UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 9
75 Hawthorne Street
San Francisco, CA 94105

CERTIFIED MAIL:
7000 0520 0025 3714 5191

JUN 23 2016

Annette Toale,
Environmental Compliance Manager
Circle K Stores, Inc.
1130 West Warner Road, Bldg. B
Tempe, Arizona 85284

Subject: No Further Action
Circle K #1483, UST Cleanup Site
1516 California Ave
Parker, AZ 85344 (EPA Site ID# CRIT048)

Dear Ms. Toale,

The United States Environmental Protection Agency ("EPA") has completed its review concerning the 2013 gasoline release from an underground storage tank ("UST") at the Circle K service station in Parker, Arizona ("Site"). The Site is an operating gas station within the exterior boundary of the Colorado River Indian Tribes Reservation, and a failed tank tightness test on October 10, 2013, led to the discovery that gasoline had been released to the environment. The affected UST was subsequently emptied, taken out of service, and repaired. A remediation system began extracting petroleum hydrocarbons from the subsurface less than one month after discovery of the release. The system was expanded in September 2014 and shut down in January 2015.

Your representatives also reported a 25-gallon surface spill of gasoline in March 2014 that occurred during the delivery of fuel into USTs. At EPA's request, both the larger October 2013 release and the smaller March 2014 release were addressed together through one investigation.

EPA has reviewed the January 2014 UST Relining Report prepared by Tank Tech Inc., the April 2015 Soil Vapor Extraction Remediation Report prepared by Blaes Environmental Inc. (which includes soil sampling results related to the 2014 surface release), the October 2015 Groundwater Monitoring and Confirmation Soil Boring Report prepared by Blaes Environmental Inc., and the May 2016 Well Abandonment Report prepared by Blaes Environmental Inc.

Based on the findings from these reports, EPA determines that no additional site investigation and/or cleanup is warranted at this time. No further action ("NFA") is required. If additional information becomes available in the future regarding hydrocarbon contamination in soil and/or groundwater at the

Site, EPA may reopen the case and require additional site assessment and/or corrective action.

Please note that this NFA letter, as well as supporting documentation, will be available to the general public. If you have any questions regarding this letter, please contact me at (415) 972-3369, or Kenneth Dixon of my staff at (415) 972-3343.

Sincerely,

Steven C. Linder P.E., Manager
Underground Storage Tanks Program Office

Enclosure: Site Summary

cc:

Wilfred Nabahe, Environmental Director, Colorado River Indian Tribes
Steven Woodhull, R.G., Senior Geologist, Blaes Environmental Inc.
Jonathan Griffiths, Environmental Project Manager, Blaes Environmental Inc.
Harold and Andrea Lewkowitz, Property Owners of 1516 California Ave, Parker, AZ 85344
Residents of 916 16th St, Parker, AZ 85344

Enclosure – UST Cleanup Site Summary

Circle K #1483 – EPA ID #CRIT048
1516 California Ave
Parker, Arizona 85344

Site Background & UST Release

The operating Circle K service station in Parker, Arizona (the "Site") includes three underground storage tanks ("USTs") installed in April 1983. All three USTs are made of fiberglass-reinforced plastic and have the capacity to store 10,000 gallons of fuel. The current property owner collected and analyzed soil samples in 2004 before purchasing the property and found no evidence of contamination.

On October 10, 2013, the middle of the three USTs—storing premium gasoline at the time—failed a tank tightness test, and subsequent soil borings underneath the tank pit detected petroleum constituents. Unrelated to the ongoing site investigation and cleanup, a surface spill of approximately 25 gallons occurred on March 17, 2014, during delivery of gasoline into the service station's USTs.

Groundwater samples were collected from each of four monitoring wells on five occasions between April 2014 and April 2015. No clear direction of groundwater movement could be discerned from these results, but the local pattern—based on nearby monitoring wells from other leaking UST sites—is for groundwater to flow to the north or northwest. Groundwater was encountered between 70 and 72 feet below ground surface at all times, and a notable clay layer five to eight feet thick was encountered during installation of each well. This clay layer was centered at roughly 50 feet below ground surface.

