

**MONTANA BOARD OF OIL AND GAS
CONSERVATION
and
OIL AND GAS CONSERVATION
DIVISION**

BOARD MEMBERS

**Linda Nelson (Chair)
Landowner w/minerals
Medicine Lake**

**Ronald Efta
Public member/Attorney
Wibaux MT**

**Wayne Smith
Industry
Valier MT**

**John Evans
Industry
Butte MT**

**Steve Durrett
Industry
Billings MT**

**Paul Gatzemeier
Landowner without minerals
Billings MT**

**Peggy Ames Nerud
Public
Circle MT**



Oil and Gas Division:

- Issues drilling, work over, abandonment permits
- Maintains well and production data
- Operates Underground Injection Control program
- Inspects drilling, producing and seismic operations
- Plugs orphan wells
- Provides technical/procedural advice to the Board

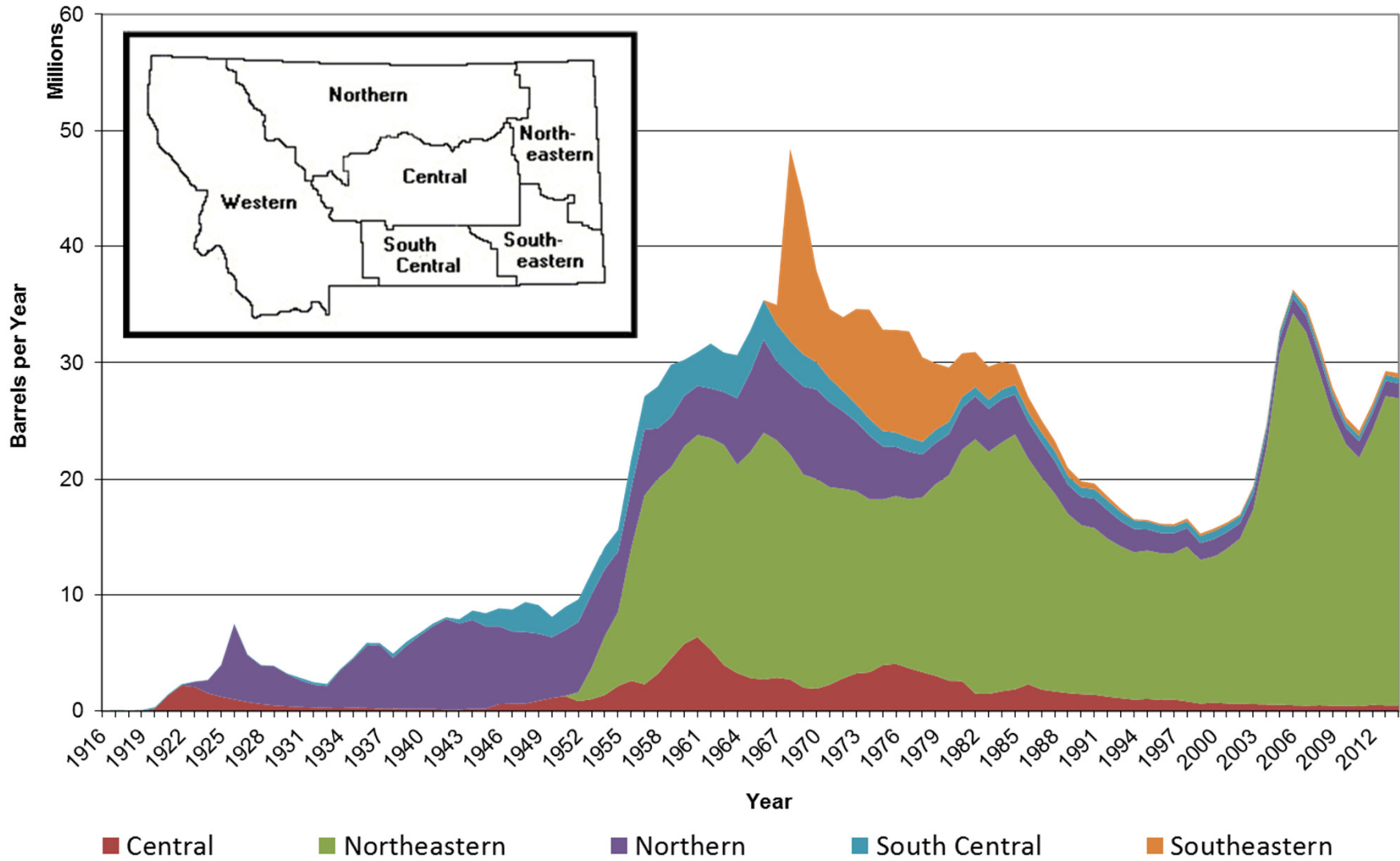
“Conservation” Regulations

- Conservation by Promoting Maximum Ultimate Recovery
- Prevent Physical and Economic Waste
- Protect the Correlative Rights of Owners

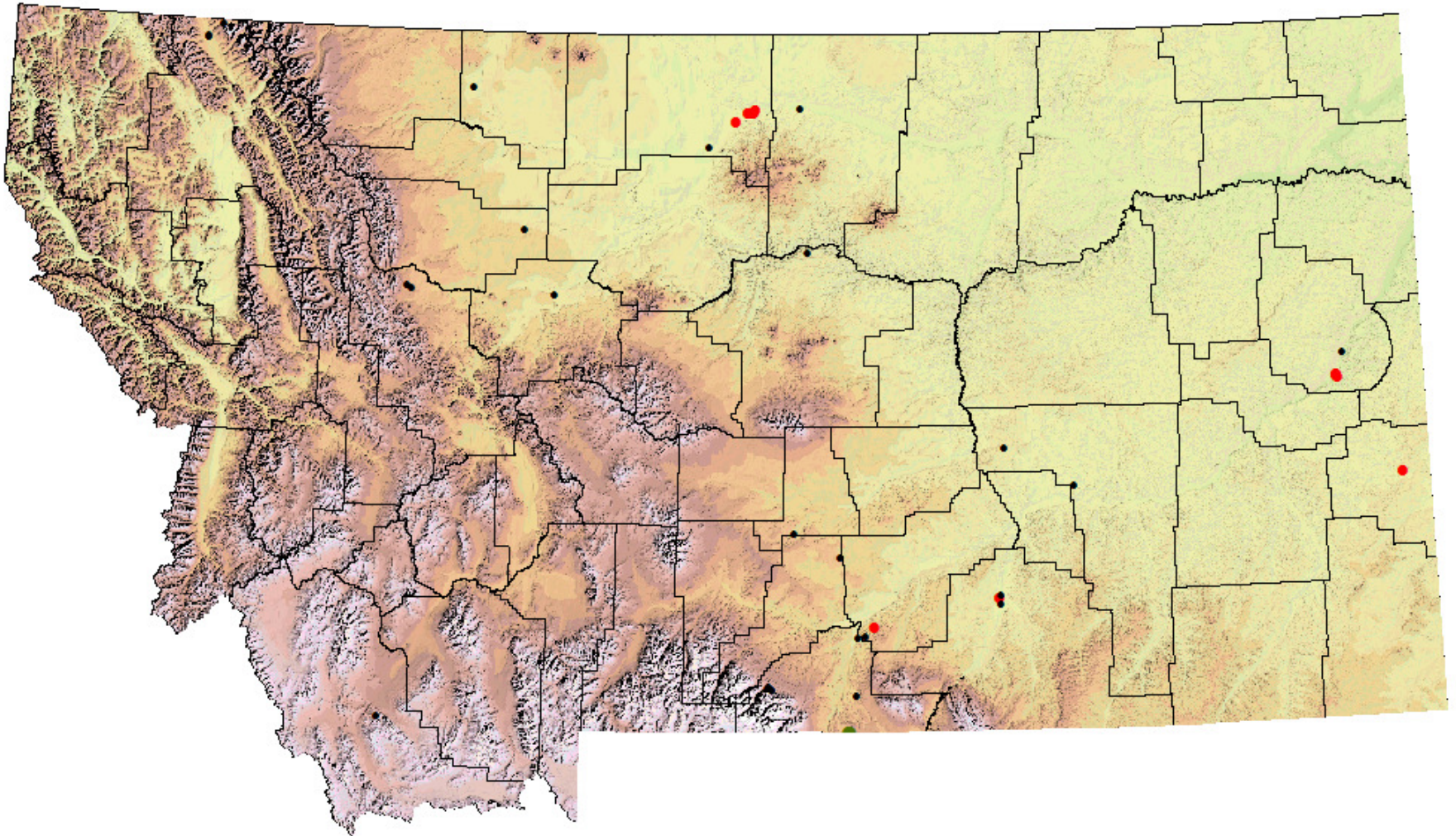
Operating Regulations

- Protect Public Safety and Health
- Protect the environment
- Maintain Production Data and Well Records

