

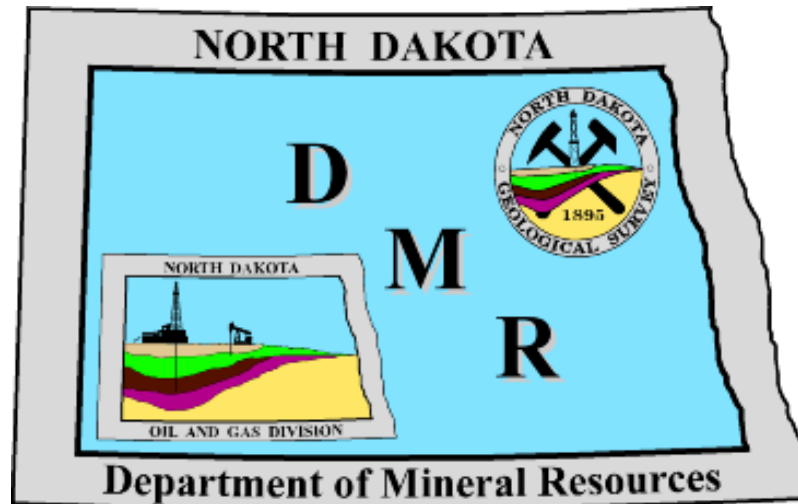
# North Dakota Department of Mineral Resources

Government Finance Interim Committee 12/12/2013

10:10 a.m.

Presentation by a representative of the Department of Mineral Resources of an update on the status of oil and gas development in the state.

11:10 a.m.



