SITE CHARACTERIZATION & DATA VISUALIZATION

Designing more efficient ISTR systems and reducing overall project costs

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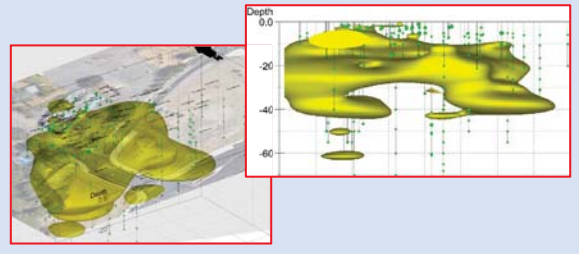
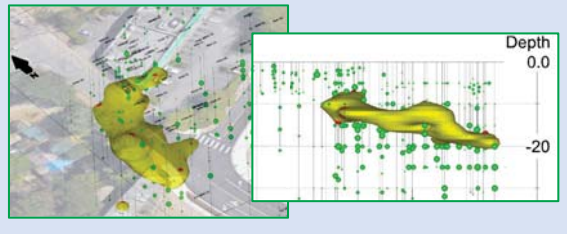
Mass Distribution & ISTR Design

Designing an effective ISTR system that maximizes contaminant mass removal while minimizing overall project cost relies solely on constructing an accurate Conceptual Site Model (CSM). Typically, the vast majority of contaminant mass at a Site is contained within 5% to 10% of the total plume volume. These concentered contaminant sources are often difficult to accurately define, and a poorly defined source volume is the largest cause for recontamination or failure to reach Site remedial goals following a thermal project.

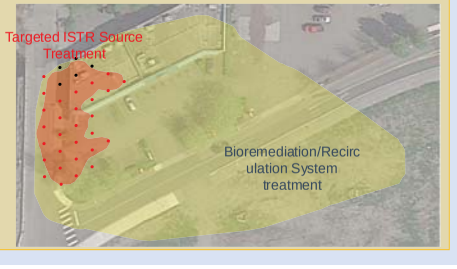
Original Site Characterization data set estimated 38,000-yd^3 of treatment volume. Preliminary request was to design an ISTR remedy for entire volume. On our recommendations, consultant conducted expanded HRSC activities.