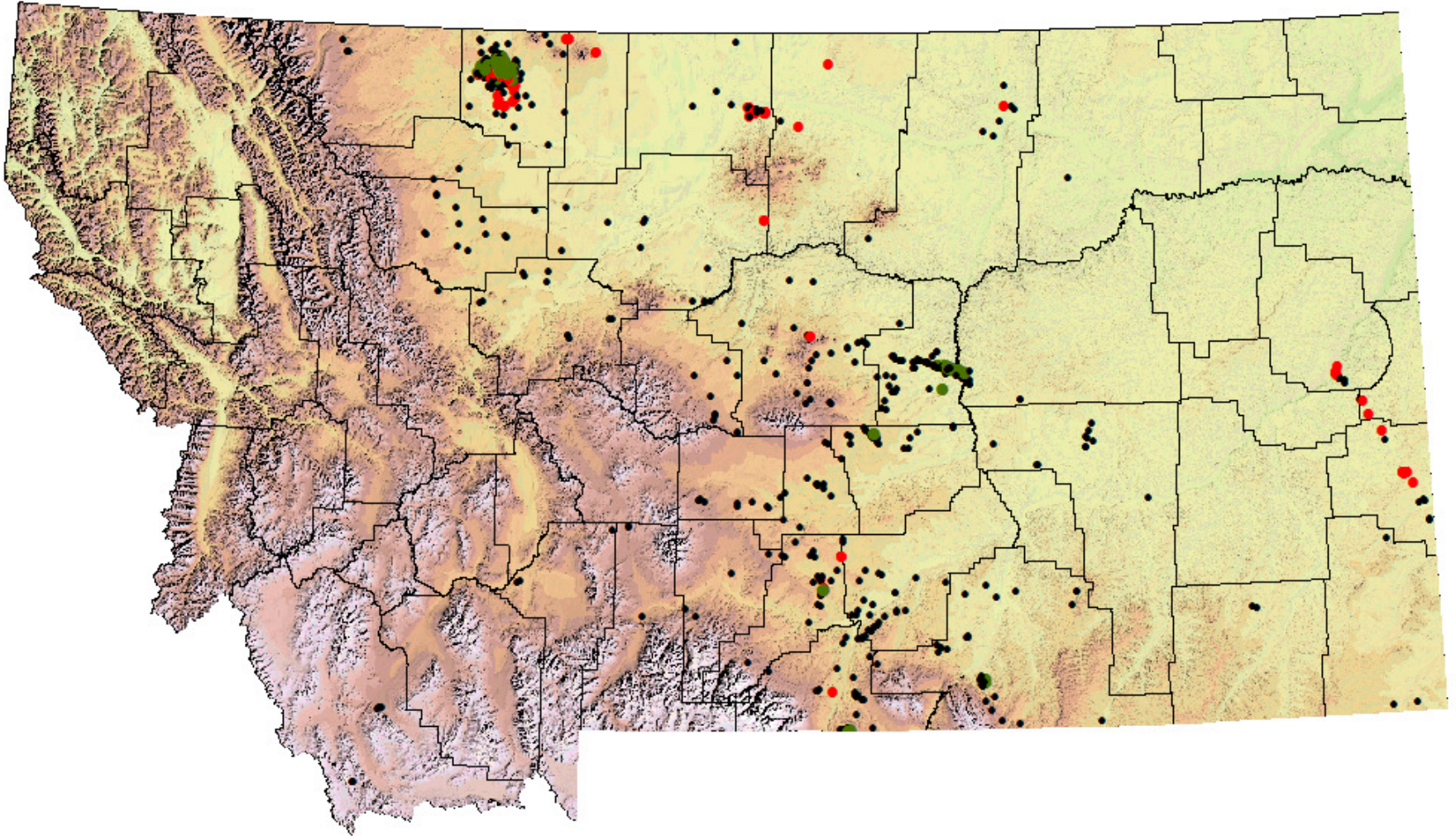
Crude Oil Production



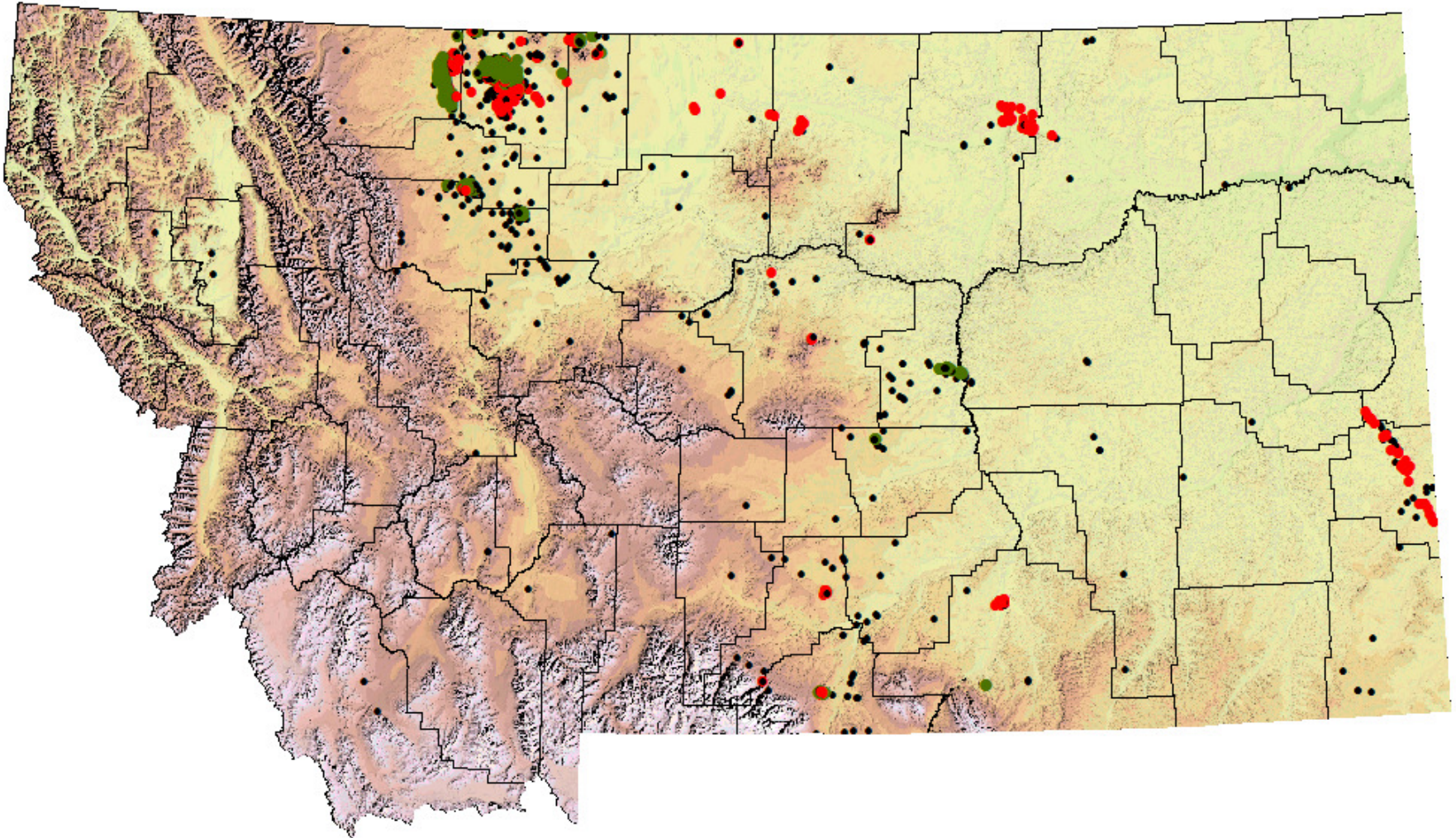
Completions, 1880 - 1915



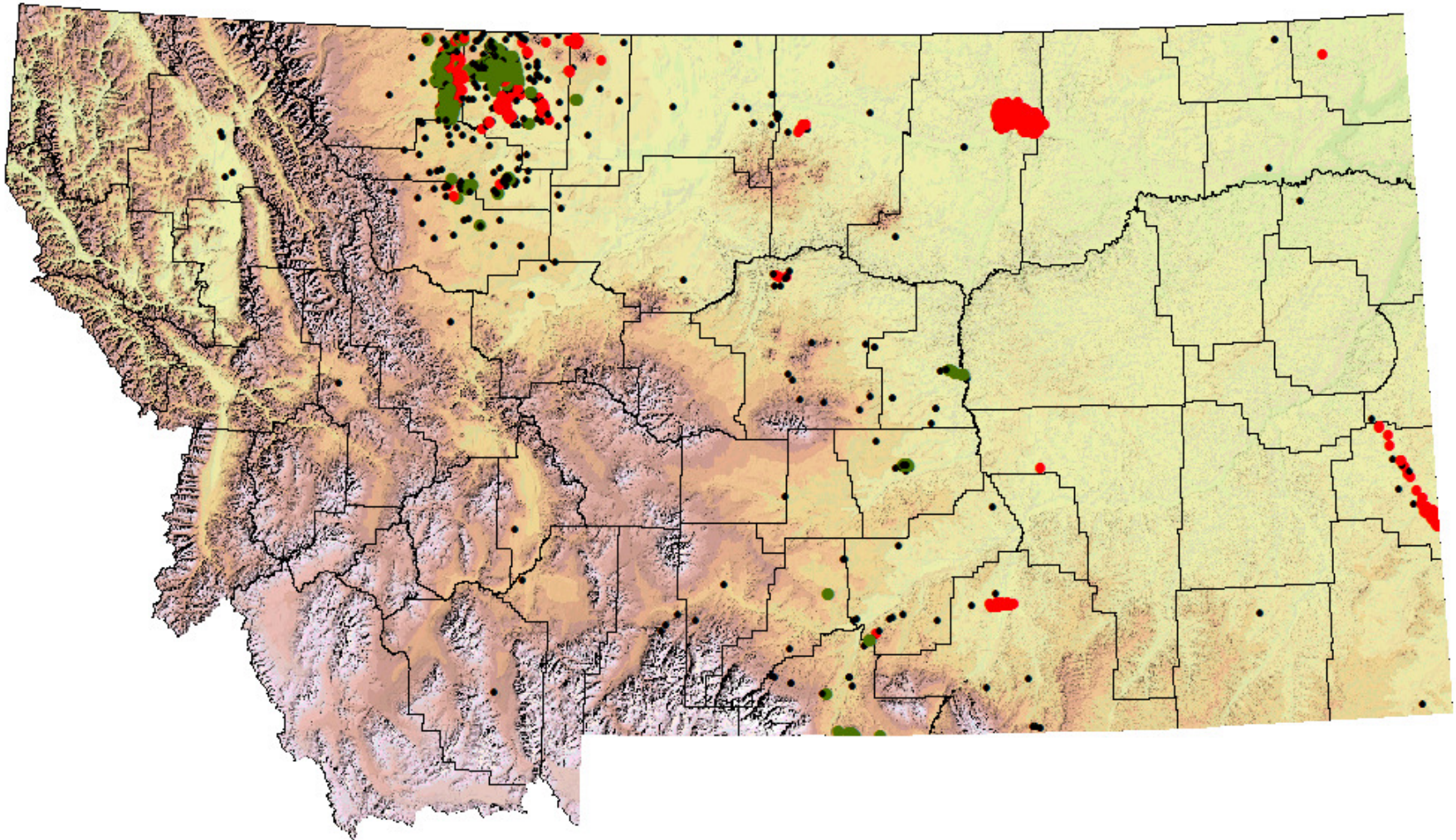
Completions, 1916 - 1925



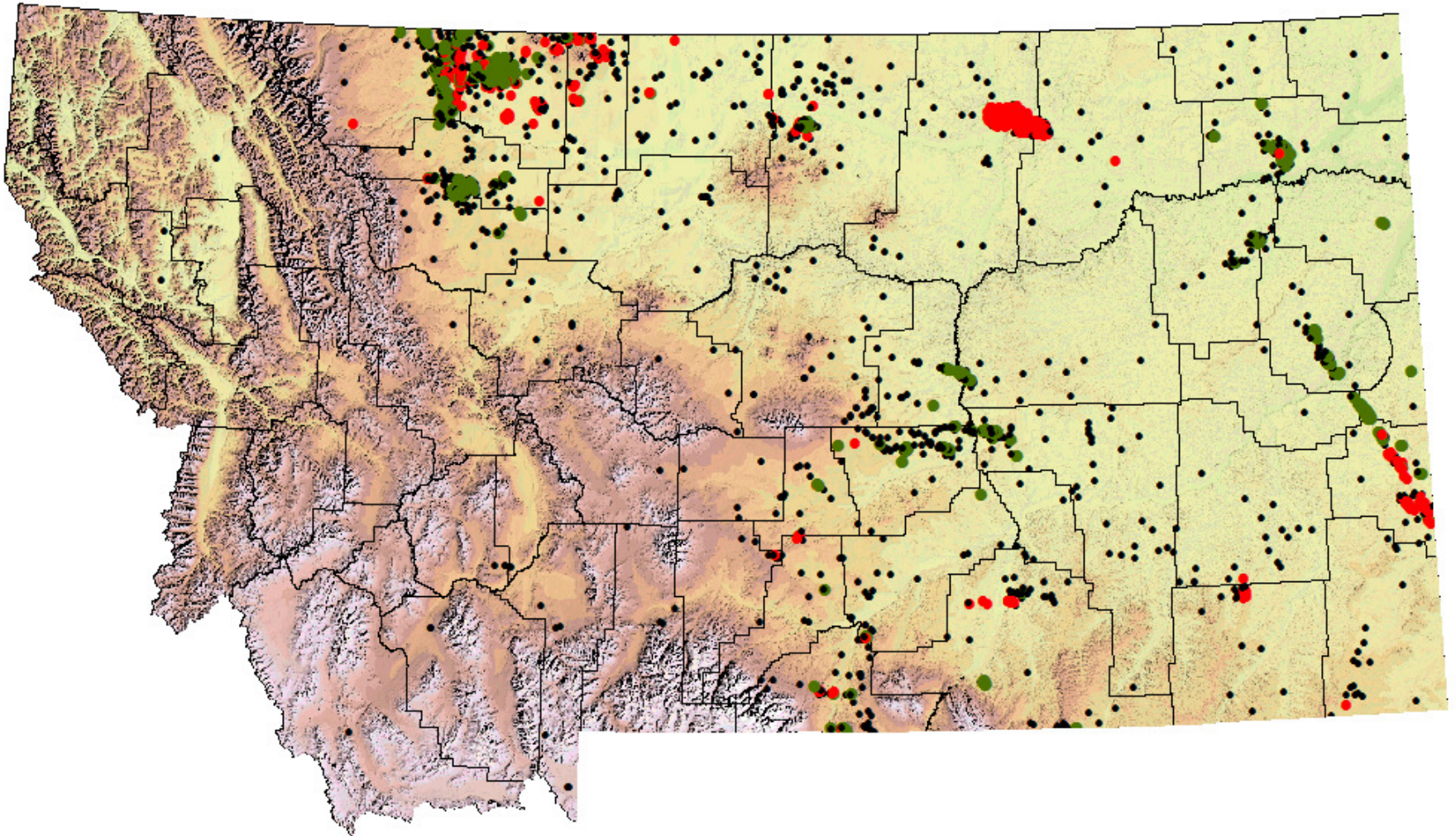
