# Metadata Worksheet

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| Data File Name | **Colloids3kDafiltrates.txt** |
| Date Prepared | 3/15/16 |
| Descriptive Title | Dissolved component elemental data for colloid mobilization modeling |
| Update Frequency | NA |
| Abstract | Colloids were isolated from SSHO soil samples collected for another study. Colloids were isolated by shaking soil in Milli-Q water, centrifuging to remove particles >1 micron, and then passing the suspension through a 1 micron nylon mesh. Certain colloids samples were further segregated by settling at room temperature over a 17 cm settling distance. Settling times are indicated in the data file. Splits of the colloidal suspensions were filtered to <3kDa to assess truly dissolved constituents and that is the data collected here. The column FieldLabel matches samples between files. |
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| Data Value Descriptions | COL1: label = InternalLaboratoryControlNumberCOL2: label = FieldLabelCOL3: label = SampleTypeCOL4: label = Ag, Units = ug/LCOL5: label = Al, Units = ug/LCOL6: label = As, Units = ug/LCOL7: label = Ba, Units = ug/LCOL8: label = Be, Units = ug/LCOL9: label = Bi, Units = ug/LCOL10: label = Ca, Units = ug/LCOL11: label = Cd, Units = ug/LCOL12: label = Ce, Units = ug/LCOL13: label = Co, Units = ug/LCOL14: label = Cr, Units = ug/LCOL15: label = Cs, Units = ug/LCOL16: label = Cu, Units = ug/LCOL17: label = Fe, Units = ug/LCOL18: label = Ga, Units = ug/LCOL19: label = Ge, Units = ug/LCOL20: label = K, Units = ug/LCOL21: label = La, Units = ug/LCOL22: label = Li, Units = ug/LCOL23: label = Mg, Units = ug/LCOL24: label = Mn, Units = ug/LCOL25: label = Mo, Units = ug/LCOL26: label = Na, Units = ug/LCOL27: label = Nb, Units = ug/LCOL28: label = Ni, Units = ug/LCOL29: label = P, Units = ug/LCOL30: label = Pb, Units = ug/LCOL31: label = Rb, Units = ug/LCOL32: label = Sb, Units = ug/LCOL33: label = Sc, Units = ug/LCOL34: label = Se, Units = ug/LCOL35: label = Si, Units = ug/LCOL36: label = Sr, Units = ug/LCOL37: label = Ta, Units = ug/LCOL38: label = Th, Units = ug/LCOL39: label = Ti, Units = ug/LCOL40: label = Tl, Units = ug/LCOL41: label = Tm, Units = ug/LCOL42: label = V, Units = ug/LCOL43: label = Y, Units = ug/LCOL44: label = Zn, Units = ug/LCOL45: label = Zr, Units = ug/L |
| Keywords | *Colloids, elements, geochemistry* |
| Methods | The 15 mL split was spun for 30 minutes at 3,500 rpm in a benchtop centrifuge with a swinging bucket head to remove large colloids. 13 mL of supernatant were transferred to a 3 kDa Macrosep® Advance Centrifugal Device ultrafilters (Pall Corporation; 20 mL volume). The ultrafilters were pre-cleaned as described in Bern et al. (2015) (Geochimica et Cosmochimica Acta 151:1-18, doi: 10.1016/j.gca.2014.12.008) and stored up to 48 hours in a refrigerator prior to use. Supernatant was centrifuged in the ultrafilter devices at 3,500 rpm for 30 minutes. The <3 kDa fraction was transferred to a plastic bottle, acidified with 100 µL of ultrapure nitric acid, and analyzed in research laboratories of the U.S. Geological Survey in Denver, Colorado. |
| Sites | SRT, SMS, SVF, DC-1 |
| Publications | Manuscript in prep. |
| Citation | The following acknowledgment should accompany any publication or citation of these data: Logistical support and/or data were provided by the NSF-supported Susquehanna Shale Hills Critical Zone Observatory. |
| Data Use Notes | The user of Susquehanna Shale Hills CZO data agrees to provide proper acknowledgment with each usage of the data. Citation of the name(s) of the investigator(s) responsible for the data set, in addition to the generic statement above, constitutes proper acknowledgment. Author(s) (including Susquehanna Shale Hills CZO investigators) of published material that makes use of previously unpublished Susquehanna Shale Hills CZO data agree to provide the Susquehanna Shale Hills CZO data manager with four (4) copies (preferably reprints) of that material for binding as soon as it becomes available. The user of Susquehanna Shale Hills CZO data agrees not to resell or redistribute shared data. The user of these data should be aware that, while efforts have been taken to ensure that these data are of the highest quality, there is no guarantee of perfection for the data contained herein and the possibility of errors exists. These data are defined as either public or private, such that a password may be required for access. |