

Chapter WM

LAND USE AND OWNERSHIP,
WILLISTON BASIN

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EXPLANATION OF CULTURAL INFORMATION

Roads—These are selected roads from USGS 1:2,000,000-scale digital line graphs (DLG). These contain two types of roads.

Interstate—These are major roads that are part of the national interstate system.

Highway—These include State and other highways.

Railroads—These are railroads from USGS 1:2,000,000-scale digital line graphs (DLG).

City/Towns—These features represent general locations of cities and towns in the basin.

Latitude/Longitude Tic Marks—These tics show locations of key parallels and meridians that pass through the basin.

Bowman-Dickinson Coal Field (Beulah-Zap Coal Zone) The estimated outcrop and extent of the Beulah-Zap coal zone.

Center-Falkirk Coal Field (Hagel Coal Zone) The estimated outcrop and extent of the Hagel coal zone.

Beulah Coal Field (Harmon-Hansen Coal Zone) The estimated extent of the Harmon and Hansen coal zones derived from isopach coal thickness lines.

MAP INFORMATION FOR THE WILLISTON BASIN LAND USE AND LAND COVER MAP

Sources—U.S. Geological Survey (USGS), Land Use and Land Cover Geographical Information Retrieval and Analysis System (GIRAS) files. 1:250,000 scale. The original maps were compiled from data collected between 1972 and 1979. Land Use and Land Cover Digital Data from 1:250,000 and 1:100,000 Scale Maps, Data Users Guide. 1990. Reston, Virginia. A complete description of these files can be obtained from the USGS at <http://edcwww.cr.usgs.gov/doc/edchome/ndcddb/ndcddb.html>
See figure **WM-1**.

Description—The land use and land cover maps were simplified from their original format for increased readability. The narrowly defined categories were grouped into the following categories:

Agriculture—This category includes cropland, pastures, hay fields, and other agriculture.

Barren Land—This category includes sandy areas, bare rock, and/or bare ground.

Forest—This category includes deciduous and/or evergreen forest land.

Rangeland—This category includes shrub, brush, and/or herbaceous rangeland.

Urban/Industrial—This category includes residential, commercial, and/or industrial land uses.

Water—This category includes rivers, streams, and lakes.

MAP INFORMATION FOR THE WILLISTON BASIN SUBSURFACE OWNERSHIP MAP

Sources—Surface ownership data were compiled from three sources of varying scales, accuracy, and attributes.

The digital data for the Montana part of the basin were digitized and attributed by the Montana BLM Office. The source maps were 1:24,000-scale ownership maps created by the BLM.

The digital data for the North Dakota part of the basin near Roosevelt National Park were digitized and attributed by the Montana BLM Office. The source maps were 1:24,000-scale ownership maps created by the BLM.

The digital data for the North Dakota part of the basin surrounding Roosevelt National Park digitized and attributed by the USGS Energy Team. The source map was the 1:500,000-scale map prepared by the BLM. This map is titled "Minerals Management for the State of Montana, Northern Great Plains Resources Program, 1974."

See figure [WM-2](#).

Description—This graphic is intended to give an overview of subsurface areas managed by Federal agencies within the Williston Basin. The specific Federal management agencies were not identified, due to the lack of differentiation in the 1:500,000-scale BLM map. An explanation of the legend items are given below.

Federal All Minerals—The federal government owns the rights to all minerals. This includes coal, oil, gas and other mineral rights.

Federal Coal—The federal government owns the rights to coal minerals only.

Federal Other Minerals—The government owns mineral rights not listed. These mineral rights may include oil and gas rights.

No Federal Minerals—The federal government did not own subsurface mineral rights at the time the data were compiled.

MAP INFORMATION FOR THE WILLISTON BASIN SURFACE OWNERSHIP MAP

Sources—Surface ownership data were compiled from three sources of varying scales, accuracy, and attributes.

The digital data for the Montana part of the basin were digitized and attributed the Montana BLM Office. The source maps were 1:24,000-scale ownership maps created by the BLM.

