

Williston Basin Petroleum Conference

Bakken VOC Emissions

Jim Semerad
Environmental Health Section
Division of Air Quality

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NORTH DAKOTA
DEPARTMENT *of* HEALTH

Overview

- ▶ Air Quality Agencies– NDDoH and EPA
 - ▶ Permitting Oil & Gas Wells
 - ▶ VOC Compliance / Enforcement Issues
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Air Quality Agencies in Bakken:

- ▶ **North Dakota Dept. of Health**
 - Primacy for nearly all AQ regulations promulgated by EPA
 - Minor source permit program – NDAPCR
- ▶ **EPA – primacy on Indian Reservations**

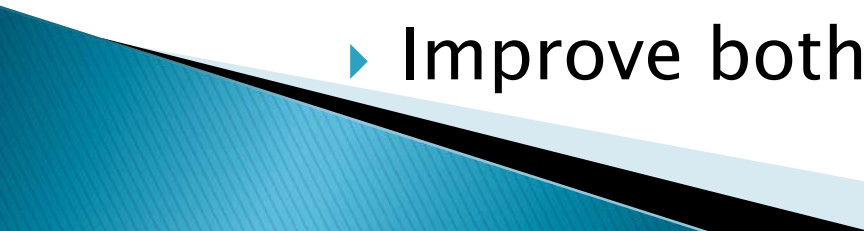
Air Quality in North Dakota

- ▶ North Dakota is one of only a few states that currently meets all clean air quality requirements (ambient standards)
- ▶ However, concerned about two factors:
 - More and more small sources – oil wells, engines, etc.
 - More stringent ambient standards are coming
 - – PM, NO_x, SO₂, Ozone

VOC Emissions:


- ▶ Recent findings are that potential VOC emissions in Bakken are higher than originally expected
 - ▶ Amount of emissions dictate regulatory applicability
 - ▶ Regulations become significantly more stringent as emissions increase – especially at the 100/250 tpy threshold
 - ▶ Permitting can take 12–24 months for major PSD sources vs. nearly immediate timeframe for wells now
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Emission Control is the Answer:

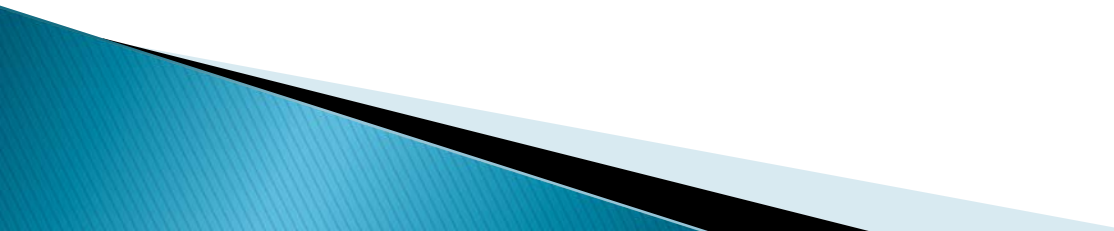
- ▶ Emissions reduced by 98+%
 - 150 tpy potential drops to 3 tpy
 - 50 tpy potential drops to 1 tpy
 - ▶ Best method for control is being studied by the VOC task force
 - ▶ Options include collecting gas which is currently emitted – conservation and profit
 - ▶ Improve both AQ and Worker Safety
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North Dakota Dept. of Health

Current Status:

- ▶ Monitoring progress of VOC control efforts and options
 - ▶ Monitoring Ambient AQ – no exceedances
 - ▶ Focused on air quality and emission reductions – not on enforcement action at this time
 - ▶ Will review progress/options as more information comes available to determine final resolution
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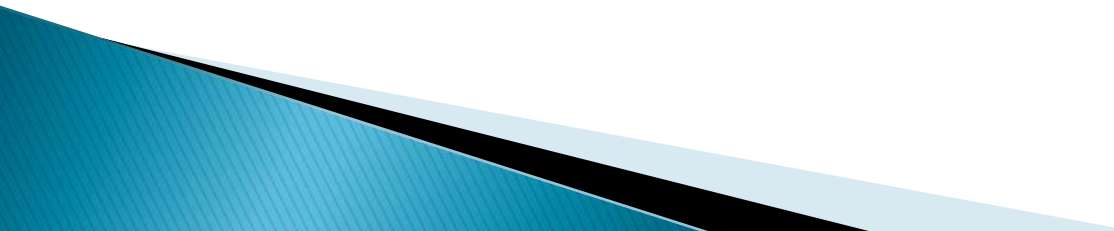
EPA Status:

- ▶ Permitting Issues – no minor source program so questions on how to permit wells and limit to minor status
 - ▶ EPA is monitoring Progress and Resolutions that we make
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Summary:

- ▶ VOC Emissions – Big Deal ; numerous sources with compliance problems due to potential emissions above criteria levels
- ▶ Permitting for wells will significantly expand if emissions result in “Major” source status
- ▶ Problem is with all Bakken wells/operators
- ▶ Perfect Storm??
 - Potential of significant emissions
 - Large number of sources
 - Ambient Stds. becoming More Stringent

Moving Forward:

- ▶ Resolve all VOC emission issues by installing pollution control
 - ▶ Achieve compliance for all wells
 - ▶ Determine if changes are required for oil well registration/permitting
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Division of Air Quality:

- ▶ Jim Semerad: jsemerad@nd.gov
- ▶ Todd Peterson: tfpeterson@nd.gov
- ▶ Website: <http://www.ndhealth.gov/aq/>
- ▶ Phone: 701-328-5188
918 East Divide Avenue, 2nd Floor
Bismarck, ND 58501-1947