

A faded map of the Appalachian region serves as the background. It shows various cities and towns including Findlay, Lima, Mansfield, Akron, Youngstown, Pittsburgh, Altoona, State College, Chambersburg, Hagerstown, Martinsburg, Winchester, Washington, Dale City, Harrisonburg, Frederickburg, Stanton, Charleston, Huntington, Portsmouth, Cincinnati, Dayton, and Toledo. Major rivers like the Ohio River and Potomac River are also visible. The text 'APPALACHIAN STORAGE HUB (ASH) PROJECT' is overlaid in the center, with 'APPALACHIAN' and 'PROJECT' in orange and 'STORAGE HUB' in black.

# APPALACHIAN STORAGE HUB (ASH) PROJECT

**Semi-Annual Meeting  
March 14, 2017  
WVU Erickson Alumni Center**

# BACKGROUND

- Liquids-rich Marcellus and Utica Shale production in the tri-state area of OH, PA and WV
- Desire to move natural gas liquids (NGLs) from wet gas areas to industrial sites throughout the greater Appalachian region
- A proposed “6-pack” pipeline from Monaca, PA to northeastern KY and Charleston, WV along the Ohio & Kanawha rivers
- Subsurface storage will be a necessary component along the pipeline route

# FIRST QUARTER GOALS & ACCOMPLISHMENTS

- **Defined the Area of Interest (AOI)**
- **Data Collection within the AOI**
- **Developed a Project Database & Website**
- **Correlated Subsurface Units of Interest in the AOI**

# GEOLOGIC INTERVALS OF INTEREST

## Mined-rock caverns

- Greenbrier Limestone (suitable for mining)

## Salt caverns

- Salina Group salts (suitable for solution mining) – Newburg sandstone

## Gas reservoirs

- Keener sandstone to Berea Sandstone
- Upper Devonian sandstones (Venango, Bradford, Elk)
- Oriskany Sandstone
- Clinton-Medina Group through Tuscarora Sandstone
- Rose Run and Upper Sandy Member of the Gatesburg Formation

## SECOND QUARTER GOALS & ACCOMPLISHMENTS

- **Completed the Correlation of Key Subsurface Units**
- **Completed Mapping of Structure & Gross Thickness**
- **Initiated the Study of Reservoir Character**

# A LOOK AHEAD TO THE THIRD QUARTER

- **Complete Detailed Subsurface Correlation (pay sands)**
- **Refine & Complete Detailed Mapping of Key Units**
- **Complete Reservoir Character Study**
- **Develop Ranking Criteria**

# TODAY'S PROGRAM

- Strategy 1, Data Collection: Jessica Moore – Program Manager, Applied Oil & Gas, WVGES
- Strategy 2, Stratigraphic Correlation - Mohammad Fakhari, Energy Resources Group Supervisor, OGS
- Strategy 3, Mapping: Kyle Metz– Senior Geologist, OGS
- Strategy 4, Studies of Reservoir Character: Kristin Carter – Assistant State Geologist and Economic Geology Division Manager, PAGS