

**Oil, Gas, and Minerals**
Bill O'Neill, DNR Resource Deputy
Hal Fitch, DEQ Oil, Gas, and Minerals Division

 House Appropriations Subcommittees on Natural Resources and Environmental Quality
October 19, 2017



  **Agenda**

- Economic Impact
- DNR Roles and Responsibilities
- DNR Lease Requirements
- DEQ Roles and Responsibilities



Economic Impact



- \$22.8 billion tourism industry, supporting 214,000 direct jobs
- \$20 billion timber industry, supporting 35,000 direct jobs
- \$4.8 billion hunting and fishing economy, supporting 72,500 direct jobs
- \$13.6 billion oil and gas industry, supporting 22,800 direct jobs



Importance of Minerals

- Generally speaking:

***If it hasn't been grown,
it's been mined.***






Minerals Extracted in Michigan

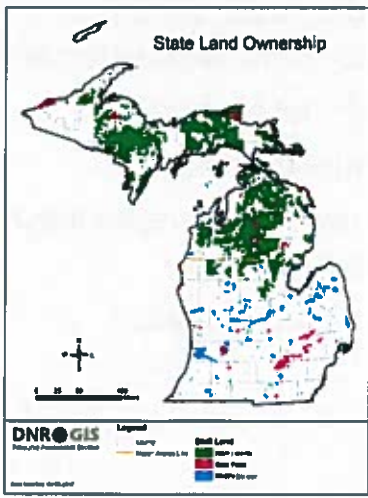
- **Fossil fuels**
 - Oil, natural gas
- **Metallic minerals**
 - Copper, silver, gold, iron, nickel, palladium, cobalt
- **Non-metallic minerals**
 - Sand, gravel, clay, shale, limestone, dolomite, gypsum, salt







Michigan's Public Lands



State Land Ownership

Legend

- State Land
- State Forest
- State Park
- State Game Area
- State Game Refuge
- State Game Preserve
- State Game Sanctuary
- State Game Preserve
- State Game Sanctuary

- 4.6 million acres of surface ownership
- 6.4 million acres of mineral ownership



Public Outdoor Recreation





- Oil, gas, and mineral revenues have totaled almost \$2 billion for public outdoor recreation
 - Michigan Natural Resources Trust Fund
 - Game and Fish Protection Trust Fund
 - State Park Endowment Fund

7



DNR Leasing Responsibilities





- Lease state-owned mineral rights for exploration, development, and extraction
- Lease state-owned land for access
- Verify mineral royalty payments
- Complete on-site reviews to ensure lease compliance and verify revenue
- Process mineral purchase requests



DNR Mineral Leasing Activity

- 8,049 lease documents
 - 97% are oil and gas
 - 3% are metallic and nonmetallic
- 869,666 acres leased
 - 98% are oil and gas
 - 2% are metallic and nonmetallic
- \$24.5 million in revenue generated (FY 2016)
 - 66% from oil and gas
 - 34% from metallic and nonmetallic



DNR Mineral Lease Requirements



- A mineral lease is a contract with the DNR on behalf of the State for:
 - Drilling
 - Mining
 - Operating
 - Laying pipelines
 - Building tanks
 - Power stations, structures, etc.
- Lessee must obtain all separate additional written permissions for drilling, mining and surface operations from:
 - Federal Agencies (e.g. USFS, EPA)
 - State Agencies (e.g. DNR, DEQ)



DNR Mineral Lease Requirements





- Lessee must comply with:
 - DNR mineral lease covenants
 - DNR surface use lease and permit conditions
 - State Land Use Rules
 - Federal rules
 - DEQ rules
- For noncompliant conditions, lessee must:
 - Notify the regulatory agency (EPA or DEQ)
 - Notify the lessor (DNR)



DNR Mineral Lease Requirements





- During the term of the lease, lessee must:
 - Maintain parcel in a safe and orderly fashion
 - Use leased parcel for authorized purpose
 - Maintain access routes
 - Submit production reports
 - Make royalty and rental payments
 - Minimize negative impacts
 - Minimize surface waste
 - Comply with applicable laws and regulations
 - Use reasonable diligence to produce minerals
 - Maintain bond and insurance



DNR Mineral Lease Requirements




Before



After



- Upon termination of the lease, lessee must:
 - Leave parcel in a safe and orderly condition
 - Remove all debris and material
 - Timbers, sheeting, tanks, pipe tubing and equipment
 - Complete restoration per guidelines, which typically include:
 - Grading
 - Replacing topsoil
 - Providing revegetation per specifications
 - Returning land to other productive natural resource purposes



Governor's Extractive Industry Summit

- Areas of focus:
 - Contribution and relevance to every day living
 - Value to State's economic development
 - Building collaborative partnerships
 - Education



