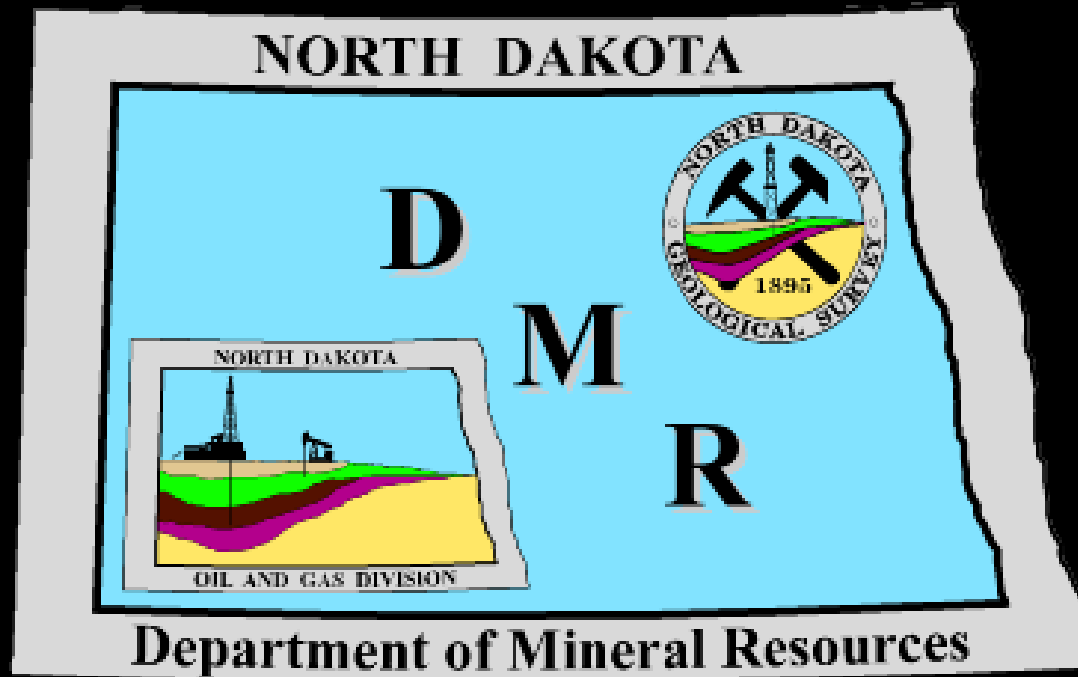


North Dakota Department of Mineral Resources



<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

2016

The Year
of
Iteration

Iteration

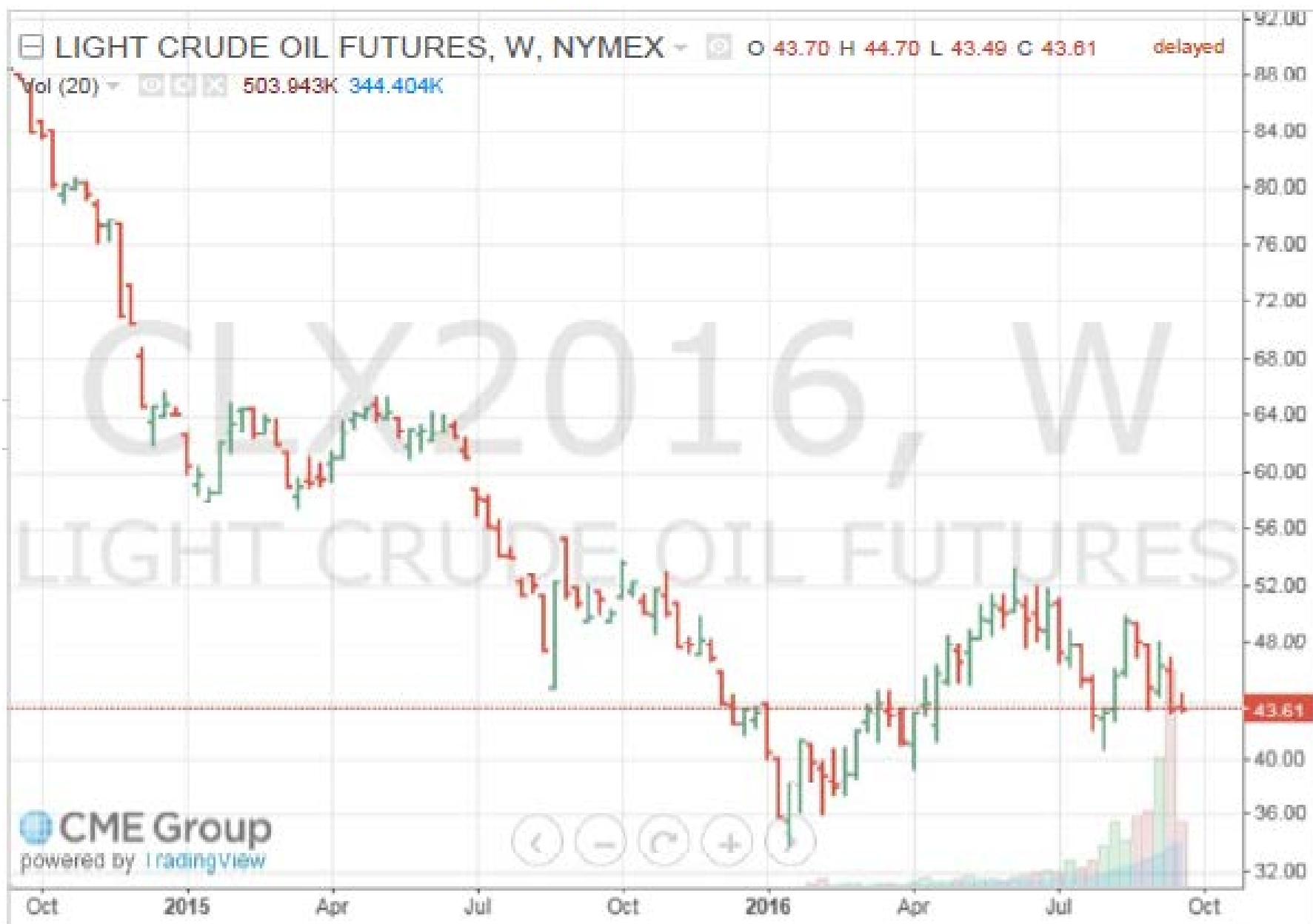
repetition of a procedure applied to the result of a previous application, typically as a means of obtaining successively closer approximations to the solution of a problem