Completions, 1926 - 1935



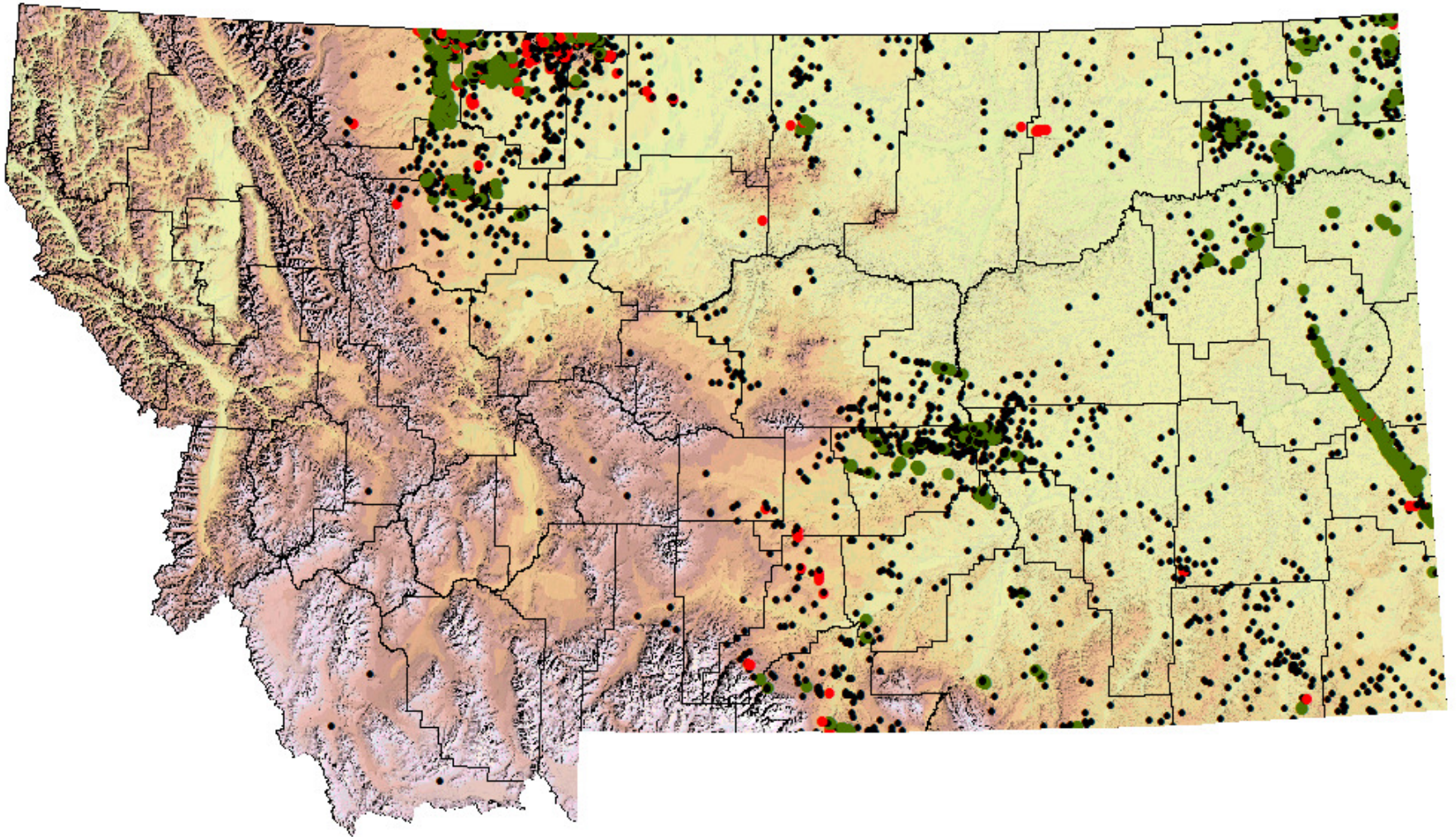
Completions, 1936 - 1945



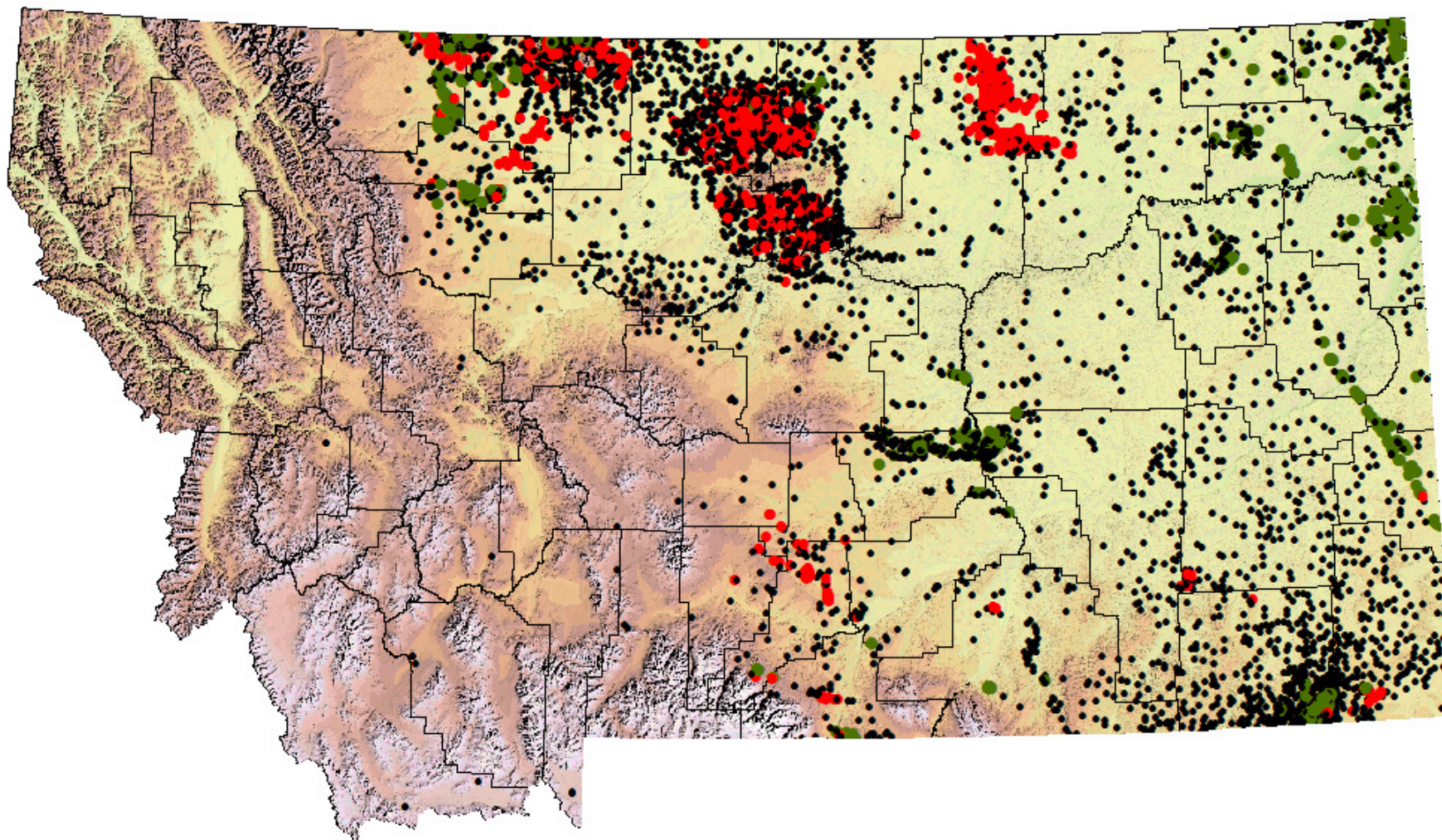
Completions, 1946 - 1955



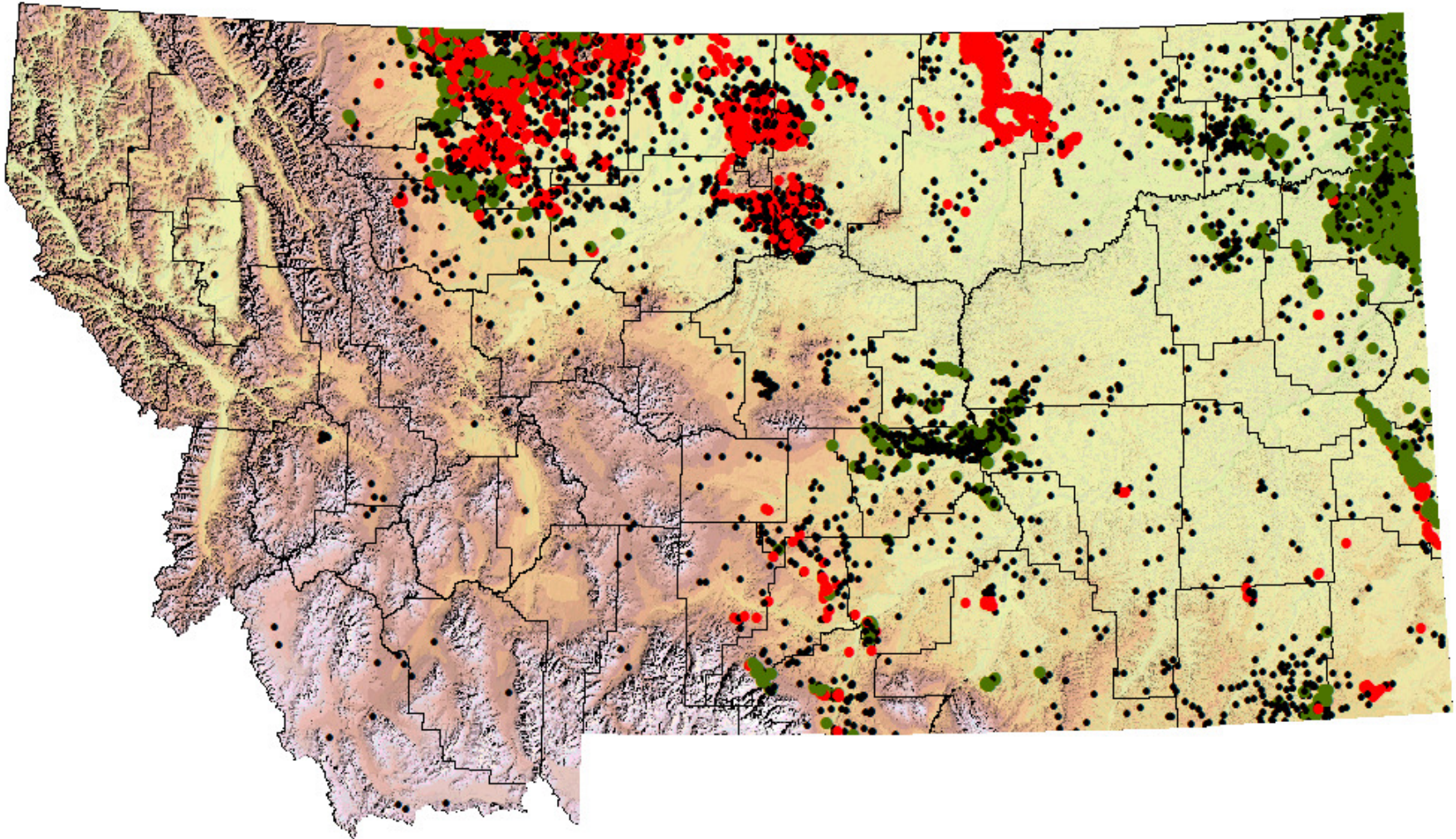