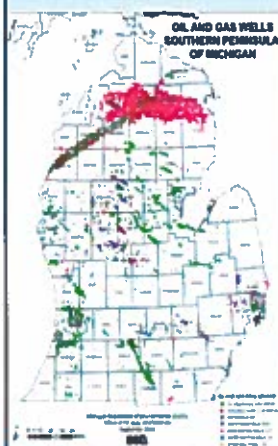
Oil, Gas, and Minerals Division



- Oil and gas
- Gas storage and injection wells
- Mineral wells and solution mining
- Mining



Oil and Gas Activity in Michigan



- 60,000 Oil and gas wells since 1925
- Active wells
 - 4,500 oil
 - 11,000 gas
 - 1,300 water injection and disposal
 - 3,000 gas storage
- Approximately 25% are on state land



Supervisor of Wells

- Purpose
 - Protect air, water, soils, and property
 - Protect public health, safety, and welfare
 - Provide for efficient production of oil and gas
 - Prevent drilling of unnecessary wells
 - Protect natural resources
 - Protect property including mineral rights



Supervisor of Wells

Michigan's Oil and Gas Regulatory Functions

- Permitting (well location, spacing, design review)
- Drilling and construction
- Production operations
- Waste and emissions management
- Plugging and restoration
- Records and information



Important Protections

- Air emissions – leaks, flaring, nuisance odors, hydrogen sulfide
- Ground water and surface water – spill prevention, containment, monitoring
- Setbacks from house and water wells
- Noise abatement



Pollution Prevention Measures

SPILL CONTAINMENT Requirements in effect since 1980s



At the well head

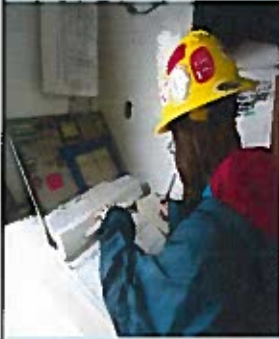


At production facilities





Compliance and Enforcement



- Inspections and records
- Compliance assistance
- Escalated enforcement
- Approximately 60 staff
- 20,000 inspections/year



Protection of Mineral Rights

- Mineral rights are distinct property rights and may be held separately from surface rights, sold, transferred, or leased
- Regulations provide for mineral rights, owners or lessees to receive equitable share of production through:
 - Well spacing and setbacks
 - Production allocation
 - Pooling of properties

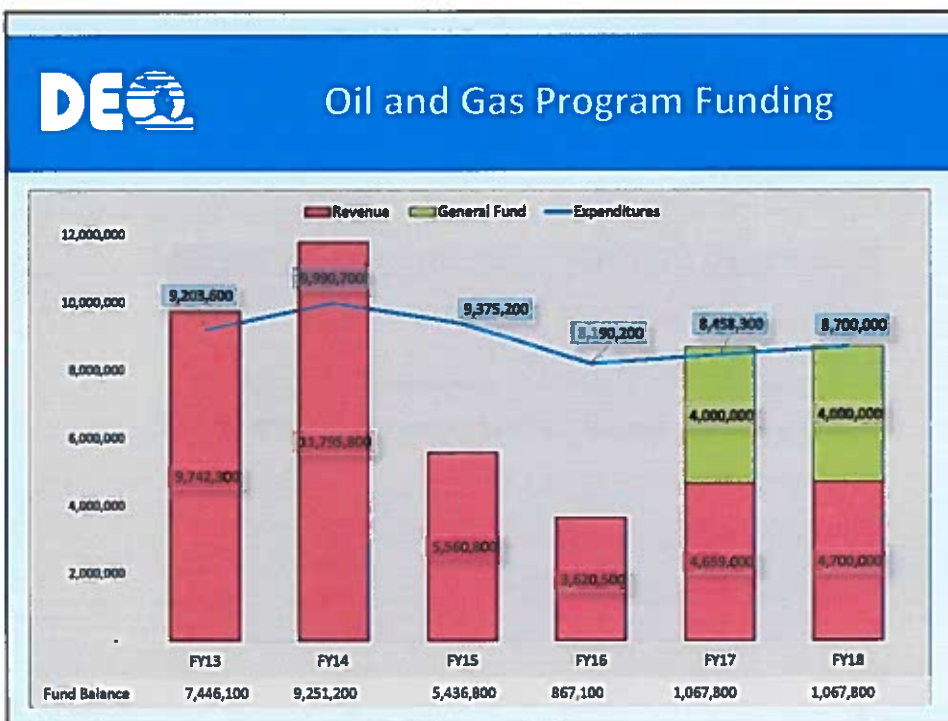
DE
Records Management and Availability



Strong Data and Records Management

- Oil and Gas Data Management System
- Electronic document management

Public and Industry Access




- Multiple public facing web resources
- Downloadable data for power users





Summary

- DNR
 - Leases state-owned mineral rights for exploration, development, and extraction
 - Leases state-owned land for access
 - Ensures compliance with these leases
- DEQ
 - Regulates how product is extracted
 - Ensures compliance with these regulations
- Industry is an economic driver



Questions?