□ LIGHT CRUDE OIL FUTURES, W, NYMEX ▾

○ 43.70 H 44.70 L 43.49 C 43.61

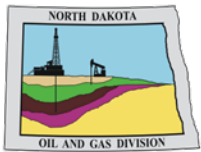
delayed

Vol (20) ▾ 503.943K 344.404K

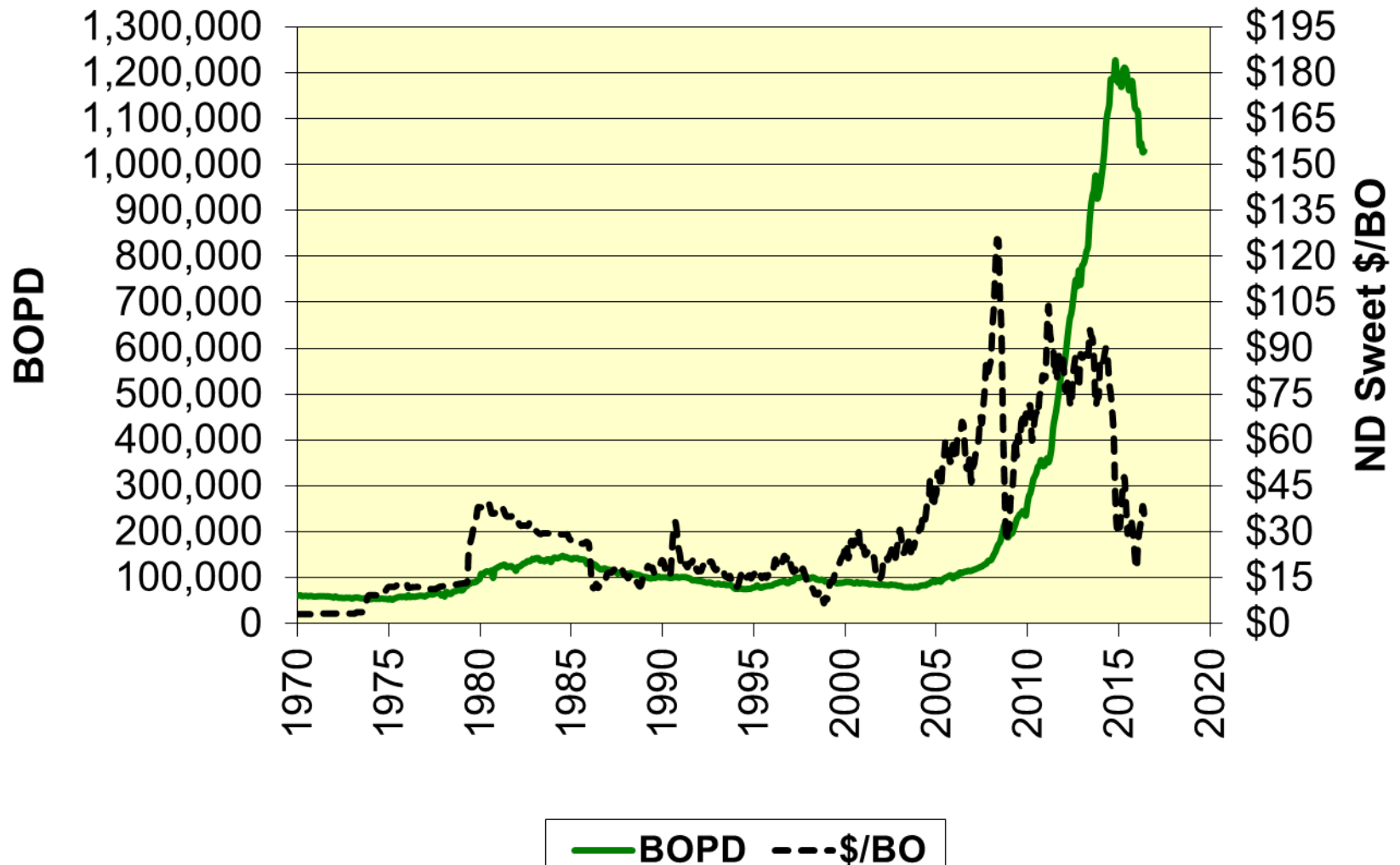


CME Group
powered by TradingView





North Dakota Daily Oil Produced and Price



Since 2015 NDPC Annual Meeting

February 1, 2016 Revenue Forecast Revision

