary Odukoya, Jackson Enoh, Univ. of Lagos
5:00– 5:20 pm	Application of Crosswell Seismic Tomography in Detecting Buried Fault , Baoping Duan, Zhengqin He, Gang Hu, Wei Zhang, Institute of Geophysics, China Earthquake Administration; Don Zhao, Geogiga Technology Corp.		Characterizing Mississippi River Levee Segments Using Soils and Geologic Data , Khaled Hasan, James Aanstoos, Majid Mahrooghy, Lalitha Dabir, Mississippi State Univ.; Joseph Dunbar, US Army Corps of Engineers	

8:30 – 4:30 pm Wednesday April 13, 2011 P03: Poster Session 3 – Chair: Doug Laymon – Exhibit Hall Prefunction Area

1. Intergrated Well-Log, VSP, and Surface Seismic Analysis of Near-Surface Glacial Sediments: Red Lodge, Montana
Jingqiu Huang, Robert Stewart, University of Houston; Joe Wong, University of Calgary; Carlos Montana, Geophysical Exploration and Development Co. (GEDCO)
2. Site Resonance Frequency Assessment Through Dynamic Load Testing (DLT): Early Results of a Test Carried Out in the Experimental Site of Fivizzano (MS, Italy)
Mario Luigi Rainone, Sara Di Benedetto, Pasquale Greco, Patrizio Signanini, University "G. d'Annunzio" of Chieti Pescara; Patrizio Torrese, University of Pavia
3. Investigating the Deformational and Microstructural Changes In Unconsolidated Earth Materials Using Complex Resistivity Measurements
Frederick Owusu-Nimo; Fred Boadu, Duke University
4. Magnetic Susceptibility Measurements as a Proxy for Bioremediation at Hydrocarbon Contaminated Sites
Faraq Mewafy, Estella Atekwana, Lee Slater, Dimitrios Ntarlagiannis, Andre Revil, Magnus Skold, Yuri Gorby, Oklahoma State University; Dale Werkema, U.S. EPA
5. Impact of Soil Vapor Extraction on SIP Measurements
Ryan Joyce; Estella Atekwana, Eliot Atekwana, Oklahoma State University; Dale Werkema, U.S. EPA
6. Spectral Induced Polarization Monitoring During Microbial Enhanced Oil Recovery
Jeffrey Heenan, Dimitrios Ntarlagiannis, Lee Slater, Rutgers University
7. Characterizing Permafrost Thaw Anomalies with GPR and Electrical Resistivity - Field and Model Studies
Emily Park, John Bradford, Boise State University; William Bowden, University of Vermont
8. Geophysical Investigations of Selected Infrastructure Sites within the National Petroleum Reserve, Alaska
Jared Abraham, Bethany Burton, Eric Anderson, Jeff Lucius, US Geological Survey; Brent Lewis, BLM
9. Geophysical Characterization of Permafrost Distribution in the Yukon River Basin, Alaska
James Nolan, Rutgers University
10. Surface Water Extent Trends In Interior Alaska (1979-2009)
Jennifer Rover, Bruce Wylie, Larry Tieszen, USGS; Lei Ji, ASRC Research and Technology Solutions, USGS EROS Center
11. Previous Excavations and Geophysical Discoveries at a Prehistoric Earthwork Site in Western Michigan
Laura Sherrod, Kutztown University; Jan Brashler, Grand Valley State University; Donald Gaff, University of Northern Iowa
12. High-density Electromagnetic Induction Survey: Mapping the Archaeological Landscape at Ocmulgee National Monument, Georgia
Daniel Bigman, University of Georgia
13. Three- Dimensional Characterization of Archaeological Sites Using Multi-Channel Ground Penetrating Radar Arrays; Benefits and Examples
Kevin Hon, MALA Geoscience USA, Inc.; Scott Harris, Maureen Hays, College of Charleston; Kimberly Pyszka, University of Tennessee
14. Archaeogeophysical Investigation of Silifke Korykion Antron and Goztepesi Area, Turkey
Nihan Hoskan, Fethi Ahmet Yuksel, Mehmet Safi Yildiz, Pmprestij Muhendislik; Hamdi Sahin, Istanbul University
15. Archaeogeophysical Measurements Obtained from Ainos (Enez) Antique City, Center of Princesdom in Thrace
Fethi Ahmet Yuksel, Nihan Hoskan, Fatma Banu Ucar Cakan, Gulnur Kurap, Istanbul University; Sait Basaran, Kadir Has University
16. A Seismic and Resistivity Study at an Archaeology Site Near Paint Rock, TX with Applications In Data Fusion
Scott Willson; Mark E. Everett, Dept. of Geology and Geophysics, Texas A&M University
17. Cleared Circles: Anthropogenic or Biogenic? Use of Non-Invasive Geophysical Techniques to Determine Origin
Todd Caldwell, Eric McDonald, Steven Bacon, Rina Schumer, Thomas Bullard, Desert Research Institute
18. Detailed GPR Mapping of Catacombs at Early Christian Cemetery on Malta
Goran Skelac, Marko Maricic, Georheo d.o.o.; Bozo Padovan, Institut IGH
19. Self Calibrating Remote Monitoring System
Trent Armstrong, INL; Candice Jackson; Gail Heath, INL; Clark Scott; Casey Smith; Jesse Bennett
20. A Magnetic Survey at Argamum Necropolis High-density
Sorin Anghel, Geoecomar
21. Application of GPR to the Delineation of Melt Regimes, Internal Stratigraphy, and Flow Dynamics at Three Potential Ice Core Drill Sites in the Alaska Range, Seth Campbell, Univ. of Maine/CRREL; Karl Kreutz, Univ. of Maine; Erich Osterberg, Dartmouth College; Steven Arcone, US Army Cold Regions Research and Engineering Lab; Cameron Wake, Univ. of New Hampshire