VSP 4 Day Training Course (H-500)

[Each participant will have a laptop/computer with VSP on it and will work through the case studies together with the instructor and individually]

**DAY 1**

8:00-8:25 Course Expectations, Prior Training, Schedule, Feedback, Load VSP, etc.

8:25-9:00 VSP Overview/Demo (Executive Summary)

9:00-9:30 Review of Systematic Planning, DQO Process, and DQA

9:30-9:45 Break

9:45-11:15 VSP Maneuvering and Procedures (Part 1)

11:15-12:00 Statistical Concept Review

12:00-1:00 Lunch (on your own)

1:15-2:00 VSP Maneuvering and Procedures (Part 2)

2:00-2:15 Non-Statistical and Hotspot Detection Sample Designs
- Judgment Sampling
- Predetermined Number of Samples
- Locate Hotspot Objective
- Locate Hotspot with Existing Data

2:15-2:45 Average-Based Decision Rule Case Studies
- Comparison Against a Threshold (Design and Analysis)

2:45-3:00 Break

3:00-4:20 Average-Based Decision Rule Case Studies (Continued)
- Confidence Interval Objective
- Comparison Against Background
- Collaborative Sampling
- Sequential Sampling
- Stratified Sampling

4:15-4:30 Questions, Issues, End of Day 1
Day 2
8:00-8:15 Questions, Quick Review

8:15-10:00 Individual Observation or Percentile Decision Rule Case Studies
- X%/Y% Acceptance Sampling – No Exceedances Allowed
- Discovery Sampling
- X%/Y% Combined Judgment and Random Sampling
- Stratified Compliance Sampling
- X%/Y% Non-Parametric UTL
- X%/Y% Parametric UTL
- X%/Y% Acceptance Sampling – Exceedances Allowed (Optional)

10:00-10:15 Break

10:15-11:30 Group Case Study
- Introduce DQO Group Case Studies
- Group Breakout on DQO Case Studies

11:30-12:00 Within Zoned Building Case Study
- Building 3-D Rendering
- Setting up Zones – User-Defined Parameters
- Sampling Designs by Zone

12:00-1:00 Lunch (on your own)

1:15-2:15 Within Zoned Building Case Study (Continued)

2:15-3:00 Spatial Analysis and Geostatistical Analysis Overview Presentation

3:00-3:15 Break

3:15-4:15 Spatial Analysis Case Studies
- Geostatistical Analysis
- Remove Sample Locations (Spatial Redundancy Analysis)
- Add Sample Locations
- Other Interpolation Methods

4:15-4:30 Questions, Issues, End of Day 2
Day 3
8:00-8:15  Questions, Quick Review

8:15-9:30  Temporal Designs and Analysis
■ Trend Detection (Design and Analysis)
■ Temporal Redundancy Analysis
■ Change Detection: Statistical Process Control Charts

9:30-10:00  Radiological Transect Survey Design and Analysis

10:00-10:15  Break

10:15-10:30  Item Sampling

10:30-11:45  Finalize Group DQO Case Studies

12:00-1:00  Lunch (on your own)

1:00-1:45  Presentations of DQO Case Studies

1:45-2:15  Multiple Increment Sampling
■ Average Based Decision Rules
■ Hotspot Detection

3:00-3:15  Break

3:15-4:15  Additional Data Analysis Modules / Features
■ MQO Options and Retrospective Analysis
■ Analyte Redundancy (Correlation) Analysis
■ Handling Less Than Detects

4:15-4:30  Questions, Issues, End of Day 3
Day 4

8:00-8:15  Questions, Issues

8:15-9:45  MARSSIM Advanced Case Studies
■ Combined Background and Threshold Comparison
■ Compare Average to Fixed Threshold

9:45-10:00  Break

10:00-11:30  Demonstration and Discussion of VSP MARSSIM Features

11:30-11:45  VSP Future Developments

11:45-12:00  Wrap-up, Course Evaluation Forms, Questions.

12:00  Adjourn