The Monitoring Program at the AEP PVF Site was a Comprehensive, Integrated Program

The PVF project at the AEP Mountaineer Power Plant consisted of a 20 MW CO₂ Capture and Storage System.

CO₂ Capture and Injection took place from October 2009 - May 2011.

Well network of 2 injection wells and 3 reservoir monitoring wells.

Injection into two reservoirs, the Rose Run Sandstone and the Copper Ridge Dolomite.

**Monitoring Goals & Requirements**

- Protection and monitoring of the USDW
- Differential reservoir pressure monitoring
- CO₂ plume assessment through modeling
- Well network mechanical integrity and well condition maintenance

**Program Approach**

- Local groundwater sampling and analysis
- Downhole pressure / temp. data collection
- Reservoir pressure data analysis
- Frequent well observation / maintenance surface & well
The AEP PVF project is approaching site closure based on the success of the post-injection program.

The program at AEP during the post-injection monitoring phase has been successful.

- Injected CO₂ poses no threat to the USDW.
- Differential pressure has return to pre-injection or near pre-injection levels.
- The two CO₂ plumes are stable and modeling shows that they extend approximately 990 to 1050 ft. for the Copper Ridge formation and approximately 510 to 600 ft. for the Rose Run formation.
- All regulatory and operational program requirements and goals have been met.
- Due to the success of the site care and monitoring program, three of the wells were plugged in 2014.