<http://www.oilgas.nd.gov>

<http://www.state.nd.us/ndgs>

***600 East Boulevard Ave. - Dept 405***

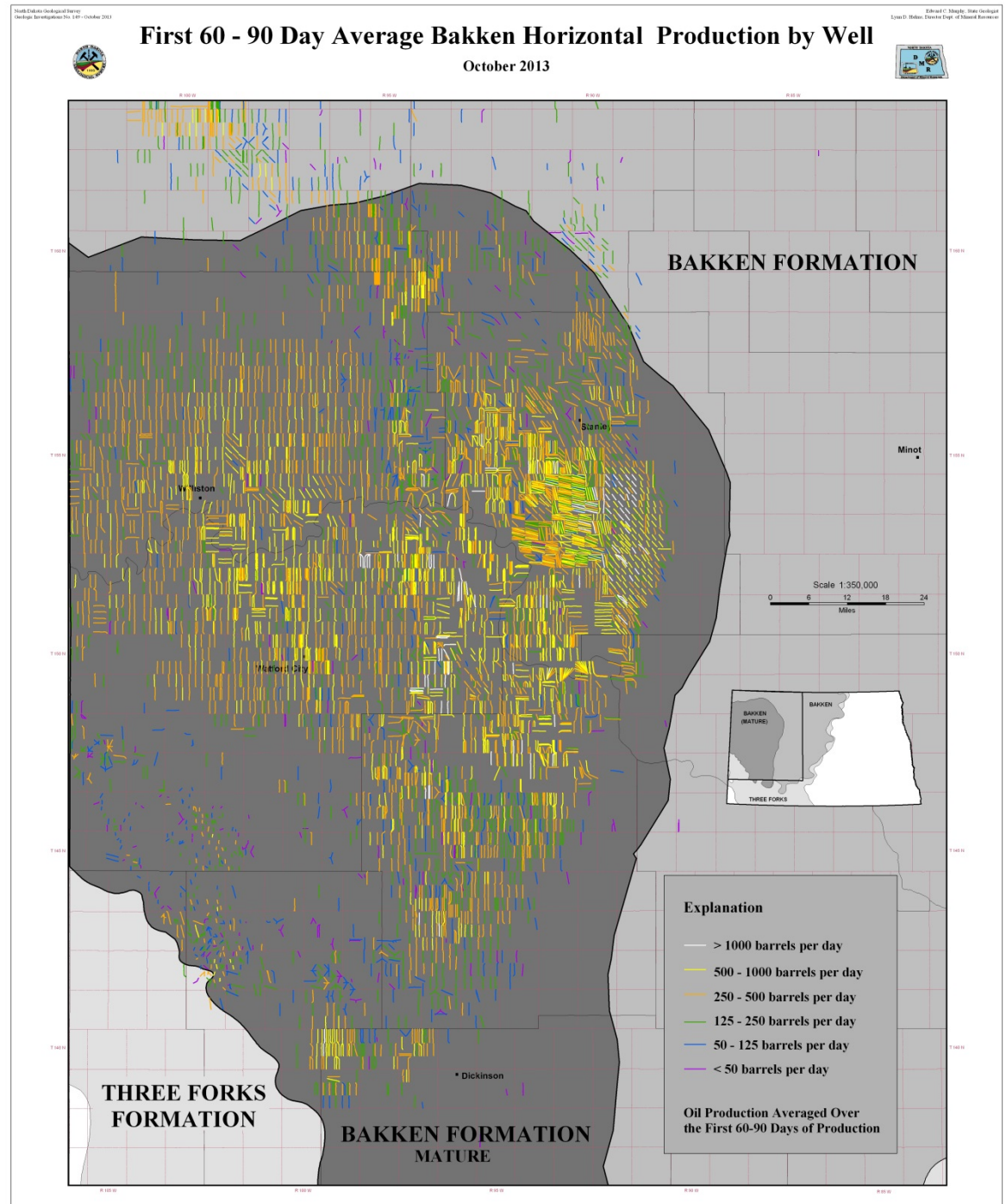
***Bismarck, ND 58505-0840***

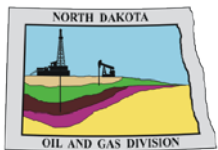
***(701) 328-8020      (701) 328-8000***

