



## Pre- and Post-PetroFix Performance Monitoring Parameters

Analytical Parameter	Method
<b>Recommended</b>	
Contaminants of Concern (COC's)	Varies by site. Recommend a minimum of BTEX analysis plus Total Petroleum Hydrocarbon (TPH) measurements for gasoline (TPH-G) and/or diesel range contamination (TPH-D) based on contaminant source.
pH	Meter reading taken in flow-through cell (DO can also be measured with a Hach kit)
Dissolved Oxygen (DO)	
Oxidation Reduction Potential (ORP)	
Electral Conductivity (EC)	
Cations - Ca, Mn, Al*	EPA Method 6010
Sulfate	EPA 375.3 or EPA 9056
Nitrate	EPA 353.1 or EPA 9056
Visual Confirmation of PetroFix in Wells**	Place groundwater sample in 40 mL VOA for inspection. PetroFix shipments come with a field concentration test kit taped to the top of a drum or a tote. See the groundwater sampling guidance document via the hyperlink at the bottom of the page for more information.
<b>Optional</b>	
Total Fe	Colorimetric Hach Method or EPA 6000 series with filtered and unfiltered samples
Total Mn	
Dissolved Fe	
Dissolved Mn	
Sulfide	EPA 376.1
Chemical Oxygen Demand (COD)	EPA 410.1-.2
Biological Oxygen Demand (BOD)	EPA 5210B
Methane and CO <sub>2</sub>	ASTM D1945
Evaluation of biodegradation response through measurement of functional genes	<b>QuantArray Petroleum</b>

Regenesis recommends that baseline samples of all monitoring parameters be taken before injection. Please check any state-specific underground injection control (UIC) guidelines for parameters that may also need to be collected, but are not included in this table.

\*Cations listed are recommended for applications involving dedicated well injection or borehole injection.

\*\*As is normal in any injection PetroFix may flow into adjacent wells during application. Observation in wells is helpful in knowing that you are achieving product distribution. As an option, PetroFix can be flushed from wells post injection with a clearwater flush. PetroFix normally takes a few weeks/months to attach to soils and clarify from groundwater and sampling precautions should be taken if sampling is needed during the attachment phase. **Helpful technical bulletins on post-application groundwater sampling, well flushing, and other information are provided online per the resource section link below.**

[Regenesis Groundwater Sampling, Well Flushing, and Product Handling Technical Bulletins Link](#)