

# **PS 2014 Wyoming Stratigraphic Nomenclature Chart\***

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\*Adapted from poster presentation given at 2016 AAPG Pacific Section and Rocky Mountain Section Joint Meeting, Las Vegas, Nevada, October 2-5, 2016

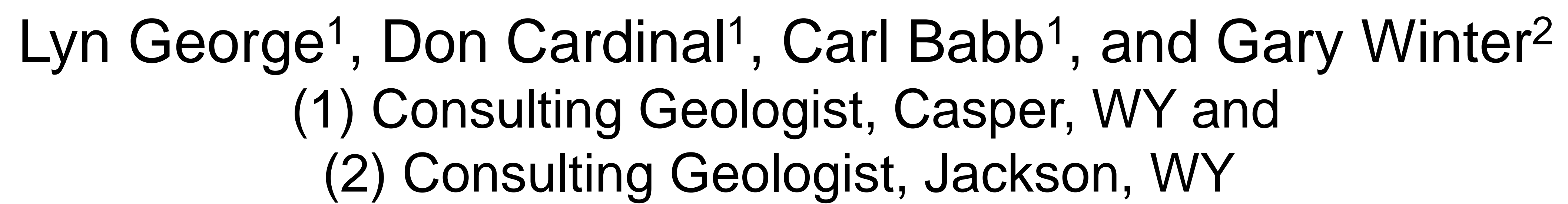
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<sup>2</sup>Consulting Geologist, Jackson, WY

## **Abstract**

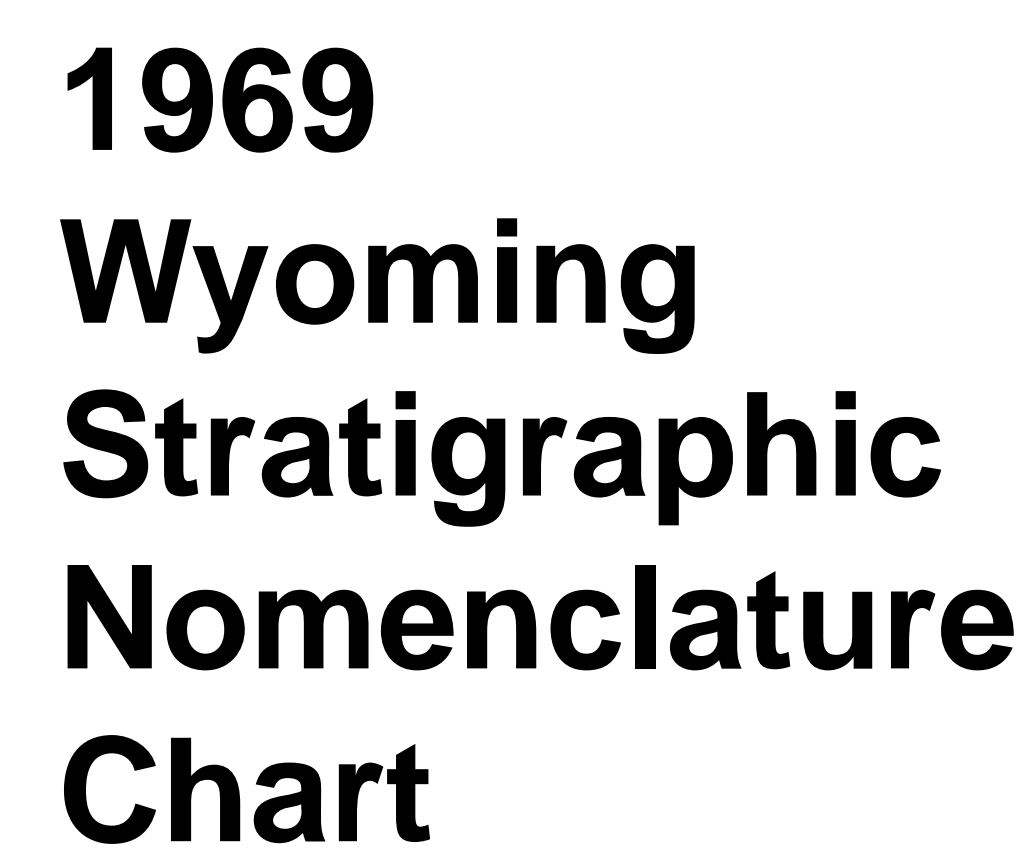
In 2014, the Wyoming Geological Association (WGA) published an updated Wyoming Stratigraphic Nomenclature Chart. WGA published its first comprehensive chart for Wyoming in 1969 and used it in its publications through 2010. The working committee began its efforts in 2001 and selected eighteen areas for individual stratigraphic columns - Fish Creek Basin, Absaroka Basin, Big Horn Basin, Northern Powder River Basin West, Northern Powder River Basin East, Southern Powder River Basin, Green River Basin North and West, Wind River Basin, Shirley Basin, Hartville Uplift, Thrust Belt, Green River Basin South, Washakie Basin, Great Divide Basin, Rawlins Uplift, Hanna Basin, Laramie Basin and North Denver Basin. Sixteen authors contributed to the eighteen columns. The columns were constructed to cover from the Holocene into the Precambrian. The chart incorporated the International Commission on Stratigraphy's Geologic Time Scale 2004 and displayed both global and North American ages. A datasheet was prepared for all units shown on the chart with information on ages, bounding units, lithology, thickness and related unconformities. In addition, fossil, radiometric, economic and other data were included. References were compiled into a summary list and cited on the datasheets. The final chart was published as a 55 by 39 inch, printed color version with an accompanying DVD. The DVD included an interactive chart with index map, linked to the datasheets. Datasheets were presented as pdf and html files and as a database. The chart itself was provided as pdf files and as Adobe Illustrator files. Individual columns were included as separate pdf and Illustrator files. The committee's intent was to deliver to geologists a useful tool for deciphering Wyoming's stratigraphic record.



- Understanding of Wyoming stratigraphy
- For working geologists by working geologists
- Usually petroleum geologists
- Formal, officially defined units
- Informal, applied stratigraphic units
- Surface and subsurface
- Economic and academic

## Project Details

18 stratigraphic columns  
1,372 Stratigraphic units with datasheets  
2004 Time Scale  
724 References cited  
16 Authors  
6 Technical contributors  
4 Editors



