

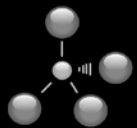
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Incidence & Response Forum

Ohio: Orphaned Well Groundwater Contamination Incidents (1983-2007)

Screening Criteria

- **Scenario # 1.** All wells within a field were developed and abandoned prior to invention of hydraulic fracturing. Reservoir never stimulated by hydraulic fracturing.

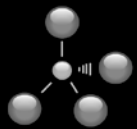


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Screening Criteria

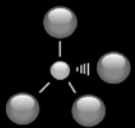
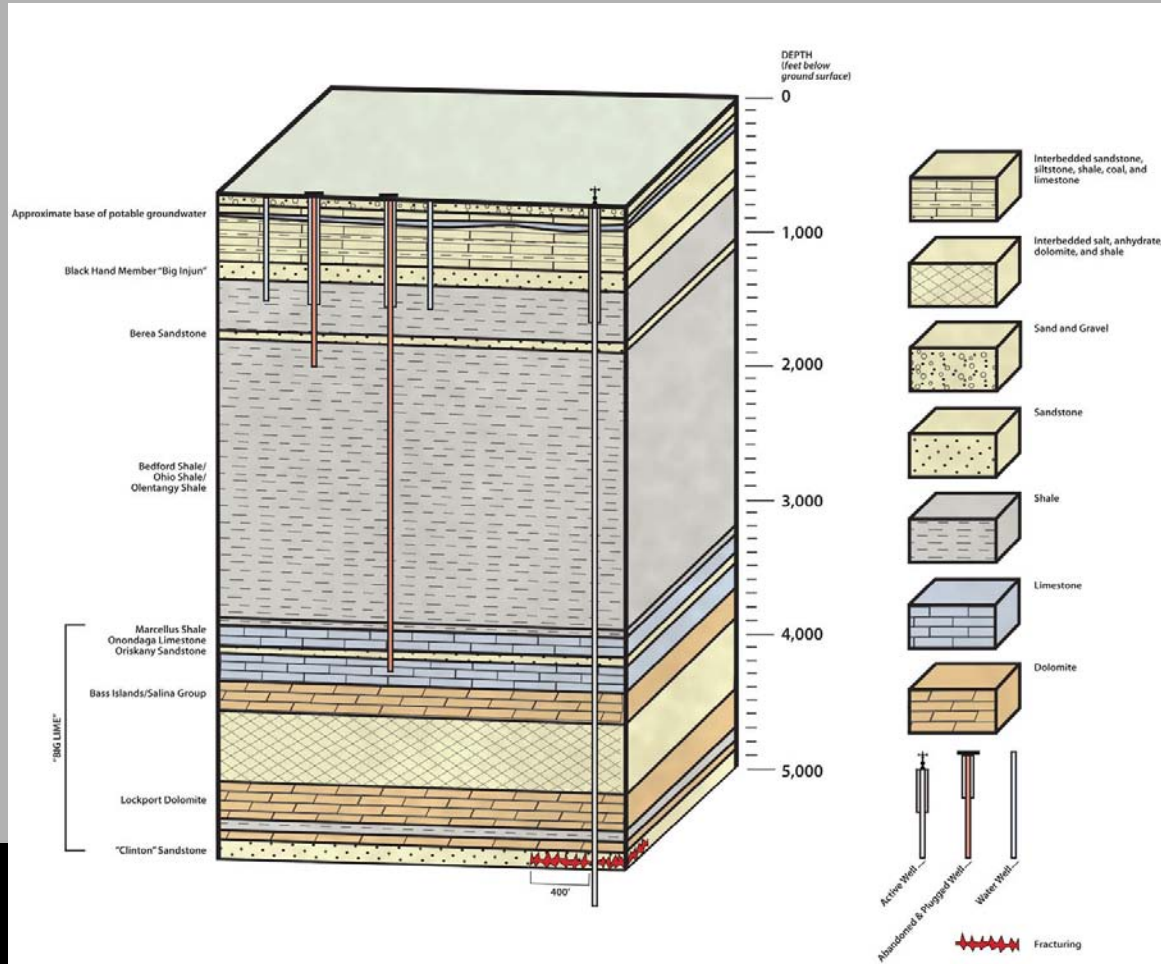
- **Scenario # 2.** All orphaned wells were completed in reservoirs significantly less deep than recent development where deeper reservoirs are stimulated by hydraulic fracturing. Intervening zone has one or more competent confining zones.



