**Project Location**

**Client/Project**

**Figure No.**

**Title**

C1 WEST

C1' EAST

SILT

SAND

CLAY

FINE SAND

GRAVEL

FILL

Coarse SAND

---

**Q:\active\TVA\ALF\GW_Model\data\gis\draft_fig4-32_EVS_C1C1.mxd**

Revised: 2019-06-13 By: alharkins

DRAFT

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3D EVS Cross Section C1-C1' within the Upper Alluvium

Tennessee Valley Authority

Allen Fossil Plant

Prepared by AH on 2019-06-05

Technical Review by PB on 2019-06-07

Independent Review by xx on 2019-xx-xx

PMW-10C

PMW-11C

EW-S03

ALF-202A

DRAFT
DRAFT EVS Cross Section D1-D1' within the Upper Alluvium

Stantec
Tennessee Valley Authority
Allen Fossil Plant

Prepared by AH on 2019-06-05
Technical Review by PB on 2019-06-07
Independent Review by xx on 2019-xx-xx

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Model Grid Extent Map

- Active Area (Square Miles): 9.8
- Rows: 550
- Columns: 816
- Active Cells: 2,432,270
- Total Cells: 3,590,400
- Cell Size: 30 feet x 30 feet

Notes:
- A grid displays the East Ash Disposal Area and the grid at a 30 foot x 30 foot cell size within the model.

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Project Location: Tennessee Valley Authority
Client/Project: Allen Fossil Plant
Figure No.: 6-2
Prepared by: AH on 2019-06-05
Technical Review by: PB on 2019-06-07
Independent Review by: xx on 2019-xx-xx
Notes:
1. Coordinate System: NAD 1927 StatePlane Tennessee FIPS 4100
2. Basemap Data Source: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
3. FT NGVD29 = Feet National Geodectic Vertical Datum of 1929
4. Surface was created using the site specific LiDAR (5-foot discretization) and the USGS DEM (30-foot discretization) in all areas outside of the site specific LiDAR data.
Elevation of the Tops of Layers 2 - 5 (Upper Alluvium)

1. Coordinate System: NAD 1927 StatePlane Tennessee FIPS 4100
2. Basemap Data Source: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GWG LLC,大地/+_aeroGRID, National Geographic, OSGeo (mpl.us), USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
3. FT NGVD29 = Feet National Geodectic Vertical Datum of 1929

Legend
- Property Boundary
- Model Domain
- Coal Combustion Residual Unit

TOP OF LAYER 2
- Elevation (FT NGVD29)
  - High: 217.4
  - Low: 175.7

TOP OF LAYER 3
- Elevation (FT NGVD29)
  - High: 247.0
  - Low: 162.6

TOP OF LAYER 4
- Elevation (FT NGVD29)
  - High: 283.0
  - Low: 189.5

TOP OF LAYER 5
- Elevation (FT NGVD29)
  - High: 247.0
  - Low: 182.6
Elevation of the Tops of Layers 6 - 8 and the Bottom of the Model (Lower Alluvium & Upper Claiborne Confining Unit)

1. Coordinate System: NAD 1927 StatePlane Tennessee FIPS 4100
2. Basemap Data Source: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), OpenStreetMap, and the GIS User Community
3. FT NGVD29 = Feet National Geodetic Vertical Datum of 1929

- **TOP OF LAYER 6**
  - High: 200.4
  - Low: 143.6

- **TOP OF LAYER 7**
  - High: 148.3
  - Low: 87.6

- **TOP OF LAYER 8**
  - High: 104.7
  - Low: 10.6

- **BOTTOM OF LAYER 8/MODEL**
  - High: 81.5
  - Low: 58.8

Legend:
- Property Boundary
- Model Domain
- Coal Combustion Residual Unit

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Model Time Discretization Based on Lake McKellar Hydrographs

LAKE MCKELLAR ELEVATION - DAILY AVERAGE
Data Count: 800

LAKE MCKELLAR ELEVATION - WEEKLY AVERAGE
Data Count: 117

LAKE MCKELLAR ELEVATION - BIWEEKLY AVERAGE
Data Count: 59

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Hydraulic Conductivity and Specific Storage/Yield Zone Distribution within the Model (Layers 1-4)

**Legend**
- Property Boundary
- Model Domain
- Coal Combustion Residual Unit
- Mississippi River & Lake McKellar within the Model Domain

**Sediment Type**
- Silt
- Sand
- Clay
- Sand with Silt or Clay
- Gravel
- CCR Material
- Sand with Coarse Grains
- Loess Deposits
- Terrace Deposits
- Upper Clastome Confining Unit

**Notes**
- Coordinate System: NAD 1927 StatePlane Tennessee FIPS 4100
- Basemap Data Source: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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**Tennessee Valley Authority**

**Allen Fossil Plant**

Memphis, Tennessee

Prepared by AH on 2019-06-05

Technical Review by PB on 2019-06-07

Independent Review by xx on 2019-xx-xx