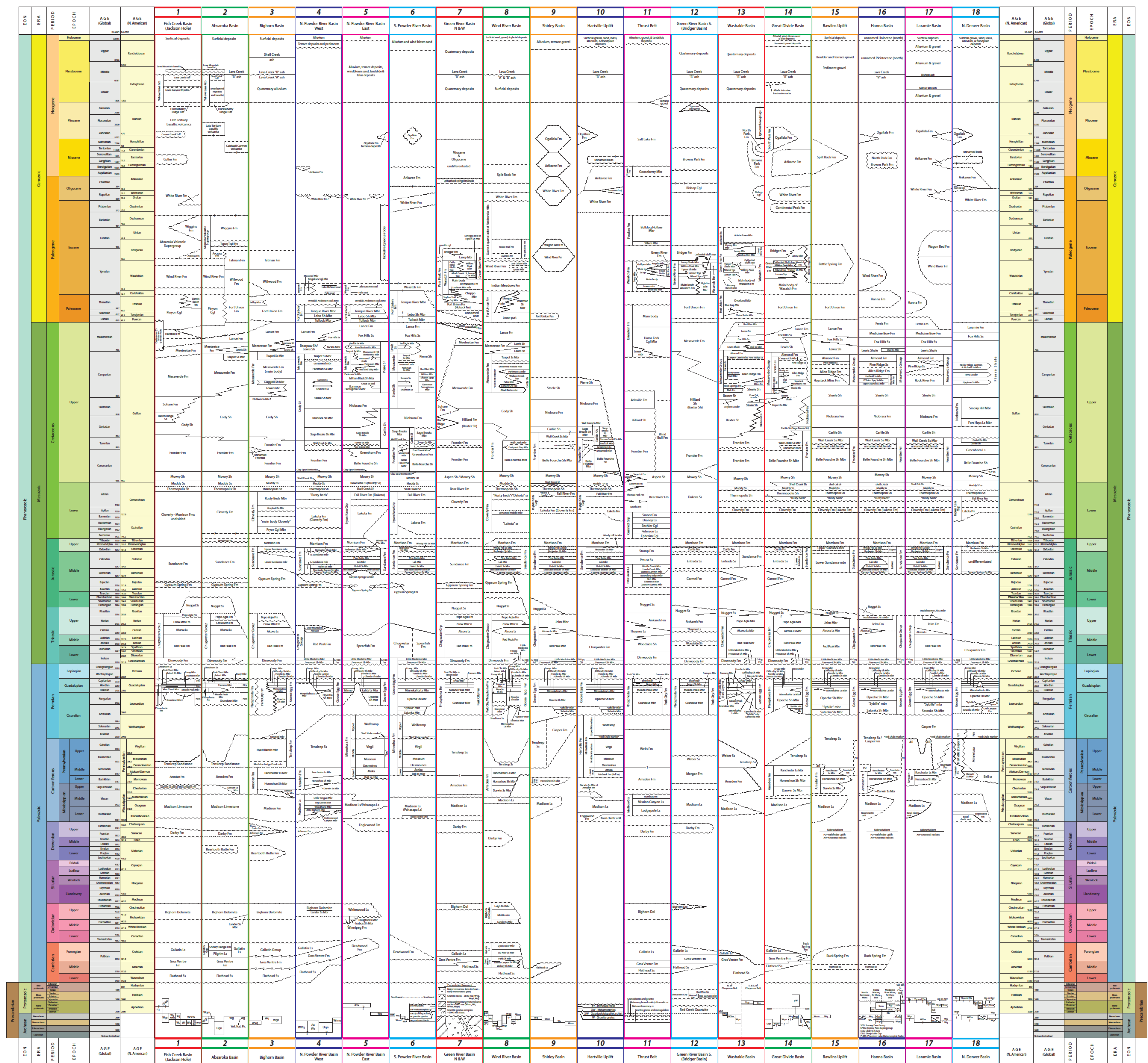
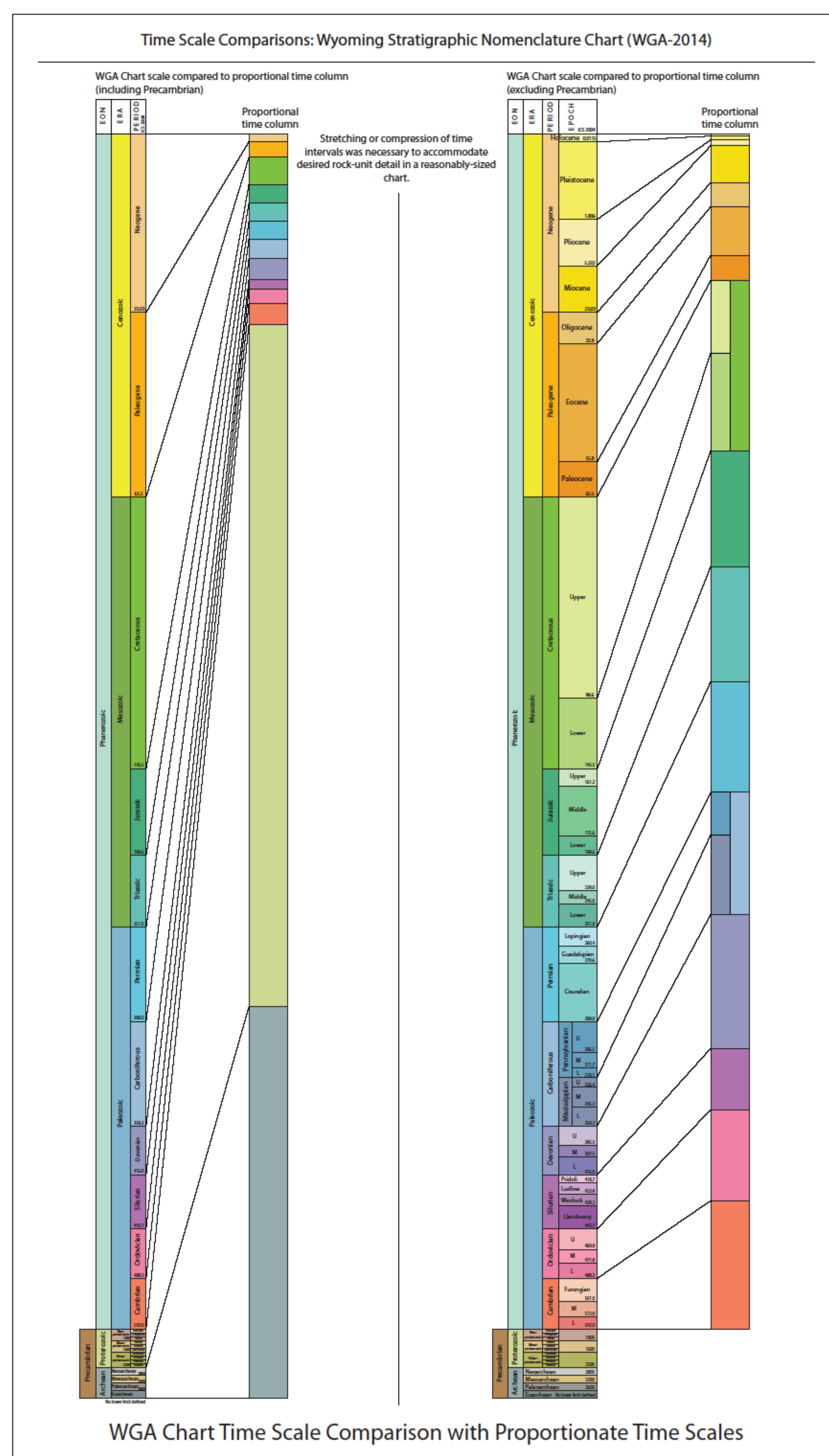
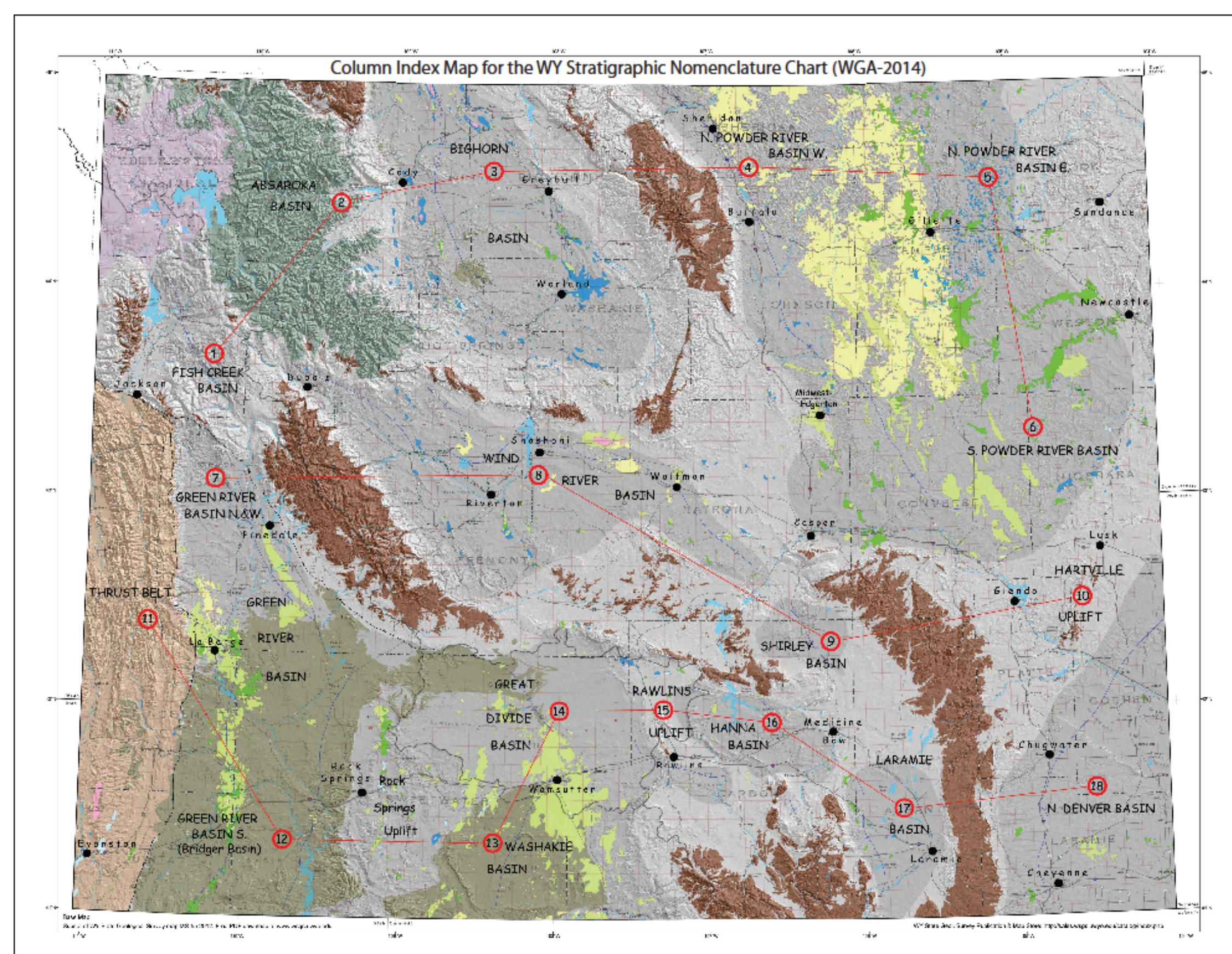
## Abstract