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Scenario # 2

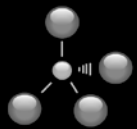


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Five Screening Criteria

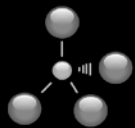
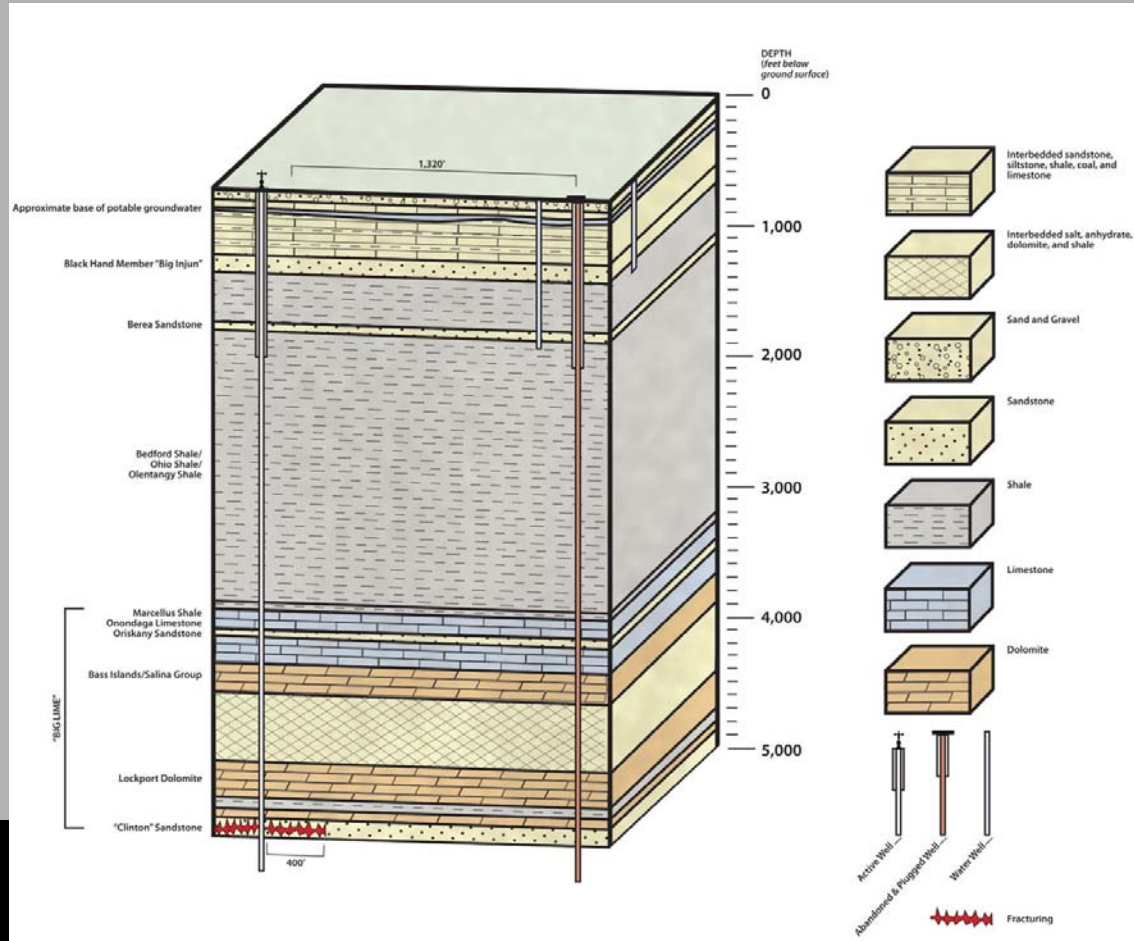
- **Scenario # 3.** No active wells stimulated by hydraulic fracturing within a .25 mile radius of the orphaned well.