Budget allotment - 4.05%

August 4, 2016 Revenue Forecast Revision

Additional budget allotment - 2.5%

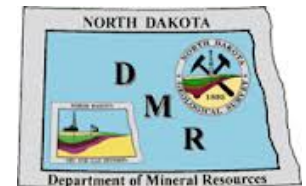
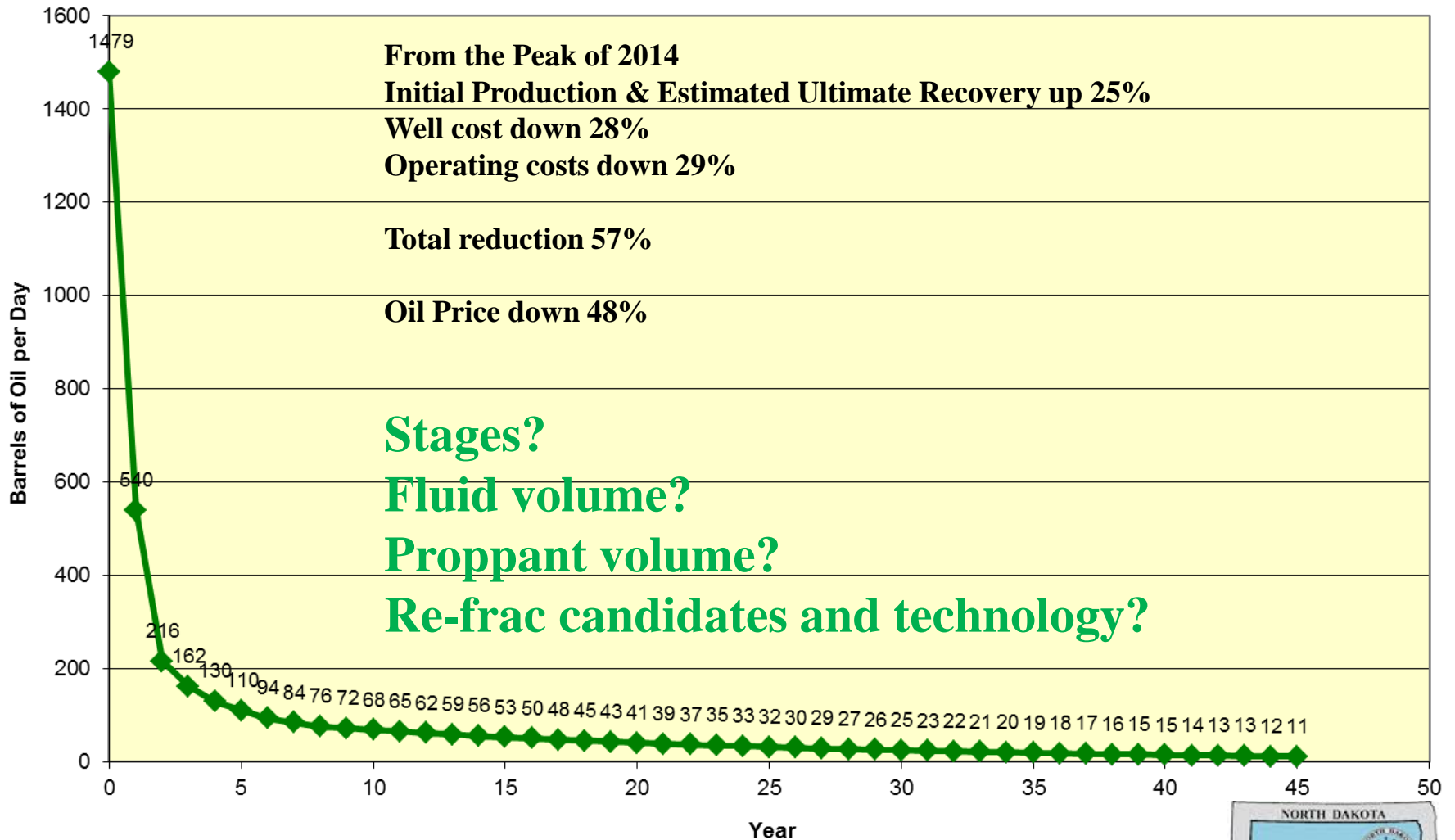
Special session August 2-4, 2016

90% budgets for 2017-2019 biennium

November 2016 Revenue Forecast

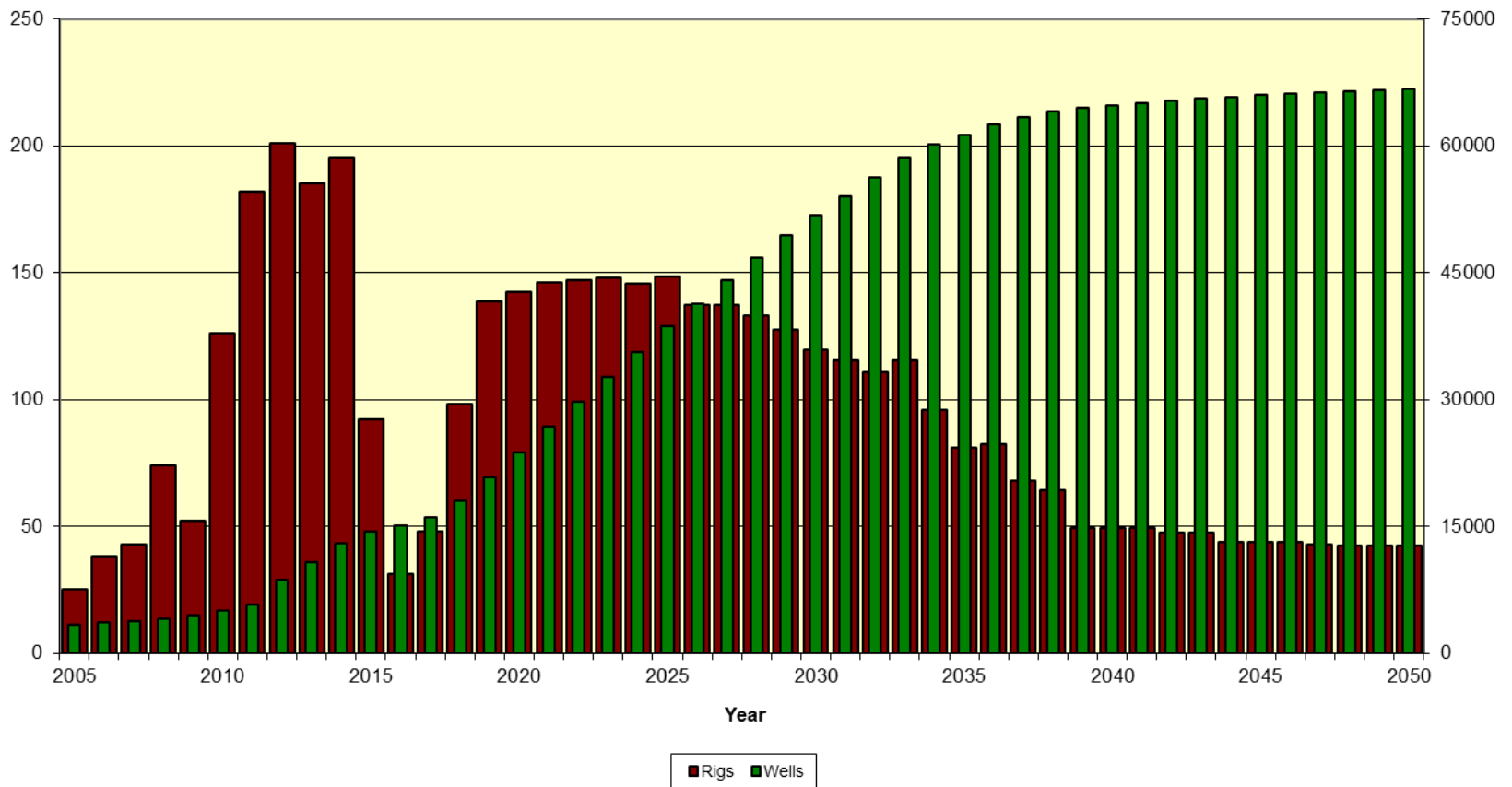
Executive Budget release December 7, 2016