In 2014, the Wyoming Geological Association (WGA) published an updated Wyoming Stratigraphic Nomenclature Chart. WGA published its first comprehensive chart for Wyoming in 1969 and used it in its publications through 2010. The working committee began its efforts in 2001 and selected eighteen areas for individual stratigraphic columns – Fish Creek Basin, Absaroka Basin, Big Horn Basin, Northern Powder River Basin West, Northern Powder River Basin East, Southern Powder River Basin, Green River Basin North and West, Wind River Basin, Shirley Basin, Hartville Uplift, Thrust Belt, Green River Basin South, Washakie Basin, Great Divide Basin, Rawlins Uplift, Hanna Basin, Laramie Basin and North Denver Basin. Sixteen authors contributed to the eighteen columns. The columns were constructed to cover from the Holocene into the Precambrian. The chart incorporated the International Commission on Stratigraphy's Geologic Time Scale 2004 and displayed both global and North American ages. A datasheet was prepared for all units shown on the chart with information on ages, bounding units, lithology, thickness and related unconformities. In addition, fossil, radiometric, economic and other data were included. References were compiled into a summary list and cited on the datasheets. The final chart was published as a 55 by 39 inch, printed color version with an accompanying DVD. The DVD included an interactive chart with index map, linked to the datasheets. Datasheets were presented as pdf and html files and as a database. The chart itself was provided as pdf files and as Adobe Illustrator files. Individual columns were included as separate pdf and Illustrator files. The committee's intent was to deliver to geologists a useful tool for deciphering Wyoming's stratigraphic record.

## Project History

- 2001 Donation from John Lockridge to WGA
- Memorial to honor Wally Stewart, long-time WGA member
- Working committee formed as a part of the WGA Stratigraphic Nomenclature Committee
- 18 areas selected for individual columns
- Datasheets prepared for each unit on chart
- Chart designed and assembled in Adobe Illustrator
- Data compiled in an Access Database
- Chart revised to fit the ICS 2004 Time Scale
- Donation from Skip Curry for publication costs
- 2014 Chart published

