River, at crossing of State Highway 20, Liberty County (No. 704); (f) Nine miles south of Marianna, Jackson County. (Tulane Univ. Coll., 13,314, 12 specimens.)


Papers Presented at the 1952 Meeting of the Society of Student Geologists

George Waverly Hall, Jr.

Early this year, graduate students in the Geology Department of Southern Methodist University, aware that there was no adequate student group which could advocate and instigate a desired type of extracurricular geologic program, set about to put such a program in motion. They formed a club to be known as The Society of Student Geologists. They sought to begin a positive program of geologic activity, and to form a true honorary organization to recognize outstanding undergraduates in geology.

In the preamble of the constitution adopted, the Society’s aim was thus set forth: “This organization is designed to provide for the initiation and perpetuation of geologic studies through voluntary individual and collective endeavor and to provide both academic instruction and ethical inspiration to prospective members of the profession.”

In the first formal meeting the constitution was ratified by those who were to become charter members, and officers were elected: Eugene Herrin, president; Wilson Bryan and Waverly Hall, first and second vice presidents; Carl Roberts, secretary; and William Reid, treasurer.

To further the aims outlined in the preamble, the Society planned an open meeting for the presentation of geologic papers prepared by members of the Society. By agreement with the faculty of the Geology Department, it was decided also to have presentation of the Master’s theses before the Society instead of before a faculty committee.

It is intended to make this meeting an annual affair. This year, meetings were held in Room 220, Fondren Science Hall, on May 15 and 16; and attendance of students and
faculty in all departments of the natural sciences was invited.

Papers Presented

Carnotite Deposits of the Colorado Plateau, by J. N. Taggart.
Pennsylvanian History and Stratigraphy of North Central Texas, by Nolan G. Shaw.

Foraminifera of the Eagle Ford Shale in the Type Area, Dallas and Tarrant Counties, Texas [Master’s Thesis], by William W. Schell.

Work on the Foraminifera of the Eagle Ford to this date has represented little more than brief reconnaissance reports, with but 29 species reported by Helen Jeanne Plummer. Study of 116 samples from the Eagle Ford has revealed that the entire foraminiferal population may be obtained from five exposures in Dallas and Tarrant counties. These scattered exposures represent but 163 feet of the total thickness. Sixty species and four varieties are described herein. Of this number, 16 new species representing 13 genera and four new varieties of four genera are included. Several species of Foraminifera formerly believed to be restricted to the Lower Cretaceous are hereby extended to the Upper Cretaceous. Likewise, the limits of some species previously reported higher in the Gulf series are lowered to include the Eagle Ford.

Study of a Limestone Bed of the Eagle Ford Formation, Dallas County, Texas [Master’s Thesis], by William T. Reid.

A thin, flaggy limestone bed included in the upper 100 feet of the Eagle Ford (Cretaceous) formation, outcrops along the Trinity River seven miles northwest of Dallas. From evidence supplied by analyses of the basic properties, structure, and organic constitution of the bed, an interpretation of the sedimentary record is proposed.

From 85 to 89 per cent of the limestone is composed of angular calcite fragments with minor amounts of biotite, collophane, quartz, and carbonaceous particles. The calcite is detrital shell fragments of marine organisms, which suggests origin of the bed essentially at the site of deposition. In addition, the bed is characterized by such primary structures as ripple marks, grooves and ridges associated with abundant thick-shelled ammonites and pelecypods—features believed to indicate shallow water, at least within the limits of effective wave and current action and penetration of light.

On the basis of this information, it may tentatively be asserted that the flaggy limestone represents a break in normal sedimentation through accumulation of sediments or possibly epeirogenic uplift, to a level where neither sedimentation nor erosion was effective.

General Geology of the Texas Panhandle, by Vernard Winn.

Salt Domes of the Gulf Coast Geosynclines, by George Waverly Briggs Hall, Jr.

Preliminary Report on Cree-Sykes Oil Field, Runnels County, Texas, by Bill Duchscherer, Jr.

The Cree-Sykes oil field is located in northeastern Runnels County. The production comes from the Gardner Sand. This sand body is of Pennsylvanian age and belongs to the Strawn series. It appears to be a long, lenticular sand body that has two producing zones.
The origin of such sand bodies is determined only from the features of the sand and their associated rocks. These features include size, shape, distribution of the bodies; extent, character, composition of the sand grains; and whatever primary structures are available from cores and outcrop. This paper does not deal with these studies, but several broad generalizations have been made about the origin of the Gardner sand with respect to modern sand deposits.

The modern sand deposit that most nearly approximates the Gardner sand is that of an offshore bar, or some related beach feature.

Several topographic maps showing such features were included in the presentation. These maps show the sand ridges and lenticularity observed in the Gardner sand. However, they differ in one major aspect. The Gardner has a shale facies on each side which is indicative of a marshy lagunal, shallow-water environment, whereas modern offshore bars have only the marshy lagunal environment toward the land. Several incidences are noted where an offshore bar was built seaward from an old offshore bar, causing the old bar to become buried in muds. Also along the Gulf Coast line, there are evidences of a mud-sand-mud sequence being maintained seaward.

Five structure maps and seven cross sections which are based on electric log data were included. Reservoir and production data were also given.

Volcanics of the Texas Coastal Plain Deposits, by Eugene Herrin.

A review of the volcanic sediments in the rocks of Cretaceous and Tertiary age of the Texas Coastal Plain reveals a similarity in composition, and probably in origin, for many of the volcanic ash deposits. Various possible hypotheses of origin were suggested.

The work of several geologists concerning sedimentary volcanics was discussed as to the bearing of such work on the Texas deposits. A description of the bentonite beds found in the Eagle Ford shale was presented, along with the author’s results of modal, petrographic, and spectro-chemical studies of these bentonite beds. These examinations showed the bentonite to be fairly pure, to contain no carbonates, small amounts of gypsum (whereas large amounts of gypsum are found in the shale), and flakes of fresh biotite. Spectrochemical analysis showed the bentonite to contain Fe, Ca, Al, Mg, and Ti, with trace-elements of rarer elements.

Possibilities for using bentonite beds as stratigraphic markers were discussed.

Major Geological Features of Northeast Texas, by Carl N. Roberts.

A Regional Description of the Woodbine Formation of Texas, by Marvin Cullum.

The Tularosa Basin, South-Central New Mexico, by William T. Reid.

Note