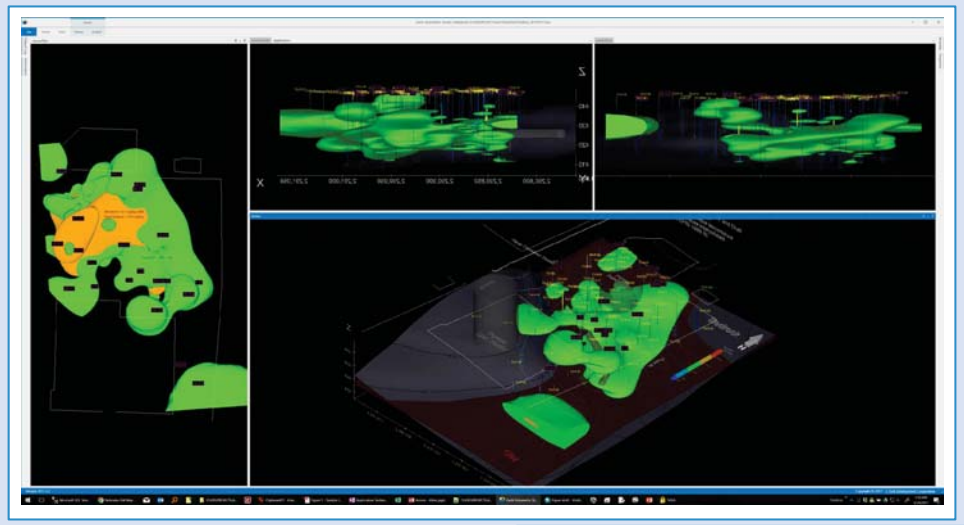


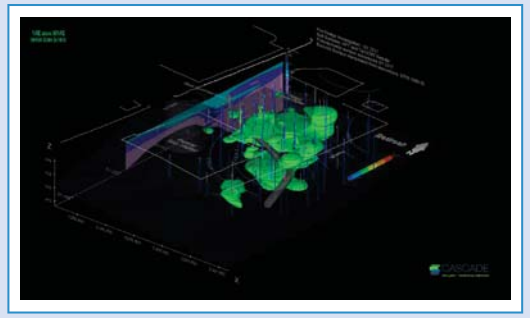
Expanded Site characterization (MiHpt and soil sampling) combined with 3-D data visualization and coupled Mass Distribution model output revealed that 96% of mass on Site was held within 2,200-yd^3 treatment volume.

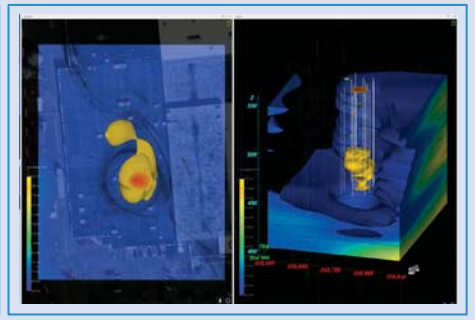
Final Project Design – reduction of approximately 33,000-cy of ISTR treatment through custom engineered, combined ISTR source treatment with heat enhanced bioremediation/recirculation system, to treat diffuse downgradient plume. Total project costs estimated to be ~30% of original quote.



Increased RORI



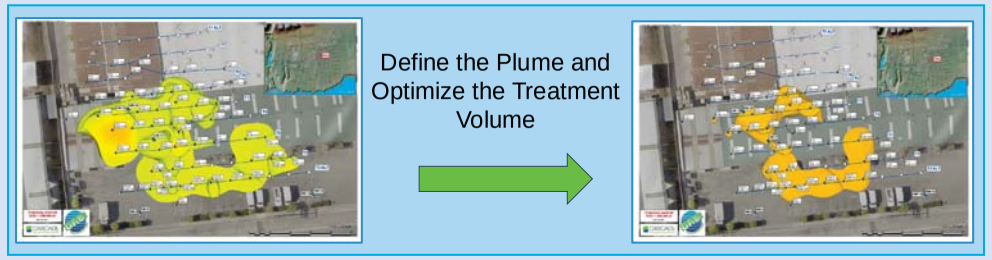


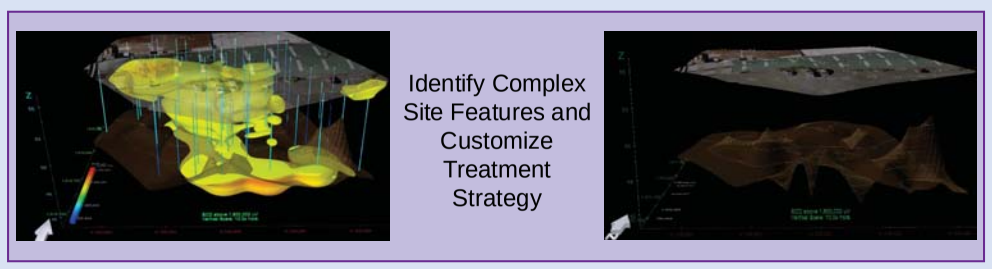


- **Contaminant Mass Distribution Models – Define the Source!**
- **Confidence in Approach and Results – Better than a Guarantee!**
- **Improve Project RORI through Informed ISTR Strategy!**

Find the Mass and Define Site Conditions!

Customized ISTR Solution





FINAL WORDS

Conventional site characterization approaches very often lead to underperforming or failed remedies. Integrating our advanced site characterization, data management and visualization capabilities with our extensive suite of ISTR remedial technologies ensures that, once the CSM is tested, it is possible to select and design an optimal remedy with confidence. The resulting ISTR system design will operate with increased confidence, efficiency, and engender better project outcomes and a greater return on remediation investment.