AGENDA

7:30 a.m.  Light breakfast and registration

8:30 a.m.  Welcome and introduction

8:45 a.m.  Keynote: Oxygen-17: How and why to measure it.  
            *Eric Steig*, Earth and Space Sciences, University of Washington

9:20 a.m.  Calibrating δ¹⁸O in *Dromaius novaehollandiae* (emu) eggshell calcite as a paleo-aridity proxy for the Quaternary of Australia.  
            *Gifford H. Miller*, INSTAAR, University of Colorado

9:40 a.m.  Isotope Creativity: Thinking outside the conundrums of soil science and isotope ecology.  
            *M. Francesca Cotrufo*, Soil and Crop Sciences, Colorado State University

10:00 a.m.  Coffee break and poster session

10:40 a.m.  The Accurate Quantities of Argon (AQuA) Pipette System: Metrologically calibrated 40Ar concentrations in 40Ar/39Ar mineral standards.  
            *Leah E. Morgan et al.*, US Geological Survey

11:00 a.m.  Compositional and Isotope Character of Production Gas Over Time: Examples from Five Producing Wells in the Midland Basin.  
            *Josiah Strauss et al.*, Dolan Integration Group.

11:20 a.m.  New isotopic information revises global methane budget and natural gas leakage trends.  
            *Stefan Schwietzke et al.*, NOAA Carbon Cycle Group, Earth Systems Research Laboratory

11:40 a.m.  Game of Thrones: Dissolved nitrate analysis using denitrifying bacteria.  
            *Craig Cook*, Ecosystem Science and Management, University of Wyoming

11:55 a.m.  Data processing in stable isotope ratio mass spectrometry: making the case for open-source tools and data interfaces for efficient, transparent and reproducible IRMS data reduction.  
            *Sebastian Kopf*, INSTAAR, University of Colorado

12:10 p.m.  Lunch and posters

            *Chuck Douthitt*, Thermo Scientific

1:30 p.m.  Introducing the Precision IRMS, the Isoflow and ionOS operating software.  
            *Art Kasson*, Elementar Americas, Inc

1:45 p.m.  Methane Fingerprinting: Isotopic Methane and Ethane-to-Methane Ratio Analysis Using a Cavity Ring-Down Spectrometer.  
            *David Kim-Hak et al.*, Picarro, Inc.

2:00 p.m.  Introducing the new CU Boulder Earth Systems Stable Isotope Lab for analyses of a range of geological and environmental samples.  
            *Katie Snell and Brett Davidheiser-Kroll*, Geological Sciences, University of Colorado

2:15 p.m.  Variable temperature trap for clumped isotope measurements.  
            *Brett Davidheiser-Kroll and Katie Snell*, Geological Sciences, University of Colorado

2:30 p.m.  Next Generation: The new INSTAAR Stable Isotope Laboratory at SEEC, its capabilities and recent innovations, including a mobile methane in water platform.  
            *Bruce Vaughn*, INSTAAR, University of Colorado

2:45 p.m.  Session wrap up, next meeting discussion, coffee and snacks

3:00 p.m.  Vendors in atrium and tours of CU Boulder Earth Systems Stable Isotope Lab and INSTAAR Organic Geochemistry Lab

4:00 p.m.  INSTAAR Stable Isotope Lab tour  
            Happy hour and appetizers

7:00 p.m.  Meeting end

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