Typical Bakken Well Production



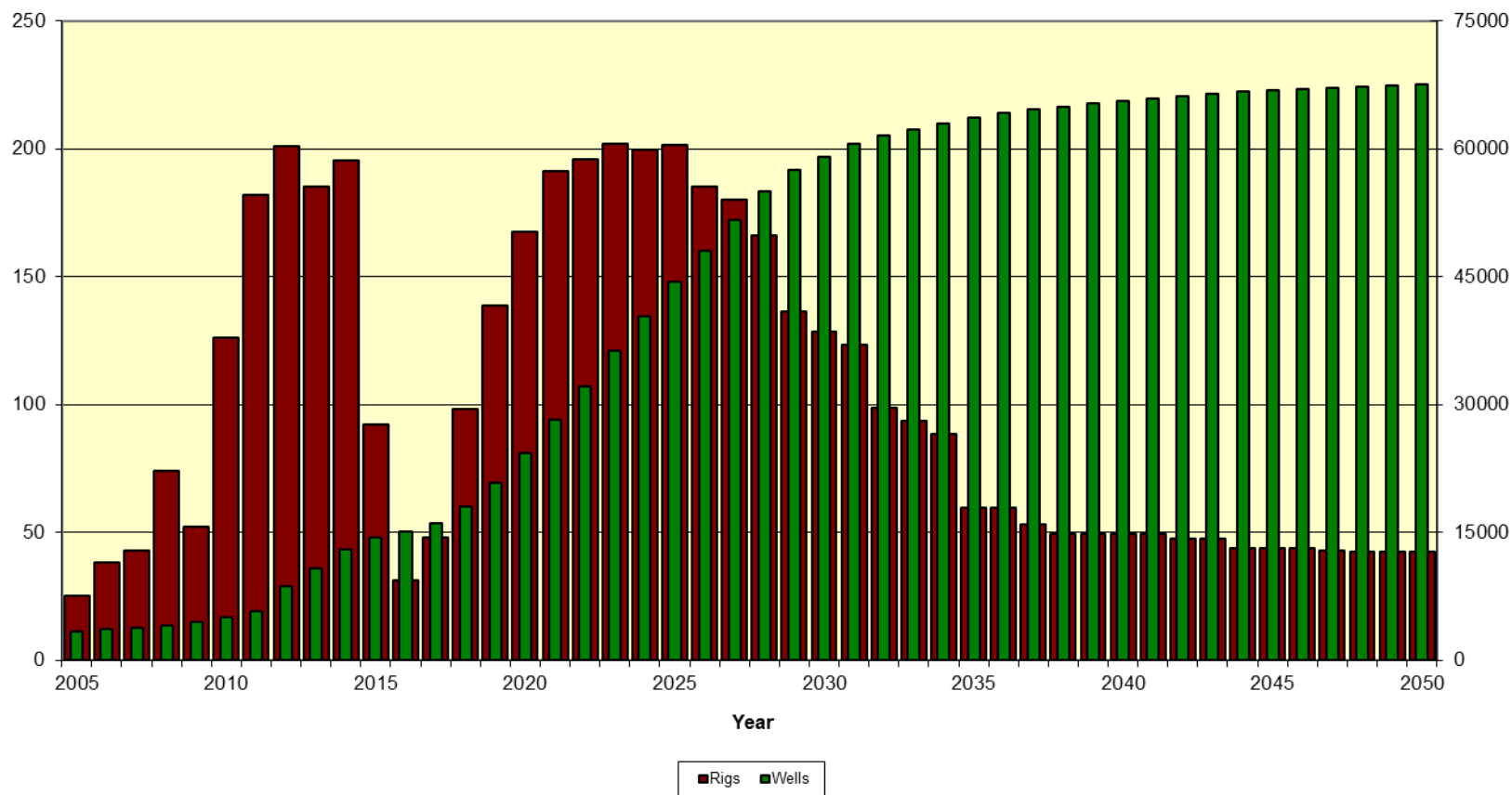
Expected Case

North Dakota Rigs and Wells



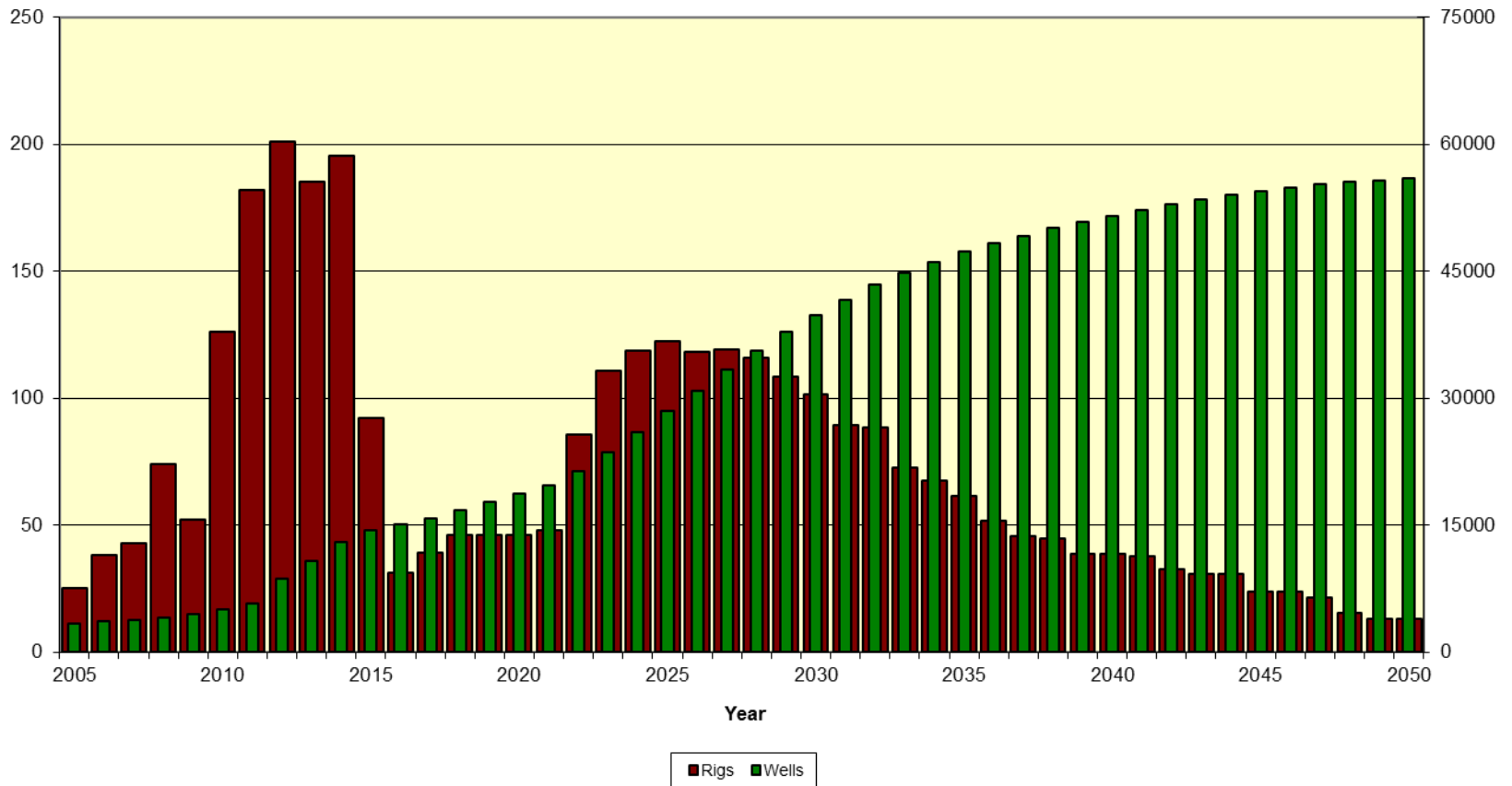
High Price Sooner Case

North Dakota Rigs and Wells

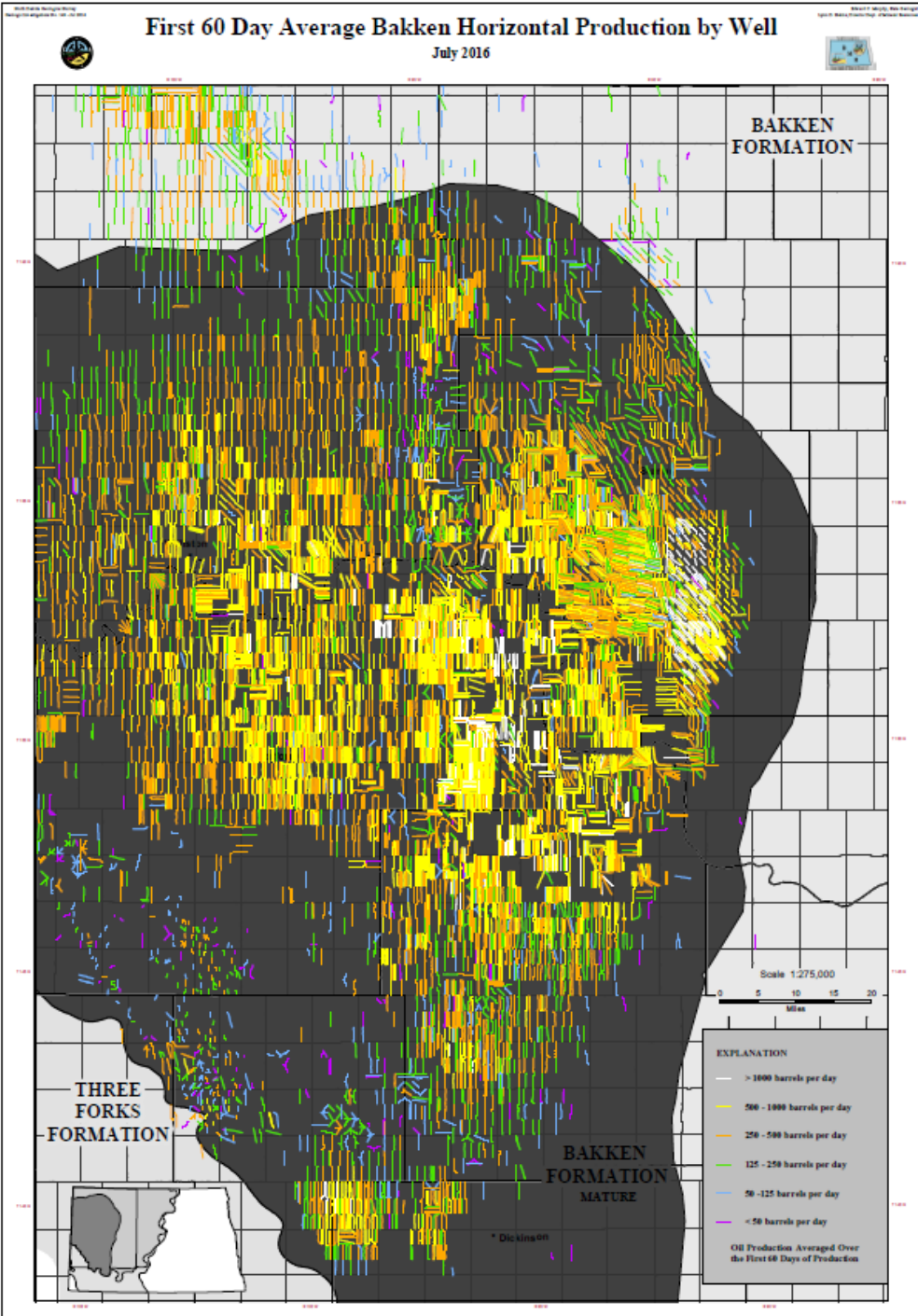


Lower Much Longer Exhaust the Core Case

North Dakota Rigs and Wells



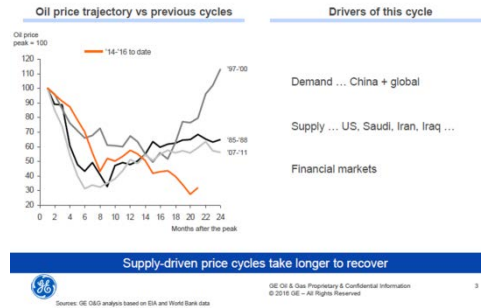
Wells	
13,255 active	+315
2,087 conventional	-541
11,168 Bakken/Three Forks	+928
1,472 inactive	+171
+\$40 for 90 days	
912 waiting on completion	-2
+\$50 for 90 days	
NYMEX April 2018	
1,982 permitted	-53
+\$60 for 90 days	
NYMEX 2024+	
13,734 increased density approved	+2,779
31,355 total	+4,521
55,000-65,000 estimated final	
8,675 reclaimed and bond released	
1,361 reclamation in progress	