The digital data for the North Dakota part of the basin near Roosevelt National Park were digitized and attributed by the Montana BLM Office. The source maps were 1:24,000-scale ownership maps created by the BLM.

The digital data for the North Dakota part of the basin surrounding Roosevelt National Park digitized and attributed by the USGS Energy Team. The source map was the 1:500,000-scale map prepared by the BLM. This BLM map is titled "Minerals Management for the State of Montana, Northern Great Plains Resources Program, 1974."

See figure [WM-3](#).

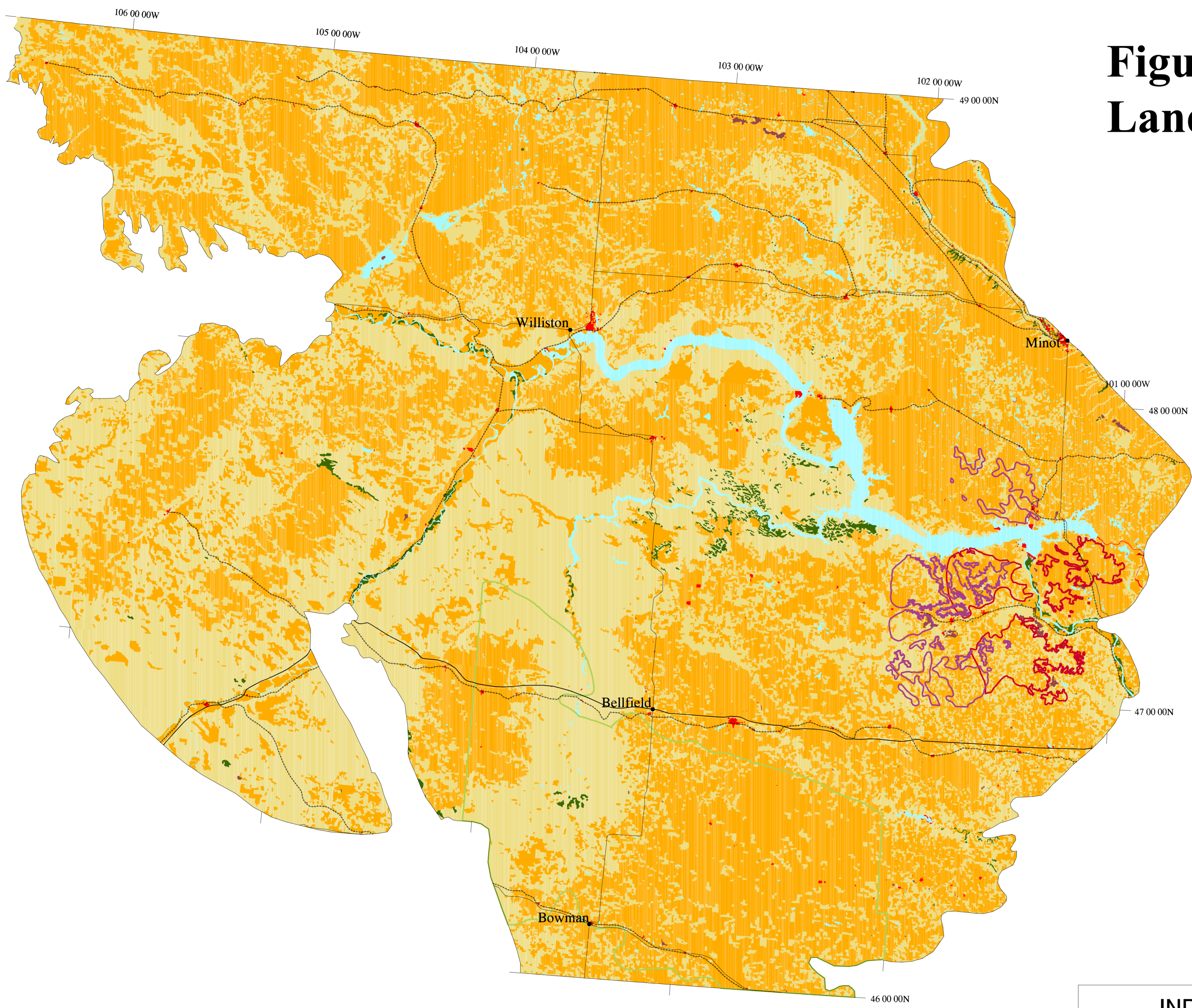
Description—This graphic is intended to give an overview of surface areas managed by Federal agencies within the Williston Basin. The specific Federal management agencies were not identified, due to the lack of differentiation in the 1:500,000-scale BLM map. An explanation of the legend items are given below.

