June 1, 2016

## MEMORANDUM

To:

Brian Hunt

From:

Tom Grimshaw

Subject:

Suggestions for Rutherford Ranch Geologic Map

Thank you again for the chance to work together on geologic mapping in the Mountain City Quadrangle. Our recent field excursion to the Rutherford Ranch demonstrates, I believe, the power of our somewhat different, but complementary, approaches.

In a recent meeting regarding the geologic map of the Rutherford Ranch, we compared our maps (where mine was based on air photo stereo pair examination) and agreed to use your version for a preliminary map. The purpose of this memo is to provide suggestions for the next draft of your version. Two types of suggestions are provided – general for the map presentation (Attachment A) and specific for locations on the map (Attachment B). As you will note, the suggestions are minor – and may or may not be taken.

I look forward to continuing to work with you on the Mountain City Quadrangle mapping project. Perhaps as a next step we can arrange for a Walnut-Edwards measured section in the Rutherford Ranch as we discussed in our last meeting.

## Attachment A. General Suggestions

- 1. Include the boundary of the Rutherford Ranch property (as the area covered by this work product).
- 2. As we discussed, "carve out" a block in the southeast corner for a Map Explanation, which could include the following:
  - a. Note that this is a PRELIMINARY geologic map.
  - b. North arrow and scale
  - c. Geologic map units as squares with names and symbols (e.g., Ked) with color or pattern in the squares
  - d. Faults: including dashed (inferred) and dotted (covered)
  - e. Authors (and affiliations? Mine would be just The University of Texas at Austin)
  - f. Dates of Field Visits
  - g. Date of Map (June 2016)
  - h. Acknowledgment? (Michael Rutherford)
  - i. Mapping by air photo interpretation with on-site field verification?
- 3. It may be useful to indicate (with a dot) the 14 outcrop locations that we visited during the two field days. They are shown on my map.
- 4. Do we want to note that this is a surface geologic map? (Available) subsurface data (i.e., wells) were not used.

## Attachment B. Specific Suggestions

Please reference the yellow dots on the four pages following. You may also reference my map, of which you have a copy.

- 1. Inclusion of this fault is optional, since it is outside the Rutherford Ranch.
- 2. The same is true for the Walnut-Edwards contact on the northwest side of this hill.
- 3. The air photo location of the fault is slightly different.
- 4. I believe this fault is well established established across FM 967 into the O-Bar property, so it can be shown as a solid line as indicated.
- 5. Air photo mapping indicates the fault can be inferred almost to FM 967. Placement of the fault is again a bit different.
- 6. Thank you for including this small fault segment; I had not yet included it on my version of the map.
- 7. Air photo mapping again shows a slight difference in the fault location.
- 8. I don't recall that we have discussed the basis for this solid-line fault. Can we do so?







