APPENDIX C: Maps from the University GIS Database Depicting Mining Extent, Overburden and Surface Features

This appendix showcases the data created during the 3rd Assessment period. Maps presented show the locations of each mine with respect to roads and streams, the extent of mining during the 3rd Assessment period, University calculated overburden contours, and surface features such as structures and water supplies (referred to in the maps as watersources). The mines are organized alphabetically and each include four maps except for the following:

No “200-ft Buffer and Structure” map:
- Dunkard No.2
- TJS No.4

No “Watersources and RPZ” map:
- Crawdad No.1
- Dooley Run
- Rampside No.1
- TJS No.4

Glossary of Terms used in the Map Keys:

<table>
<thead>
<tr>
<th>Term</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highways</td>
<td>Main highways over the mine. (labeled)</td>
</tr>
<tr>
<td>Streams</td>
<td>Stream network over the mine. (not labeled)</td>
</tr>
<tr>
<td>State Roads</td>
<td>State roads over the mine. (not labeled)</td>
</tr>
<tr>
<td>Room-and-Pillar</td>
<td>Area mined using room-and-pillar mining method.</td>
</tr>
<tr>
<td>Pillar Recovery</td>
<td>Area mined using the pillar recovery method.</td>
</tr>
<tr>
<td>Longwall Panel</td>
<td>Area mined using the longwall mining method.</td>
</tr>
<tr>
<td>Overburden Contour</td>
<td>University generated overburden contours.</td>
</tr>
<tr>
<td></td>
<td>*Numbers on the map are feet of overburden.</td>
</tr>
<tr>
<td>Structures</td>
<td>No= No reported effects during the 3rd Assessment period.</td>
</tr>
<tr>
<td></td>
<td>Yes= There was a reported effect during the 3rd Assessment period.</td>
</tr>
<tr>
<td></td>
<td>*This includes ANY reported effect regardless of liable, non-liable, interim resolution, unresolved, or other resolution status</td>
</tr>
<tr>
<td></td>
<td>*This also includes reported effects that were outstanding from the 2nd Assessment.</td>
</tr>
<tr>
<td></td>
<td>*Yes (2) means there were two reported effects for this structure.</td>
</tr>
<tr>
<td>Watersources (Water Supplies)</td>
<td>No= No reported effects during the 3rd Assessment period.</td>
</tr>
<tr>
<td></td>
<td>Yes= There was a reported effect during the 3rd Assessment period.</td>
</tr>
<tr>
<td></td>
<td>*(This includes ANY reported effect regardless of liable, non-liable, interim resolution, unresolved, or other resolution status)</td>
</tr>
<tr>
<td></td>
<td>*Yes (2) means there were two reported effects for this water supply.</td>
</tr>
<tr>
<td>200-ft Buffer</td>
<td>University inventory buffer</td>
</tr>
<tr>
<td>RPZ</td>
<td>Rebuttable Presumption Zone - This is a model of a complex boundary used by the PA DEP regarding water supplies. The zone’s extent beyond mining is dependant on overburden thickness at the edge of mining.</td>
</tr>
</tbody>
</table>
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

4 West Mine
Mining Areas, Major Roads and Streams

[Map of 4 West Mine mining areas, major roads, and streams with notes on feature visibility and count accuracy]

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh

Map Key:
- Highways
- Streams
- State Roads
- Pillar Recovery
- Room-and-Pillar

Waynesburg
Greene County
4 West Mine
Mining Areas and Overburden Contours

Map Key
- Overburden Contour
- Pillar Recovery
- Room-and-Pillar

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
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4 West Mine
Mining Areas, 200-ft Buffer and Structures

Map Key
- Pillar Recovery
- Room-and-Pillar
- 200-ft Buffer
- No=Structures with no reported effects

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh
4 West Mine
Mining Areas, Watersources and RPZ

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
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Agustus Mine
Mining Areas and Overburden Contours

Map Key
- Overburden Contour
- Room-and-Pillar

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh
Agustus Mine
Mining Areas, 200-ft Buffer and Structures

