



January 5, 2006

Commanding General
I&E/EMD/EQB (Attn.: Mr. Andrew Smith)
PSC Box 20004
Marine Corps Base
Camp Lejeune, North Carolina 28542-0004

**Re: FINAL – Letter Report of Findings and Request for No Further Action
Holcomb Boulevard and Birch Street Intersection
Soil Sampling Event
Marine Corps Base
Camp Lejeune, North Carolina**

Dear Mr. Smith:

Sovereign Consulting Inc. (Sovereign) is pleased to submit this summary report for sampling work performed at the intersection of Holcomb Boulevard and Birch Street. Sovereign was authorized to perform this work by Naval Facilities Engineering Command Atlantic North Carolina/Caribbean IPT Division under Navy Contract N62470-04-D-0205 - Task Order No. 0008. Based on the results of this sampling event, this site qualifies for No Further Action (NFA). To support this statement, a description of the scope of work, field activities, and sample analytical results is presented below.

Background and Purpose of Investigation

The subject site was identified as a result of fieldwork completed by CATLIN Engineers and Scientists (CATLIN) for a nearby North Carolina Department of Environment and Natural Resources, Division of Waste Management, Underground Storage Tank (NCDENR/DWM/UST) incident called Hadnot Point Fuel Farm (NCDENR incident numbers 3671, 10615, and 22788). CATLIN collected soil samples as part of the fieldwork summarized in their report *Hadnot Point 2002 Well Gauging, Sampling, and Additional Well Installation Report, Hadnot Point Fuel Farm*, dated December 13, 2002. Soil samples were taken from the 0 to 2 ft interval during the installation of groundwater monitoring wells HPFF-45 and HPFF-46 (Figures 1 and 2). The samples were analyzed for total petroleum hydrocarbons via EPA Methods 5030 and 3550. Elevated levels of gasoline range and diesel range organics were present in the shallow soils, and as a result, NCDENR/DWM/UST forwarded the information to the NCDENR, Division of Water Quality (DWQ), Water Quality Section, now known as the Aquifer Protection Section (APS). CATLIN concluded the contamination was the result of a non-UST related source; therefore, assessment and corrective action oversight was given to APS.

To remedy the soil contamination, MCB Camp Lejeune decided to perform a soil excavation. Shaw Environmental and Infrastructure, Inc. (Shaw) excavated the soil contamination identified by CATLIN on November 17, 2004. The removal action focused on the area around groundwater monitoring wells HPFF-39, HPFF-45, HPFF-46,

and HPFF-47. The final excavation measured approximately 14'x14'x2.5' (depth). Shaw collected three (3) confirmation soil samples from the excavation floor and had them analyzed for gasoline range organics and diesel range organics using EPA Method 5030 and EPA Method 3550, respectively. Laboratory analysis did not detect contamination in the confirmation samples.

MCB Camp Lejeune submitted the Shaw report to APS for review on July 15, 2005. The report summarized the removal action, outlined the confirmation soil sampling results, and requested a No Further Action status for the site. In a response letter dated October 28, 2005, APS did not grant site closure and directed EMD to demonstrate that the horizontal extent of the contamination had been removed.

The purpose of this investigation was to determine if the soil excavation performed by Shaw was effective in removing the impacted soils in the horizontal direction at the project site. EMD consulted APS regarding locations for delineation sampling on November 9, 2005. The two parties agreed to collect sidewall samples at each extreme of the Shaw excavation.

Field Activities

On November 29, 2005, Sovereign personnel used a stainless steel hand auger to collect four sidewall samples (Figure 3). Samples were taken from a depth of approximately 1.25 feet below ground surface. The auger was decontaminated before each boring using an alconox solution, and new, disposable latex gloves were worn for each sample acquisition.

The soil samples were packed into appropriately labeled laboratory glassware, placed on ice in an insulated cooler, and shipped to Paradigm Analytical Laboratories Inc. in Wilmington, NC (NC Certification Number 481) using proper chain-of-custody documentation. The samples were then analyzed for the presence of total petroleum hydrocarbons gasoline (TPH-GRO) and diesel (TPH-DRO) organics per EPA Methods 5030 and 3550.

