



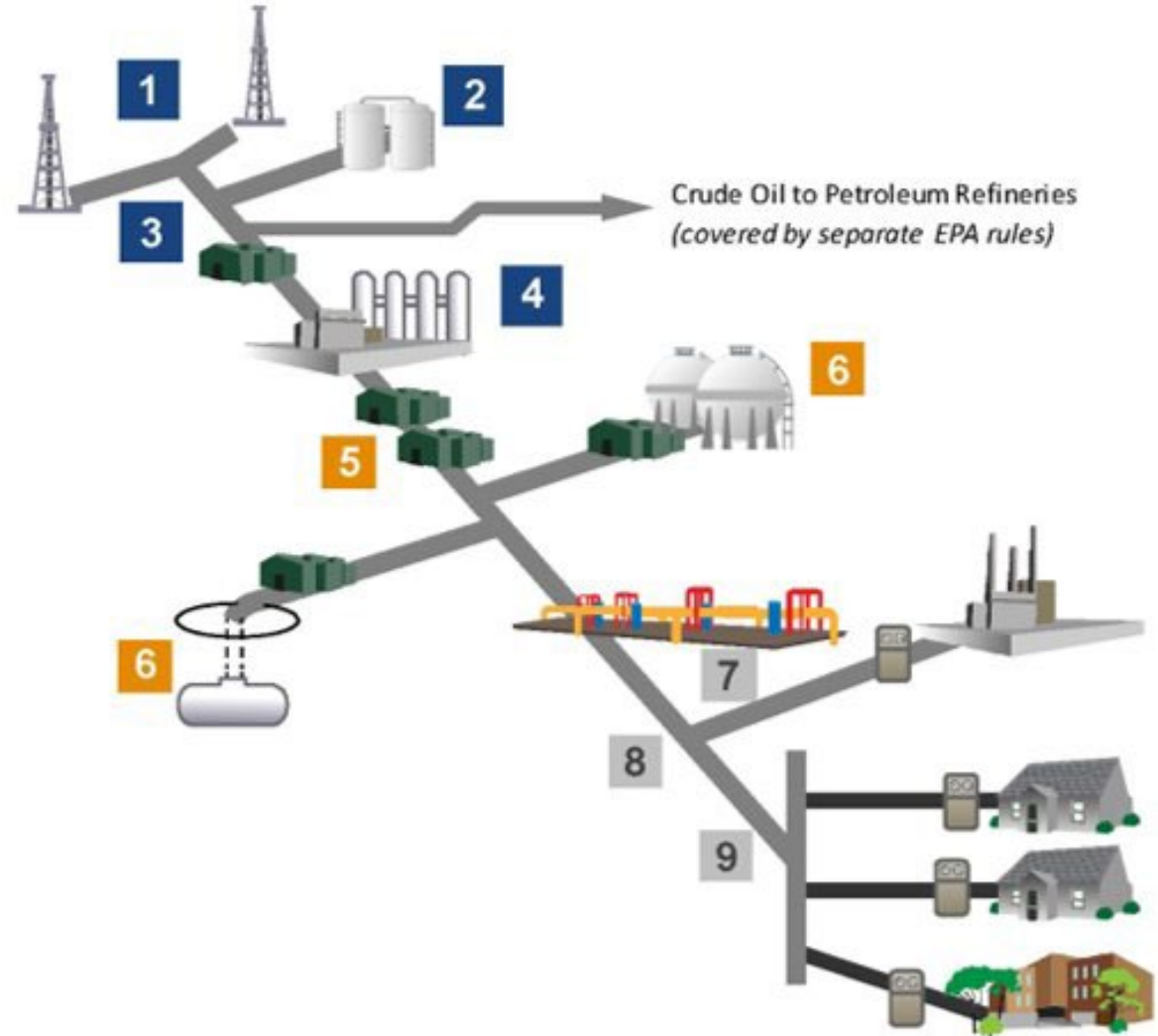
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# Implementing the Oil and Gas Methane Rule in TN

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# Oil and Gas Methane Rule Basics

- Published in the FR on March 8, 2024
- Covers oil & natural gas production, processing, transmission, and storage – not distribution
- Targets methane, volatile organic compounds (VOCs), air toxics
- Ongoing litigation
  - Motion to Stay Denied



# NSPS and Emission Guidelines for this Rule

- New Sources: New Source Performance Standard (NSPS)
  - Establish technology-based standards for pollutant emissions
  - Sources constructed, modified, or reconstructed after December 6, 2022
- Existing Sources: Emission guidelines
  - Sources constructed on or before December 6, 2022
  - Requires states to submit a State Plan, which is due March 9, 2026