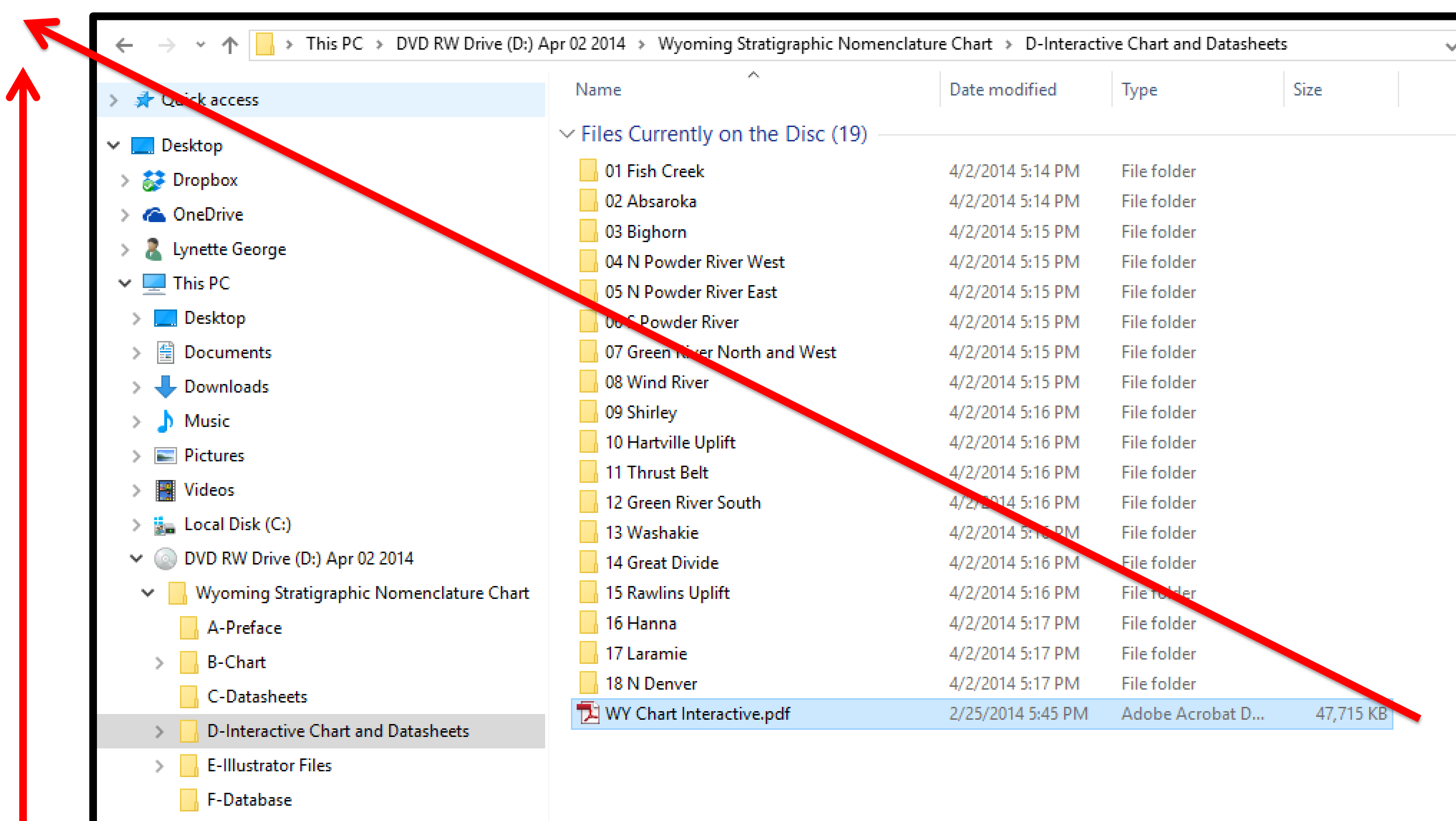






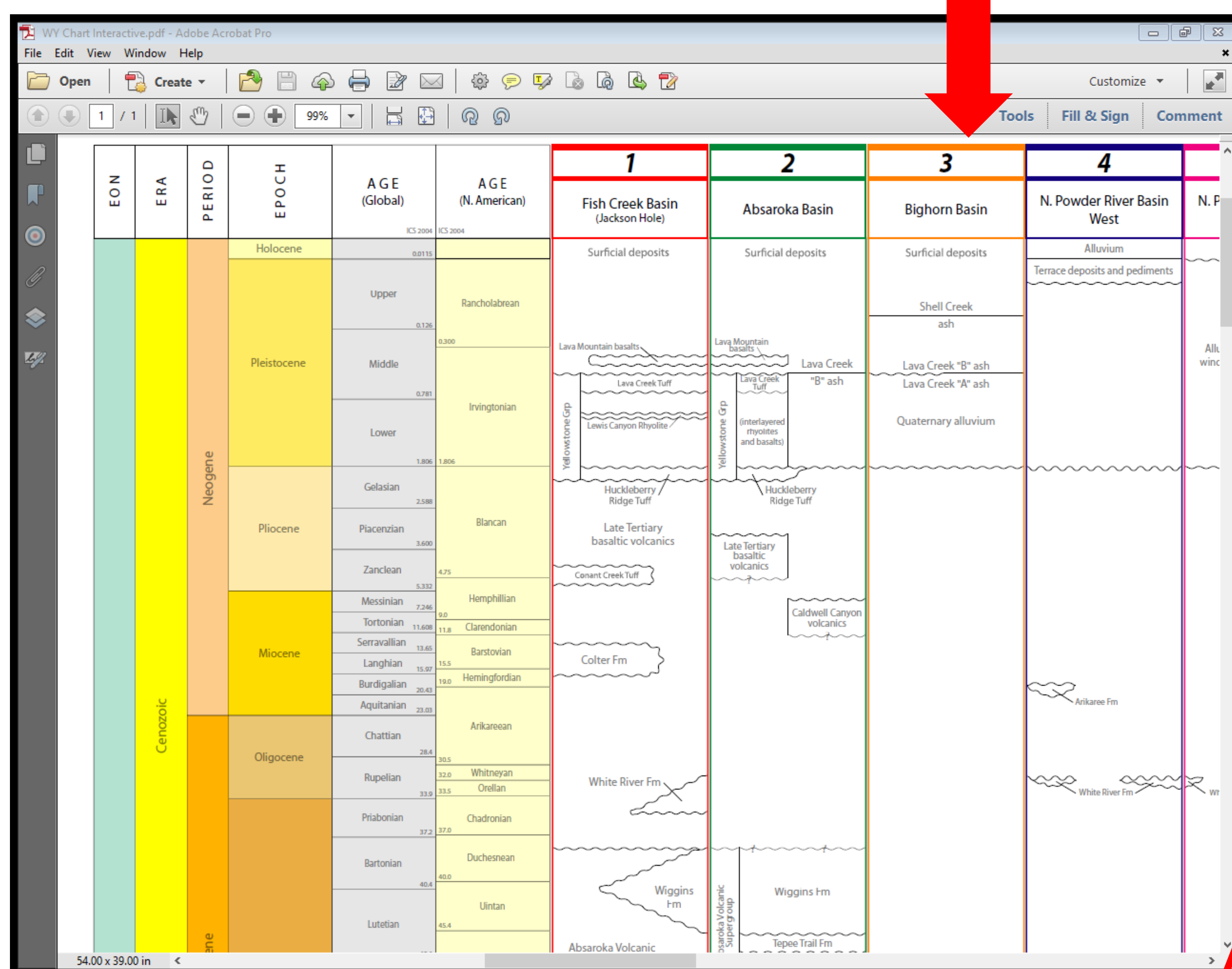
# Interactive Chart Example

1. Open Interactive Chart available on DVD
2. Go to ***Index Map***
3. Click on column number to move to the column on the chart
4. Slide down chart to unit of interest
5. Click on unit name to display datasheet
6. Navigate among datasheets
7. Return to index map by clicking on column number at the top or bottom of the chart