5,939 unconventional wells

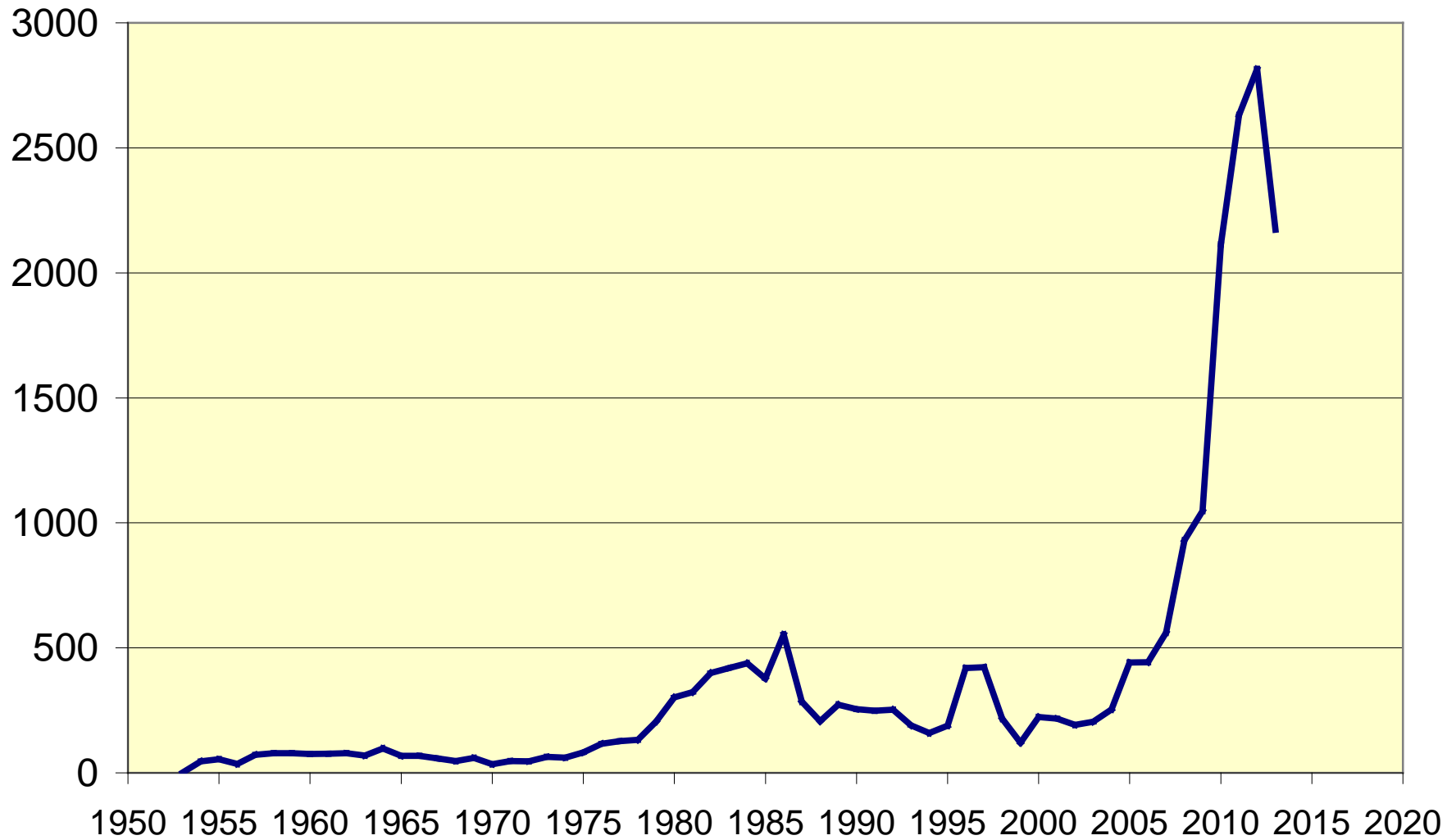
6,447 total Bakken/Three forks wells

10,874 total wells



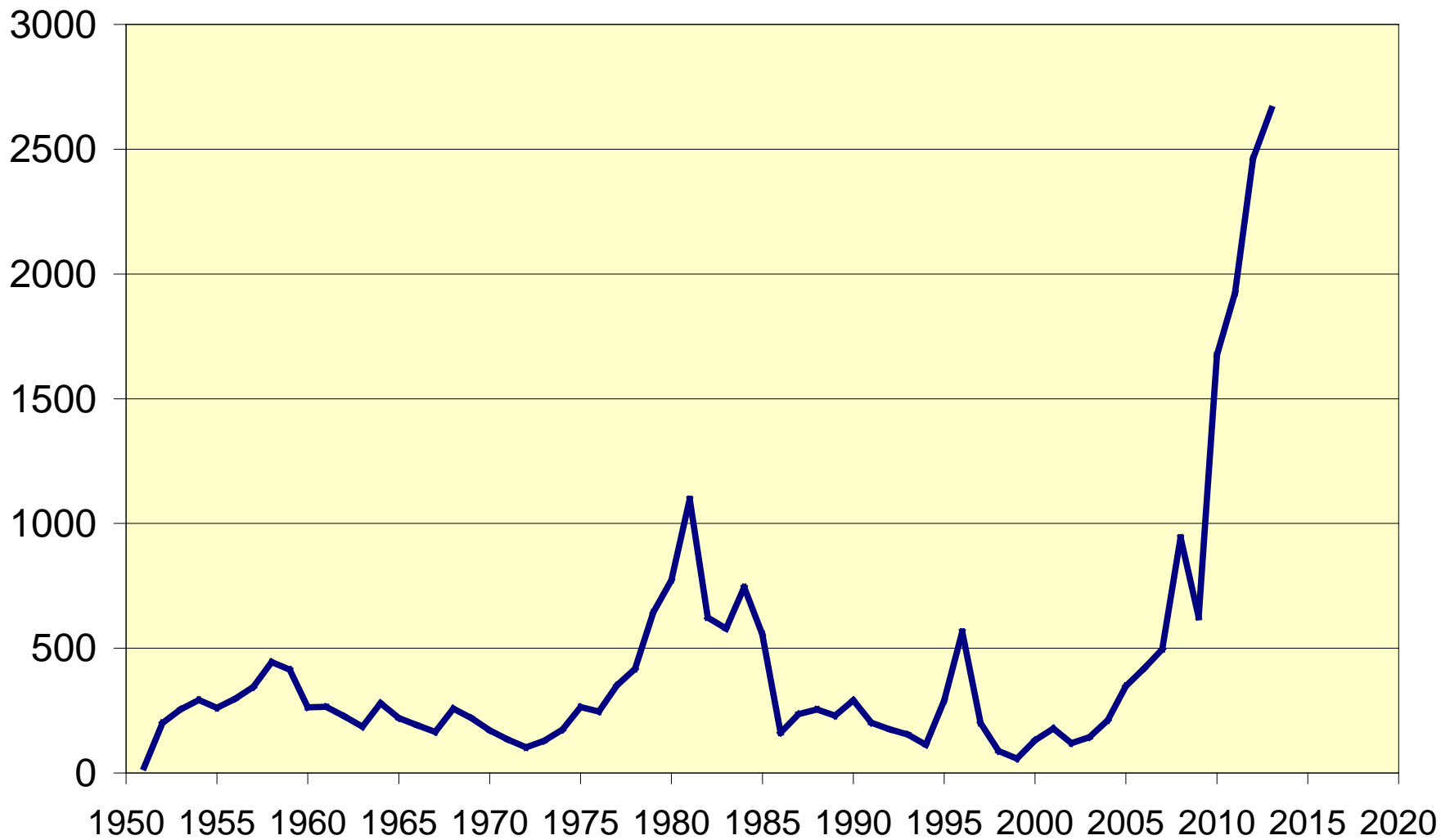


## North Dakota Industrial Commission Cases Heard



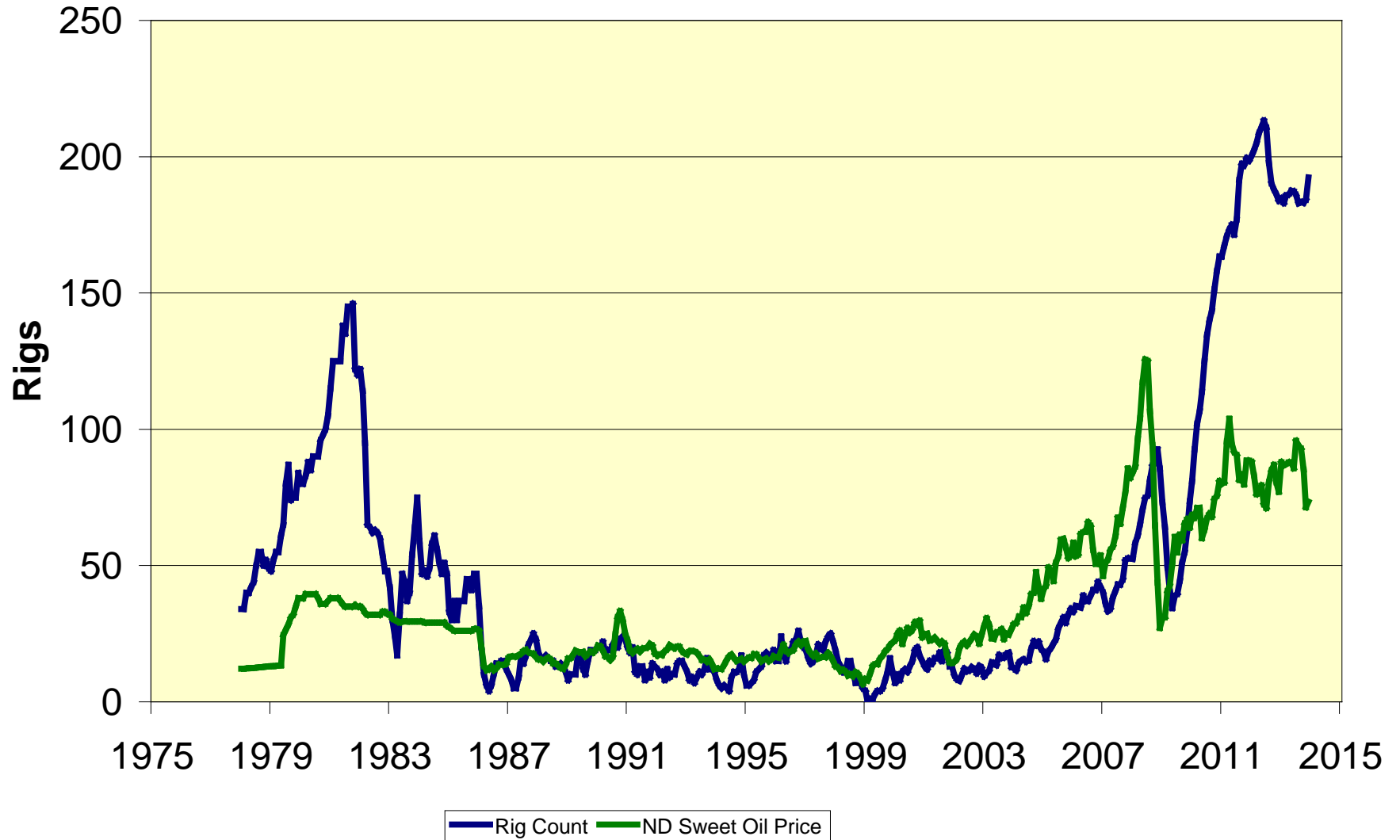


## North Dakota New Well Permits Issued





## North Dakota Average Monthly Rig Count



- 1,100 to 2,700 wells/year = 2,000 expected
  - 2014 drilling = 1,552 permits to drill approved & 736 pending approval
    - 185-195 rigs for 9-12 months or
  - 2015-2019 drilling = 1,012 orders approved for 5,247 more wells
    - 3 orders for 18 wells / 1280
    - 1 order for 17 wells / 640
    - 2 orders for 16 wells / 1280
    - 1 order for 15 wells / 1280
    - 40 orders for 14 wells / 1280
    - 1 order for 13 wells / 1280
    - 10 orders for 12 wells / 1280
    - 3 orders for 11 wells / 1280
    - 21 orders for 10 wells / 1280
    - 4 orders for 9 wells / 1280
    - 147 orders for 8 wells / 1280
    - 202 orders for 7 wells / 1280
    - 97 orders for 6 wells / 1280
    - 77 orders for 5 wells / 1280
    - 403 orders for 4 wells / 1280
    - 267 orders for approximately 2,000 increased density wells pending approval

