



**UTAH GEOLOGICAL SURVEY**  
 a division of  
**Department of Natural Resources**  
 in cooperation with the National Park Service

Utah Geological Survey Open-File Report 443DM  
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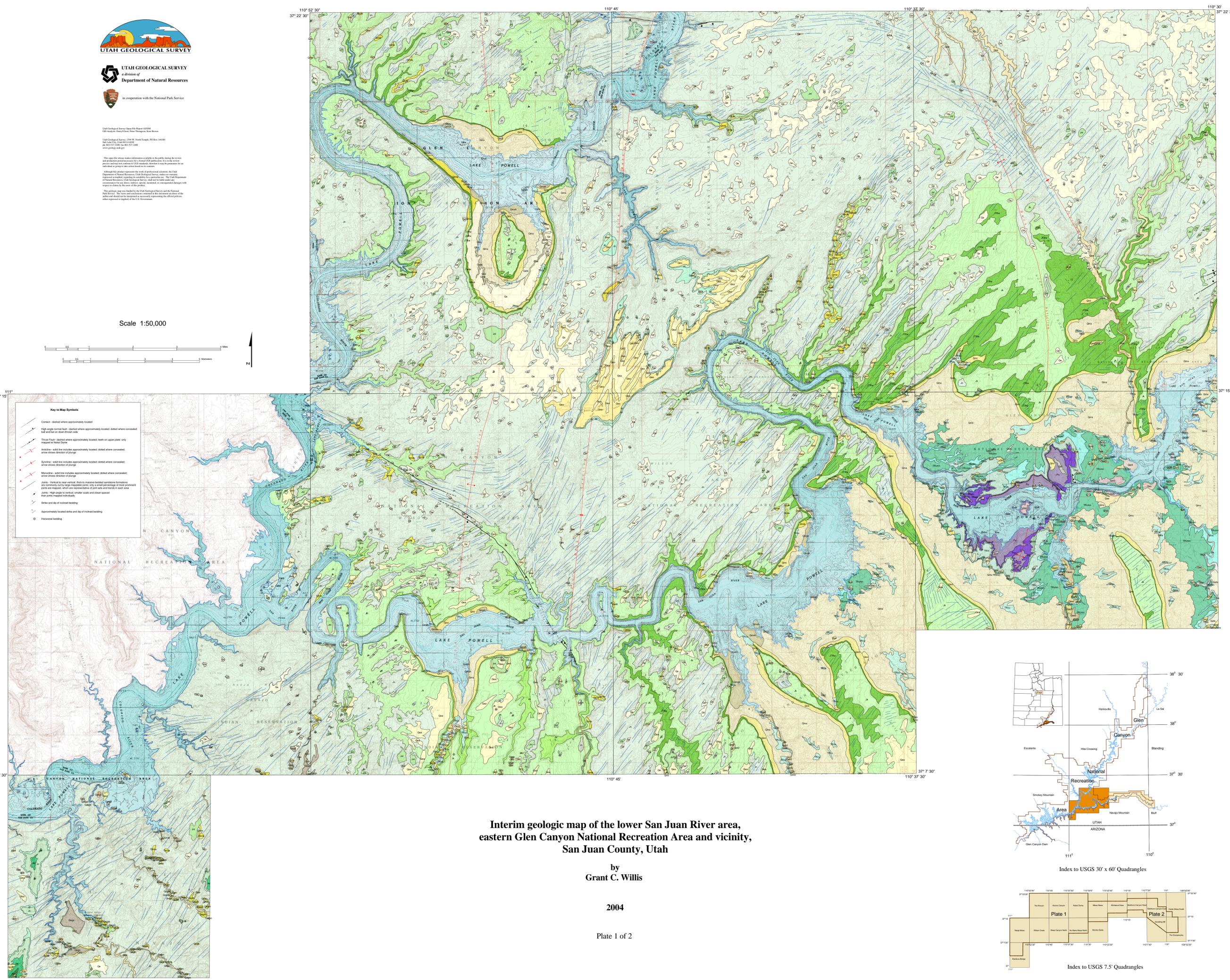
The geologic map was prepared by the Utah Geological Survey and the National Park Service. The data and conclusions contained in this document are those of the author and do not represent the views or opinions of the U.S. Government.

Scale 1:50,000



**Key to Map Symbols**

- Concentric dashed line: dashed where approximately located
- High-angle normal fault: dashed where approximately located, dashed where concealed, half and half on downthrown side
- Thrust fault: dashed where approximately located, both on upper plate only, stepped at fault core
- Anticline: solid line where approximately located, dashed where concealed, arrow shows direction of plunge
- Syncline: solid line where approximately located, dashed where concealed, arrow shows direction of plunge
- Monoche: solid line where approximately located, dashed where concealed, arrow shows direction of plunge
- Joints: vertical to near-vertical, thick to indicate bedded sandstone formations and approximately the major fracture zone, thin to indicate joint sets and trends in each area
- Strike-slip fault: vertical, smaller scale and closer spaced than joints
- Strike and dip of inclined bedding
- Approximately located strike and dip of inclined bedding
- Horizontal bedding

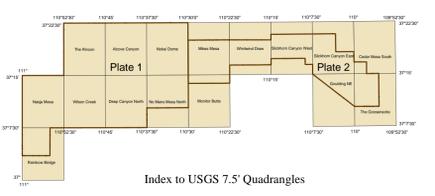
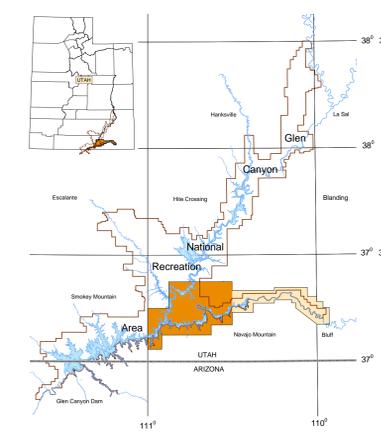


