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**Texas Commission on Environmental Quality
www.tceq.state.tx.us**

Barnett Shale Study

- Phase 1: August 24-28, 2009
- Phase 2: October 9-16, 2009
- Phase 3: November 16-20, 2009

* 2007 Initial Study - North Texas Flyover



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Barnett Shale Study

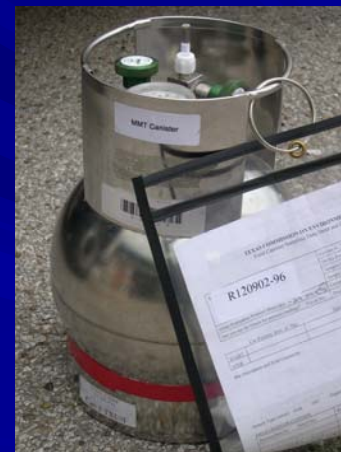
94 Monitoring Sites

Toxic Vapor Analyzers

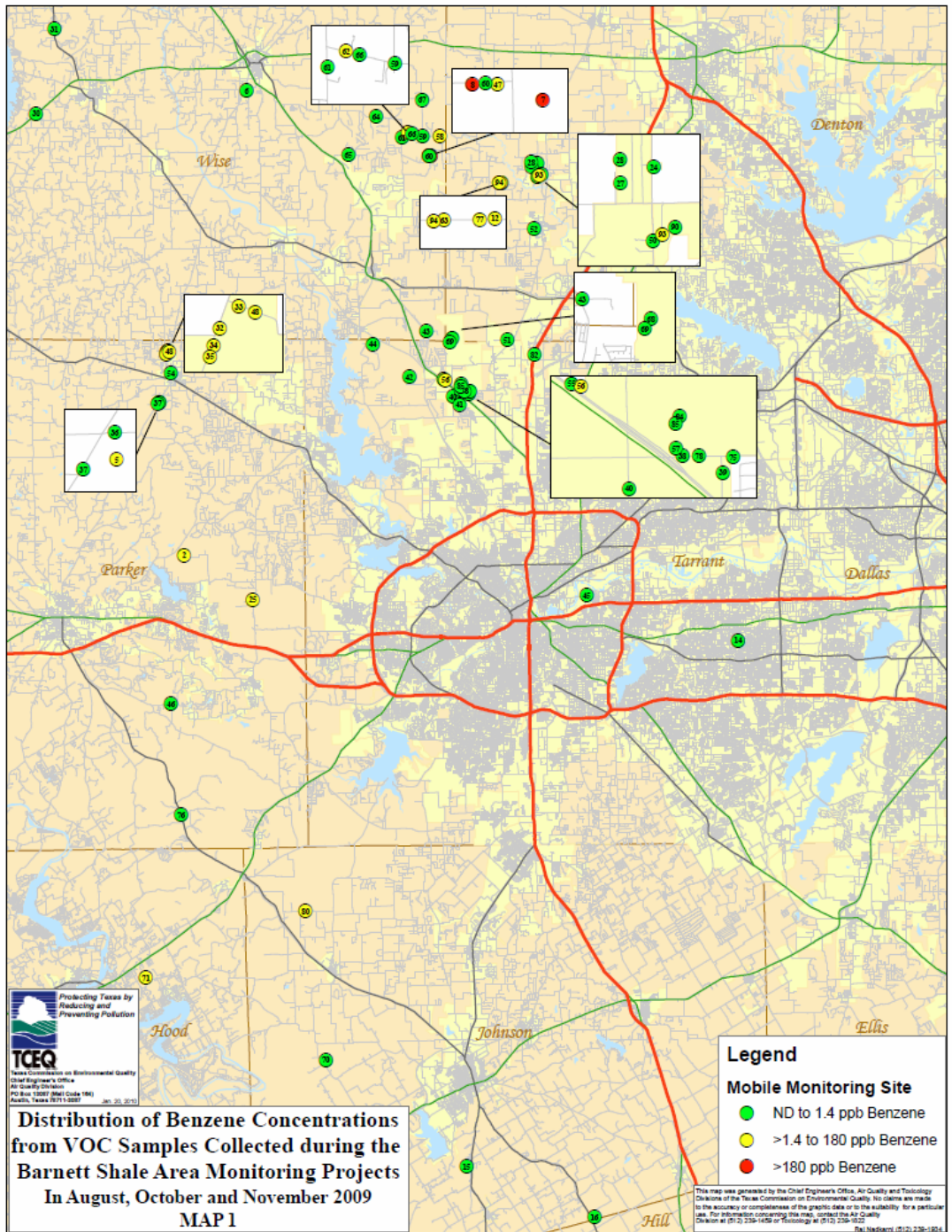


GasFindIR

Summa Canisters



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Barnett Shale Study

- Of the 94 sites monitored, TCEQ documented that only two sites had benzene levels that demanded immediate action
- TCEQ documented that 19 additional sites may require action by facility operators



Barnett Shale Study

- Two sites required immediate action - Repairs have been completed & confirmed by TCEQ

Initial monitoring:

- Targa (site 8) – 1,100 ppb (compressor station)
- Devon (site 7) – 15,000 ppb (five feet from well)

Effects Screening Level* (ESL) – concentration below which health effects might be observed; **not a regulatory requirement*

Short term ESL for benzene = 180 ppb

Long term ESL (70 yrs) = 1.4 ppb



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- TCEQ conducted verification monitoring 1/18/10

Post repair benzene levels:

- Targa (site 8) - 0.21 ppb
- Devon (site 7) - 0.18 ppb



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What's Next?

- Install new stationary monitors - DISH and Eagle Mountain
- Additional targeted mobile monitoring – ground and air-based monitoring
- Continue complaint response process (12 hour response)
- Continue routine / reconnaissance investigations



Conclusion

- Repairs have been completed at the two sites where significant levels of benzene were documented (benzene is now at background levels)
- Repairs are in progress at sites where elevated levels of benzene were detected
- TCEQ will continue to investigate and direct facilities to make the necessary repairs and verify repairs achieve desired results
- TCEQ will continue to monitor to ensure emerging issues are addressed

