Supporting Information for:

Title: Partitioning of Naturally-Occurring Radionuclides (NORM) in Marcellus Shale Produced Fluids Influenced by Chemical Matrix

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SI Contents

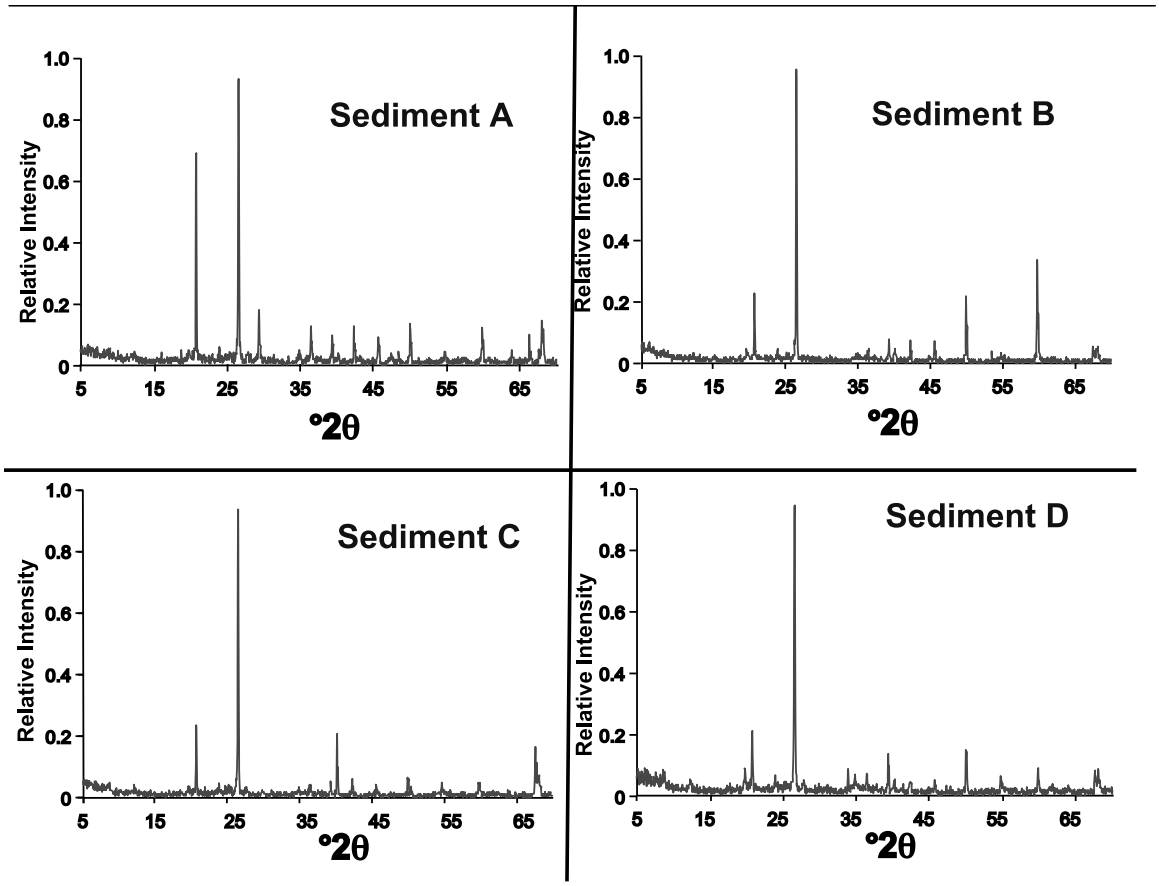


Fig. S1. PXRD spectra for select sediments in Dunkard Creek.