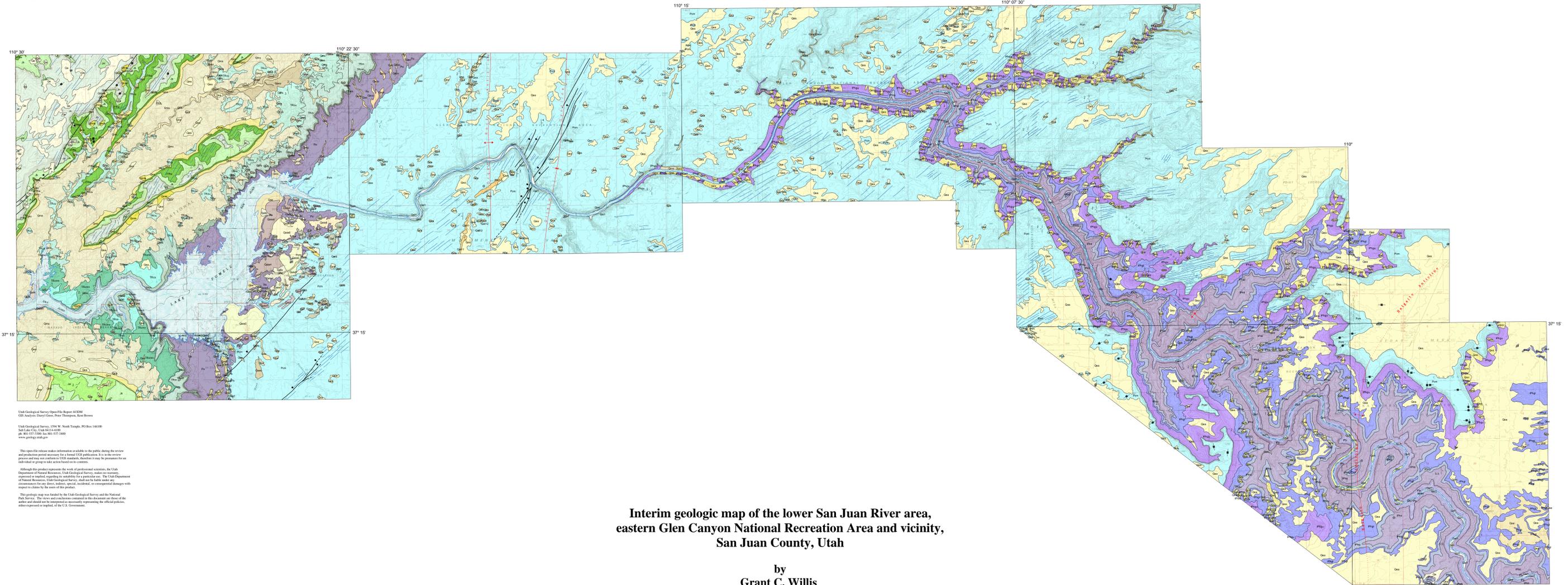
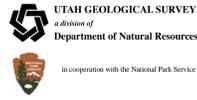
**Interim geologic map of the lower San Juan River area,  
 eastern Glen Canyon National Recreation Area and vicinity,  
 San Juan County, Utah**

by  
**Grant C. Willis**

**2004**

Plate 1 of 2





**Interim geologic map of the lower San Juan River area,  
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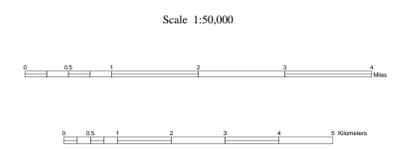
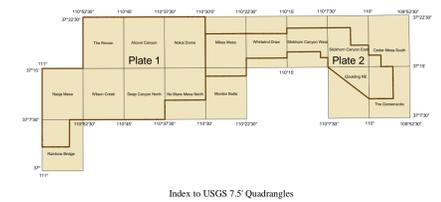
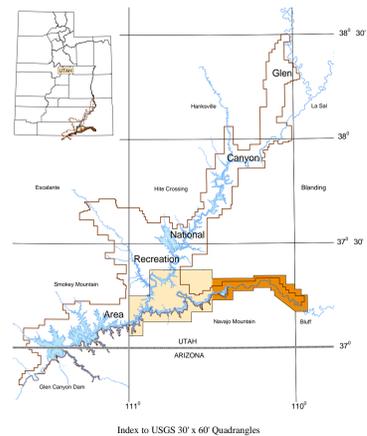
**2004**

Plate 2 of 2

Utah Geological Survey Open-File Report 4430M  
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This geologic map was funded by the Utah Geological Survey and the National Park Service. The views and conclusions contained in this document are those of the author and should not be interpreted as necessarily representing the official position, either expressed or implied, of the U.S. Government.



**Key to Map Symbols**

- Contact - dashed where approximately located
- High angle normal fault - dashed where approximately located, dotted where concealed, solid where exposed
- Thrust Fault - dashed where approximately located, solid where concealed, solid where exposed
- Faultline - solid line indicates approximately located, dotted where concealed, solid where direction of plunge
- Strike-slip - solid line indicates approximately located, dotted where concealed, solid where direction of plunge
- Joints - vertical or near-vertical lines in resistant bedded formations are commonly not to large scale maps, only a small percentage of their permanent joints are mapped, which are representative of joint sets and trends in each area
- Joints - high angle to vertical, smaller scale and closer spaced than joints mapped on this map
- Sinks and dip of inclined bedding
- Approximately located strike and dip of inclined bedding
- Horizontal bedding