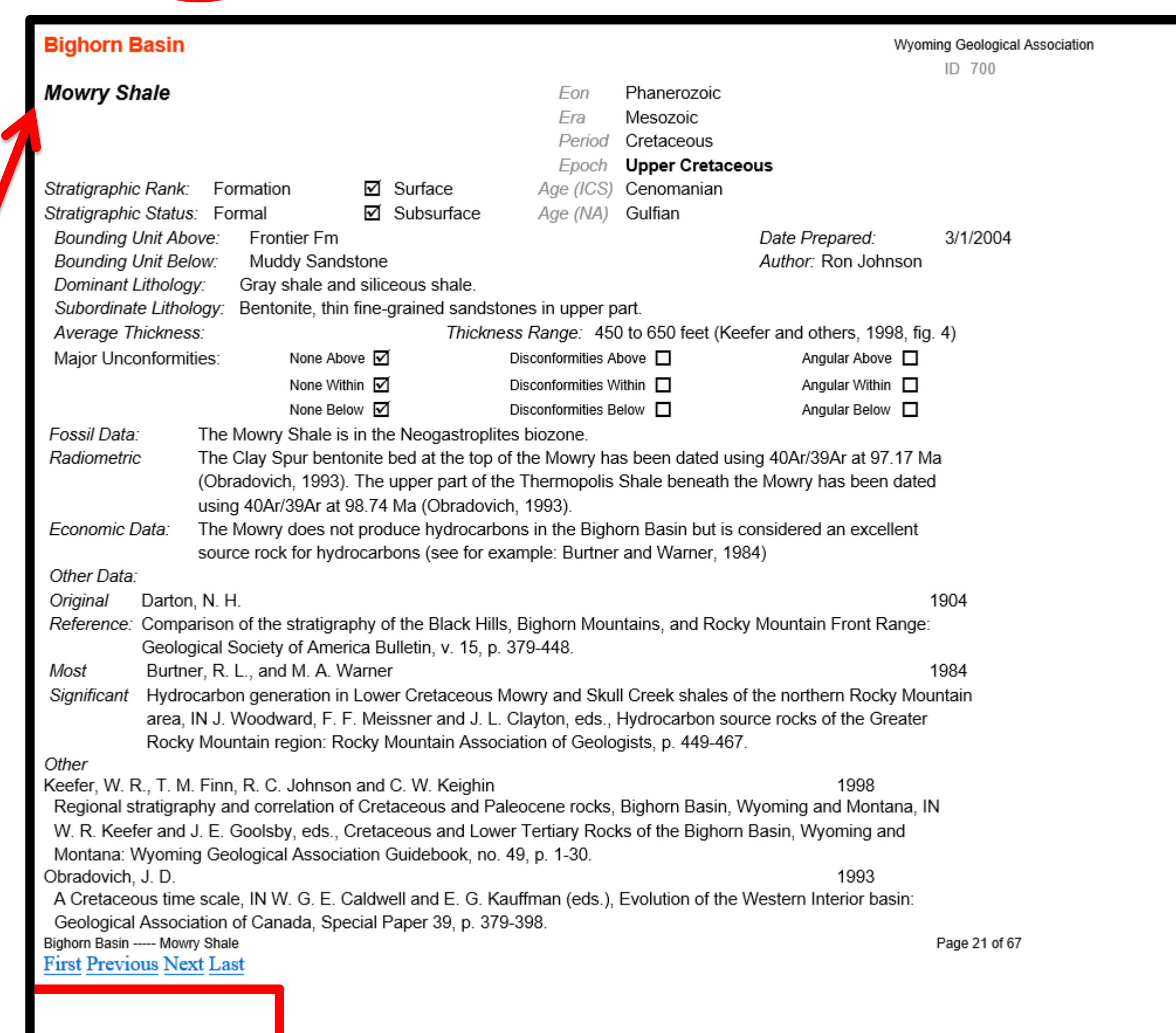
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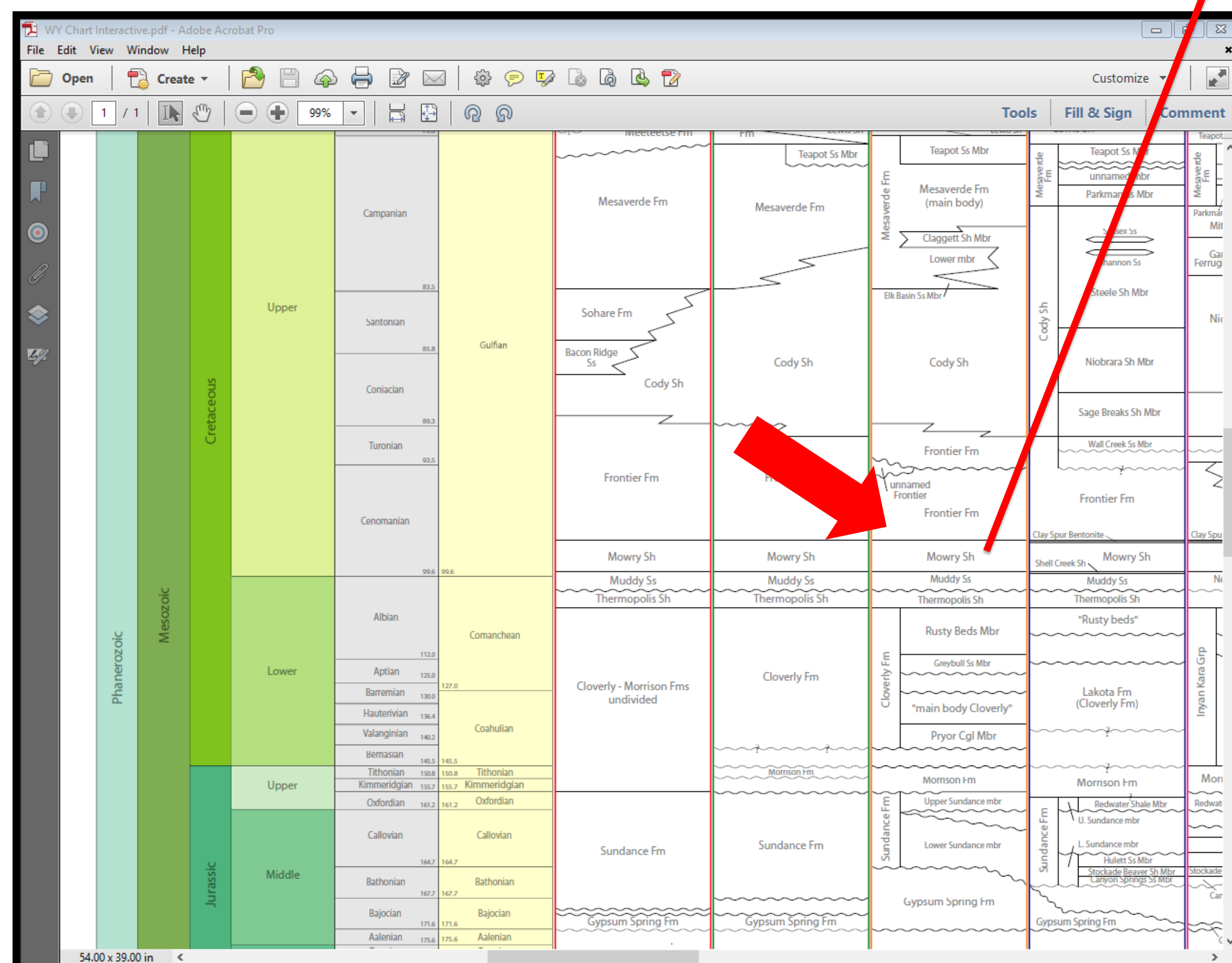
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Note the color of the column outline