Endangered Species

6 endangered
3 designated
5 threatened
1 candidate

Price Recovery



Federal Reserve

Interest rates

\$ Value

\$+1% = oil -2%

\$-1% = oil +4%

Federal Regulation

BLM

Hydraulic Fracturing

Onshore 3, 4, & 5

Venting/Flaring

Sage Grouse

EPA

Waters of US

Clean Power Plan

Waste Rules Lawsuit

Methane Emissions

Chemical Disclosure

USACOE

Easements & ROW



State Regulation

NDIC

Definitions

Addresses & Signs

Saltwater Handling

Reporting

Bonding

Pipelines

Berms

Water Commission

BIA / Tribe

ROW rule

Tax Agreement

TERO

Regulations



Workforce Return

33 Sections of Administrative rule changes effective October 1, 2016

43-02-03-01. DEFINITIONS
43-02-03-11. ORGANIZATION REPORTS
43-02-03-14. ACCESS TO SITES AND RECORDS
43-02-03-16. APPLICATION FOR PERMIT TO DRILL AND RECOMPLETE
43-02-03-17. SIGN ON WELL OR FACILITY
43-02-03-19. SITE CONSTRUCTION
43-02-03-19.3. EARTHEN PITS AND OPEN RECEPTACLES
43-02-03-28. SAFETY REGULATION
43-02-03-29. WELL AND LEASE EQUIPMENT
43-02-03-30. NOTIFICATION OF FIRES, LEAKS, SPILLS, OR BLOWOUTS
43-02-03-30.1. LEAK AND SPILL CLEANUP
43-02-03-31. WELL LOG, COMPLETION, AND WORKOVER REPORTS.
43-02-03-34. METHOD OF PLUGGING
43-02-03-34.1. RECLAMATION OF SURFACE
43-02-03-40. GAS-OIL RATIO TEST
43-02-03-48. MEASUREMENT OF OIL
43-02-03-51.1. TREATING PLANT PERMIT REQUIREMENTS
43-02-03-52. REPORT OF OIL PRODUCTION
43-02-03-52.1. REPORT OF GAS PRODUCED IN ASSOCIATION WITH OIL
43-02-03-53. SALTWATER HANDLING FACILITIES
43-02-03-53.1. SALTWATER HANDLING FACILITY PERMIT REQUIREMENTS
43-02-03-53.2. SALTWATER HANDLING FACILITY SITING
43-02-03-53.4. SALTWATER HANDLING FACILITY ABANDONMENT AND RECLAMATION REQUIREMENTS
43-02-03-55. ABANDONMENT OF WELLS OR, TREATING PLANTS, OR SALTWATER HANDLING FACILITIES - SUSPENSION OF DRILLING
43-02-03-80. REPORTS OF PURCHASERS AND TRANSPORTERS OF CRUDE OIL
43-02-03-81. AUTHORIZATION TO TRANSPORT OIL FROM A WELL, TREATING PLANT, OR CENTRAL PRODUCTION FACILITY, OR SALTWATER HANDLING FACILITY
43-02-03-90. HEARINGS - COMPLAINT PROCEEDINGS – EMERGENCY PROCEEDINGS - OTHER PROCEEDINGS
43-02-03-90.2. OFFICIAL RECORD
43-02-05-04. PERMIT REQUIREMENTS
43-02-05-07. MECHANICAL INTEGRITY
43-02-05-11. BONDING REQUIREMENTS
43-02-08-02.1. PROPERTY DETERMINATION
43-02-08-03. DIRECTOR SHALL DETERMINE STRIPPER WELL OR STRIPPER WELL PROPERTY STATUS

5 sections of Administrative rule changes held over to December 1, 2016 for review / revision

43-02-03-15. BOND AND TRANSFER OF WELLS
43-02-03-29.1. UNDERGROUND GATHERING PIPELINES
43-02-03-49. OIL PRODUCTION EQUIPMENT, DIKES, AND SEALS
43-02-03-51.3. TREATING PLANT CONSTRUCTION AND OPERATION REQUIREMENTS
43-02-03-53.3. SALTWATER HANDLING FACILITY CONSTRUCTION AND OPERATION REQUIREMENTS