Completions, 1956 - 1965



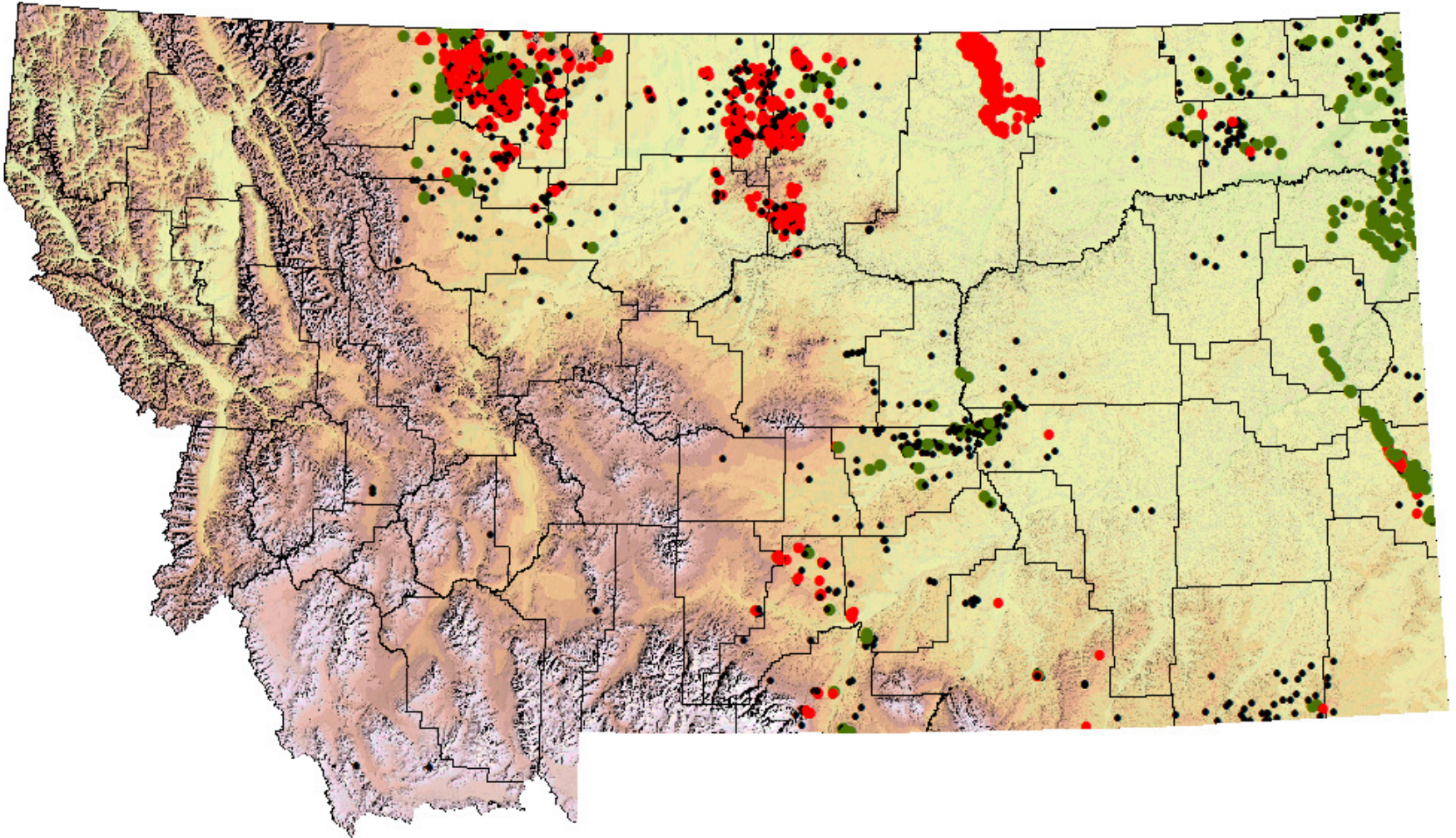
Completions, 1966 - 1975



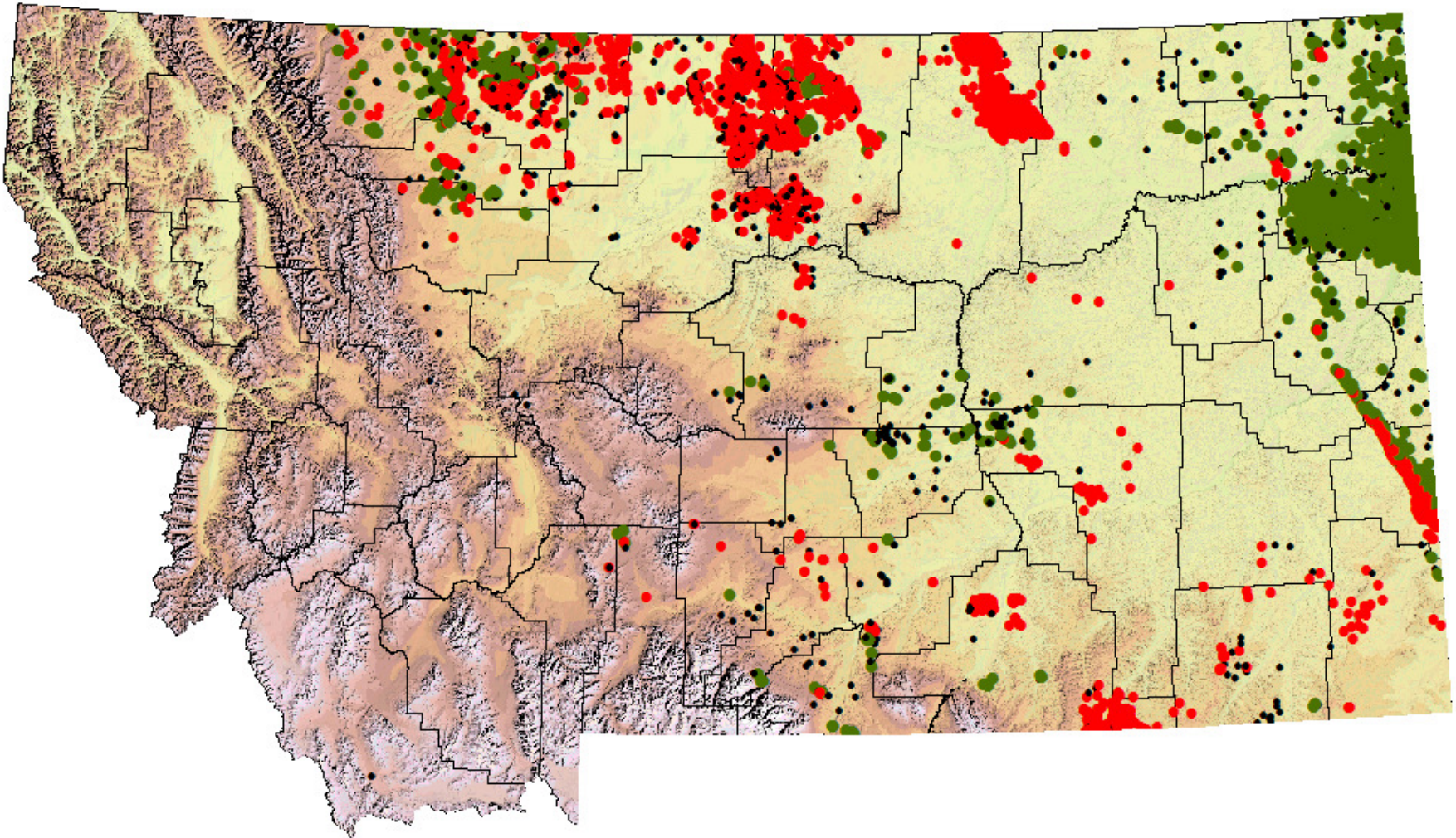
Completions, 1976 - 1985



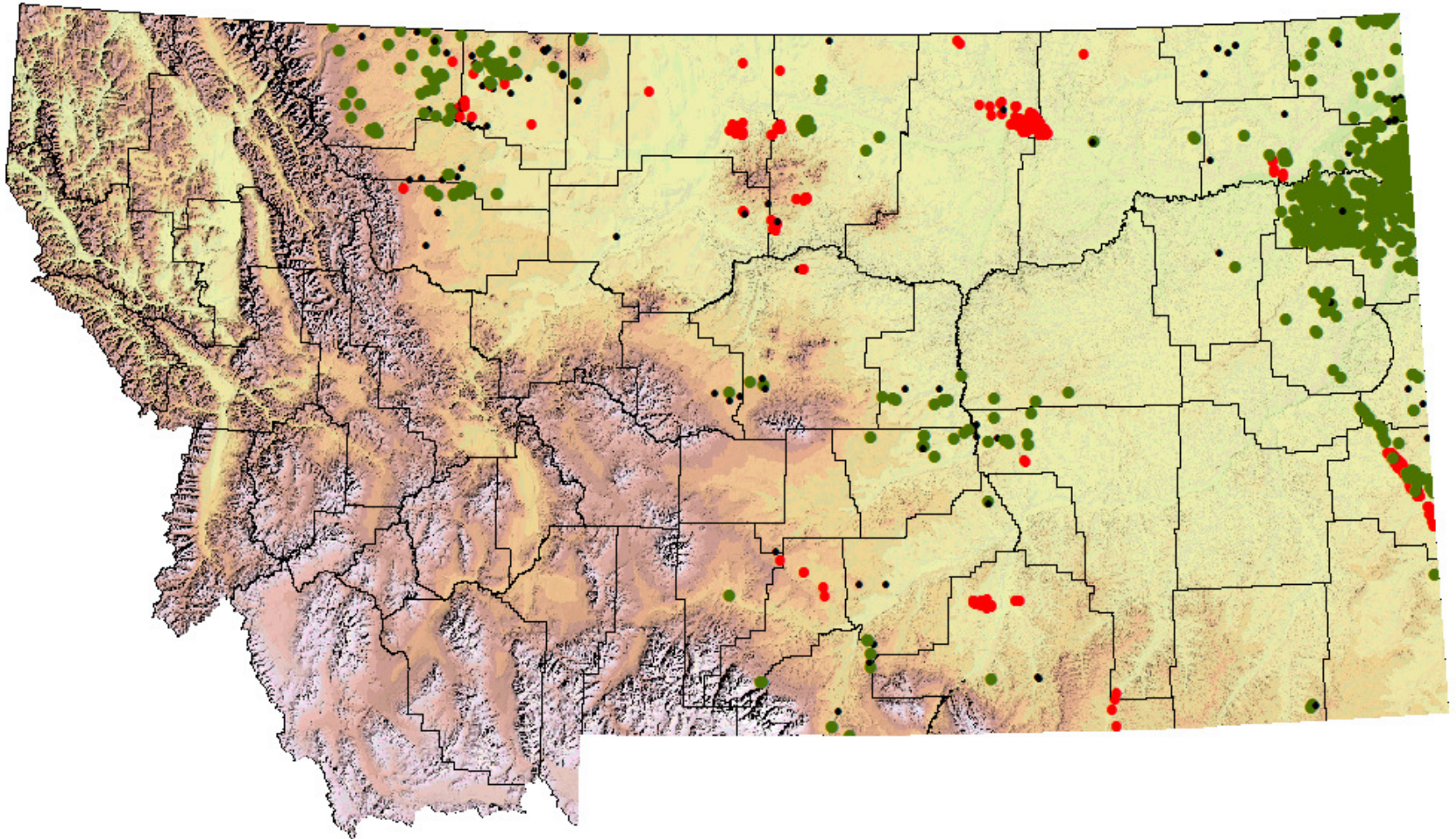
Completions, 1986 - 1995