Federal Ownership—Lands administered by the U.S. Bureau of Land Management, the U.S. Forest Service, the U.S. National Park Service, the U.S. Fish and Wildlife Service, and the U.S. Department of Defense.

Federally Acquired Lands—These lands are typically composed of Bankhead-Jones Lands managed by the U.S. Forest Service or the BLM.

Non Federal Lands—These lands are composed of private, state, or Indian reservations.

Figure WM-1. Land Use and Land Cover Williston Basin



LEGEND

- Agricultural Land
- Barren Land
- Forests
- Rangeland
- Urban / Industrial
- Water
- Interstates
- Highways
- Railroads
- City / Town
- Bowman-Dickinson Coalfield (Harmon-Hansen Coal Zone)
- Center-Falkirk Coalfield (Hagel Coal Zone)
- Beulah Coalfield (Beulah-Zap Coal Zone)

0 10 20 30 40 50 Miles

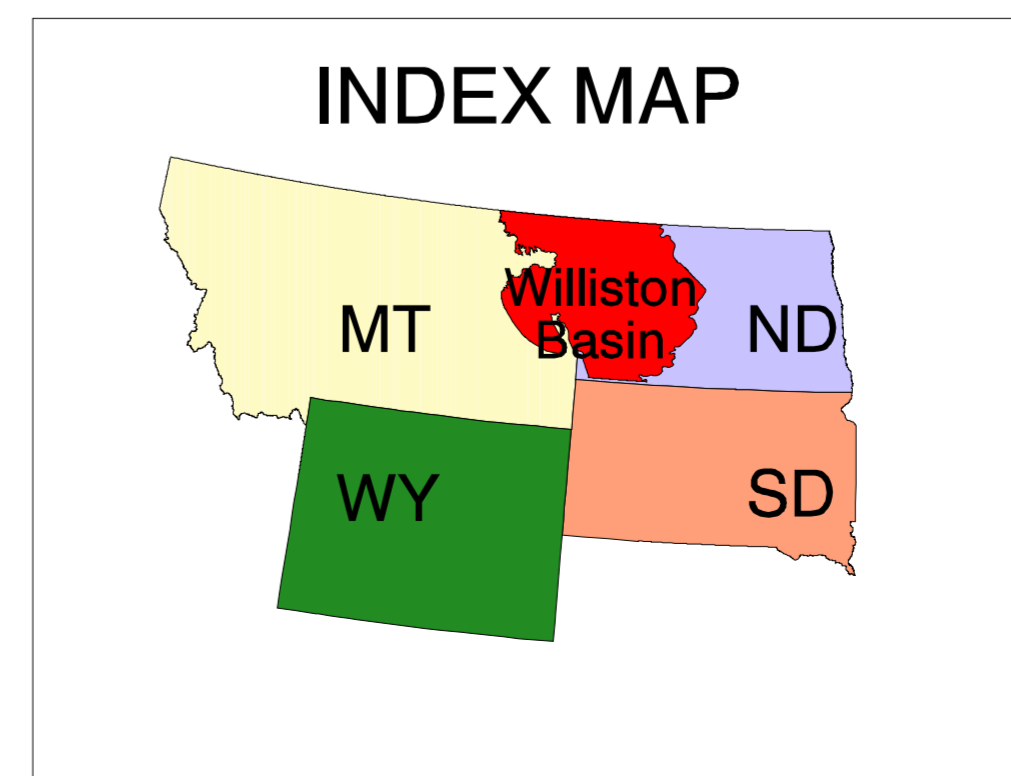
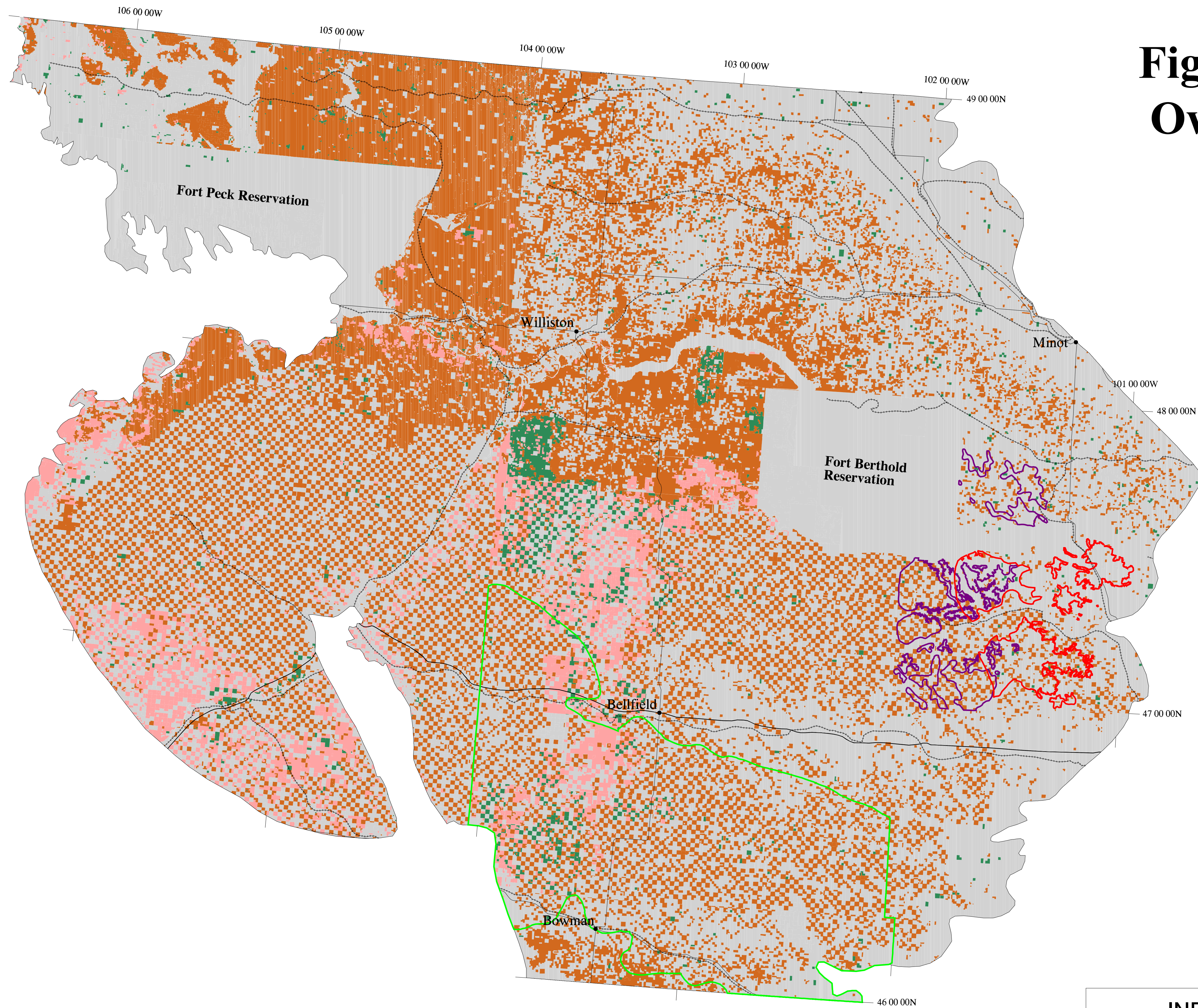