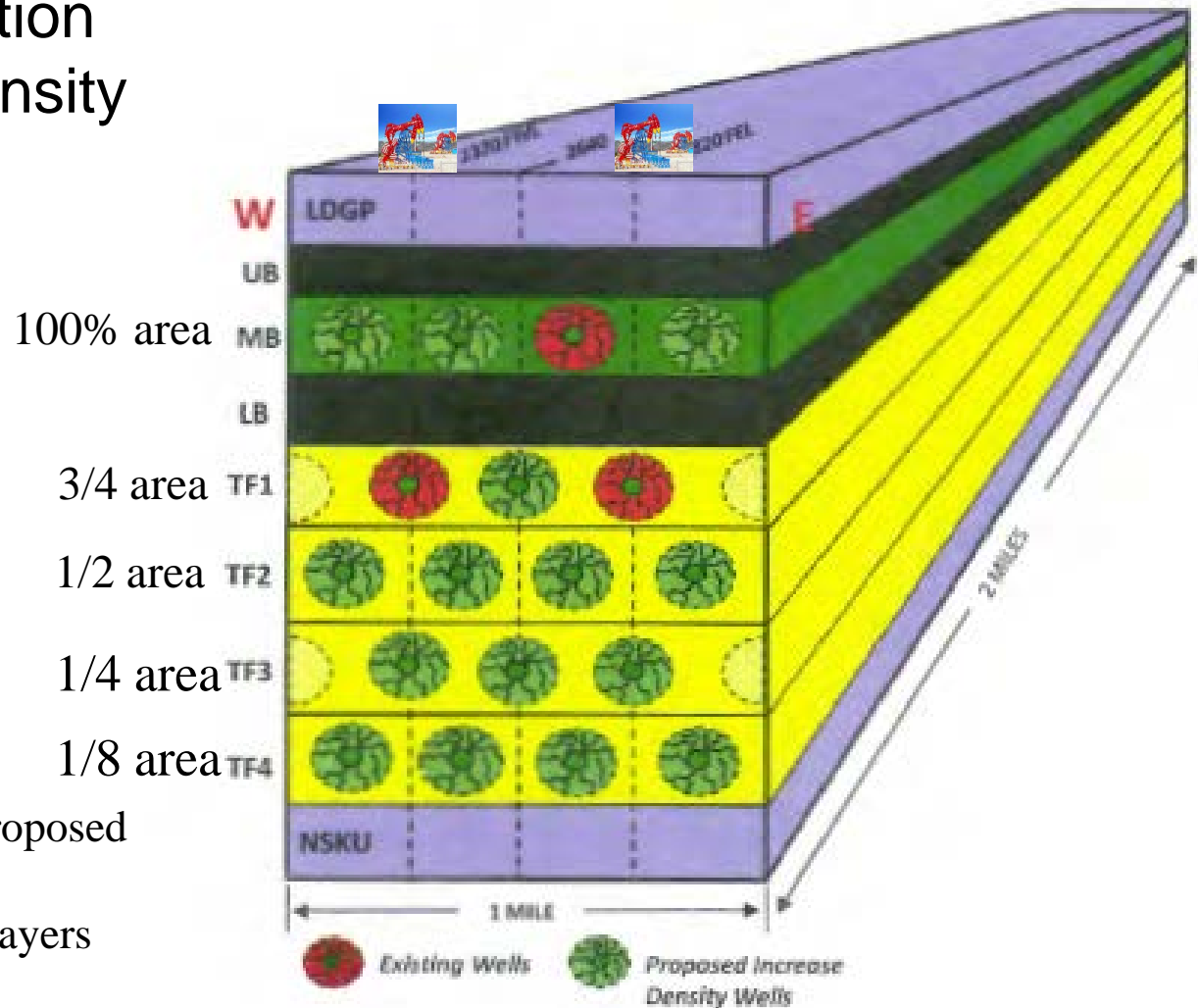
North Dakota Spacing Units and well pads are designed for multiple wells

Phase 3 - Production  
Increased well density

Phase 4 EOR?

