

February 1, 2018



Mo-Kan Regional Council  
1744 Iron Street  
North Kansas City, Missouri

Attn: Ms. Kathy Hahn  
Loan Officer/Brownfield Coordinator  
(816) 233-3144  
[kathy@mo-kan.org](mailto:kathy@mo-kan.org)

**Re: Analysis of Brownfields Cleanup Alternatives Review**  
Vacant Former Gas Station  
11301 SE State Road FF  
Agency, Missouri  
Terracon Project No. 02187023

Dear Ms. Hahn:

Seagull Environmental Technologies, Inc. (Seagull) completed an Analysis of Brownfields Cleanup Alternatives (ABCA), dated March 2, 2017, for the vacant former gas station located at 11301 SE State Road FF in Agency, Missouri. The ABCA was submitted by Seagull to the Environmental Improvement and Energy Resources Authority (EI ERA), as the City of Agency was pursuing funding from the EI ERA at that time. Since then, the City of Agency has changed its plans and is now seeking funding from the Mo-Kan Regional Council's (Mo-Kan's) Revolving Loan Fund (RLF) program.

As Mo-Kan's Qualified Environmental Professional (QEP) for its RLF program, Terracon reviewed the ABCA under Master Service Agreement (MSA) Task Order 02157128.

### **Background**

The 2.5-acre site is vacant and contains a canopy with fueling pumps and a concrete pad. Historically, the site was agricultural land. The northern and eastern portions of the site continue to be used as agricultural land. In 2004, the site was developed into a Woody's Grocery Store, which included a canopy with fueling pumps to dispense petroleum stored in two 8,000-gallon underground storage tanks (USTs) and a 6,000-gallon UST. In 2011, Woody's Grocery Store burned down and the three USTs were emptied and have not been used since. In 2012, Agency purchased the property and is the current property owner. The ABCA described an interview with a site contact in 2017; the contact indicated the USTs contained water. This water may contain residual petroleum impact.

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## **ABCA Review – Vacant Former Gas Station**

11301 SE State Road FF ■ Agency, Missouri

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Soil samples were collected near the tanks in 2012 and laboratory analysis of the samples detected indicator petroleum contaminants at concentrations below Missouri cleanup levels. Section 3.1.1 of the ABCA indicated the 2012 investigation included the collection and analysis of groundwater samples, but Terracon could not locate this information in the investigation report (which was provided by Mo-Kan as background information). In fact, Section 5.1 of the investigation report (dated October 9, 2012, by Sierra Delta Consultants LLC) indicates groundwater was not encountered. This statement concerning groundwater samples in the ABCA appears to be a discrepancy.

### **ABCA Summary**

The ABCA evaluated the following three courses of action.

1. No Action
2. Proper Removal and Disposal
3. Tank Closure In-Place

The recommended alternative was proper removal and disposal of the tanks. Future plans of the site include the development of a city hall. The recommended cost for removal and disposal of the tanks was estimated at \$50,625 compared to \$51,750 for the in-place closure of the tanks. Both alternatives (removal and closure-in-place) would seek a Certificate of Completion from the Missouri Department of Natural Resources' (MDNR's) Brownfields/Voluntary Cleanup Program (B/VCP). The remedial alternative recommended in the ABCA (removal and disposal) would allow for the development of the site without restrictions that apply to the USTs.

The costs for each alternative presented in the ABCA do not include costs associated with groundwater contamination, if groundwater is present and if it is contaminated. Although the 2012 investigation did not encounter groundwater, it's unclear how long the borings were left "open" to allow water to seep into the holes. The clay soils encountered typically exhibit low permeability and wells installed in such soils require extended periods of time to produce water. Since the USTs reportedly contain varying amounts of water (presumed to be groundwater), Terracon believes a perched groundwater condition may exist at the site.

The ABCA does not include costs for monitoring well installation and sampling for any of the alternatives. In Terracon's experience, the MDNR's B/VCP will require installation of wells to check for the presence of a groundwater condition and, if one exists, sampling and analysis of groundwater samples. If groundwater is present and if it exhibits petroleum impact, the MDNR requires quarterly monitoring to demonstrate plume stability. This monitoring usually extends for about two years, but can take longer if contaminant concentrations fluctuate.

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We understand Mo-Kan has approved Agency for a sub-grant up to \$100,000 for this work. Terracon believes this amount would likely be sufficient to obtain a Certificate of Completion from the B/VCP, even if some groundwater contamination is present. The quarterly monitoring that could be required by MDNR would extend the time to process and obtain the Certificate of Completion to at least two years in the future; however, construction could likely occur around the monitoring wells. A restriction prohibiting on-site potable use of groundwater could also be required. Relative to the other alternatives, Terracon agrees that removal and disposal of the tanks is the preferred alternative.

Sincerely,

**Terracon Consultants, Inc.**

Aaron L. Steigerwalt, P.E.  
Project Environmental Engineer

Brian Porter, P.E.  
Authorized Project Reviewer