

### Planned Supplemental Site Assessment Activities at the Neodesha Refinery

#### Background

In March 2013 KDHE approved a work plan for a supplemental site investigation at the Neodesha Refinery Site.

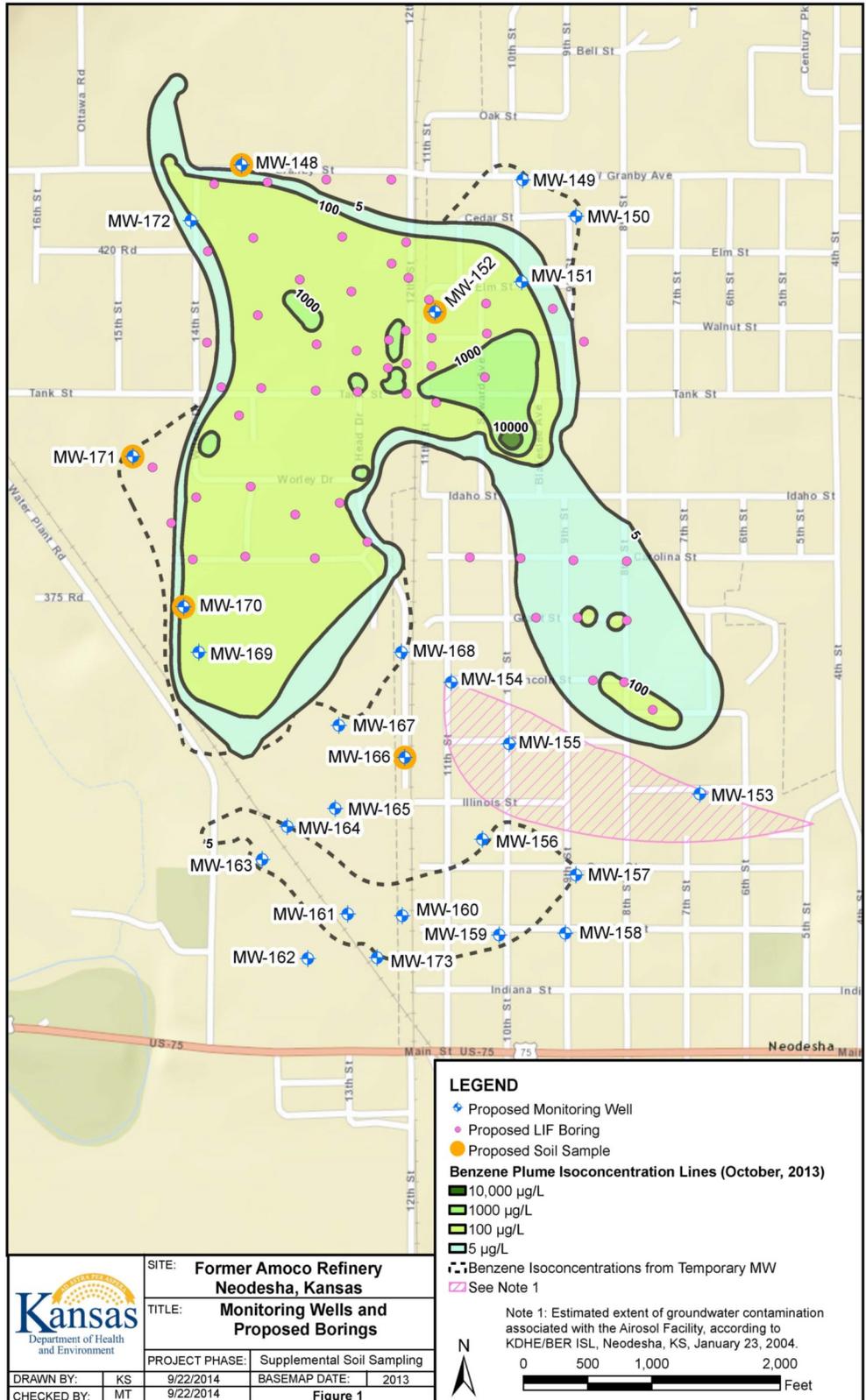
In August 2014 KDHE approved an agreement with Burns and McDonnell to implement the plan on behalf of KDHE. The plan identifies the locations of new monitoring wells, soil borings, laser-induced fluorescence borings to identify non-aqueous petroleum liquids (NAPL) as shown in the adjacent figure. Sample locations were selected based on previous sampling work. Samples will be tested for volatile organic compounds (VOCs) (such as benzene, toluene, ethylbenzene and xylene), semi-volatile organic compounds (SVOCs), metals (such as arsenic and lead) and total petroleum hydrocarbons (TPH).

The adjacent figure identifies the proposed LIF borings (pink), new monitoring well locations (blue and white symbols), and some soil borings (gold) throughout the main refinery area and in the city. The October 2013 benzene plume is also shown for reference purposes.

#### Schedule for Sampling Activities

Sampling activities will begin in late September 2014 and continue through October. KDHE will provide field oversight during much of the investigation including collection of split-samples for verification purposes.

Copies of the work plan are available in the Information Repository located at the Neodesha library. Receipt of the final report is expected by the end of March 2015. The results of the investigation will be used to fill data gaps, prepare a revised Corrective Action Study, and will contribute to the development of KDHE's Corrective Action Decision for the Site.



### Location Map of Current Interim Measures and Proposed Sampling Points

#### Interim Measures at the Site

Current interim measures at the site are also indicated on the figure. An interim measure is a set of short-term actions or activities taken to quickly prevent, mitigate, or remedy unacceptable risk(s) to human health and the environment.

The interim measures implemented at the Neodesha Refinery are identified on the adjacent figure. The systems include: a trench near the former tank site that is currently used to recover petroleum product (red); several dual-phase extraction wells which remove contaminated groundwater, petroleum, and vapors (brown); and two systems which introduce sulfate to the aquifer to encourage natural breakdown of petroleum hydrocarbons in groundwater (blue).

All of the interim measures implemented to date may become a part of the final site remedy as described in the eventual Corrective Action Decision. This does not mean that additional remedial actions will not be conducted. Following the completion of the current investigation, additional pilot testing may be conducted and evaluated in the revised Corrective Action Study to ensure appropriate selection for the final comprehensive site remedy.

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