8–20 wells per 1,280 acres proposed

= 4 wells per layer X 2–5 layers



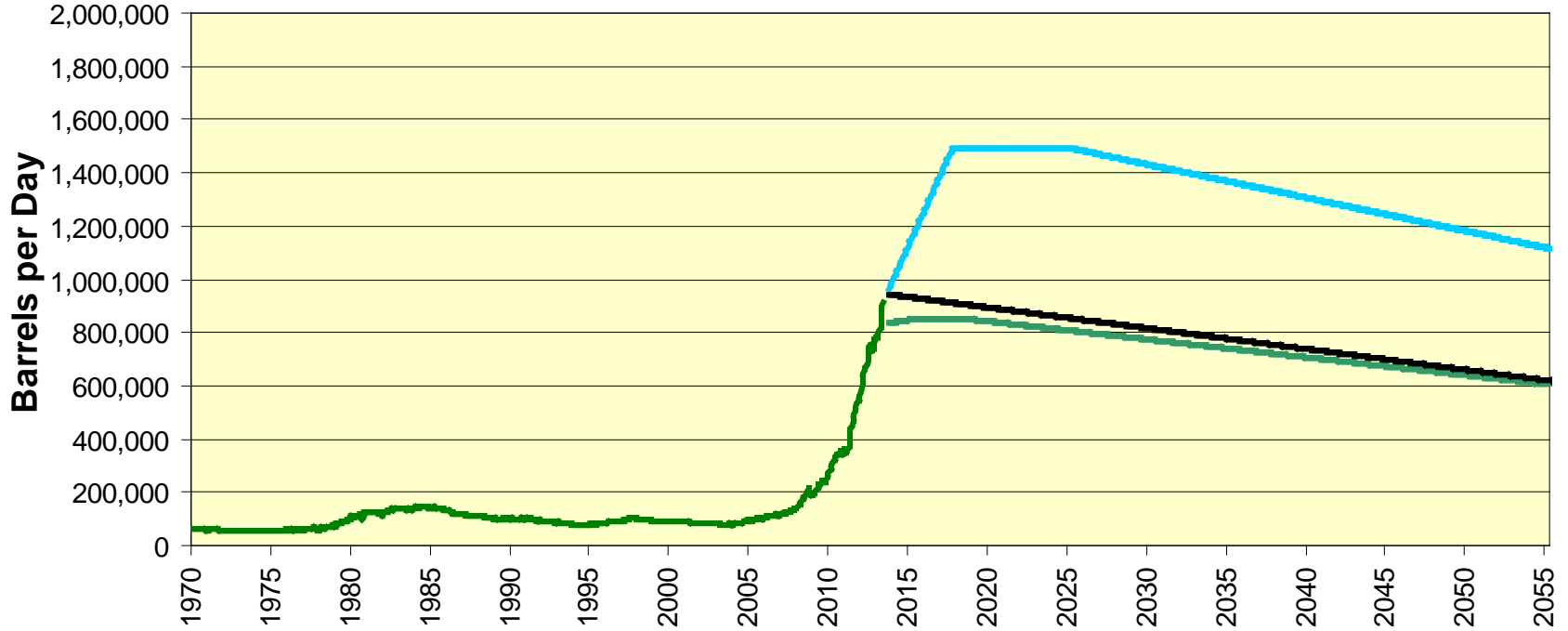
# Western North Dakota

- 1,100 to 2,700 wells/year = 2,000 expected
  - 185 rigs = 2,000 wells per year
  - 218 rigs in May 2012 completed first phase of drilling by mid 2012
  - 195 rigs will complete the second phase of drilling in 6-12 months
  - 195 rigs will require about 20 years to complete phase 3 drilling
  - 40,000 / 60,000 / 70,000 new wells