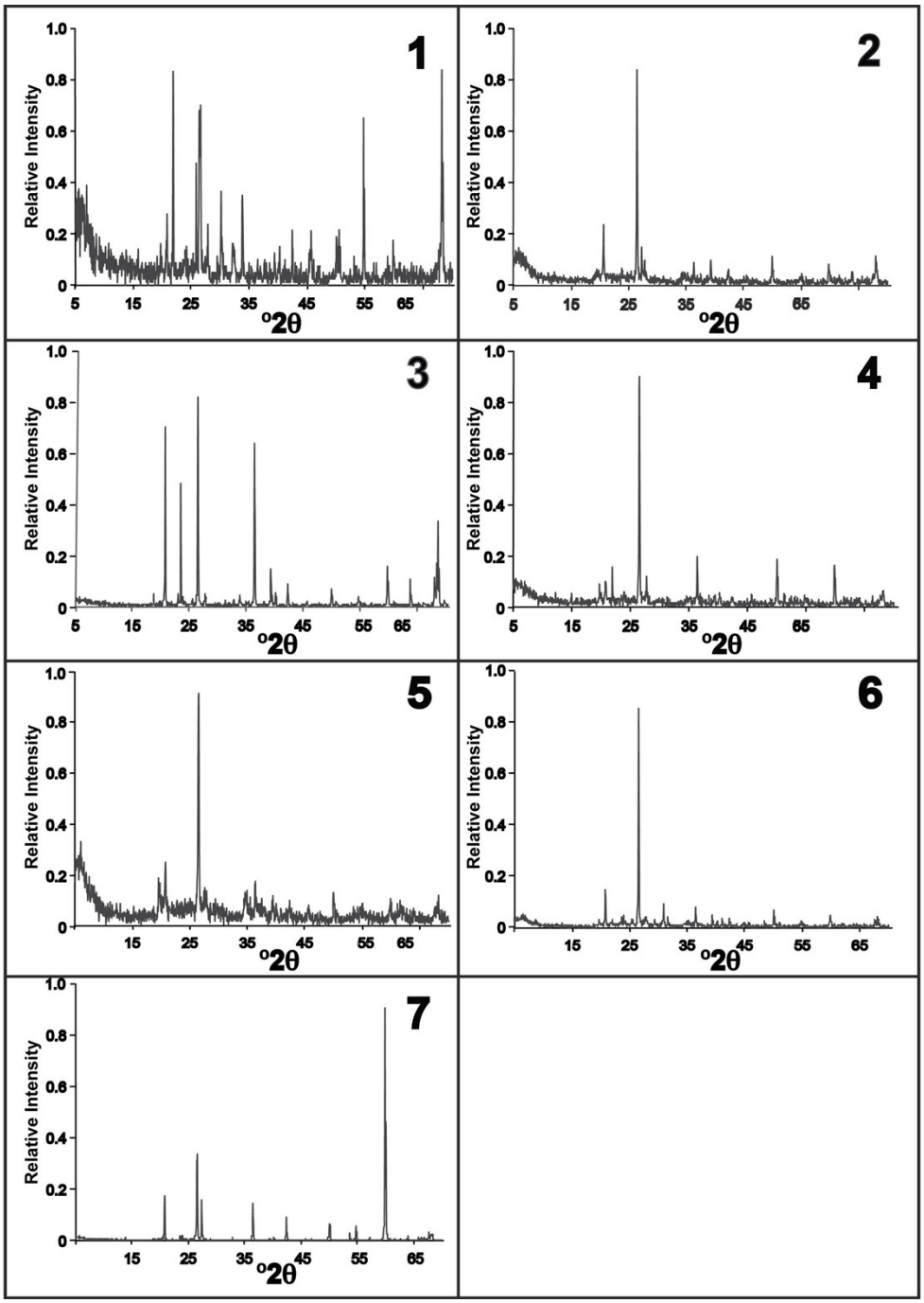


Fig. S2 PXRD of sediments from Quaternary Materials Laboratory at the University of Iowa.

