## *Shea Clark Smith / MEG, Inc.*

**MINERALS EXPLORATION &**
**ENVIRONMENTAL GEOCHEMISTRY**
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# PHYTOGEOCHEMISTRY

***MEG has developed leading technologies in phytogeochemistry. These include sample collection and sample preparation with tested and successful results. Analytical methods are developed with associate laboratories to maximize metal contrast and pattern development from plant tissue. In 2013, MEG R&D created several new field and mobile lab methods for detection of subsurface structures and a new "Halo"suite of mobile pathfinders.***

### *OVERVIEW:*

MEG is an independent sample preparation laboratory working closely with several associate laboratories to provide geochemical data for the mining and environmental industries. Established in 1984, it is now highly regarded for its sample preparation, quality control, geochemical interpretation, and advanced mercury methods. It is fully equipped to handle rock chip, soil, sediment, vegetation, humus, and other exploration materials, providing special care to samples that may contain labile constituents at ppb and ppt concentrations.

MEG is best known for its biogeochemical services. This work has provided several published minerals exploration case histories which have become the foundation for numerous and widely attended short courses on the application of biogeochemistry in the natural resources and environmental industries.

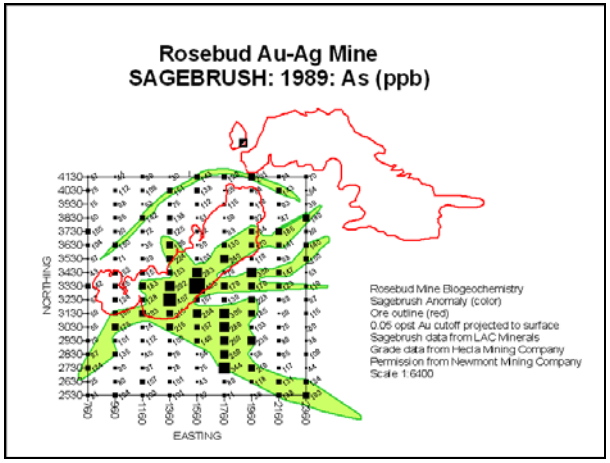
BROCHURE 2014

### *WORLDWIDE SERVICE:*

As the mining industry has grown globally, so has MEG. We provide the best-known and respected phytogeochemical service in North America, and despite added shipping costs from remote exploration frontiers, MEG receives samples from around the world. We are also a preferred subcontractor for many major N.A. laboratories. Please note our import permits:

**SOIL: P330-12-00341 (Expires 12-17-2015)**
**VEGETATION: PCIP-13-00190 (7-17-2015)**

Permit and Quarantine Documents must be applied to the outside of all shipping containers.
Please notify MEG prior to shipping for late information on USDA import requirements.




***Biogeochemical (A. tridentata), soil, and geophysical response to gold mineralization under 200 m of barren volcanics & alluvium, Rosebud Mine, Pershing Co., NV.***

### *SAMPLE COLLECTION:*

MEG is expert in survey design and sample collection. With 35 years' experience in varied terrains throughout N.A., we can lead you directly to success. From reconnaissance to detailed grids, we know what to do and how to get it done. Often, surveys cover both exposed and covered terrains and samples of just soil or vegetation alone are not enough. MEG will train your crew to efficiently collect several media in one traverse, giving good return for your field investment. MEG will coordinate sample collection and sample preparation and analysis to expedite your project to the drilling phase. Bee pollen collection is also part of this infield service. Time and materials pricing. ***Just honest pay for honest work.***

### *SAMPLE PREPARATION:*

We are focused at MEG on preparing your samples cleanly, accurately, and consistently. This means you get the best prep, and because we work with all of the analytical labs in the industry, you get your choice of the best analysis without sacrificing one for the other. Additionally, we are positioned to assure you unsurpassed quality since we incorporate QA/QC protocols you don't commonly find at other laboratories. These include randomization and true-blind standards, replicates and blanks. In this NI43-101 era, expert and thoughtful sample preparation is an important consideration to JV partners, stakeholders, and shareholders in your company.

Since 1984, the vegetation lab has processed over 300,000 phytogeochemical samples.

