I am conducting a comparison of naturally occurring hydrocarbon seep sites from the Gulf of Mexico (present day) with Cretaceous seep sites from the Tepee Buttes Formation of Colorado Springs, CO. The modern-day Gulf samples I am using are a result of hydrocarbon release through faulting of the seafloor, that has been fixed by encrusting organisms to create carbonate rock. The Tepee Buttes samples represent a similar environment from the former Western Interior Seaway. By observing differences in rock fabric type and conducting analyses of chemical composition, I hope to quantify the differences and similarities and elucidate what they could tell us about the formation of these types of deep-sea environments.