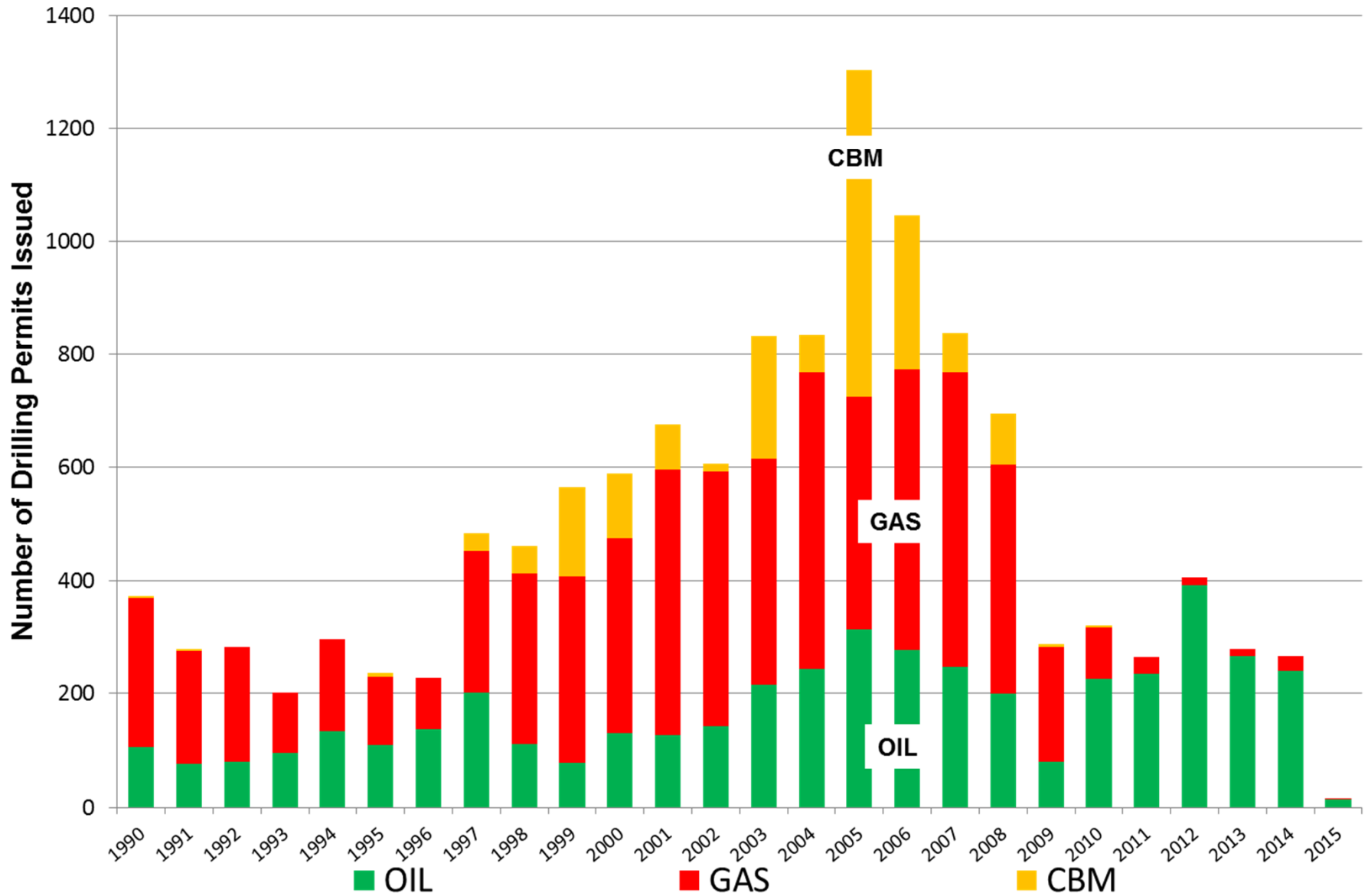
Completions, 1996 - 2015



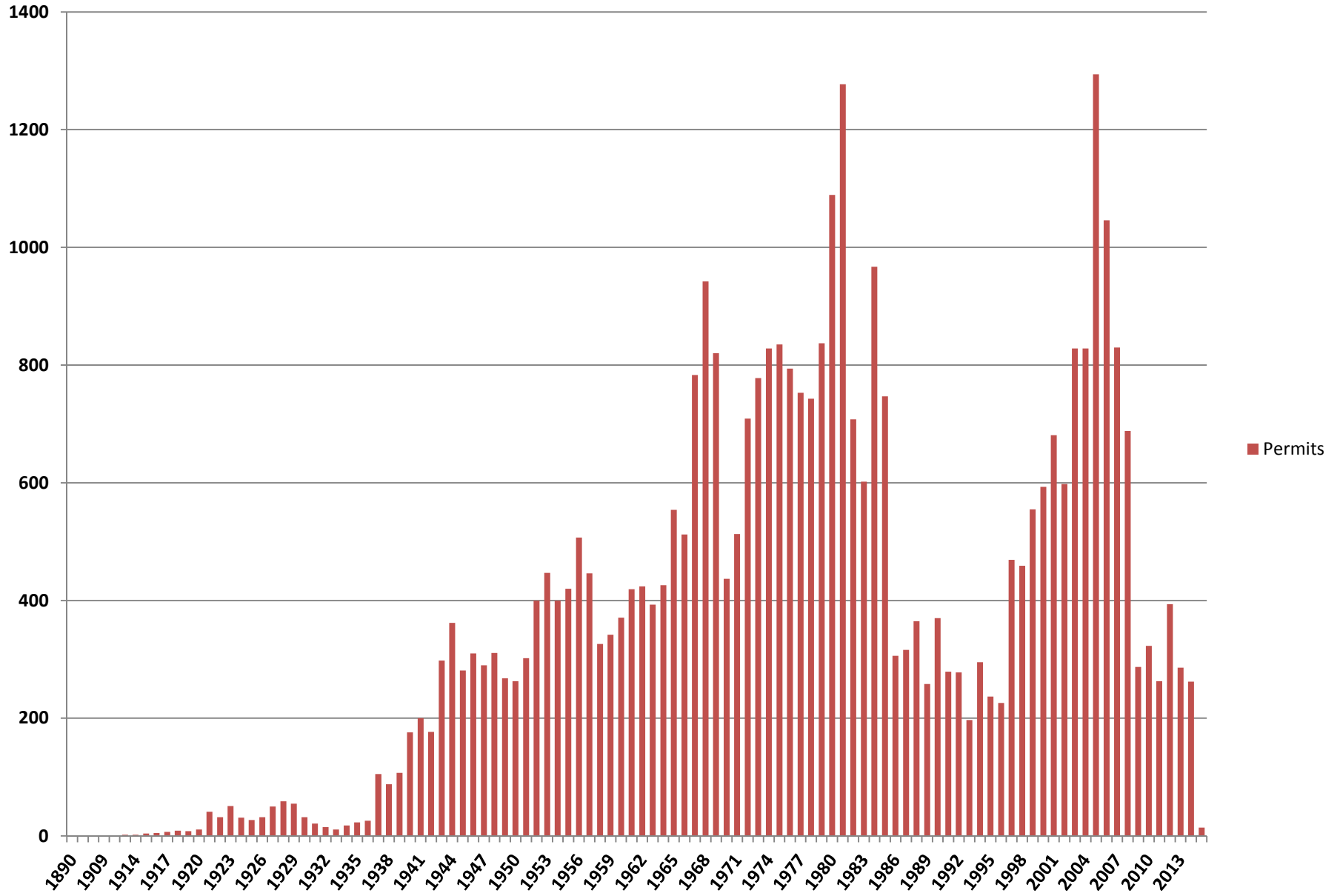
Completions, 2010 - 2015



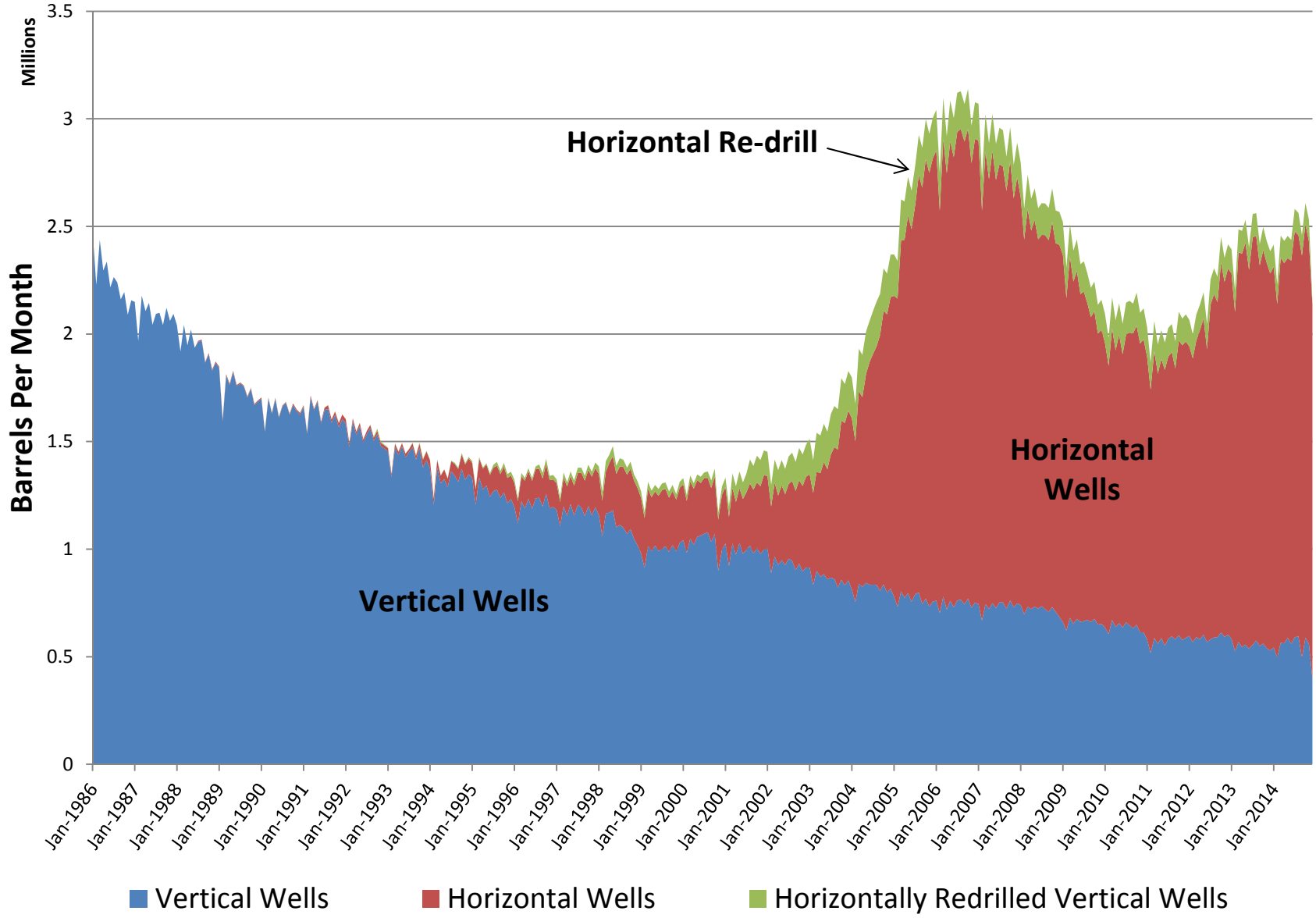
Montana Drilling Permits, 1990 through 04/09/2014