Coming Attractions

\$50/barrel & \$60/barrel

Heel and Toe Setbacks

EOR Field Tests

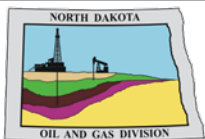
Class VI Primacy

IOGCC - GWPC Produced Water Forums

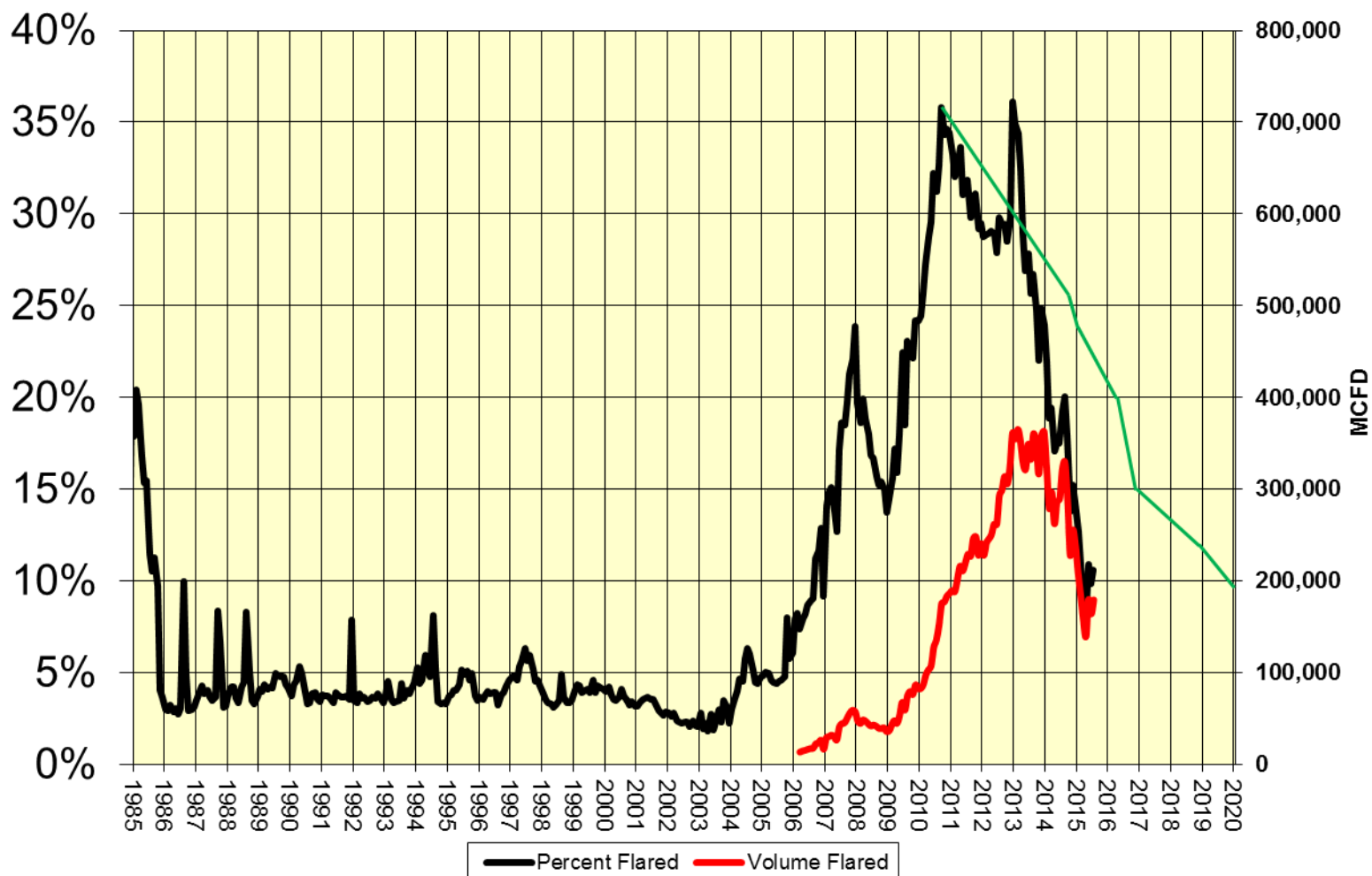
November 8

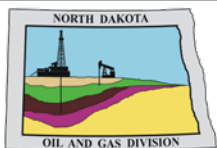
2017 Legislature

Spill Reporting Reform

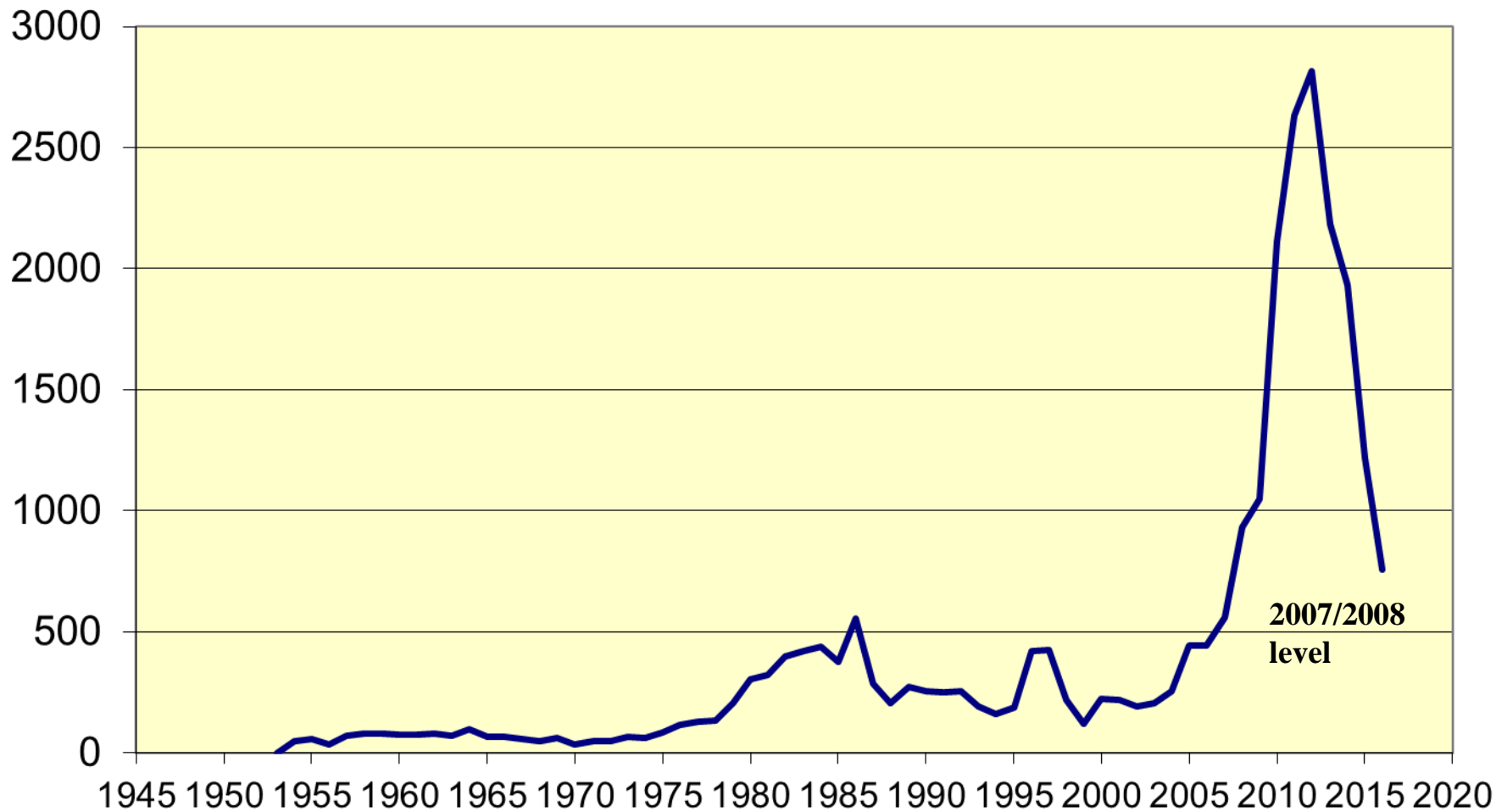


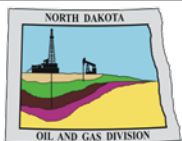
North Dakota Monthly Gas Flared



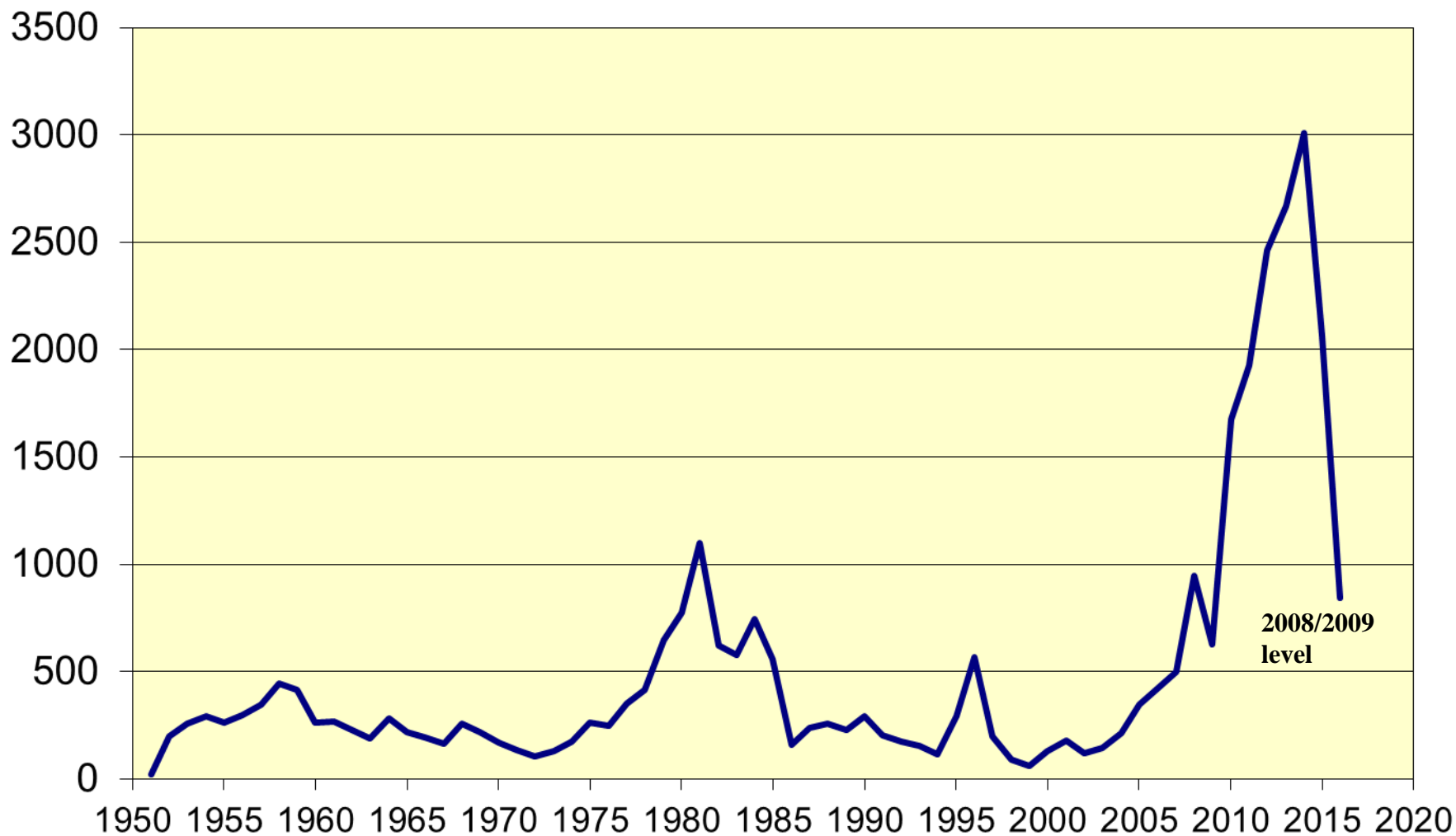


North Dakota Industrial Commission Cases Heard





North Dakota New Well Permits Issued



County Occurrence of Endangered, Threatened, Proposed and Candidate Species
Designated and Proposed Critical Habitat in North Dakota

October 2015

Species	A d a m s	B a r n e s	B e n s o n	B i l l i n g s	B o t t i n e a u	B o w m a n	B u r k e	B u r l e i g h	C a s s	C a v a l i e r	D i c k e y	D i v i d e	D u n n	E d d y	E m m o n s	F o s t e r	G o. V a l l e y	G r. F o r k s	G r a n t	G r i g g s	H e t t i n g e r	K i d d e r	L a m o u r e	L o g a n	M c H e n r y	M c I n t o s h	M c K e n z i e	
Interior Least Tern - E								X					X		X													X
Whooping Crane - E	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Black-Footed Ferret - E	X			X		X							X				X		X		X							X
Pallid Sturgeon – E								X					X		X													X
Gray Wolf - E	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Poweshiek Skipperling – E																												
Piping Plover - T			X				X	X				X	X	X	X								X		X	X	X	X
Western Prairie Fringed Orchid - T																												
Dakota Skipper - T		X			X		X						X	X							X					X		X
Rufa Red Knot - T			X				X	X				X	X	X	X								X		X	X	X	X
Northern Long-Eared Bat - T	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sprague’s Pipit – C	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Critical Habitat																												