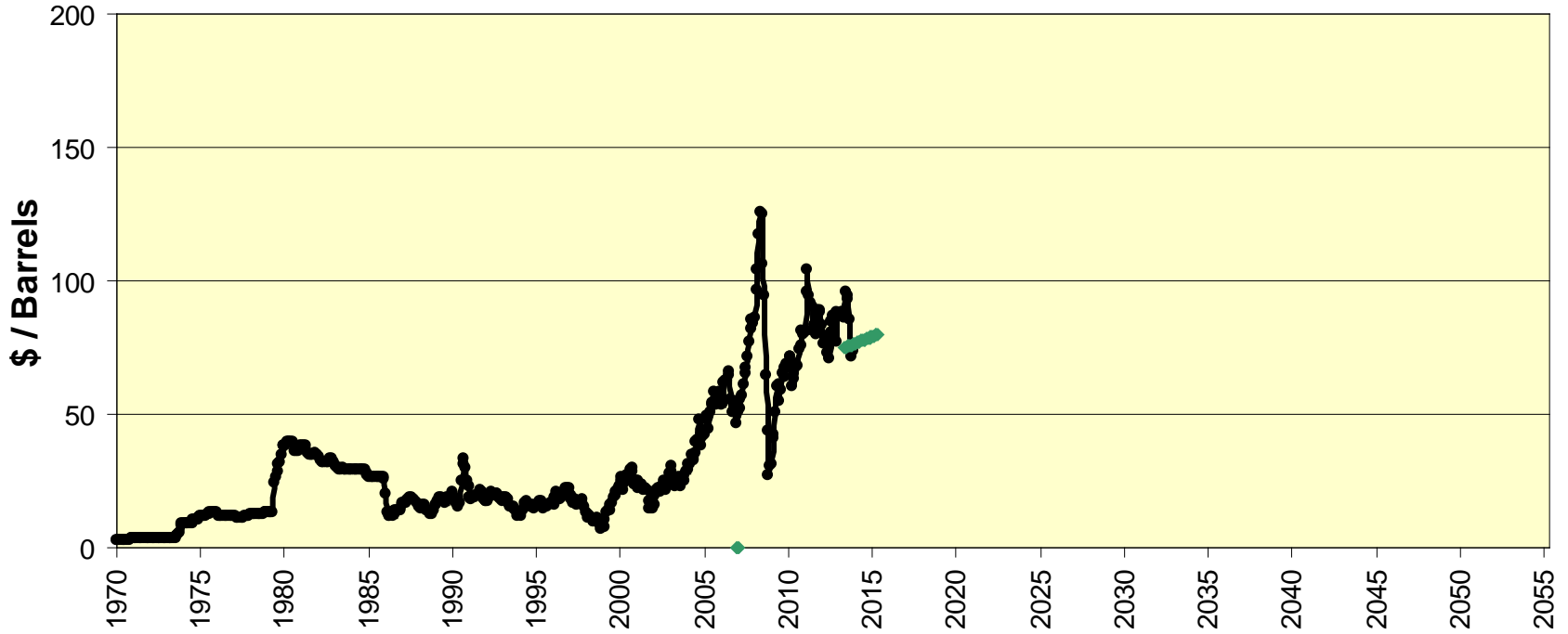


# North Dakota Oil Production





# North Dakota Oil Price



—●— \$/Barrel History & DOE-EIA Projected

◆ \$/Barrel P50

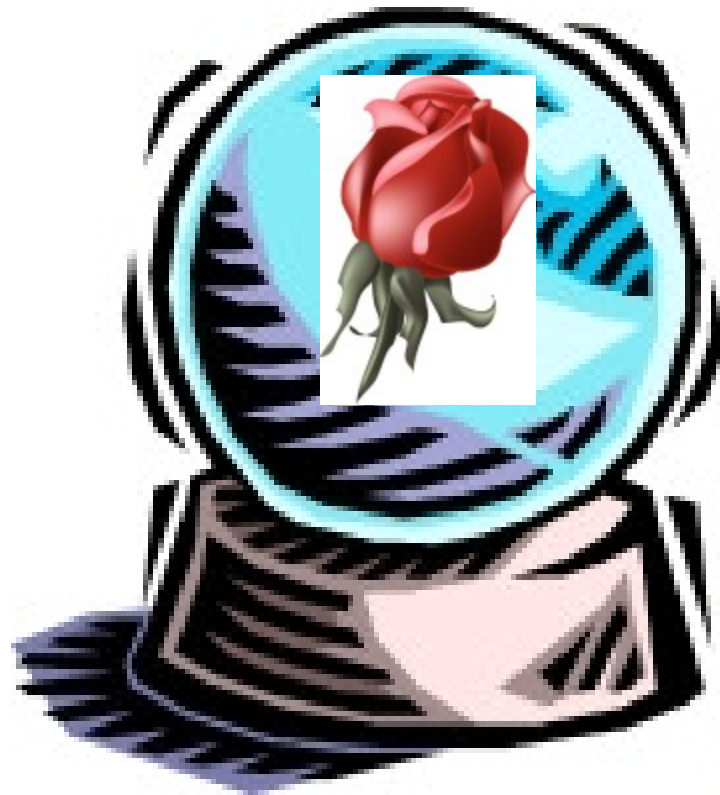


storm www.fotosearch.com



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BLM Hydraulic Fracturing rule could more than double permit approval time.



CoolClips.com

World economy stall out, restrictions on shipping by rail, or light sweet refinery capacity max-out.



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Current administration budget changes could reduce drilling capital 35-50%

The future looks promising for sustained Bakken/Three Forks development

EPA guidance on diesel fuel in hydraulic fracturing could more than triple permit approval time.

# North American shale plays (as of May 2011)

