### Data Collection & Characterization
- Core sample analysis
- Geologic modeling
- Reservoir modeling
- Baselines for monitoring

### Injection Design

### Monitoring Design
- Well locations
- Geophysical surveys

### Permitting & Agreements
- EPA class II UIC
- Virginia state drilling permits
- Access Agreements

### Site Preparation
- Conversion of production wells
- Drill characterization and monitor wells
- Install additional monitor stations

### CO₂ Injection
- 10/01/2014 - 9/31/2015

### Monitoring
- Atmosphere
- Surface
- Reservoir

### Site Closure
- Conversion of injection and monitor wells
- Site restoration

### Post-injection Characterization
- Data analysis and interpretation
- Post-injection monitoring
- Reservoir modeling

### Project Timeline

<table>
<thead>
<tr>
<th>Phase</th>
<th>Start Date</th>
<th>End Date</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase I</strong></td>
<td>10/1/2011</td>
<td>3/31/2013</td>
<td>Data Collection &amp; Characterization</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Monitoring Design</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Permitting &amp; Agreements</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Injection Design</td>
</tr>
<tr>
<td><strong>Phase II</strong></td>
<td>4/1/2013</td>
<td>9/30/2015</td>
<td>Site Preparation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CO₂ Injection</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Monitoring</td>
</tr>
<tr>
<td><strong>Phase III</strong></td>
<td>10/1/2015</td>
<td>9/30/2016</td>
<td>Site Closure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Post-injection Characterization</td>
</tr>
</tbody>
</table>

**Ongoing Activities:**
- Management and Planning
- Risk Analysis and Assessment
- Characterization
- Modeling
- Monitoring
- Education and Outreach

Virginia Tech
Invent the Future

Virginia Center for Coal and Energy Research
www.energy.vt.edu