

Monthly Report, February 2021

To: Mr. Mark Robinson

From: Allan Standen LLC

Date: 2/2/2021

Purpose: Summary of Trinity Core Activities for the month of January to February 2, 2021

Core Logging

Commercial core box labels were purchased for consistency and coordination of core logging, photography, and sampling. Core box labeling for the Kauffman, Bastrop County and the Roberts, Frio County cores were reviewed to determine Core Research Center (CRC) sequence number and the top and base of core within each core box and lists were compiled.

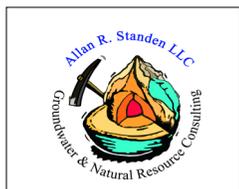
The compiled Kauffman core box list indicated some problems with the labeled core intervals. There were two core intervals that were duplicated, the first interval was Core box 14 (5466.5 to 5469.5) and Core box 15 (5467.5 to 5469.5) and the second interval that was duplicated (Core box 86 (6037.5 to 6040.5) and Core box 87 (6037.5 to 6040.5). The duplicates were nearly complete three feet of core in each box. This may create some uncertainty on the accuracy of the depths of the adjacent and deeper core intervals. Also, a few Kauffman core box intervals had pieces of core missing locally creating some uncertainty with depth.

Formations tops provided by the TWDB were used to determine Trinity Formation intervals and were marked on each geophysical log. The provided Trinity formations picks seemed appropriate for the Kauffman, Bastrop County and the Roberts, Frio County cores.

Both cores were initially pre-screened to determine general lithology and type of cementation (using 10% HCL). In both cores all siltstone and sandstone cementation seemed to be calcareous and no dolomitic intervals were positively identified for the carbonates.

The purchased Munsell chart was very cumbersome to use. I simplified the color description by using my interpretation of color. I am not color blind and I feel knowledgeable about color since I was previously a colored gemstone dealer for over thirty years. The provided color calibrated core photographs will provide the wetted true color of the core.

Rubbing the slabbed core surface of each piece of core with the fingertips revealed silty and sandstone intervals (relative grittiness, analogous to different grits in sandpaper). This approach was used to determine "Primary Lithology" for each core box, up to three feet per box for Kauffman and up to 12 feet per box for Roberts core intervals. Many carbonate intervals were silty. A plastic grain size chart was used to assist looking at grain size and sorting.



I am not an expert on describing carbonate or clastic sedimentary features and/or textures. I researched the internet for published guides and/or charts references to assist me describing the cores. I found the following feature and/or textural guide for the carbonates; https://www.beg.utexas.edu/lmod/_IOL-CM01/cm01-step03.htm

and the following feature and/or textural guide for the siltstones and sandstones; <https://www.degruyter.com/document/doi/10.1515/geo-2019-0077/html>

Once the dominant primary lithology or rock type was determined for each core box interval, I would use the appropriate guide to assist me in interpreting the features and/or textures. The descriptions are my interpretations. The core descriptions also include intervals with shale and organics, vertical fractures, stylolites, a few larger clast descriptions, if interval is more fossiliferous and other details.

Upon completion of the core logging, the larger scale (five core boxes for Kauffman, one core for Roberts) core photographs were used to review hand-written descriptions.

Hand-written descriptions were chosen because how dusty the viewing area is and how often the computer would have to be moved. There was too much risk of damaging or dropping the computer. I am still converting hand-written descriptions to typed descriptions, I will be done by this Friday.

Selection of core plug locations

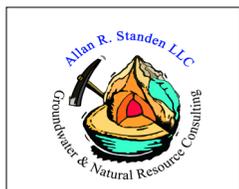
Core plug locations were selected to represent different carbonate and sandstone textures and/or features within each Trinity Formations. Core piece intervals selected to be plugged had to be long enough (4 inches to 12 inches to fit within core plugger) and thick enough (greater than one inch, problematic for the Roberts slabbed, 2.5-inch core) to be selected.

A total of eight Kauffman, Bastrop County core plugs were selected in the, five in the Lower Glen Rose and three in the Hosston. Intervals are, 5435, 5450, 5506.5, 5513.5, 5996.5, 6021, 6039, and 6054. Last three intervals are in the Hosston.

A total of ten Robert, Frio County core plugs were selected. Intervals are 5804 (LG), 5851.5, (LG) 5887.5 (LG), 6512.5 (HE), 6524.5 (HE), 6538 (HE), 6544 (HE), 6695.5 (HE), 6908 (SL) and 6940 (SL). Final core photos will include the plugged interval.

****Lessons learned, in the future, the selection of core plugs will occur during the preliminary compilation and screening of the core box intervals and determination of primary lithology using the provided TWDB geophysical log Trinity formations pick.**

***All 18 of these core plugs were shipped yesterday using Priority Mail with a tracking number and guaranteed delivery today, Feb 2, 2021 by 3 pm to Laura Goff (713-328-2673) at Core Labs.**



Core Photography

After extensive experimentation with different cameras, lighting, scales, core box labeling, wet and dry core, different thicknesses and orientations of core, light reflection, and other variables by Sean Murphy, we feel we have the core photography issues finally resolved. The Kauffman core was photographed in groups of five core boxes, up to 3 feet per box. The Roberts core was one box at a time. The images will be reprocessed in Photoshop or in similar software to one core box in each photo with the required labeling.

The preliminary core photography for the Kauffman and Roberts core will be completed by this Thursday. The reprocessing of the core photographs will be completed by next week.

Respectfully yours

Allan Standen

