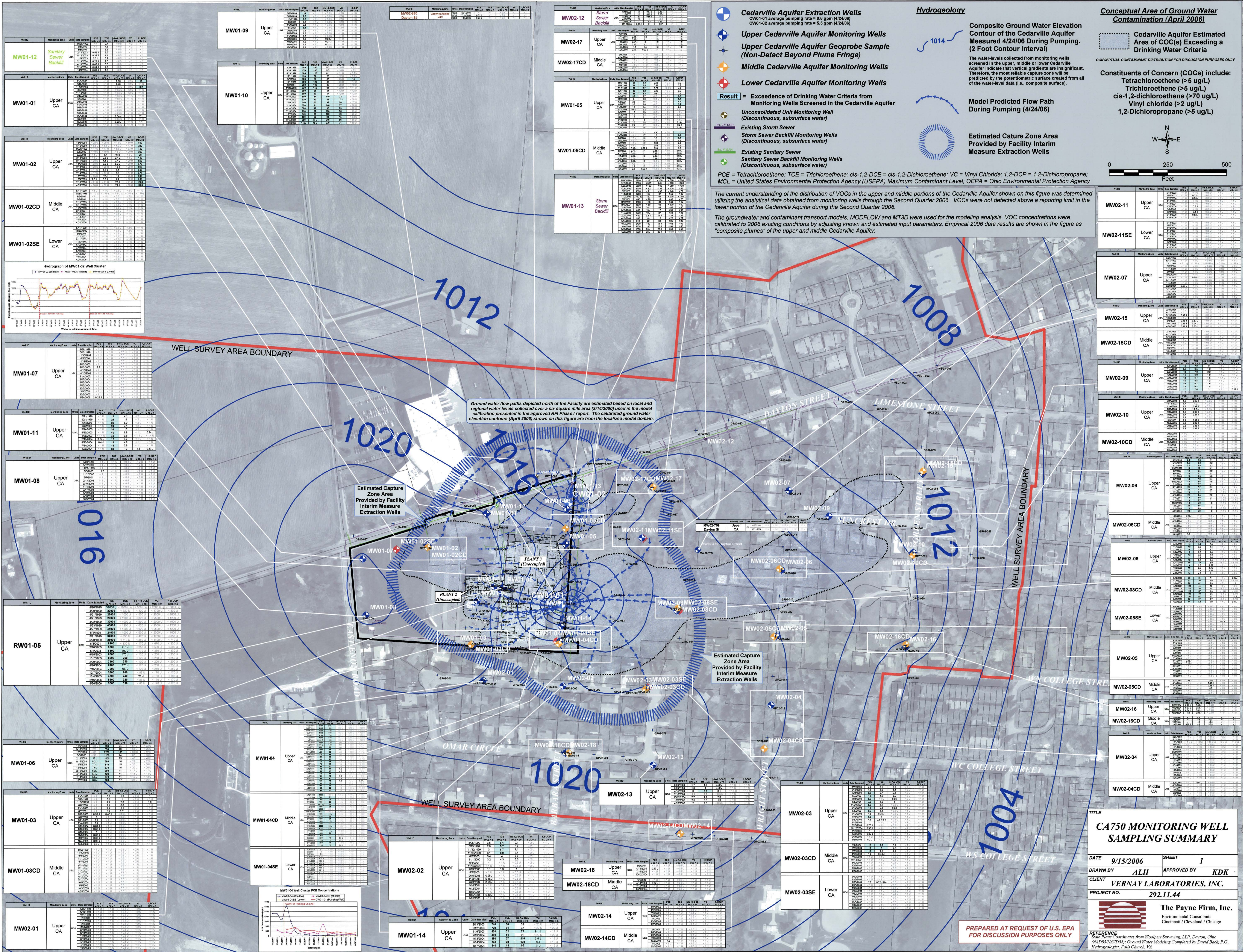




Conceptual Area of Ground Water Contamination (April 2006)

Cedarville Aquifer Estimated Area of COC(s) Exceeding a Drinking Water Criteria

Constituents of Concern (COCs) include:
Tetrachloroethene (>5 ug/L)
Trichloroethene (>5 ug/L)
cis-1,2-dichloroethene (>70 ug/L)
Vinyl chloride (>2 ug/L)
1,2-Dichloropropane (>5 ug/L)

Hydrogeology

Composite Ground Water Elevation Contour of the Cedarville Aquifer Measured 4/24/06 During Pumping. (2 Foot Contour Interval)

The water-levels collected from monitoring wells screened in the upper, middle or lower Cedarville Aquifer indicate that vertical gradients are insignificant. Therefore, the most reliable capture zone will be predicted by the potentiometric surface created from all of the water-level data (i.e., composite surface).

Model Predicted Flow Path During Pumping (4/24/06)

Estimated Capture Zone Area Provided by Facility Interim Measure Extraction Wells

- Cedarville Aquifer Extraction Wells**
CW01-01 average pumping rate = 5.8 gpm (4/24/06)
CW01-02 average pumping rate = 5.5 gpm (4/24/06)
- Upper Cedarville Aquifer Monitoring Wells**
- Upper Cedarville Aquifer Geoprobe Sample (Non-Detect Beyond Plume Fringe)**
- Middle Cedarville Aquifer Monitoring Wells**
- Lower Cedarville Aquifer Monitoring Wells**

Result = Exceedence of Drinking Water Criteria from Monitoring Wells Screened in the Cedarville Aquifer

Unconsolidated Unit Monitoring Well (Discontinuous, subsurface water)

Existing Storm Sewer

Storm Sewer Backfill Monitoring Wells (Discontinuous, subsurface water)

Existing Sanitary Sewer

Sanitary Sewer Backfill Monitoring Wells (Discontinuous, subsurface water)

PCE = Tetrachloroethene; TCE = Trichloroethene; cis-1,2-DCE = cis-1,2-Dichloroethene; VC = Vinyl Chloride; 1,2-DCP = 1,2-Dichloropropane; MCL = United States Environmental Protection Agency (USEPA) Maximum Contaminant Level; OEPA = Ohio Environmental Protection Agency

The current understanding of the distribution of VOCs in the upper and middle portions of the Cedarville Aquifer shown on this figure was determined utilizing the analytical data obtained from monitoring wells through the Second Quarter 2006. VOCs were not detected above a reporting limit in the lower portion of the Cedarville Aquifer during the Second Quarter 2006.

The groundwater and contaminant transport models, MODFLOW and MT3D were used for the modeling analysis. VOC concentrations were calibrated to 2006 existing conditions by adjusting known and estimated input parameters. Empirical 2006 data results are shown in the figure as "composite plumes" of the upper and middle Cedarville Aquifer.

CA750 MONITORING WELL SAMPLING SUMMARY

DATE 9/15/2006 SHEET 1
DRAWN BY ALH APPROVED BY KDK
CLIENT VERNAY LABORATORIES, INC.
PROJECT NO. 292.11.44

The Payne Firm, Inc.
Environmental Consultants
Cincinnati / Cleveland / Chicago
REFERENCE
State Plane Coordinates from Woolpert Surveying, LLP, Dayton, Ohio (NAD83/NAD73), Ground Water Modeling Completed by David Back, P.G., Hydrogeologist, Falls Church, VA

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