# Affected Sources in Tennessee (TN)



Oil Production



Natural Gas Production



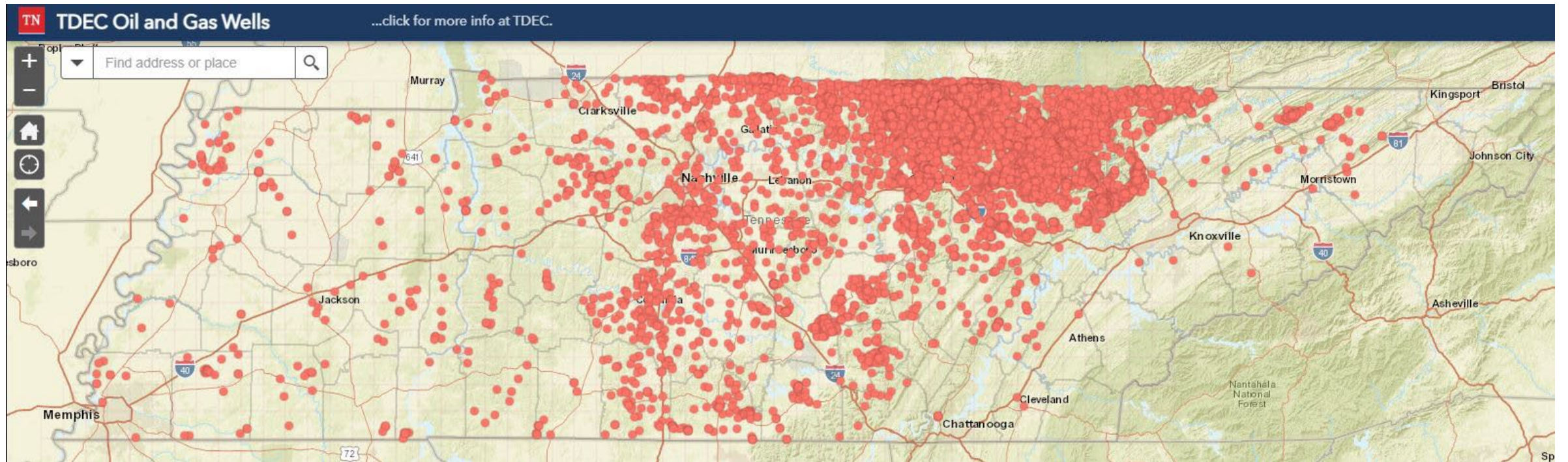
Storage Tanks



Natural Gas Compressor Stations

# Oil and Natural Gas Production in TN

- Oil Production: Primarily in NE Middle Tennessee
- NG Production: Primarily in East TN, outside of Knoxville



Map includes wells permitted over time, not indicative of active wells

# Oil and Natural Gas Production in TN

- TN is a small producing state
  - Oil: Majority of wells < 1 bbl/day
  - NG: Majority of wells < 10 mcf/day
- Commercial well operators
  - Most are small operations for oil
    - ~950 active wells as of 2022
  - But some larger companies for NG
    - ~900 active wells as of 2022
- Domestic well NG operators
  - ~800 domestic operators

Duncan Drilling

2022 production: ~0.06 bbls/day



Domestic NG well



# What's the Status of the Implementing O&G Rule in TN?



# Meaningful Engagement Strategy

- Developed an internal Project Charter (Public Involvement Plan)
  - Aligned with the rule requirements
  - Intended to maximize information gathering from a diverse group of stakeholders
- Leveraged collaborations with other TDEC divisions to gain public engagement expertise and expand our reach to affected stakeholders/communities
  - Office of External Affairs (OEA)
  - Division of Mineral and Geologic Resources (DMGR)
  - Small Business and Environmental Assistance Program (SBEAP)
- Utilized multiple resources to spread the word about our activities and track our stakeholder reach, event attendance (MyEmma)
- Hosted multiple engagement events to increase our reach and educate
- Documented all feedback received during our meaningful engagement activities for consideration in our state plan (and saved all documents in central location).



# Meaningful Engagement: Resources and Meetings

- Oil & Gas [Website](#) and Comment Card
- Meaningful Engagement Activities to date
  - In-person meeting (Affected Communities)
  - Virtual meeting (Local Programs, breakout sessions)
  - One-on-One Meetings



# Meaningful Engagement Highlights

- Well attended by the regulated community, with some representation from environmental interest groups or community members.
  - We spread the word but could not get all to attend or participate.
- Most stakeholders had not yet reviewed the rule or had time to digest it.
- Information flowed in both directions (from TDEC to stakeholders and back).
- Regulated community expressed concerns about compliance and regulatory uncertainty.
- Domestic well operators will need curated assistance to comply.
- Compressor station operators have not yet submitted comments but intend to.

# Meaningful Engagement: Field Site Visits

- Oil and gas well site visits
- General thoughts:
  - Gas production sites are generally ahead of the game with compliance
  - While, oil sites will encounter significant challenges.