The Colorado River lies approximately 1.2 miles northwest of the Site, but potential receptors of greater interest to EPA were an adjacent private residence to the west, and a City of Parker drinking water supply well 0.4 miles to the northwest.

Site Remediation

Circle K and its consultants installed and operated a soil vapor extraction system to remove petroleum constituents from soils underneath and surrounding the tank pit. Starting with one extraction well 15 feet east of the leaking UST, the system was run from October 29, 2013, to February 18, 2014. Monitoring wells and soil borings were later converted into an additional three extraction wells, and the expanded system was run from September 25, 2014, to January 13, 2015. Efforts were made to vary the remedial program based on air flow, vacuum pressure, and vapor concentration measurements.

By January 2015, the concentration of petroleum hydrocarbons in the vapors extracted by the system had been reduced by 75 percent, and the rate of contaminant recovery had diminished noticeably. The system had been shut down temporarily in December 2014 to see if concentrations would rebound, and they did not. Although the magnitude of the release is unknown, remediation efforts removed an estimated total of 1,036 gallons of petroleum hydrocarbons from subsurface soils.

Groundwater Monitoring Results & Proper Destruction of Monitoring Wells

Upon discovery of the gasoline release, Circle K had three monitoring wells installed immediately west,

north, and east of the tank pit. A fourth well was installed approximately 120 feet northwest of the tank pit, behind the onsite convenience store and in the direction of expected groundwater flow. Groundwater samples collected in April 2014, July 2014, October 2014, January 2015, and April 2015 revealed concentrations of dissolved petroleum constituents well below EPA Maximum Contaminant Levels (MCLs) for drinking water, with no trends that merit further investigation. Petroleum vapor intrusion is not a concern at the Site, given the depth to groundwater and lack of liquid-phase gasoline in site soils.

EPA has not established MCLs for 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; naphthalene or methyl tert-butyl-ether (MTBE). Although these gasoline constituents were detected during several sampling events in the wells surrounding the tank pit, a comparison of the highest concentrations to EPA's Regional Screening Levels (RSLs) indicates that only the trimethylbenzenes could pose a potential risk to human health or the environment—and only if groundwater beneath the Site were directly consumed as drinking water. The nearest drinking water well is 0.4 miles northwest of the site, however, and the monitoring well 120 feet northwest of the tank pit detected no petroleum contaminants. At EPA's request, a non-operational irrigation well at the residence adjacent to and west of the Site was also sampled in February 2014, and no petroleum constituents were detected there either.

The less permeable clay layer sitting above the water table at this Site naturally protects groundwater by slowing, if not stopping, the infiltration of potential surface contaminants. Monitoring wells installed during site investigation and remediation activities cross the clay layer, meaning they could conceivably become future conduits for groundwater contamination. As a result, EPA requested that Circle K properly abandon and seal these wells, which it did on May 3, 2016.

Soil Sampling Results

After an initial soil boring beneath the tank pit confirmed a petroleum release in October 2013, Circle K and its consultants collected and analyzed soil samples at five foot intervals from six different borings surrounding the tank pit. Four of these borings were converted into groundwater monitoring wells and two became soil vapor extraction wells. One sample, taken at 45 feet below ground surface in March 2014, revealed a concentration of 1,2,4-trimethylbenzene of 63 mg/kg, above EPA's RSL for industrial use of 24 mg/kg. Petroleum constituents could not be detected, or were detected below screening levels for residential use, at all other locations.

After Circle K shut down the remediation system in January 2015, a confirmation boring was drilled adjacent to where 1,2,4-trimethylbenzene had been detected ten months prior. At this time, sampling detected only 8.6 mg/kg 1,2,4-trimethylbenzene, less than the applicable screening level.

Conclusion

EPA concludes that operation of the soil vapor extraction system has adequately addressed contamination associated with the gasoline release discovered in 2013. Additionally, EPA concludes that the March 2014 surface spill was adequately contained by the Site's asphalt and concrete surface cover (while Circle K personnel responded by applying absorbent materials).

Anticipated use of the Site for the foreseeable future continues to be as a gasoline service station. EPA has confirmed that Circle K repaired the leaking UST by installing a new internal liner. The UST passed a post-repair inspection in January 2014 and has been in operation since that time.