## Abstract Submitted for the APR10 Meeting of The American Physical Society

Noninvasive Lunar Exploration<sup>1</sup> JOHN MEREDITH, Hendrix College — To establish a permanent manned base on the moon it is almost essential that methods for extracting water from lunar minerals will need to be developed. One potential source of water is the mineral ilmenite. Mobile ground penetrating radar units can potentially locate sources of ilmenite on the moon. However, the method needs to be initially verified on earth. This project is designed to develop methods to verify that minerals located in a ground penetrating radar survey of Arkansas actually contain ilmenite. This presentation will cover the use of Scanning Electron Microscope - Energy Dispersive Spectroscopy to verify the presence of ilmenite.

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