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

Map Key

- No=Structures with no reported effects
- Room-and-Pillar
- 200-ft Buffer

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh
Agustus Mine
Mining Areas, Watersources and RPZ

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
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Bailey Mine
Mining Areas and Overburden Contours

Map Key
- Overburden Contour
- Room-and-Pillar
- Longwall Panel

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
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Beaver Valley Mine
Mining Areas, Major Roads and Streams

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

Map Key
- Highways
- Streams
- State Roads
- Room-and-Pillar

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh
Beaver Valley Mine
Mining Areas and Overburden Contours

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Beaver Valley Mine
Mining Areas, 200-ft Buffer and Structures

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Beaver Valley Mine
Mining Areas, Watersources and RPZ

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Blacksville No.2 Mine
Mining Areas, Major Roads and Streams

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
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Blacksville No.2 Mine
Mining Areas, 200-ft Buffer and Structures

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
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Blacksville No.2 Mine
Mining Areas, Watersources and RPZ

Map Key
- Watersources with reported effects
- Watersources with no reported effects
- Longwall Panel
- Room-and-Pillar
- RPZ
Cherry Tree Mine
Mining Areas, Major Roads and Streams

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
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Cherry Tree Mine
Mining Areas and Overburden Contours

Map Key
- Overburden Contour
- Room-and-Pillar

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh

Clearfield County

C_23
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

Cherry Tree Mine
Mining Areas, 200-ft and Structures
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Clementine No.1 Mine
Mining Area, Major Roads and Streams

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh

Armstrong County

Map Key
- Highways
- Streams
- State Roads
- Room-and-Pillar

Kittanning

C_26
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Crawdad No.1 Mine
Mining Areas, Major Roads and Streams

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh

Map Key
- Highways
- Streams
- State Roads
- Pillar Recovery
- Room-and-Pillar
Crawdad No.1 Mine
Mining Areas and Overburden Contours

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Crawdad No.1 Mine
Mining Areas, 200-ft Buffer and Structures

Map Key
- **No**=Structures with no reported effects
- Pillar Recovery
- Room-and-Pillar
- 200-ft Buffer

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh

Greene County
Waynesburg
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Cumberland Mine
Mining Areas, Watersources and RPZ

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Darmac No.2 Mine
Mining Areas, Major Roads and Streams

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Darmac No.2 Mine
Mining Areas and Overburden Contours

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh

Map Key
- Overburden Contour
- Room-and-Pillar

Armstrong County

Kittanning

C_38
Darmac No.2 Mine
Mining Areas, 200-ft Buffer and Structures

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Darmac No.3 Mine
Mining Areas, Major Roads and Streams

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

Darmac No.3 Mine
Mining Areas and Overburden Contours

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh

Map Key
- Overburden Contour
- Room-and-Pillar

Armstrong County
No
No
No
No
No
No
No
No
No

Darmac No.3 Mine
Mining Areas, 200-ft Buffer and Structures

Map Key

No=Structures with no reported effects
Room-and-Pillar
200-ft Buffer

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

Darmac No.3 Mine
Mining Areas, Watersources and RPZ

Map Key

+ Watersources with reported effects

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room-and-Pillar</td>
<td></td>
</tr>
<tr>
<td>RPZ</td>
<td></td>
</tr>
</tbody>
</table>

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh

Armstrong County
Dooley Run Mine
Mining Areas, Major Roads and Streams

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh
Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.

Dooley Run Mine
Mining Areas and Overburden Contours

Map Key

- Overburden Contour
- Pillar Recovery
- Room-and-Pillar

Prepared for:
Pennsylvania Department of Environmental Protection (DEP)

Prepared by:
University of Pittsburgh
Dooley Run Mine
Mining Areas, 200-ft Buffer and Structures

Notes: a) Due to the viewing extent of the maps, every feature will not show because of overlap; b) Counts of reported effects include features that could not be located spatially; c) Several features had two reported effects and will only show one location on the map.