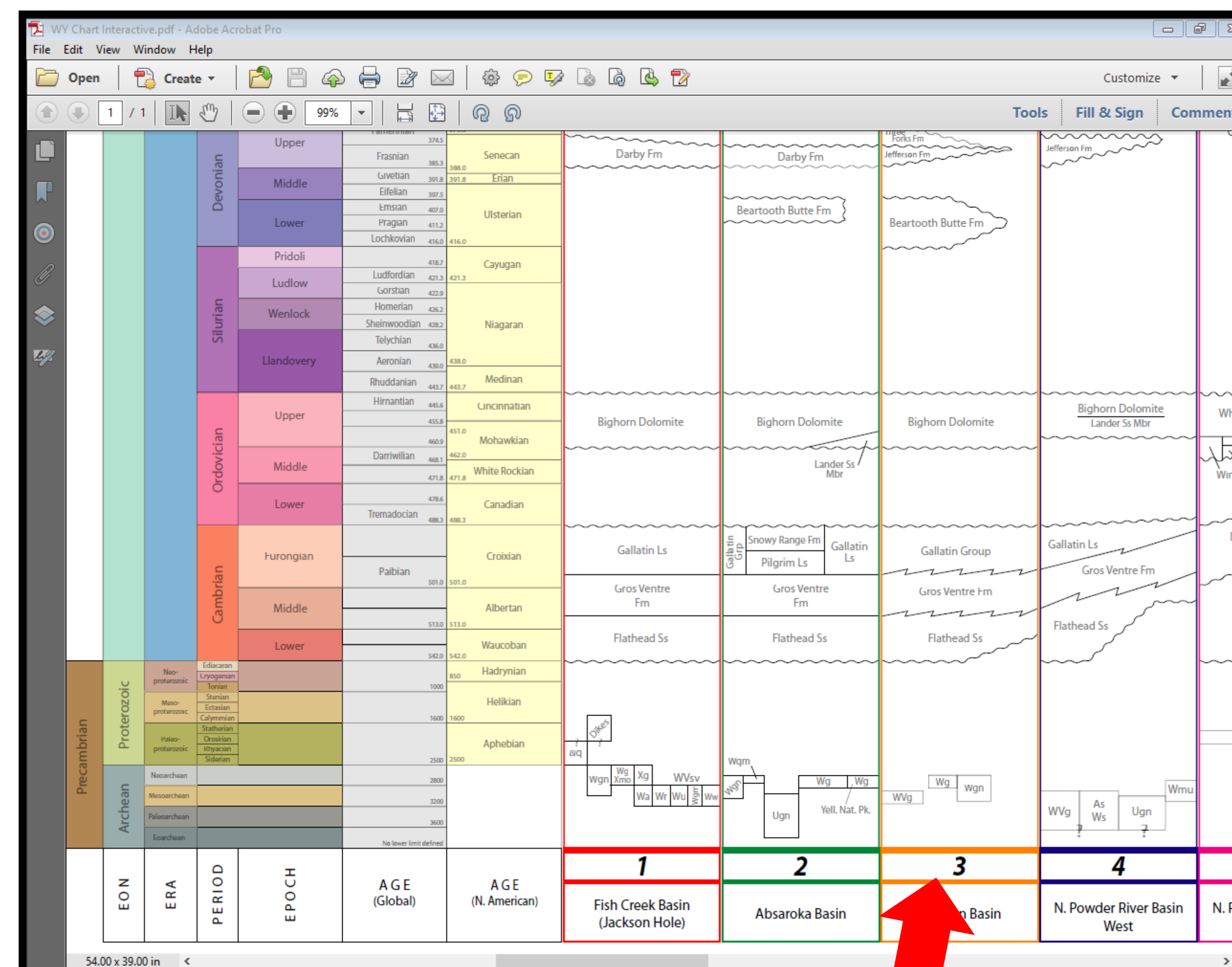


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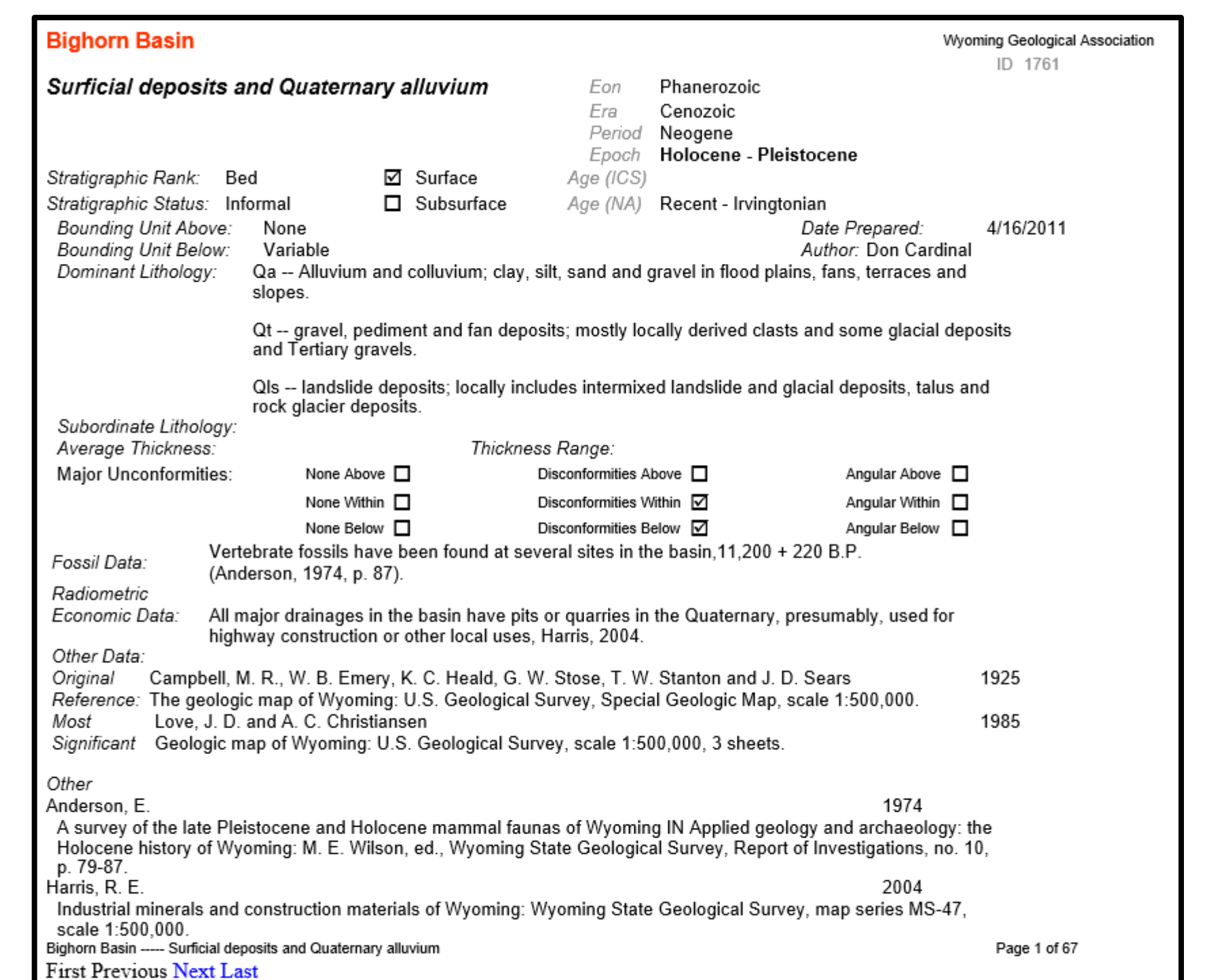
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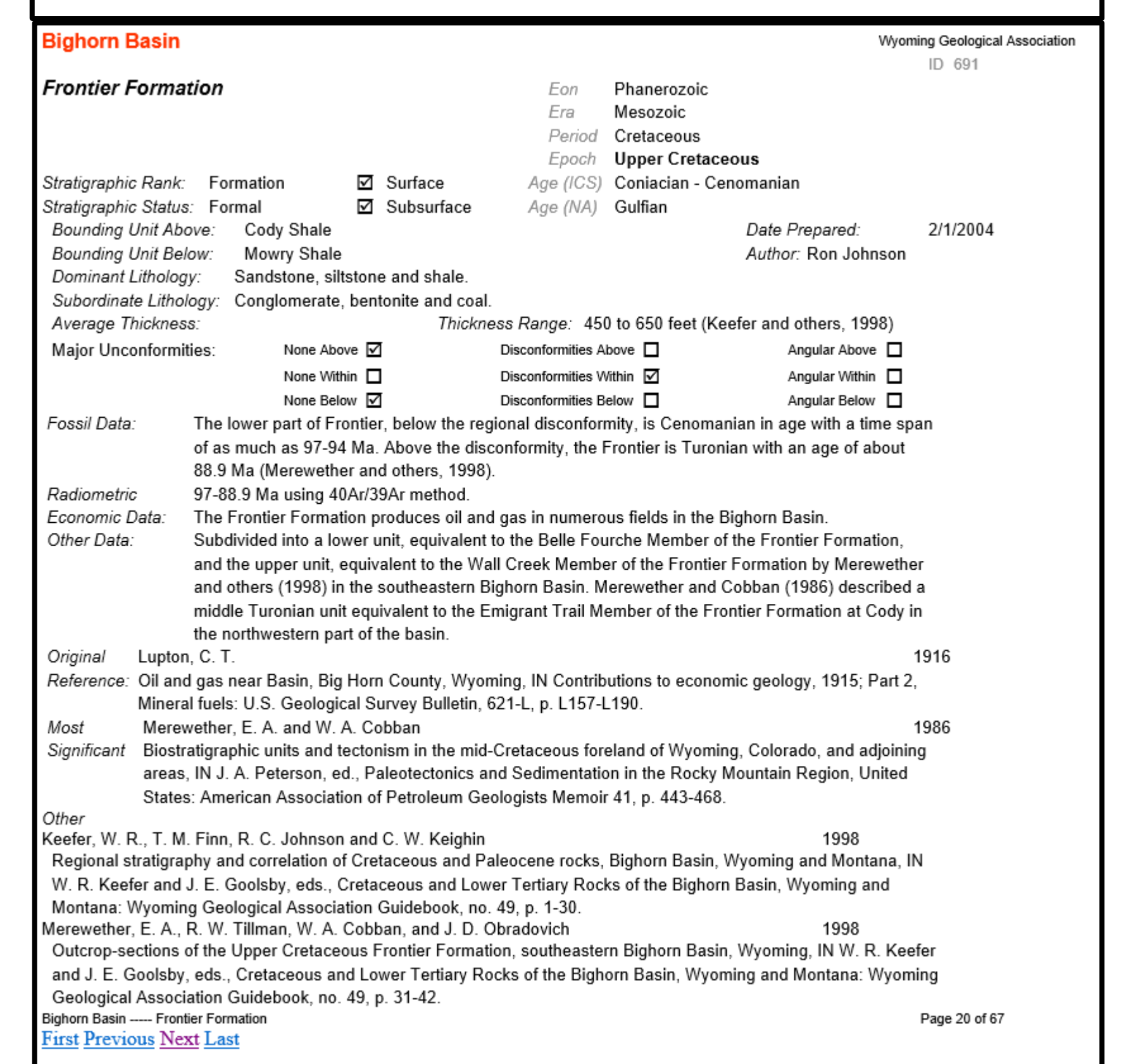
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## Last