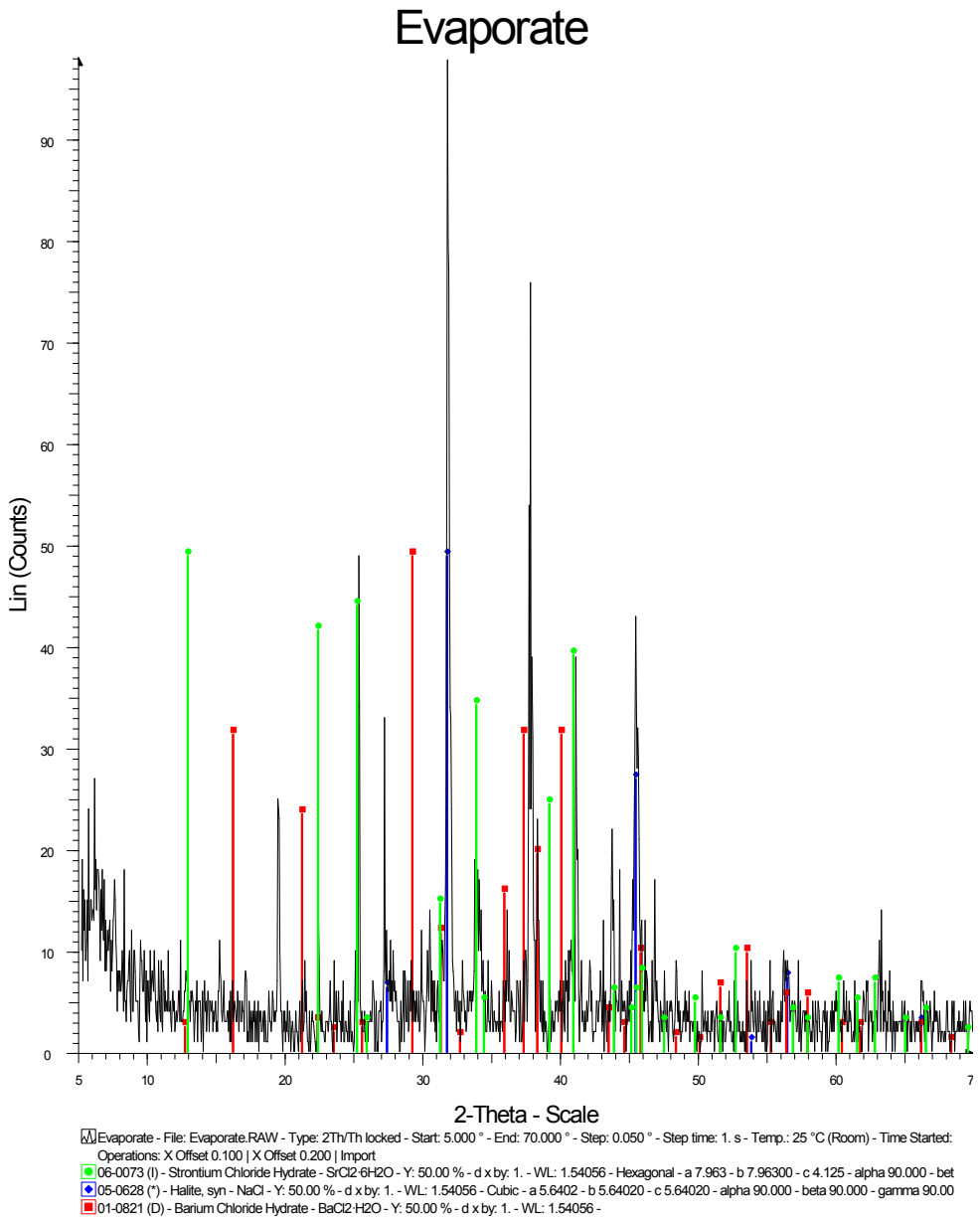
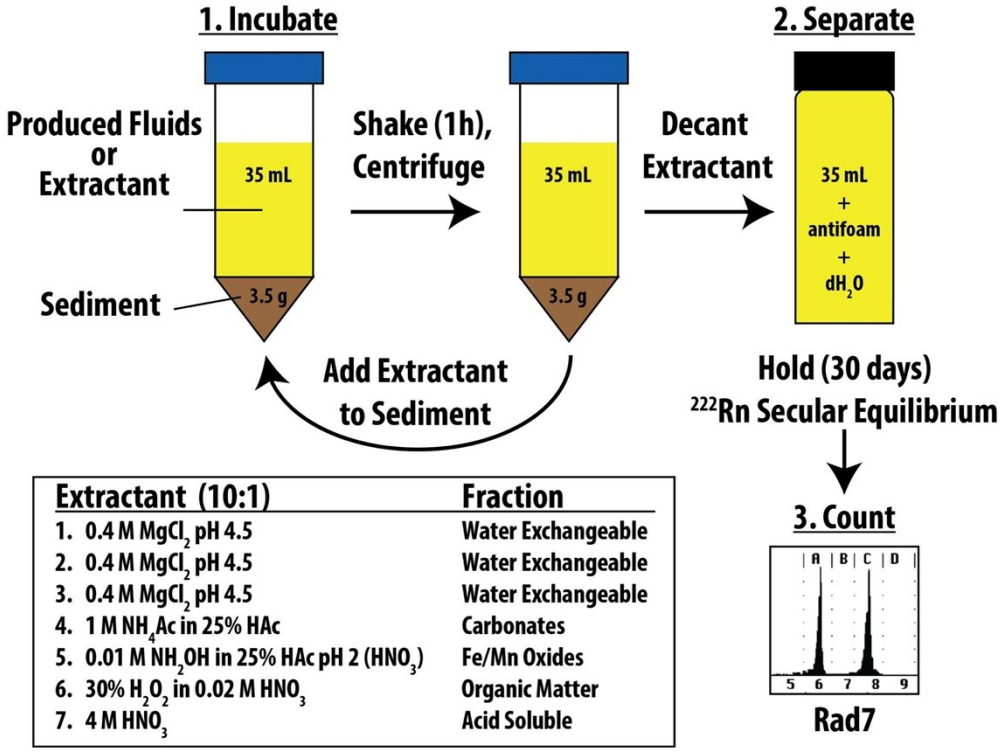


Figure S3. PXRD spectra of Marcellus Shale produced fluid evaporites.



30 Fig. S4. General workflow for sequential extractions.
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Table S1. Supplementary PXRD information for akaganeite.[1]	
°2θ	(h,k,l)
11.8	(-1,0,1) (1,0,1)
16.7	(2,0,0)
26.7	(-1,0,3)
35.2	(1,1,2)
39.2	(3,1,0)
46.1	(4,1,1)
56.1	(2,1,5)

Supplementary Reference

1. J. E. Post, and V. F. Buchwald, Crystal structure refinement of akaganeite, *American Mineralogist*, 1991, **76**, 272-277.