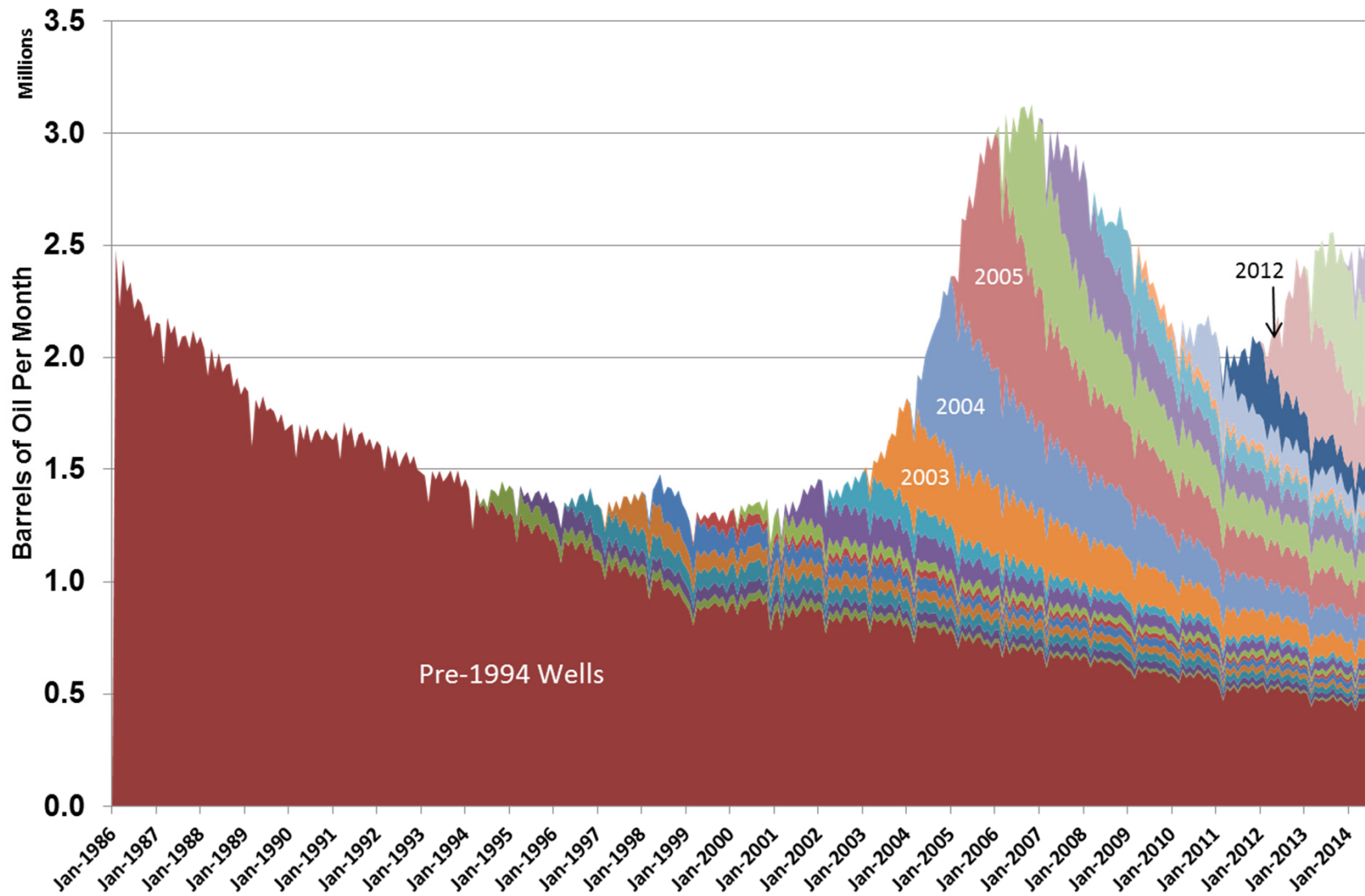
All Drilling Permits Issued



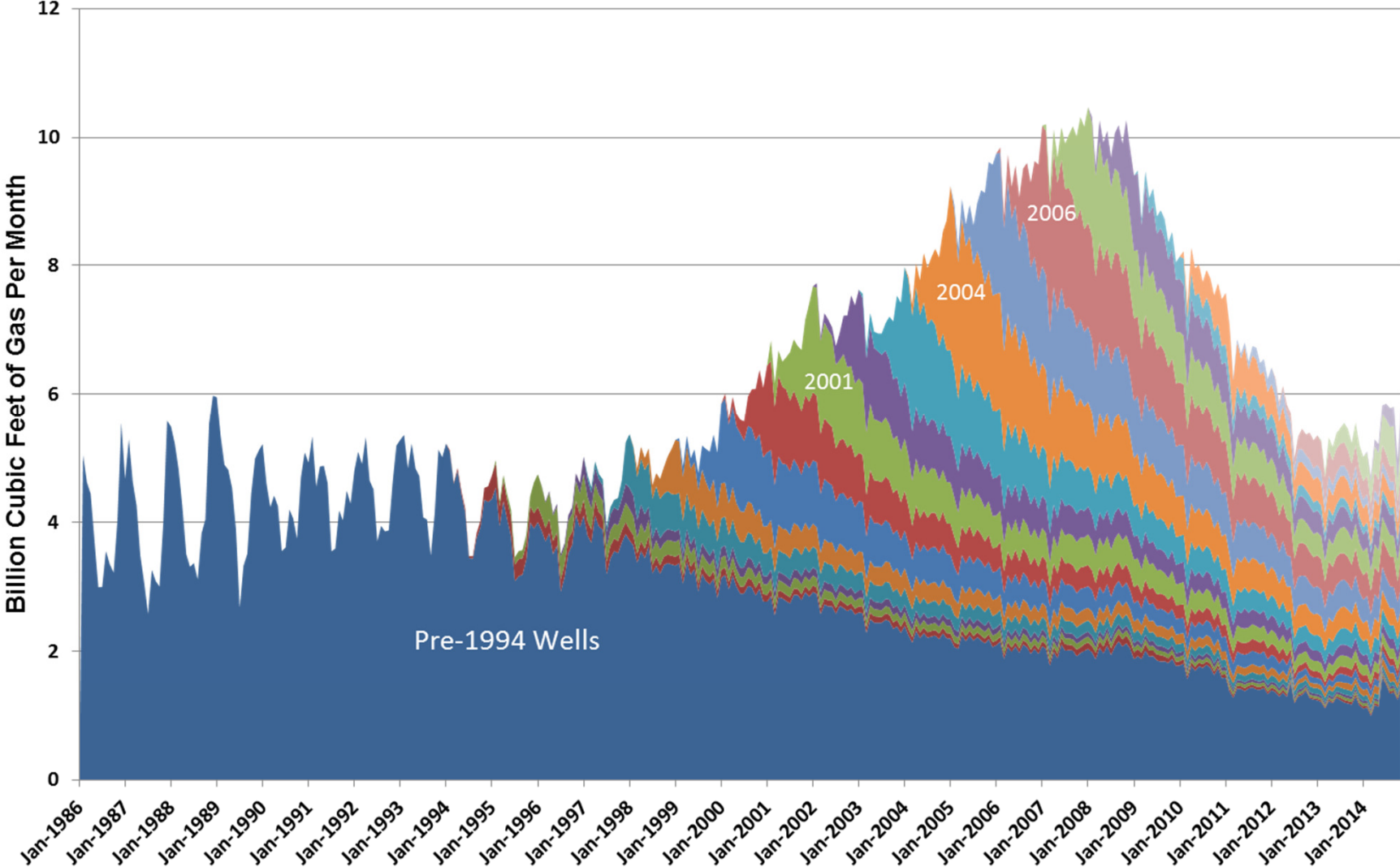
Oil Production by Well Type



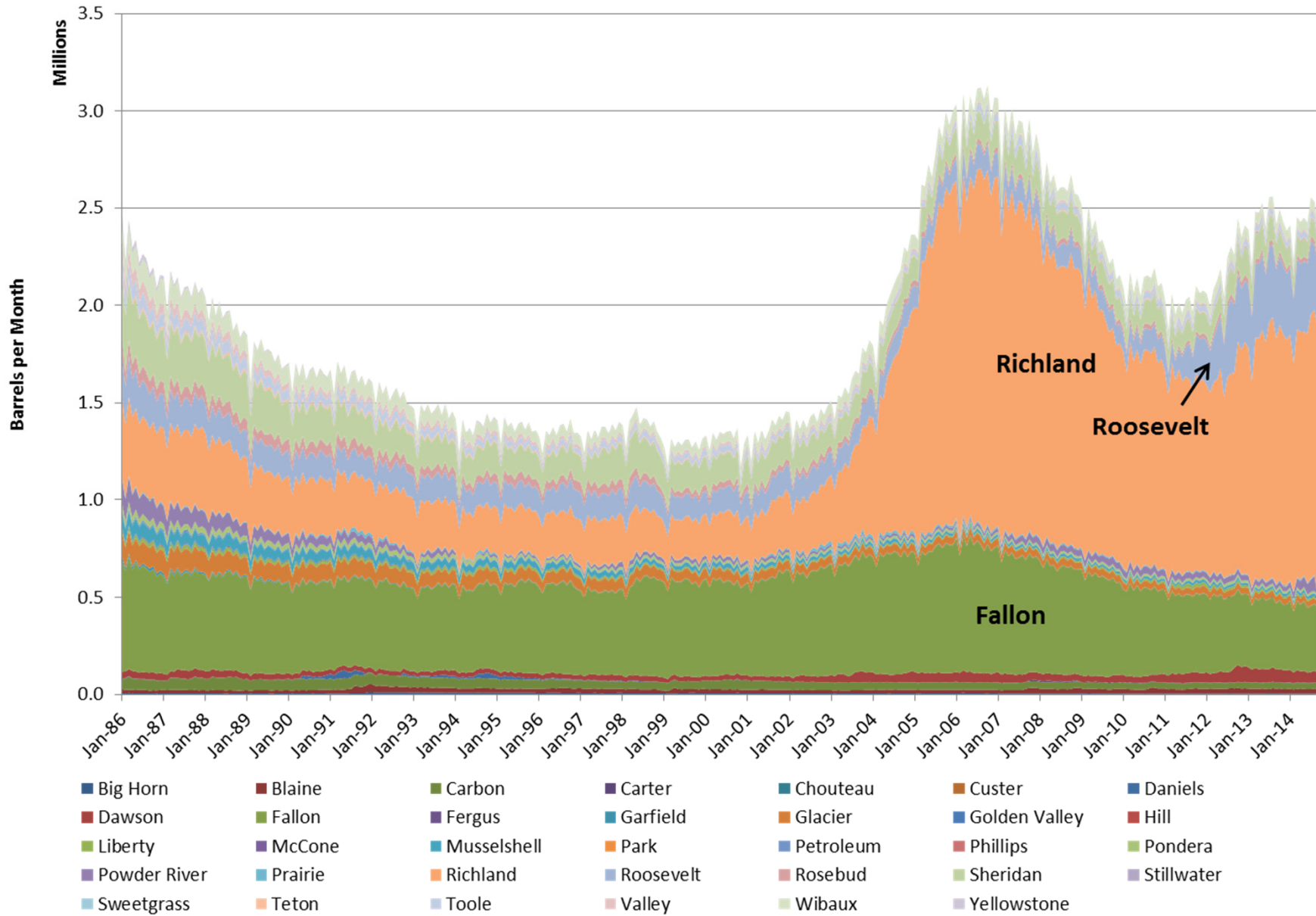
Oil Production by Completion Year



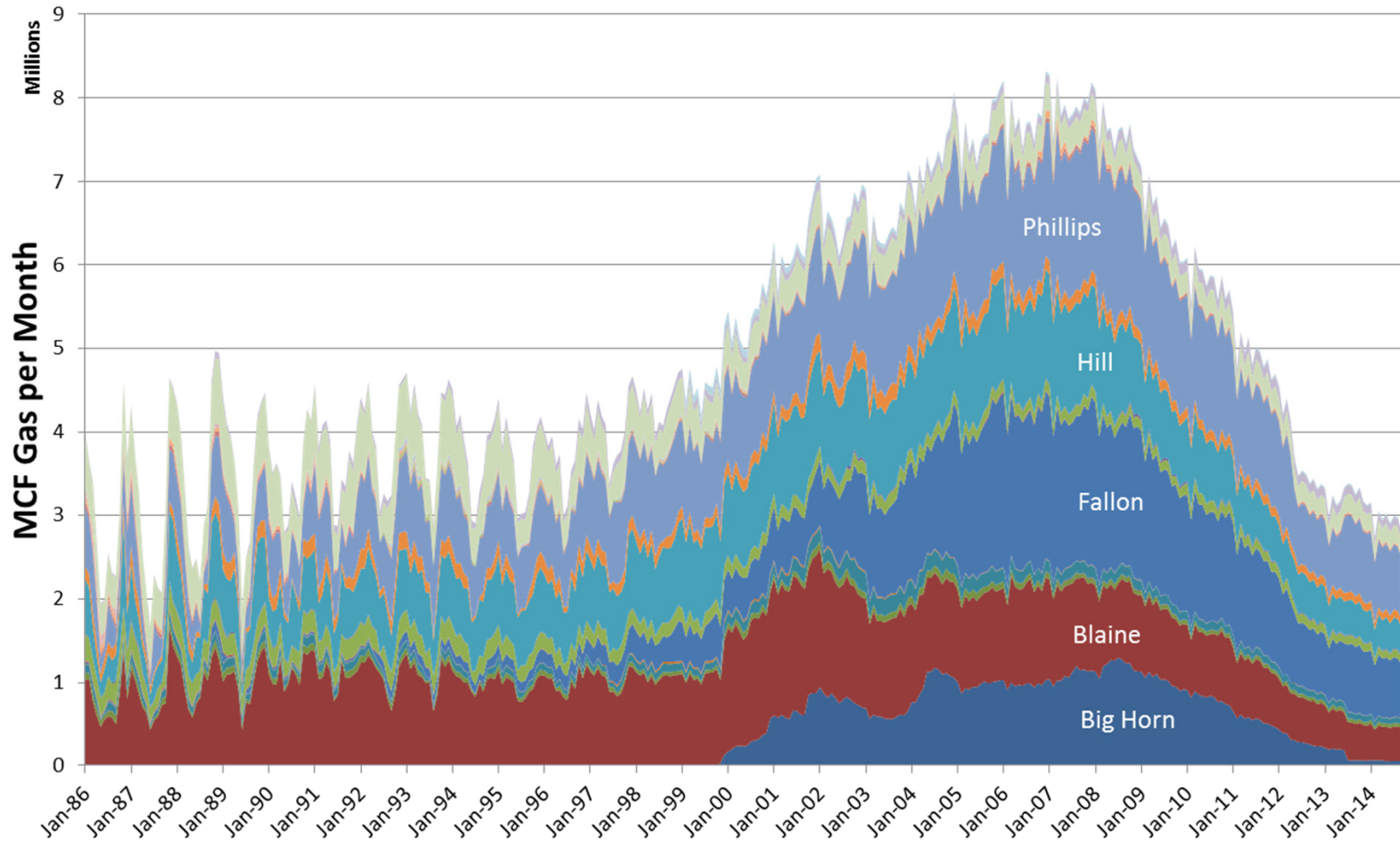
Gas Production by Completion Year



Montana Oil Production by County

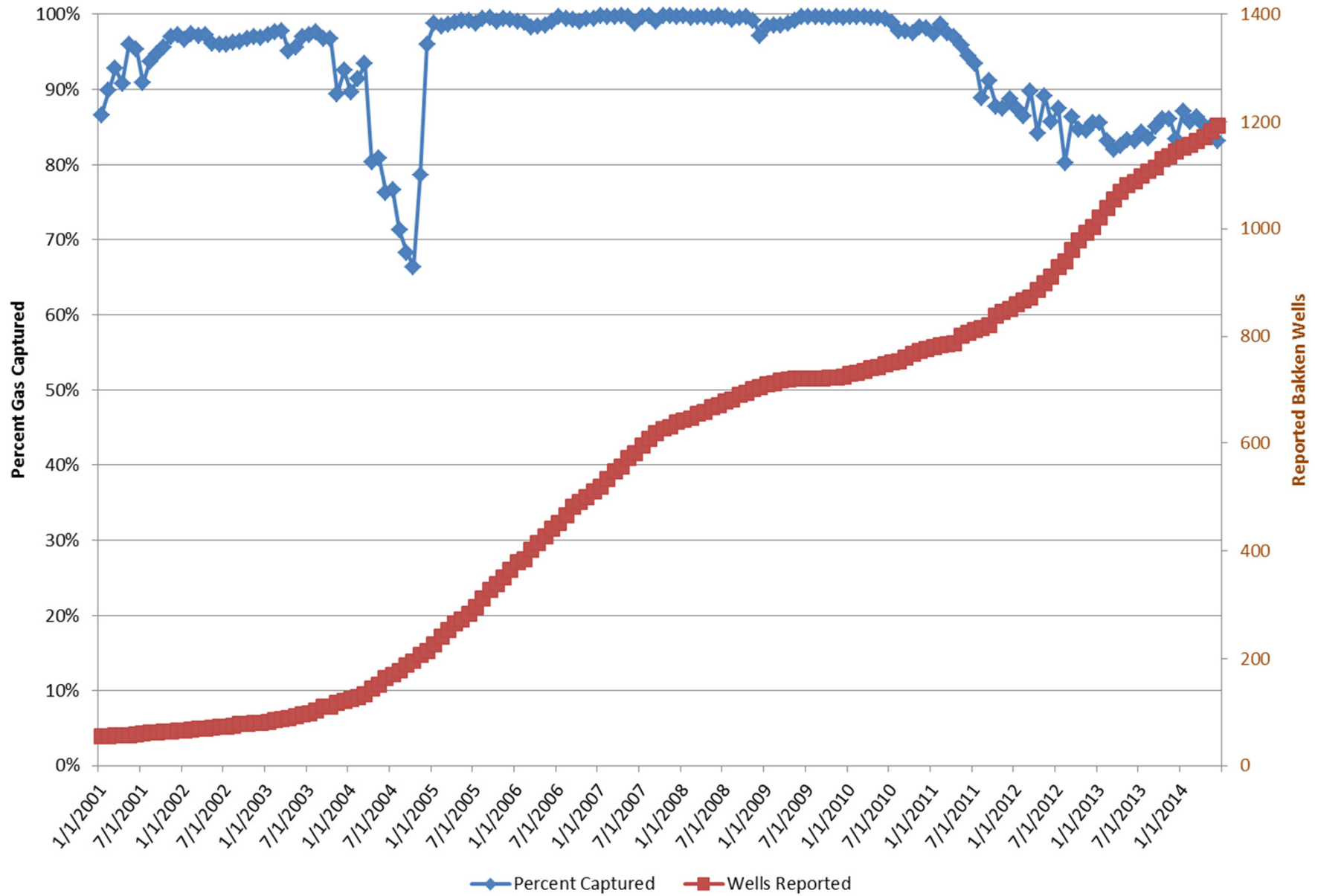