Piping Plover - D			X				X	X				X	X	X	X								X		X	X	X	X
Dakota Skipper - D																									X		X	
Poweshiek Skipperling – D																												

E - Endangered

T - Threatened

P - Proposed

C - Candidate

D - Designated

County Occurrence of Endangered, Threatened, Proposed and Candidate Species
and Designated Critical Habitat in North Dakota

October 2015

Species	M c L e a n	M e r c e r	M o r t o n	M o u n t r a i l	N e l s o n	O l i v e r	P e m b i n a	P i e r c e	R a m s e y	R a n s o m	R e n v i l l e	R i c h l a n d	R o l e t e	S a r g e n t	S h e r i d a n	S i o u x	S l o p e	S t a r k	S t e e l e	S t u t s m a n	T o w n e r	T r a i l l	W a l s h	W a r d	W e l l s	W i l l a m s	
Interior Least Tern - E	X	X	X	X		X										X											X
Whooping Crane - E	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Black-footed Ferret - E		X	X			X										X	X	X									
Pallid Sturgeon - E	X	X	X	X		X										X											X
Gray Wolf - E	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Poweshiek Skipperling – E												X		X													
Piping Plover - T	X	X	X	X		X		X			X				X	X					X				X	X	X
Western Prairie Fringed Orchid - T										X		X															
Dakota Skipper - T	X			X		X		X		X		X	X	X							X				X	X	
Rufa Red Knot - T	X	X	X	X		X		X			X				X	X					X				X	X	X
Northern Long-Eared Bat - T	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sprague=s Pipit - C	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X
Critical Habitat																											
Piping Plover - D	X	X	X	X		X		X			X				X	X					X				X		X
Dakota Skipper – D										X		X	X														
Poweshiek Skipperling – D												X															

E - Endangered

T - Threatened

P - Proposed

C - Candidate

D - Designated