Results

Analysis per EPA Methods 5030 and 3550 revealed no TPH-DRO or TPH-GRO contamination in any of the sidewall samples above the laboratory quantitation limits. The laboratory analytical results are attached.

Summary and Conclusions

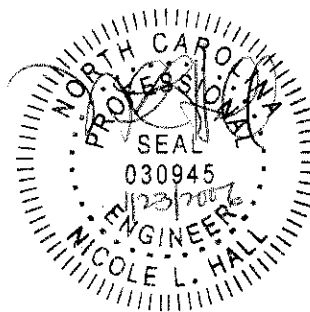
Shaw removed previously detected TPH contamination via excavation in November 2004. They did not detect petroleum hydrocarbons in the floor confirmation soil samples they collected. APS did not grant site closure based on Shaw's excavation report. Instead, they directed EMD to demonstrate that the horizontal extent of the contamination had been removed in a response letter dated October 28, 2005. Sovereign, therefore,

obtained four sidewall samples from the Shaw excavation in November 2005 to determine if Shaw removed the impacted soils in the horizontal direction. Laboratory analysis confirmed the absence of gasoline and diesel range organics along the excavation sidewalls. Therefore, the soil excavation performed by Shaw was effective in removing the impacted soils at the site. Based on the November 2004 and November 2005 confirmation samples, this site is suitable for no further action. If you have further questions or need additional information, please feel free to contact us at your convenience.

Sincerely,
Sovereign Consulting Inc.



Nicole L. Hall, P.E.
Senior Engineer

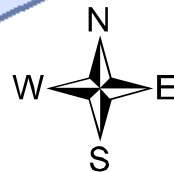


Attachments: Figures 1-3, Laboratory Analytical Reports

Cc: Mr. David. T. Cleland, P.G. (NAVFAC)
Mr. Chris Murray (Sovereign)

