

Hand Delivered to NCDENR 11/15/05  
@ 4th qtr Partnering Meeting



SOVEREIGN CONSULTING INC.

October 28, 2005

Marine Corps Base, Camp LeJeune  
Environmental Management Division  
Environmental Quality Division  
Building 12, McHugh Boulevard  
Camp LeJeune, NC 28542-0004

ATTN: Mr. S. Andrew Smith, Environmental Engineer

**Re: Soil Sample Summary Report for Rapid Refueler Site, New River MCAS,  
Jacksonville, North Carolina**

Dear Mr. Smith:

Sovereign Consulting Inc. (Sovereign) is pleased to submit this soil sample summary report for the Rapid Refueler site, Incident #5668, to the Environmental Management Division at Marine Corps Base (MCB) Camp LeJeune, in Jacksonville, North Carolina. A description of the scope of work, field activities and sample analytical results is presented below.

Sovereign was contracted by Osage of Virginia (Osage) to assist in performing soil sampling at the Rapid Refueler site. This sampling was conducted in response to a Notice of Regulatory Requirement letter from the North Carolina Department of Environment and Natural Resources dated August 12, 2005. Two soil samples were collected using a stainless steel hand auger. Each soil sample was collected adjacent to two monitoring wells - USTAS511-MW06S and USTRR-MW-18. The locations of these monitoring wells are shown on the attached Rapid Refueler site map. Each sample was advanced to the soil water interface. The soil sample collected near monitoring well USTAS511-MW06S was taken at a depth of four (4) feet below the ground surface (bgs). The soil sample collected adjacent to monitoring well USTRR-MW-18 was taken at approximately three and a half (3.5) feet bgs. The samples were packed into eight (8) ounce glass sample containers, put on ice, and shipped under Chain of Custody to Paradigm Analytical Laboratories, Inc. in Wilmington, North Carolina. They were then analyzed for total petroleum hydrocarbon – gasoline range organics (TPH-GRO) and total petroleum hydrocarbon – diesel range organics (TPH-DRO). Analytical results are attached to this letter report and are summarized as follows.

Sample Identification	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)
USTAS511-MW06S	BQL	24.4
USTRR-MW-18	29.2	87.5

If you have any questions or comments, or require additional information, please do not hesitate to call me at (757) 594-0980.

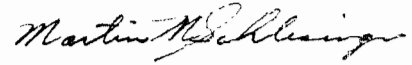
Sincerely,  
**Sovereign Consulting Inc.**