Montana Non-Associated Gas Production by County

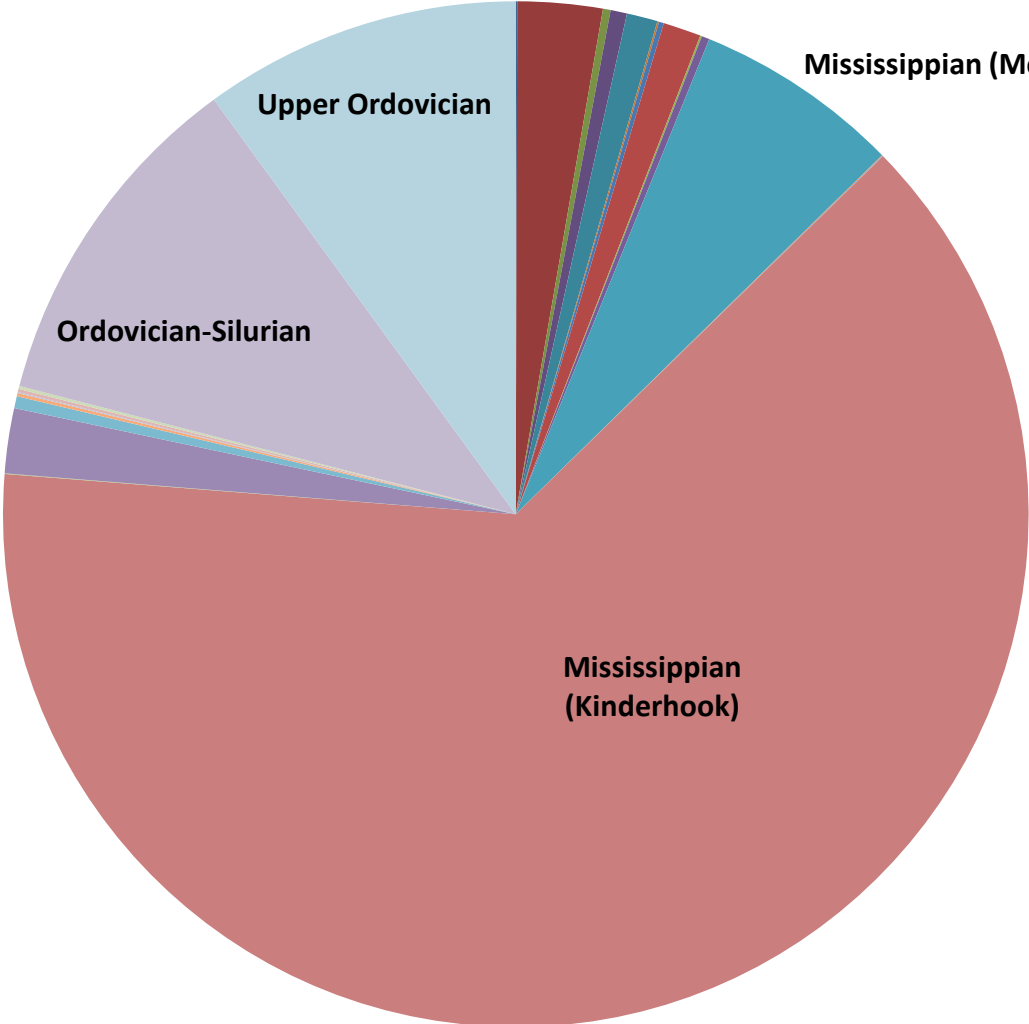


- Big Horn
- Blaine
- Carbon
- Carter
- Chouteau
- Custer
- Fallon
- Fergus
- Glacier
- Golden Valley
- Hill
- Liberty
- Phillips
- Pondera
- Powder River
- Prairie
- Richland
- Stillwater
- Sweetgrass
- Teton
- Toole
- Valley
- Wibaux

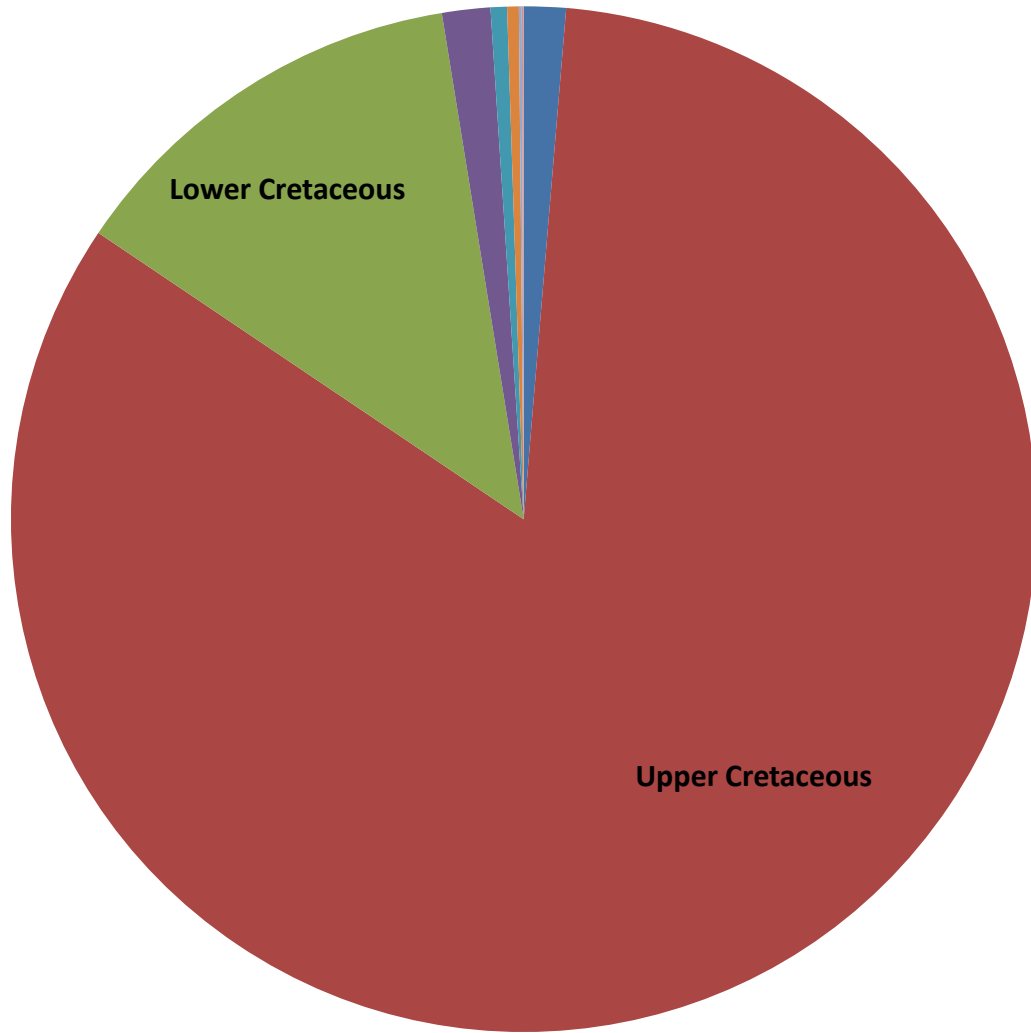
Bakken Production, Percent of Gas Captured



