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Specializations
Environmental Site Assessment
Site Investigation & Contamination Characterization
Data Processing & Exhibit Preparation

Education

M.S.	Environmental Science, Oklahoma State University, 2017
B.S.	Biology, Indiana University, 2008

Relevant Employment History

2018 to Present	Environmental Scientist, Lithochimeia, LLC, Tulsa, OK
2017 to 2018	Assistant Scientist, IMMIX, LLC, Fairview, OK
2015 to 2017	Environmental Field Technician, Lithochimeia, LLC, Tulsa, OK

Relevant Experience

Petroleum Exploration, Production and Transportation

Assisted landowner in Pittsburg County, Oklahoma in a matter related to saltwater release from a saltwater disposal line. Conducted surface geophysical survey (EM-31 terrain conductivity) and soil sampling.

Evaluated the nature and extent of salt and oil contamination of soil and groundwater and evaluated production operations practices and access road maintenance and use over a 10,000 acre ranch with oil and gas production in Washington County, Oklahoma using records review, air photo interpretation, on-ground observation, soil and water sampling and surface geophysical survey (EM-31 terrain conductivity). Ongoing matter.

Assisted aviation company in matter related to jet fuel contamination resulting from an agricultural plane crash in Garfield County, Oklahoma. Conducted field VOC detection using Photoionization Detector and confirmatory soil samples. Prepared report for Oklahoma Department of Environmental Quality and Oklahoma Department of Agriculture.

Assisted oil and gas operator in assessing extent and volume of oil and saltwater contaminated soil in Noble Country, Oklahoma resulting from a parted flowline. Conducted geophysical survey (EM-31

terrain conductivity), soil and water sampling. Prepared report and specified area to be excavated to surface company (active matter).
Assisted operators in Osage County, Oklahoma in responding to USEPA site investigation requirements following a release of saltwater to a creek; conducted and interpreted geophysical survey (EM-31 terrain conductivity). Continue to monitor salinity levels in the creek to assess progress of contamination reduction (active matter).

Assisted neighboring landowners in matter related to saltwater release from multiple valve stations in Pittsburg County, Oklahoma. Conducted soil sampling (active matter).

Assisted oil and gas operator in matter related to saltwater contaminated soil resulting from a parted flow line in Harper County, Kansas. Performed field soil conductivity testing using YSI Conductivity Meter to direct excavation in real time and obtained confirmatory soil samples. Prepared report.

Assisted oil and gas operator in matter related to oil and saltwater release from a tank battery in Garfield County, Oklahoma. Conducted multi-stage effort to restore soil quality through in-situ bioremediation, managed removal of tank battery and associated equipment.

Assisted landowner of large ranch in Carter County, Oklahoma in matter related to refined hydrocarbon release from steel pipeline. Conducted multiple surface geophysical surveys (EM-31 Conductivity Survey, Electrical Resistivity Tomography) to determine cavernous porosity that provided pathway for contamination from pipeline to nearby spring where hydrocarbons were detected. Supervised drilling of water monitoring wells which both confirmed cavernous porosity indicated by geophysical surveys and provided pathway for water sampling. Wrote analytical reports for client use. (Ongoing matter)

Evaluated extent of saltwater contamination from oil and gas operations on a private land owner's property in Okmulgee Country, Oklahoma using geophysical survey (EM-31 terrain conductivity).

Assisted landowners of large ranch in Washington County, Oklahoma in a matter related to saltwater release from oil and gas operations. Referenced historical aerial photos to evaluate progression of brine water scarring on property over two decades.

Assisted oil and gas operators in over forty small scale remediations related to oil saltwater releases located on well pads in Western Oklahoma. Designed and implemented remediation protocols to restore soil health and promote in-situ bioremediation. Conducted soil and water sampling, prepared reports.

Assisted landowner in matter related to saltwater release from 12-inch poly line in Hughes County, OK. Conducted and interpreted geophysical surveys (EM-31 terrain conductivity) and soil sampling. Generated sampling maps and graphic interpretations of tabular laboratory results. Matter ongoing.

Evaluated nature and extent of salt contamination from subsurface saltwater flow line for landowners in Payne County, OK. Conducted and interpreted EM-31 and EM-38 terrain conductivity surveys to visualize deep and shallow subsurface contamination, respectively. Collected soil samples and generated sampling maps and graphical interpretations of laboratory results. Matter ongoing.

Assisted insurance company regarding progress of in-situ bioremediation of salt contamination from oil and gas operations on property in Payne County, Oklahoma. Performed EM-31 Terrain Conductivity Survey over 40 acres of property to assess the nature and extent of persisting contamination and determine recommendations for further action.

Assisted insurance company in matter regarding hydrocarbon and brine water release into a pond in Pontotoc County, Oklahoma. Screened multiple depth ranges with YSI Conductivity Meter to determine presence of a salt lens within the pond. Collected water samples for lab analysis and confirmation.

Environmental Contamination, Toxic Tort and Transactional Matters

Conducted and prepared a Phase-I Environmental Assessment for the Indian Healthcare Resource Center in support of the acquisition of three contiguous lots in Block 1 of the Central Park Place Addition for expansion of service facilities in Tulsa, Oklahoma.

Assisted developers in Eddy County, New Mexico regarding construction of a complex of Tank Batteries over karst geology. Performed EM-31 Terrain Conductivity Survey to locate subsurface voids that would prohibit construction of large structures on the surface.

Assisted landowners in Major County, Oklahoma regarding saltwater which had infiltrated their home's basement and contaminated their private water wells used to supply drinking water. Mapped saltwater plume using EM-31 Terrain Conductivity Survey and mapped the contamination to neighboring oil and gas operations.

Groundwater

Assisted private landowner in development of groundwater resources for commercial use in Payne County, Oklahoma. Performed pump testing of water well and obtained samples for lab analysis. Installed well protector and concrete pad in accordance with OWRB regulations.

Superfund

Assisted landowners in matter related to the Wilcox Oil Company Superfund Site in Bristow, OK. Evaluated historic site investigations documented by the USEPA and compiled two decades of sampling results. Mapped sampling locations and documented results for report on potential metal, hydrocarbon, VOC and SCOV contamination on four parcels currently owned on the site of the refinery. (Matter ongoing)

Publications, Reports and Abstracts

Redden, B and Fisher J. B. 2017. Site specific risk assessment of soil sensitivity to brine release, Osage County, Oklahoma. 24st Annual International Petroleum Environmental Conference, San Antonio, TX - October 30, 2017 to November 1, 2017).

Fisher, J., B. and Redden, B. 2018. Are there holes below us? Assessment of Prospective Flowback Water Storage Sites for the Presence of Shallow Karst. 25th Annual International Petroleum Environmental Conference, Denver, CO - October 30, 2018 to November 1, 2018.