### *QUALITY CONTROL:*

MEG Labs routinely adds standards (blind & known) to each job sent on to the analytical lab of your choice. We often randomize submittals (on your instructions, only) to monitor for systematic error during prep and analysis. A full spectrum of biogeochemical standard reference materials are available for immediate use including Au-Ag, Cu-Mo-Pb-Zn, Pd, Ni-Co-V. Submittals leaving MEG are visually uniform, providing no information to the analytical lab as to what is sample and what is QA/QC. This is your guarantee that

***Data are as good as it gets***

### *CONSULTING SERVICES:*

MEG is expert in the field of phytogeochemistry. MEG can provide detailed examples and

discussions on methods for minerals exploration and environmental studies. Specific services include field and office training, data review, and interpretation leading to target selection and assessment.

MEG is expert in the area of quality assurance. Standards, replicates, blanks and randomization schemes are your measures of quality. If you are understaffed, or need help creating a quality assurance program, MEG can monitor your QA/QC stream as an impartial advocate to assure your data's accuracy and precision. This involvement is by invitation only; otherwise MEG is totally out of the data loop.

Office …… US $120 /hour
Field ……US $1200 /day

***QUALITY CONTROL PROGRAM:***
Known controls and several blind standards, replicates & blanks are included with every job that leaves MEG. These QA/QC samples are strategically positioned so that every batch of 30 within the submittal is monitored for precision & accuracy. This adds only about 4% to 9% to the total cost.

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|---|---|
| Blind standards, replicates & blanks | US $6.25 |
| Known controls ....……..…each.... | US $6.25 |
| Randomization ....……..…each..... | US $1.35 |

MEG LABS operates as an independent prep service to assure your geochemical samples are properly treated prior to analysis. MEG and the analytical labs will each invoice for their respective services. Data reporting is strictly proprietary, between you and the analytical laboratory. MEG is involved only to assure quality through randomization, controls, and blind standards, replicates and blanks. If you require QA/QC compilations, please refer to the "Consulting Services" described above.

BROCHURE 2014

***PROCEDURES:***
All samples are vigorously washed to thoroughly eliminate dust and other surface contaminants. Prior to washing or immediately thereafter, plant tissues can be separated to maximize chemical response and reduce variability. They are thoroughly dried in microwave and /or conventional ovens, and then macerated to pass a 177um. Analysis includes one of several choices: INAA, ICP/MS, ICP/OES, ISE.

***DRY PULP / ICPMS PACKAGE:***
Wash/dry/macerate/blend
& Archive ....…….....…..... US $16.60

***15g PELLET PACKAGE:***
Wash/dry/macerate/blend/weigh
& Pelletize .....……... US $18.60
Shrink wrap each pellet ….. .add US $ 2.00

***"HALO" PATHFINDERS:***
MEG R&D has developed analytical methods for detection of halogen pathfinders in plant tissue (including total salt). Analysis by ISE is used to detect structures and deeply sourced mineralization.

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|---|---|
| ISE Fluoride ……...…..…… | US $ 8.50 |
| ISE Bromide ……...…..…… | US $ 8.50 |
| Total Salt ……....…..…… | US $ 8.50 |

***ITEM PREP COSTS***

| | |
|---|---|
| Rebag from plastic ……..….. | US $2.00 |
| Remove leaves & prune ……..….. | US $2.00 |
| Surcharges .....…….....….. | US $65/hr |
| Rush jobs ..... | add 50% |
| Shipping (UPS, etc.) …..... | Cost +$5 Handling |
| Veg Disposal (USDA Regulated) ... | US $0.85 |

*MEG package prices apply to 225 g (1/2 pound) vegetation and humus samples in 7 x 12 inch cloth, olefin, or finon bags.*

***30g ASH PACKAGE:***
Ask for Quote

***HUMUS PREP (Ao soils)***
Ask for Quote

***FIELD SERVICES***
Field Services are subcontracted. Typical charges are less than $25 per sample.

**PHYTO-GEOTHERMAL SURVEYS**
MEG R&D has developed several metal ratio methods tied to phytogeochemistry that assist in the location of geothermal resources. These have been tested at several project areas in central Nevada. See "Links" for published results.

**HYDRO-GEOCHEMICAL SURVEYS**
Water quality issues can be addressed using phytogeochemistry linked to ground water chemistry. See our "Consulting & Environmental Services Brochure". Call for details.

**OTHER SERVICES**
SAMPLE PREPARATION: *Rock Soil Sediment*
SURVEY & COLLECTION CONSULTATION
GEOCHEMICAL INTERPRETATION
QUALITY ASSURANCE PROGRAMS
GEOCHEMICAL REFERENCE STANDARDS
MERCURY SOIL GAS ANALYSIS