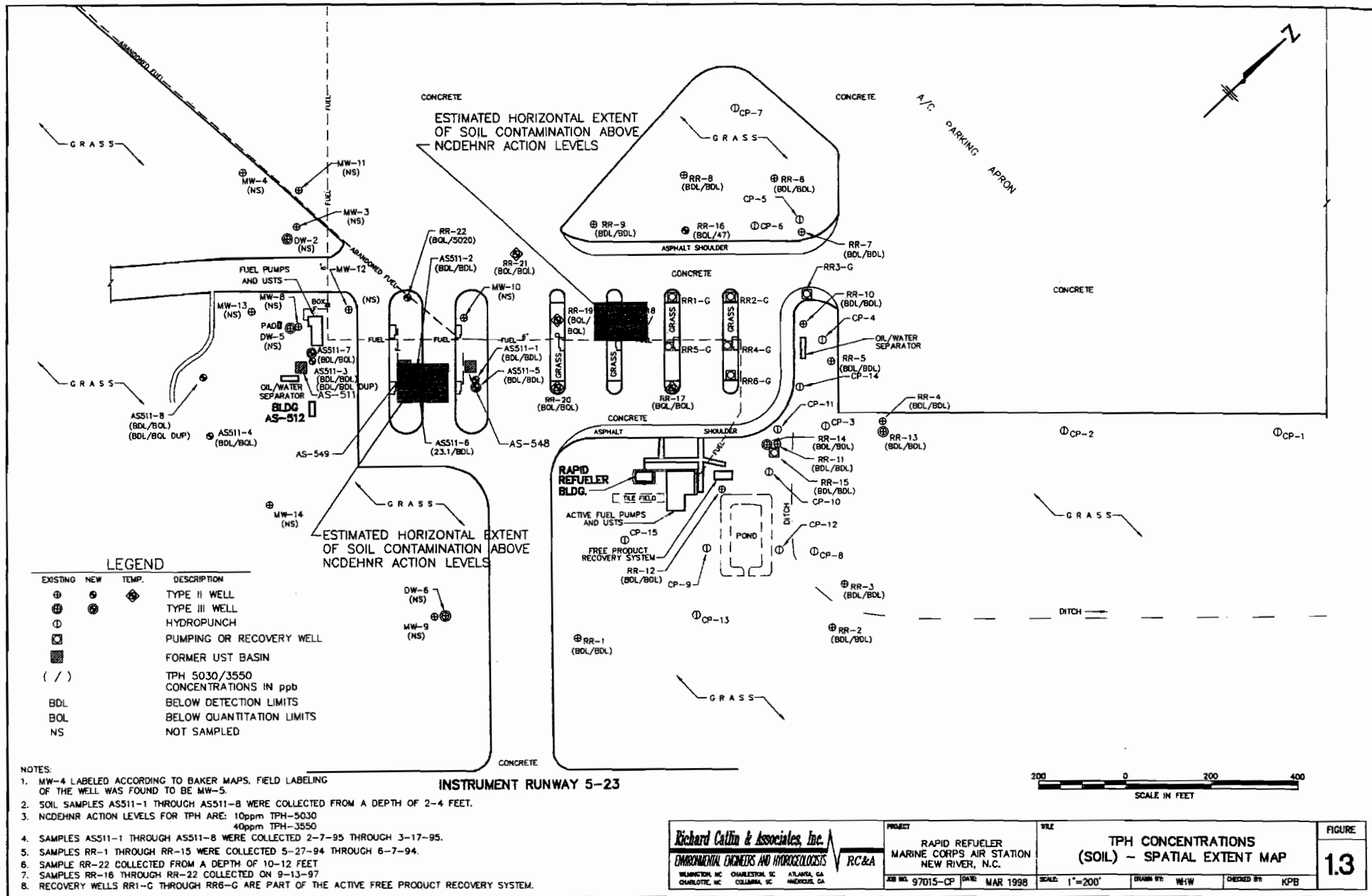
Chris Murray  
Project Manager

Attachments

*Reviewed by*



*Nov 11, 2005*



Mr. Mike Cree  
Osage of Virginia  
4800A Colley Avenue  
Norfolk VA 23508-2037

Report Number: G649-1

Client Project: Rapid Refueler

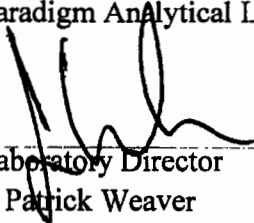
Dear Mr. Cree:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,  
Paradigm Analytical Laboratories, Inc.

  
Laboratory Director  
J. Patrick Weaver

  
Date

## CASE NARRATIVE

Date: November 11, 2005

Osage Project ID: Rapid Refueler

Paradigm Analytical ID: G649-1

Two soil samples were received at the laboratory September 30 for analysis of gasoline and diesel range organics. The samples were received within holding time, but above temperature limit.

The samples were received at 21.3 degrees Celcius, but were on ice when delivered to the laboratory. As they were on ice, the sample custodian notated that the samples were coming down in temperature on the chain of custody.

The North Carolina laboratory certification branch will accept receipts above the temperature limit of 4 +/- 2 degrees Celcius when samples are collected near the receiving lab and delivered before they have had time cool to the limit. However, there are no absolute time or temperature limits in this exception.

All extractions and analyses were completed within holding time and without analytical quality control exception. Please find the data summary reports enclosed.

**Results for Total Petroleum Hydrocarbons**

by GC/FID 8015

Client Sample ID: USTAS511-MW06S

Analyzed By: DCS

Client Project ID: Rapid Refueler

Date Collected: 9/30/05 9:00

Lab Sample ID: G649-1-1

Date Received: 9/30/05

Lab Project ID: G649-1

Matrix: Soil

Report Basis: Dry Weight

Solids 79.97

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.27	5035	1	10/04/05
Diesel Range Organics	<b>24.4</b>	7.78	3545	1	10/05/05

Comments:

**Results for Total Petroleum Hydrocarbons**  
by GC/FID 8015

Client Sample ID: USTRR-MW18  
 Client Project ID: Rapid Refueler  
 Lab Sample ID: G649-1-2  
 Lab Project ID: G649-1  
 Report Basis: Dry Weight

Analyzed By: DCS  
 Date Collected: 9/30/05 9:25  
 Date Received: 9/30/05  
 Matrix: Soil  
 Solids 85.58

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	29.2	6.43	5035	1	10/05/05
Diesel Range Organics	87.5	7.25	3545	1	10/05/05

Comments:

## List of Reporting Abbreviations and Data Qualifiers

**B = Compound also detected in batch blank**

**BQL = Below Quantitation Limit**

**DF = Dilution Factor**

**Dup = Duplicate**

**D = Detected, but RPD is > 40% between results in dual column method.**

**E = Estimated concentration, exceeds calibration range.**

**J = Estimated concentration, below calibration range and above MDL**

**LCS(D) = Laboratory Control Spike (Duplicate)**

**MDL = Method Detection Limit**

**MS(D) = Matrix Spike (Duplicate)**

**PQL = Practical Quantitation Limit**

**RL = Reporting Limit**

**RPD = Relative Percent Difference**

**mg/kg = milligram per kilogram, ppm, parts per million**

**ug/kg = micrograms per kilogram, ppb, parts per billion**

**mg/L = milligram per liter, ppm, parts per million**

**ug/L = micrograms per liter, ppb, parts per billion**

**% Rec = Percent Recovery**

**% solids = Percent Solids**

### Special Notes:

- 1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

MI34.092205.2