# Examples of Issues Observed during Visits: Venting



## Tank Storage and Oil Production

- Direct Venting, fugitives
- No Control Measures
- No Methane Emissions data

# Examples of Compliance Wins



## Oil Production Site

- Powering Generator with Associated Gas
- **But**, still venting



## Natural Gas Production Site

- Active Leak Detection and Repair
- W/ Reporting

# Key Challenges Identified during Meaningful Engagement

- Associated Gas
  - Many oil wells are directly venting associated gas to atmosphere
  - Uncertain how much methane is venting
- Lack of Infrastructure
  - Limited pipelines for routing gas to a sales line, esp. for oil wells
  - Limited service providers for timely repairs
- Well closure requirements
  - 60-day notification for well plugging in rule is greater than our current 12-hr requirement
  - Uncertain on what is expected from states on the plugging requirements?
- Domestic operator requirements

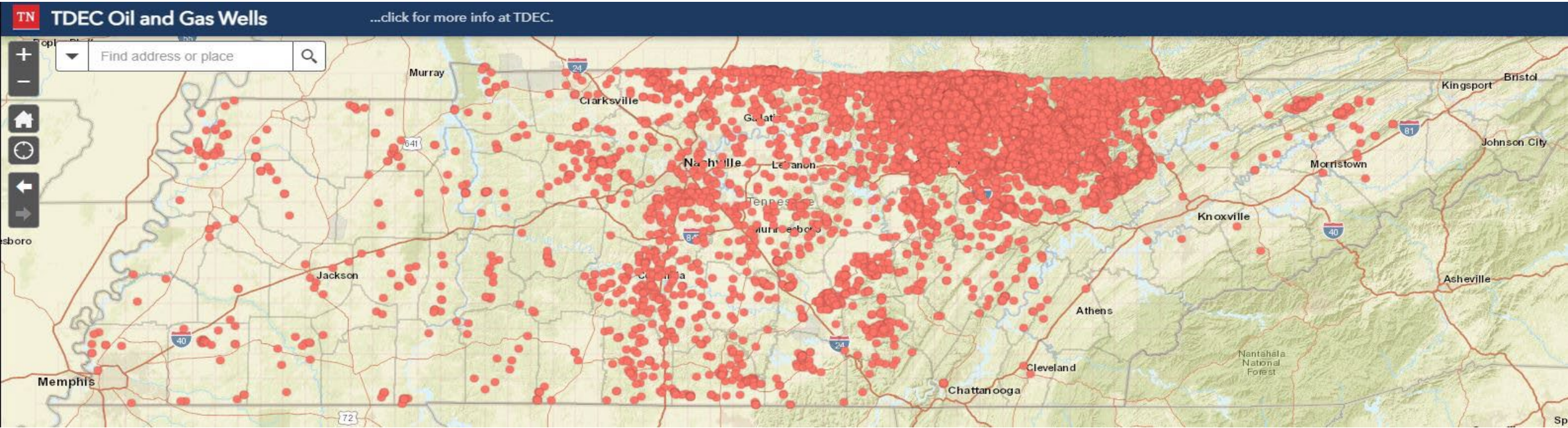
# What's Next for Oil & Gas in Tennessee?

- Considering adopting EPA's Model Rule for OOOOc with modifications to reflect TN's operations
- Summarizing feedback from Meaningful Engagement to incorporate in our rulemaking and State Plan
- Exploring compliance options (RULOF) for certain operations that will face technical or economical challenges complying with the rule
  - Requires significant amount of data from stakeholders (takes time, may be hard to obtain)
- Attempting to characterize methane emissions from our well operations.
  - Vast majority of wells do NOT know their methane emissions
  - Critical to understanding compliance options and overall source impact

# Possible Paths for Permitting Wells

## Oil and Gas Wells

- Permit-by-Rule
  - Not historically regulated by TDEC APC
  - Simple application process, cost-effective
  - Most efficient way to permit the number of wells in our state





# Possible Paths for Permitting Compressor Stations

## Natural Gas Compressor Stations

- Historically regulated by TDEC APC
- Individual permit, tailored to the facility
- New requirements will be phased in depending on major vs minor source.
  - Major Sources: 18 months, unless permit expiration is w/in 3 years
    - Upon permit renewal if facility doesn't yet have a TV permit
  - Minor Sources: TBD



# Key Takeaways

- Meaningful Engagement has been useful for gaining stakeholder feedback to customize our rule/plan for compliance success.
  - Long road ahead of us: several compliance nuances
  - May introduce delays in our rulemaking and state plan development
- Is our meaningful engagement enough for approval? Will there be any unexpected requirements in EPA's toolbox/guidance that we'll need to address later?
- Certain sources (oil wells and domestic well operators) will likely face huge challenges with compliance and will need to consider compliance flexibilities.
  - How will this need to be addressed in the plan?
- Limited resources (funding, staff time) are an apparent challenge.
  - Competitive funding is not ideal.

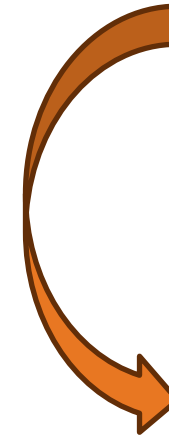
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# Thank you & Comment Card



Scan with Phone  
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Comment Card



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