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Scenario # 3

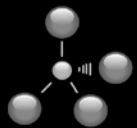


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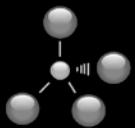
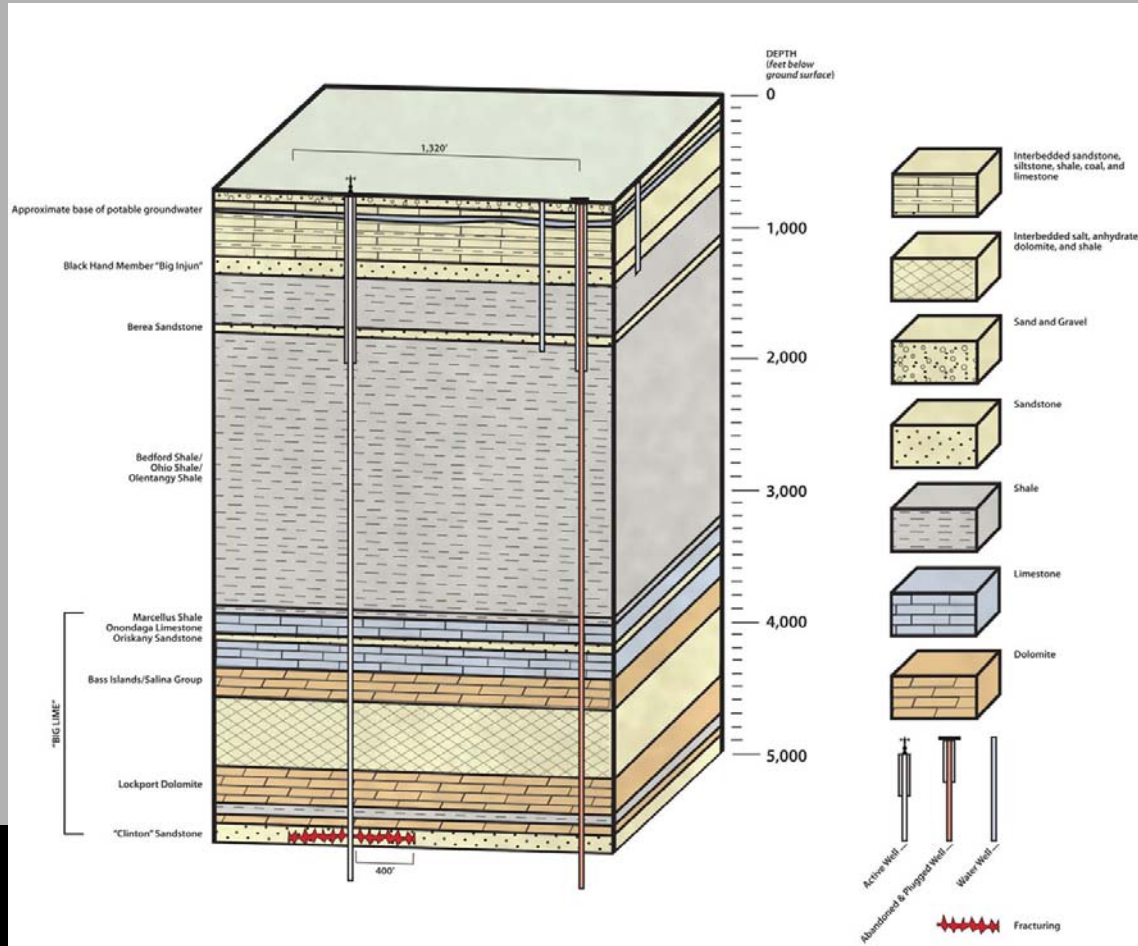
- **Scenario # 4.** Active wells and orphaned well were developed in the same reservoir; and wells are less than .25 miles apart; but, there were no hydraulic fracturing stimulations during the five years prior to reported contamination of groundwater.



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Scenario # 4

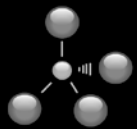


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Screening Criteria

- **Scenario # 5.** Active wells and orphaned well were developed in the same reservoir; and, were less than .25 miles away, and one or more hydraulic fracturing stimulations occurred during the five years prior to reported contamination of groundwater.

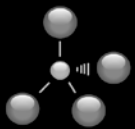


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Assessment Based on Screening Criteria

Scenario	Number of Incidents	Percentage
1.	7	17
2.	9	22
3.	15	37
4.	10	24
5.	0	0



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