

Oil and Gas Industry **Safety Alert 002**

On February 28th 2008 after acidizing a fruitland coal formation on the Mudge A # 10 in San Juan County, New Mexico; chemically created hydrogen sulfide was encountered during the flowback operations.

The case history of this well indicates no known history of hydrogen sulfide. After the acid treatment was performed, the completion unit crew went about their normal operations for swabbing the fluids back. On the fifth swab run, the completion foreman noticed a strong rotten egg smell. Operations ceased and the well was shut in as per proper protocol.



Facts and Findings:

- Initial concentrations of Hydrogen Sulfide were detected from a rotten egg smell.
- Operations were immediately ceased and well was shut in.
- An H₂S consultant was called, levels identified were 250-2000 ppm.
- H₂S gas was created by the 15% HCL acid treatment for iron sulfide and calcium carbonate scale.

Recommendations:

- Anticipate H₂S gas whenever treating iron sulfide and calcium carbonate scale with acid.
- Pump and treat with a H₂S scavenger prior to flow back to reduce the risk of H₂S gas on the surface.
- Verify H₂S monitors are on site and establish H₂S concentrations on flowback.