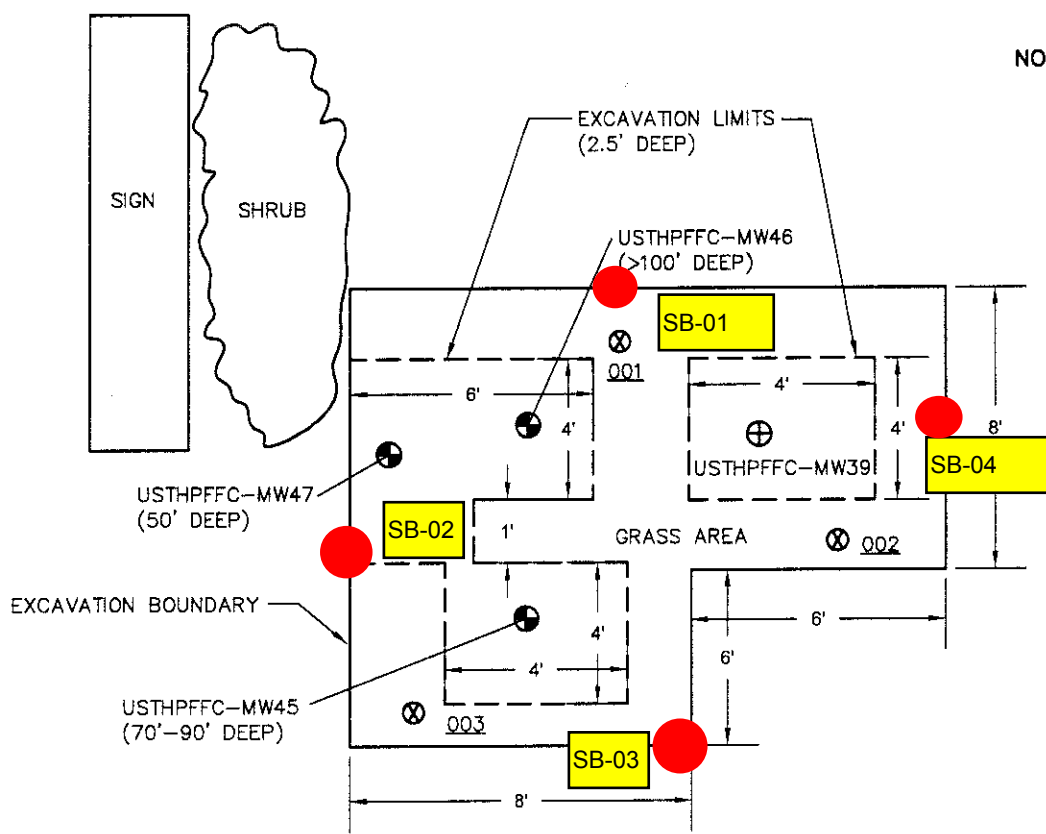


	<p>Marine Corp Base Camp Lejeune, NC</p>	
<p>Figure 1 - Hadnot Point Project Location</p>		
<p>Project No. NV008</p>		
<p>Date: January 2006</p>		
<p>606 Thimble Shoals Blvd. Suite A-1 Newport News, VA 23606</p>	<p>606 Thimble Shoals Blvd. Suite A-2 Newport News, VA 23606</p>	





NOT TO A SCALE



HOLCOMB BLVD

LEGEND:

- 001 SAMPLE NUMBER
- ⊗ SAMPLE LOCATION
- ⊕ TYPE III MONITORING WELL (ALL WELLS HAVE A 3'X3' CONC PAD)
- ⊕ TYPE II MONITORING WELL


Shaw
 Shaw Environmental, Inc.

DRAWN BY	J. LANGE	3/16/05
CHECKED BY	-	-
APPROVED BY	R. KENYON	3/16/05

REV.	SHEET #	PROJECT NO.	845845
0	-		

**FIGURE 3-1
 HOLCOMB BOULEVARD
 EXCAVATION
 SITE MAP**

Mr. Chris Murray
Sovereign Consulting
606 Thimble Shoals Rd.
Suite A1
Newport-News VA 23606
Report Number: G650-9

Client Project: Holcomb Blvd

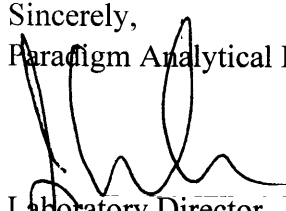
Dear Mr. Murray:

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

12/7/05
Date

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: HBLVD-SB01
Client Project ID: Holcomb Blvd
Lab Sample ID: G650-9-1
Lab Project ID: G650-9
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 11/29/2005 13:15
Date Received: 11/30/2005
Matrix: Soil
Solids 84.60

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.9	5035	1	12/05/05
Diesel Range Organics	BQL	7.25	3545	1	12/01/05

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: HBLVD-SB02
Client Project ID: Holcomb Blvd
Lab Sample ID: G650-9-2
Lab Project ID: G650-9
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 11/29/2005 13:25
Date Received: 11/30/2005
Matrix: Soil
Solids 87.07

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.16	5035	1	12/05/05
Diesel Range Organics	BQL	7.12	3545	1	12/01/05

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: HBLVD-SB03
Client Project ID: Holcomb Blvd
Lab Sample ID: G650-9-3
Lab Project ID: G650-9
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 11/29/2005 13:35
Date Received: 11/30/2005
Matrix: Soil
Solids 82.62

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.67	5035	1	12/05/05
Diesel Range Organics	BQL	7.37	3545	1	12/01/05

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: HBLVD-SB04
Client Project ID: Holcomb Blvd
Lab Sample ID: G650-9-4
Lab Project ID: G650-9
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 11/29/2005 13:45
Date Received: 11/30/2005
Matrix: Soil
Solids 85.00

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.87	5035	1	12/05/05
Diesel Range Organics	BQL	7.02	3545	1	12/01/05

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.