Oil Production By Geologic Age

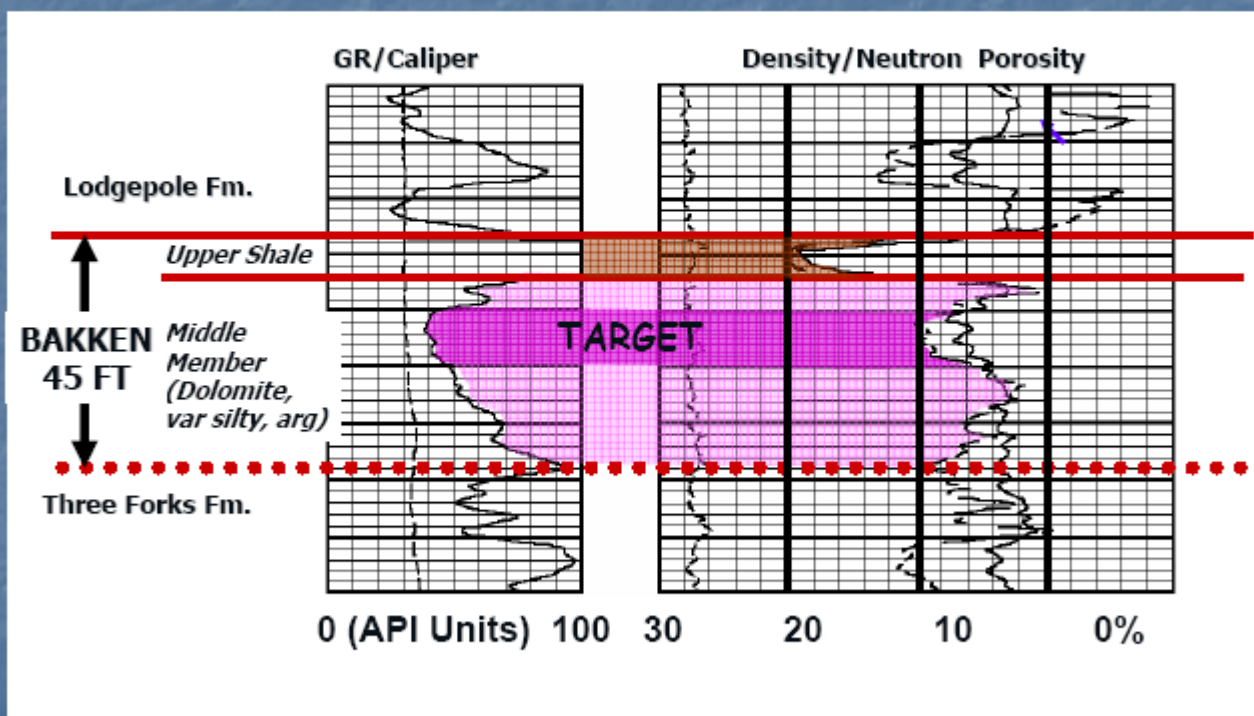


Gas Production By Geologic Age

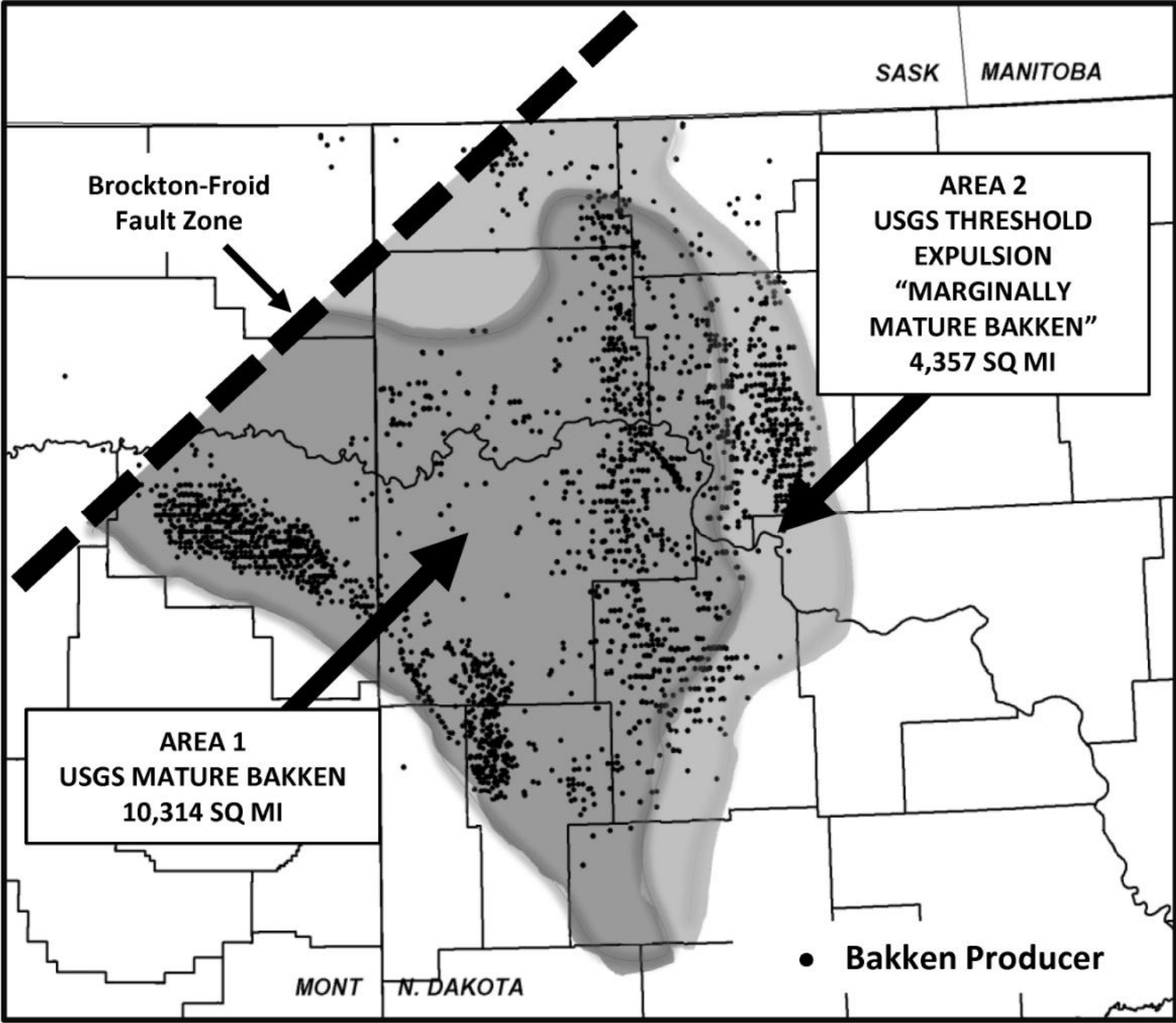


TYPE LOG – ELM COULEE AREA

Balcron Oil - #44-24 Vaira
SESE Sec. 24, T.24N., R.54E.



Modified after J. LeFever



Wellhead Information

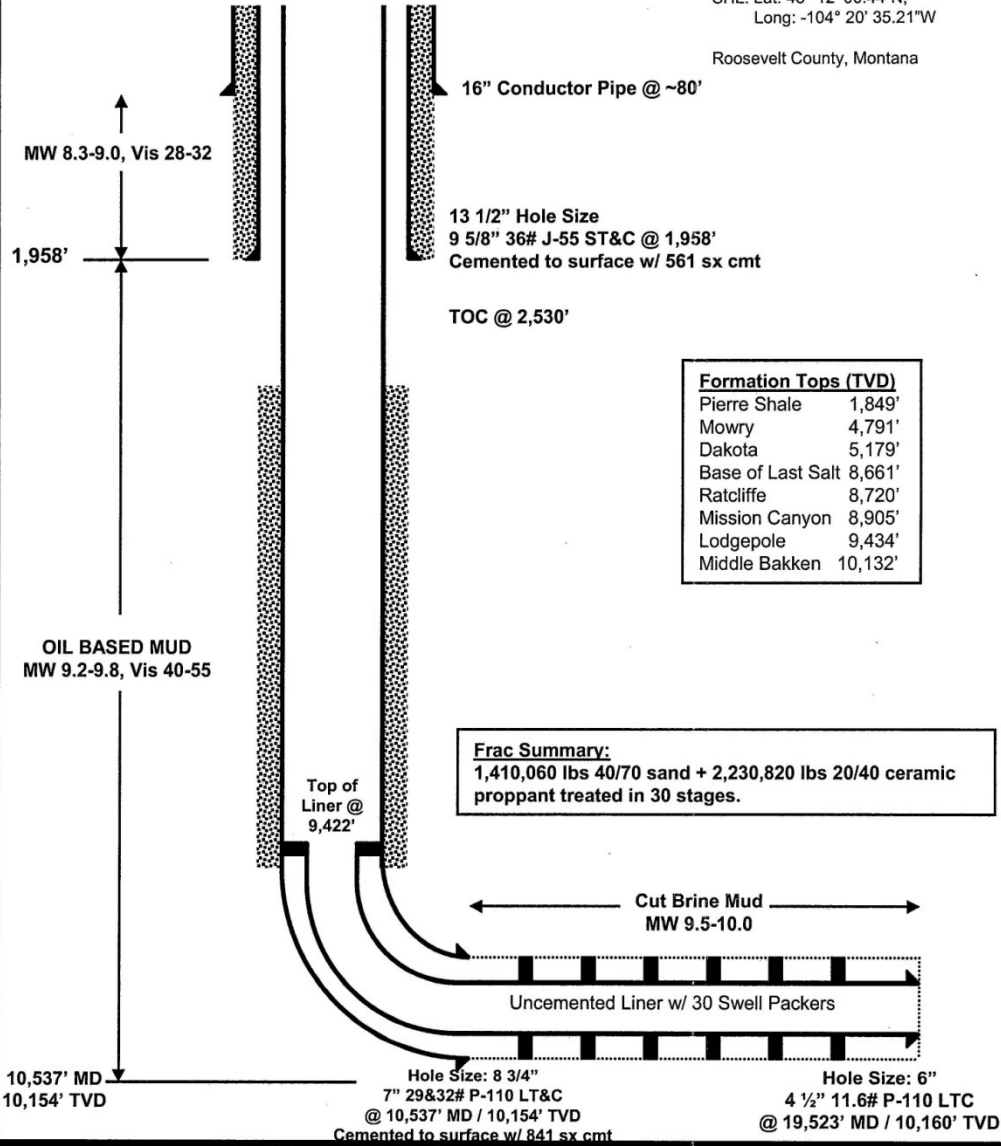
11" 5M x 9 5/8" SOW A-Section
7 1/16" 10M x 11" 5M B-Section

WELLBORE SCHEMATIC

ELEVATION: 2,228' G.L.
SPUD DATE: May 4, 2011
RIG: Nabors #182 (KB= 21')

SHL: Lat: 48° 12' 00.44"N,
Long: -104° 20' 35.21"W

Roosevelt County, Montana



Frac Summary:
1,410,060 lbs 40/70 sand + 2,230,820 lbs 20/40 ceramic proppant treated in 30 stages.

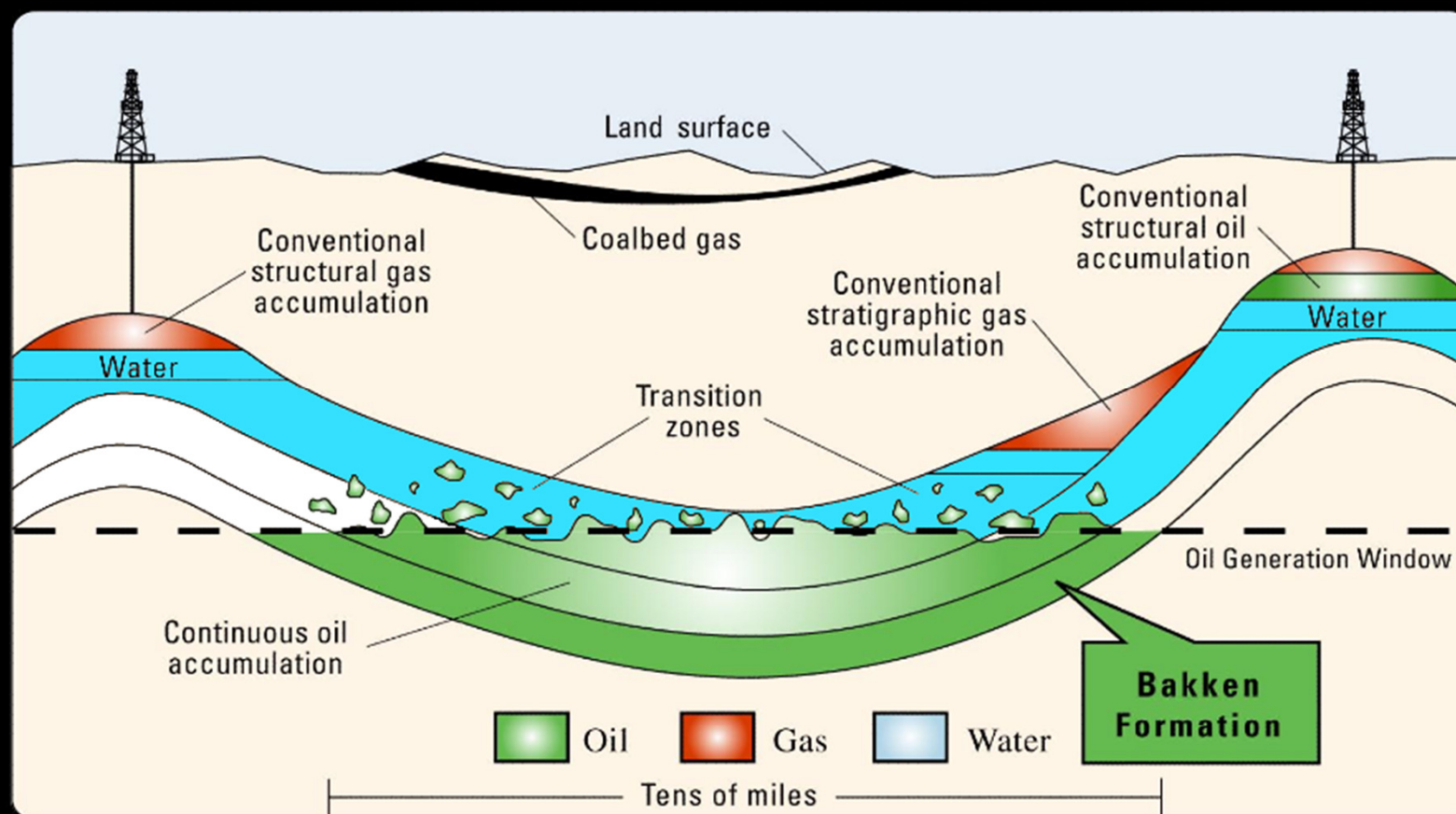
BRIGHAM OIL & GAS, L.P.

CHARLEY 10-15 #1H
SHL: 250' FNL & 2,300' FWL Sec 10-T.28N-R.57E
BHL: 712' FSL & 2,398' FWL Sec 15-T.28N-R.57E

MBOGC Docket No. 239-2011
Exhibit # 5
August 11, 2011

Conventional vs Continuous Resources

Continuous Shale Accumulations



REQUIREMENT... the shale is now, or was at sometime in its history, within the oil or gas generation window

