Eliminating False Liability Associated with Natural Salinity Across the Whole Province of Alberta
Paul Fuellbrandt, Precision Liability Consulting

A number of Alberta case studies will be examined ranging from relatively minor natural salinity signatures to those that drive EC and SAR levels similar to chloride concentrations of over 1,000 mg/kg. The separation of the natural salinity signatures will be discussed and the resulting liability reduction will be demonstrated.

Although natural salinity will not get the flashy title of an “emerging contaminant” it is something that provides liability reductions on almost every contaminated site in the Province of Alberta. Natural salinity on oil and gas sites is not a new topic however, it is generally thought that natural salinity is limited to distinct regions of the Province. While it is certainly more pronounced in some areas, natural salinity is present across all regions of the Province.

The fact that some types of oil and gas activity are associated with produced water can cause an instant connection to be made between elevated salinity and anthropogenic impacts even when there is no true correlation between the two on a project site. On sites where a saline release has happened, there is still often a natural salinity signature that needs to be understood and separated from the release signature. To not do so before a closure plan is developed leads to over-excavation, a lack of closure, and a lingering over-estimation of environmental liability for the asset.

Paul Fuellbrandt
Paul is a Professional Agrologist and a Project Management Professional. Over that last 15 plus years he has cultivated an increasing specialization in developing and executing attainable closure plans for contaminated sites. The motivation for this work has been drawn from a desire to return as much land to productive use as possible. To that end he cofounded Statvis Analytics Inc. to develop user-friendly tools to understand and communicate environmental data and Precision Liability Inc. to provide a cost-efficient process to eliminate environmental liability for the benefit of his clients and the land.