

Lake Gosiute field trip led by Ron Surdam

Friday we met at the Outlaw Inn in Rock Springs for a group dinner.

Saturday we left Rock Springs for Wamsutter via I80. At Wamsutter we headed south into the gas field for several miles then turned west to look at the eastern edge of the Laney stage of Lake Gosiute. We then proceeded via the Delaney Rim and Overland Stage route to the Gilbert Delta. We then crossed Bitter Creek and looked at repeating beds of oil shale and stromatolites as well as the “Buff Layer” a very thick volcanic layer. We headed north to I80 via Bitter Creek Road and returned to Rock Springs.

Sunday we left Rock Springs for Green River and then headed south on highway 530 to Manilla Utah, stopping just before the border. We examined the sedimentary structure of the basin as it meets the Uinta Mountains. We examined an alluvial fan delta and an exposed soil profile. We then headed north on 530 and looked at tufa spring deposits. On our last stop we looked for fossils in the exposed Laney Formation on one of the narrow arms branching of Flaming Gorge Reservoir.



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Google Earth

41°55'01.50" N 110°18'50.45" W elev 6946 ft eye alt 133.26 mi

Red and green are alluvial material off of the Sierra Madre mountains. When the lake transgressed over this alluvial sediment then the sediment is just green because it is not exposed to air. There were stromatolites at the top.



Wild horses on the Delaney Rim



The Gilbert Delta where a river flowed into the Laney stage of Lake Gosiute. The river flowed from the north. There were numerous fossil leaves. The height of delta suggested the lake was 25 meters deep at this time and place.



Sand pillows at Gilbert Delta



Fossil leaves at the delta



Fort McLeod built to protect the Overland Stage road



Dark layer is oil shale. White layer just below is stromatolites. This is close to Bitter Creek. We ran into rancher John Eversole there. He had hosted paleontologists in the past. I asked how many acres a cow required in the desert. It was a little over one square mile per cow. It was too dry for sage but there was greasewood. In some places lightening had struck the oil shale starting a fire which oxidized the surrounding rocks bright red.

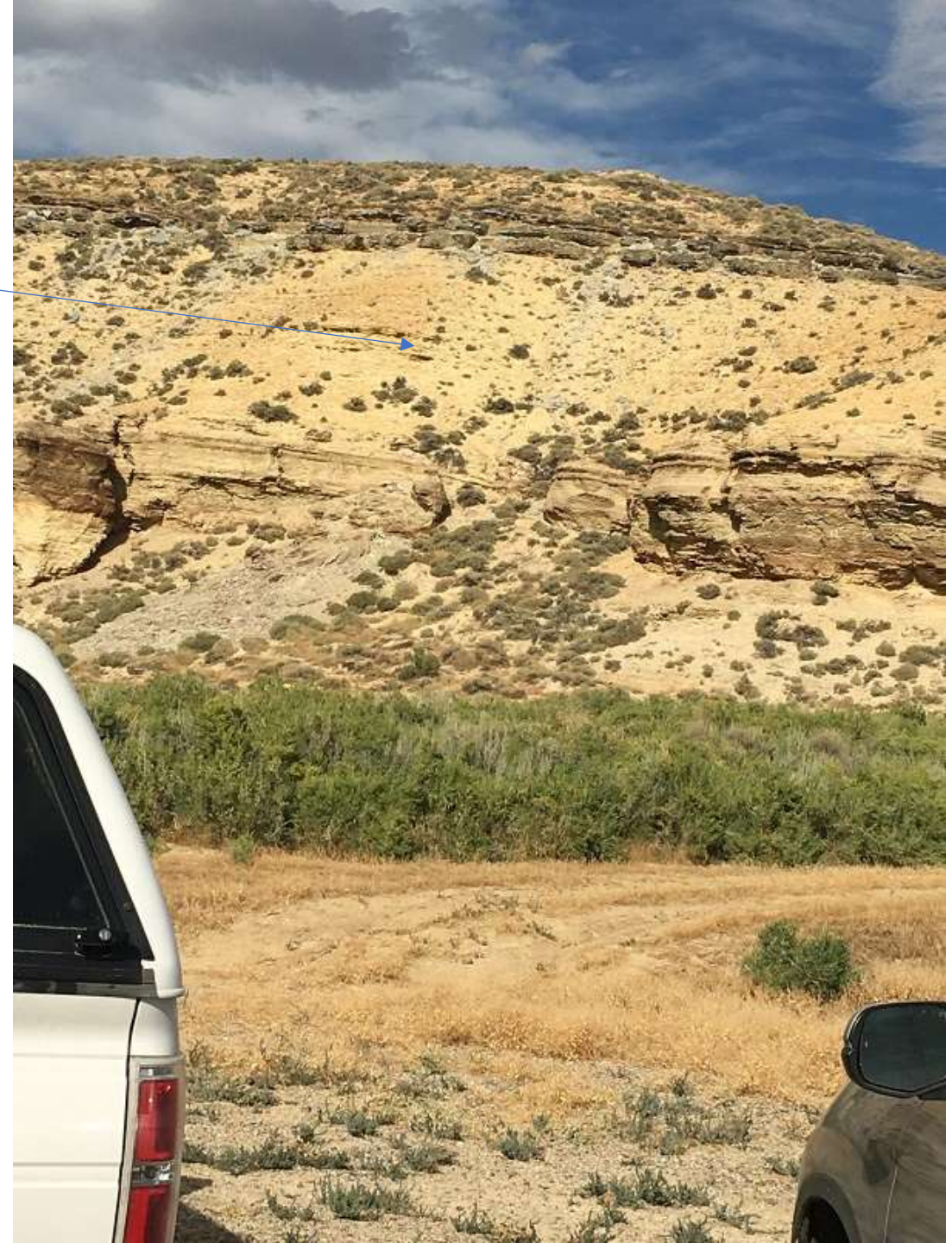


Piece of stromatolite that had fallen from cliff. They go for miles.



The Buff Layer

A volcanic deposit
between two shale
sequences.



Wilkins Peak layer of the Green River Formation looking to the north at a gas station in Green River where highway 530 starts. East of this location are time equivalent trona deposits buried deep underground.



Alluvial fan delta with conglomerate layer formed by rocks coming off of the Uintas.



An exposed abc soil profile. Ron is pointing to a root.

a
b
c



Smaller tufa spring deposit on left and larger ones in the right photo.





Snail fossils by tufa spring.

My camera did not do justice to the view east of highway 530. Maybe Mike captured that. I wondered if it was the beginning stage of a Grand Canyon.

Thank you all for participating and Ron for leading the trip.