



## NewFields Note

### Assessing and Allocating Environmental Liability

#### Contaminant Identification, Differentiation, and Source Attribution

**NewFields Note:** Technical information in a condensed, easily digestible format that is intended to promote environmental science education, knowledge transfer, and empowerment ... *one note at a time.*

**Who's responsible for contamination?** A simple question with an often-complicated answer that requires assessment of contaminant chemistry, including changes due to weathering, spatial extent versus background, operational history, and contaminant transport.

**NewFields Approach:** NewFields scientists have 35+ years of experience working in or with specialized environmental analytical laboratories where "**chemical fingerprinting**" techniques were first developed and applied to contaminant liability issues. Our consultants combine chemical fingerprinting with our knowledge of historic and current industrial manufacturing, refining, and distribution processes, chemical weathering, fate and behavior, and the spatial analysis and advanced statistical techniques to identify and differentiate the sources, and to the degree possible, the ages of contaminants. Through scores of peer-reviewed publications and textbook chapters NewFields consultants help foster and validate the discipline of "**Environmental Forensics**".

#### ENVIRONMENTAL FORENSIC & CHEMISTRY EXPERTISE IN:

- Crude oil and refined oils
- PFAS
- PAHs and combustion products
- Chlorinated solvents
- MGP/Coking tars
- Creosote and pitch
- PCBs
- Dioxins and Furans
- Stray gas/methane
- Coal ash and particulates
- Persistent pesticides
- Pharmaceuticals and personal care products

#### Common Applications of NewFields Environmental Forensics Team

- Identification of and distinction among petroleum fuels, PFASs, chlorinated solvents, MGP wastes, creosote, and PCBs, etc. and constraint on their "source" and "age"
- Establishing and distinguish natural and anthropogenic "background" or historic fill from point source or acute contamination
- Distinction of and allocation among commingled contaminants at or near long-active commercial or industrial sites and urban waterways
- Oil spill source identification and the impact on natural resources

For additional information, please contact your NewFields Technical Lead. Or send us an email at [Science\\_Info@newfields.com](mailto:Science_Info@newfields.com)!

<https://www.newfields.com>