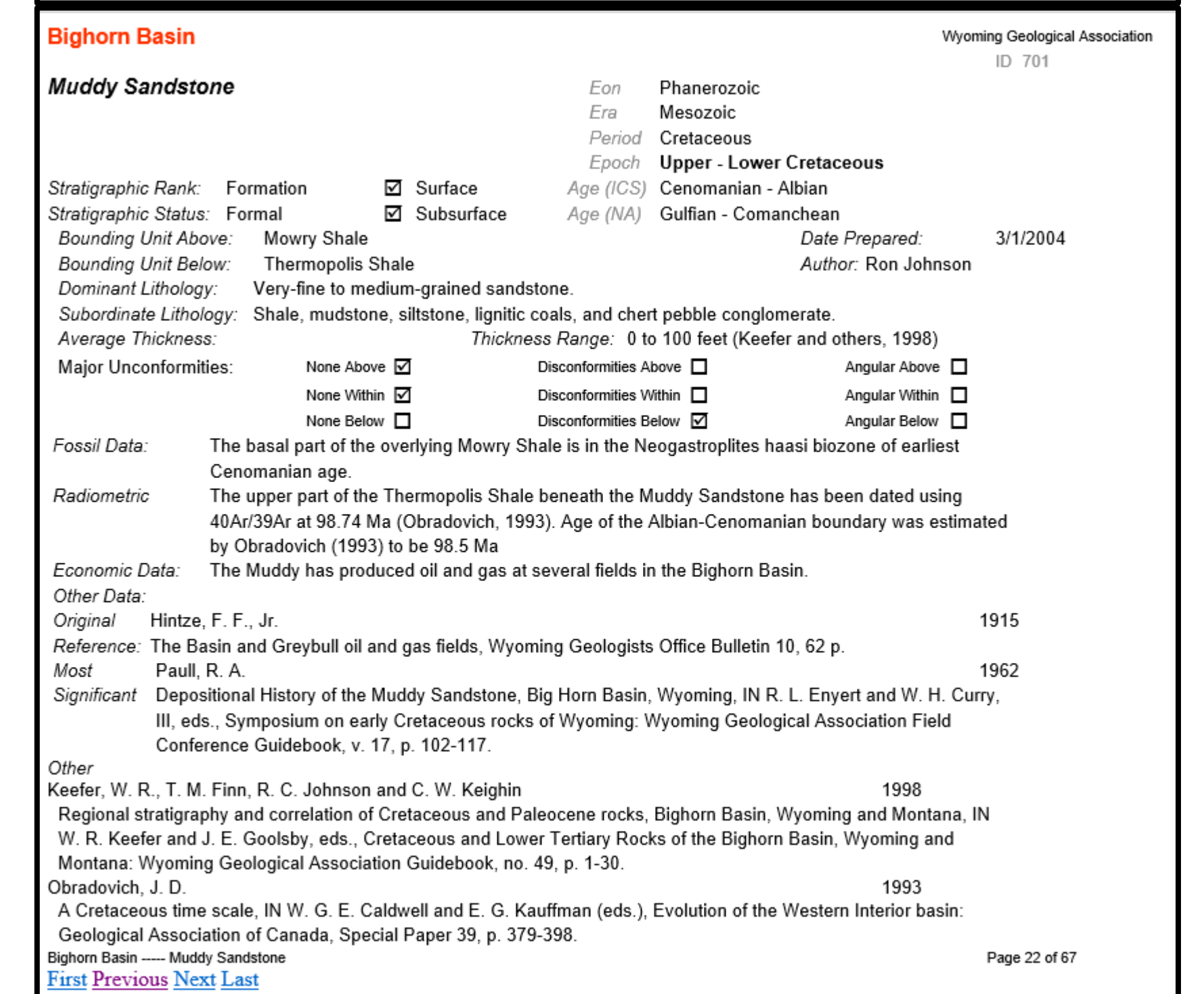
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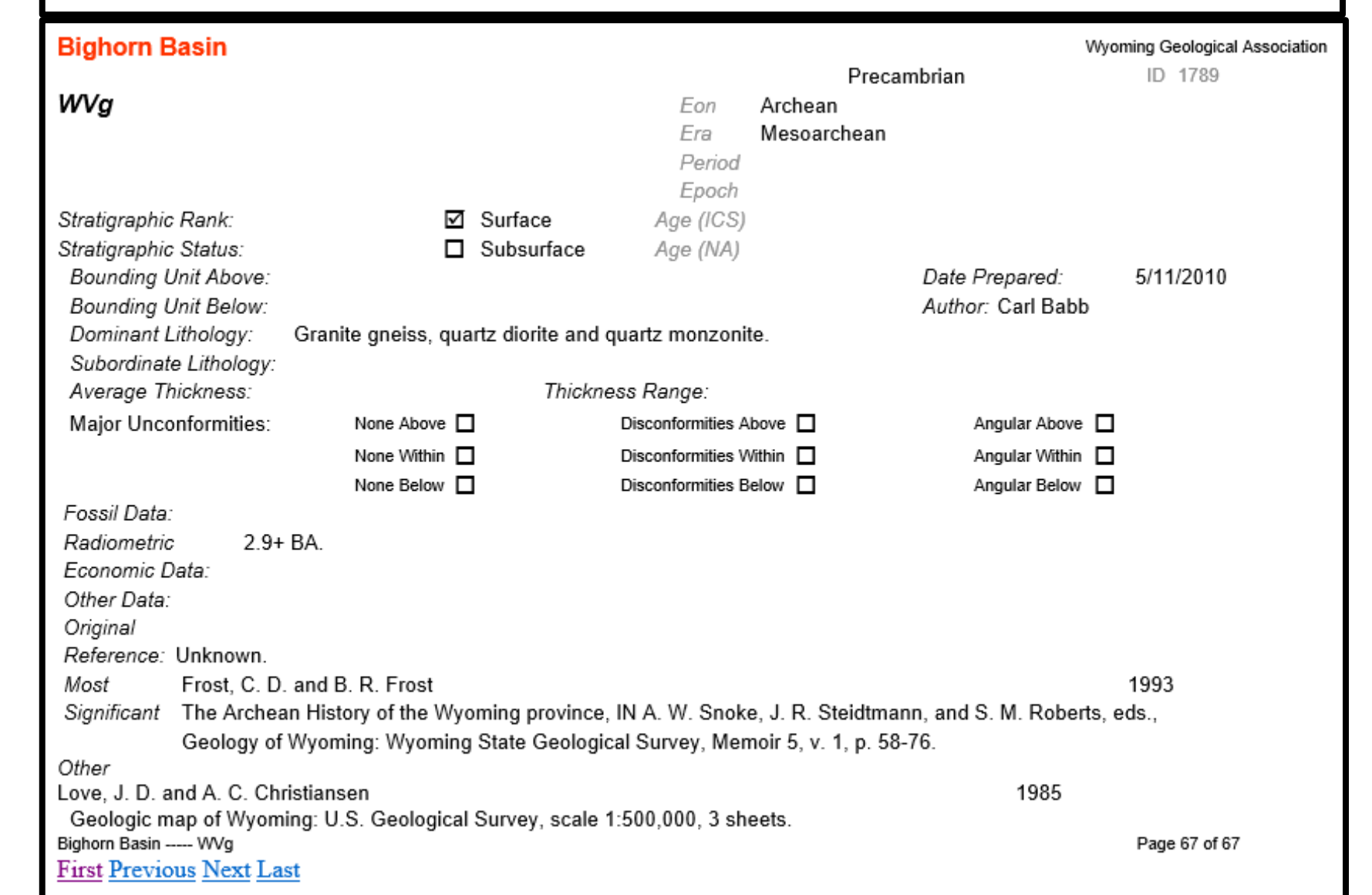
## First