Figure WM-2. Subsurface Ownership Williston Basin



LEGEND

- Federal All Minerals
- Federal Coal
- Federal Other Minerals
- No Federal Minerals
- Interstate
- Other U.S. highway
- Railroads
- City / Town
- Bowman-Dickinson Coalfield (Harmon-Hansen Coal Zone)
- Center-Falkirk Coalfield (Hagel Coal Zone)
- Beulah Coalfield (Beulah-Zap Coal Zone)

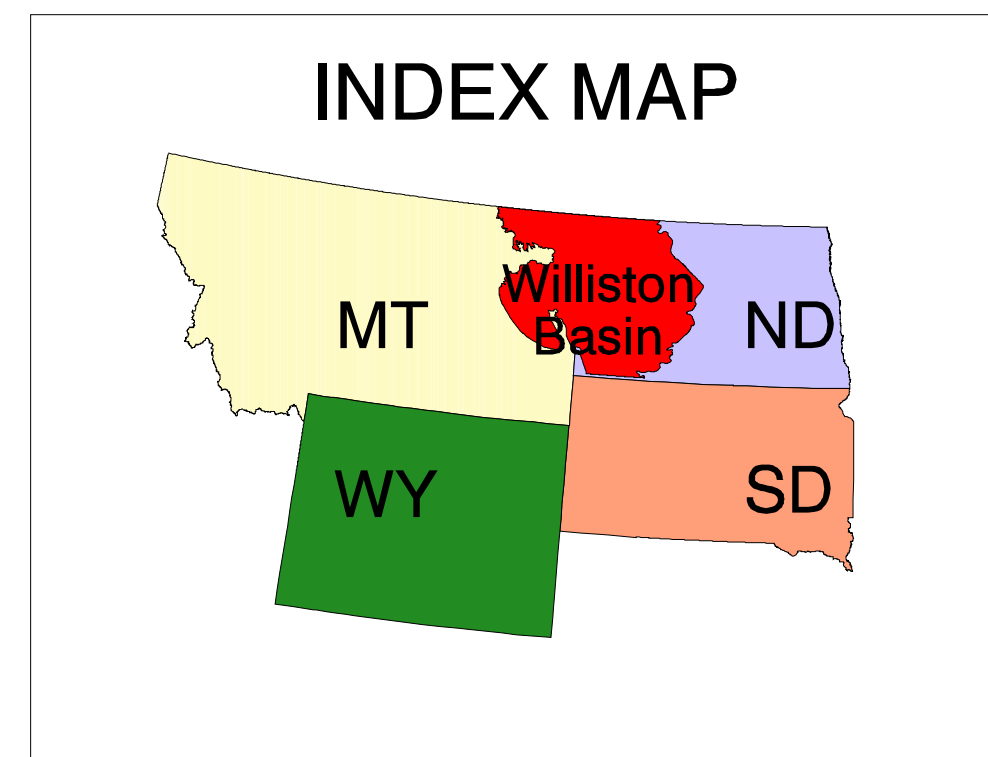
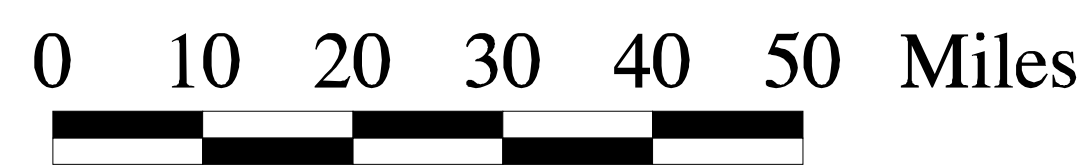
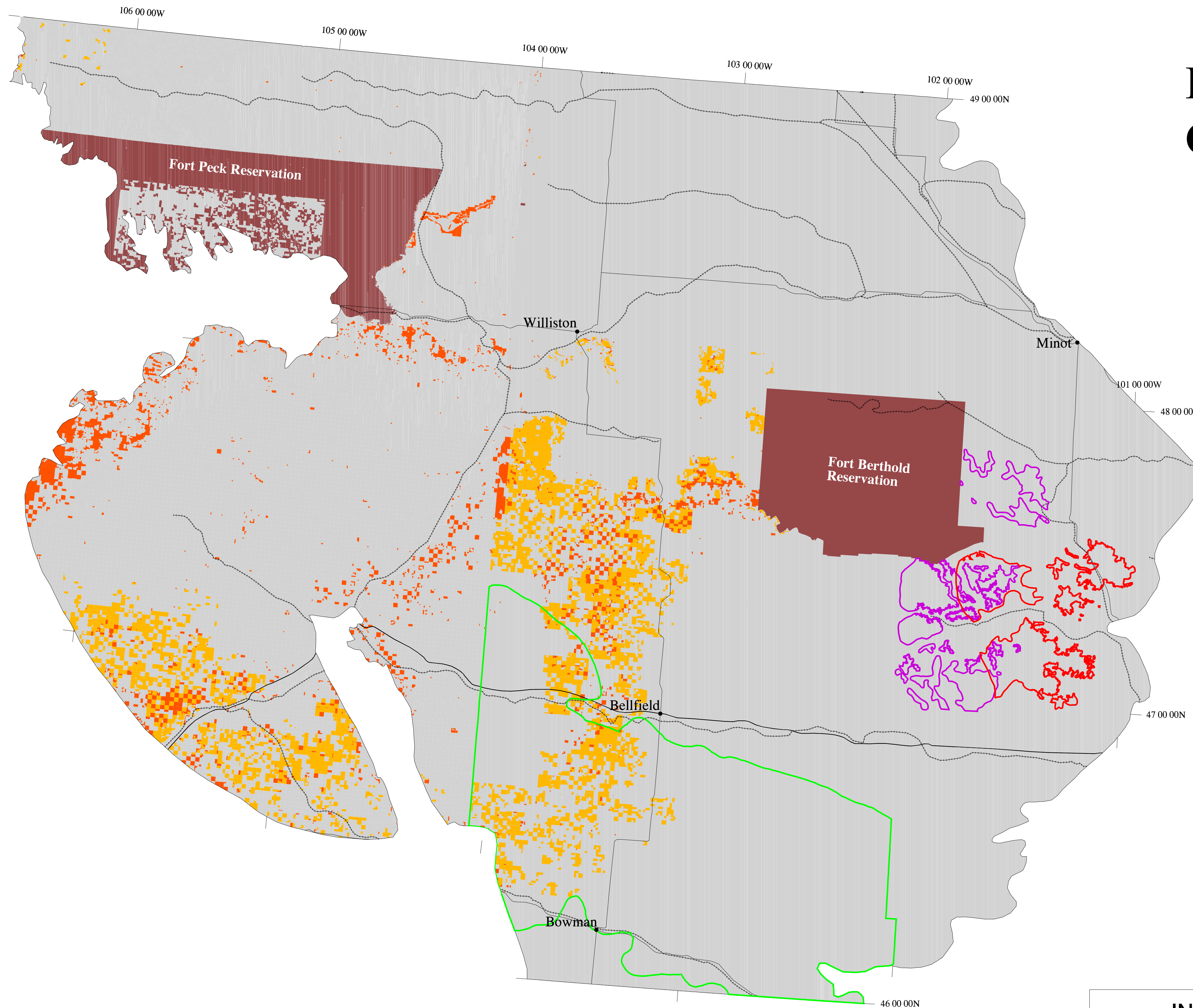


Figure WM-3. Surface Ownership Williston Basin



LEGEND

- Federal Lands
- Federal Acquired Lands
- Reservations
- Other Lands
- Interstate Highway
- Highway
- Railroad
- City / Town
- Bowman-Dickinson Coalfield (Harmon-Hansen Coal Zone)
- Center-Falkirk Coalfield (Hagel Coal Zone)
- Beulah Coalfield (Beulah-Zap Coal Zone)