(f)



Next



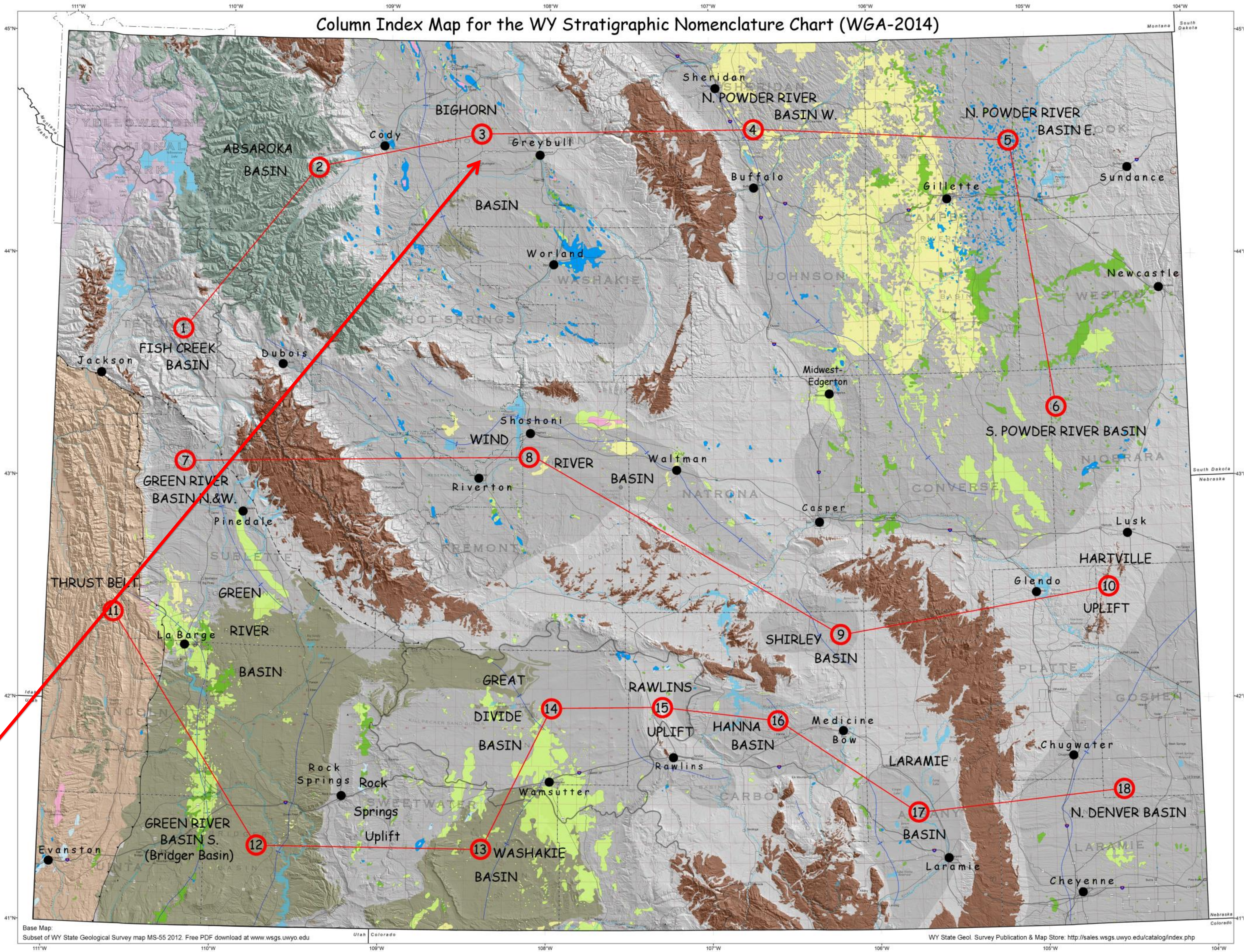
## Last



Example Formation



Mowry Shale  
Bighorn Basin  
T45N R88W Section 14



Columns and Authors

- |  |   |   |
|--|---|---|
| 1. Fish Creek Basin – <i>Kent Sundell</i>  | 6. S Powder River Basin – <i>Forest Twiford, Ray Harris, Don Cardinal</i> | 13. Washakie Basin – <i>Herb Waterman, Lyn George, Don Cardinal</i> |
| 2. Absaroka Basin – <i>Kent Sundell</i>  | 7. Green River Basin, N and W – <i>Doug Morton</i>                        | 14. Great Divide Basin – <i>Don Cardinal</i>                        |
| 3. Big Horn Basin -- <i>Woody Herrod and Ron Johnson</i>                                       | 8. Wind River Basin – <i>Jerry Bush</i>                                   | 15. Rawlins Uplift – <i>Don Lawson</i>                              |
| 4. N Powder River Basin West – <i>Terry Miller, Ralph Specht, Don Cardinal, Forest Twiford</i> | 9. Shirley Basin – <i>William Shields, Don Cardinal</i>                   | 16. Hanna Basin – <i>Don Lawson, Don Cardinal</i>                   |
| 5. N Powder River Basin East – <i>Terry Miller, Ralph Specht, Forest Twiford, Don Cardinal</i> | 10. Hartville Uplift – <i>Don Cardinal, Ray Harris</i>                    | 17. Laramie Basin – <i>Don Lawson, Don Cardinal</i>                 |
|  | 11. Thrust Belt – <i>Carl Babb</i>  | 18. N Denver Basin – <i>Andrew Finley</i>                           |
|  | 12. Green River Basin S – <i>Andrew Finley</i>                            |   |