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Federal Express

O'BRIEN & GERE

April 26, 1988

Mr. Robert E. Alexander
Environmental Engineer
Marine Corps Base
Assistant Chief of Staff Facilities
Camp Lejeune, NC 28542

Re: Update on Field Activities
Performed at the Hadnot Point
Fuel Farm as of 4/21/88

File: 3542.002.320

Dear Bob:

Per your request, the following presents a summary of the field activities completed to date at the Hadnot Point Fuel Farm.

1. Monitoring Well Installations

A total of 20 ground water monitoring wells were installed at the locations shown on the attached map. A draft copy of the boring logs and the well construction diagrams are also attached. The wells were screened so that any floating product layer would lie within the screened interval. Wells MW-1 and MW-2 are 17 feet deep with the screened interval from 7 to 17 feet. Wells MW-3 through MW-10 are 15 feet deep with the screened interval from 5 to 15 feet below ground level. Due to the thickness of product found in MW-2 and MW-7, it was decided to increase the depth of the remaining wells to 25 feet. Wells MW-11 through MW-20 are 25 feet deep with the screened interval from 5 to 25 feet. According to the scope of work outlined in our Preliminary Report, 5 wells were installed using 4-inch diameter well screen and casing. These wells, MW-16 through MW-20, were located based on preliminary field data as potential product recovery wells.

2. Ground Water Elevation and Product Thickness Monitoring

Ground water elevations and product thickness measurements have been collected from all of the wells on two separate occasions to date. One set of measurements was taken prior to well development on 3/15/88. A second complete set of measurements was taken on 4/20/88. Attached is a table summarizing these data.

3. Engineering Survey

An engineering survey was completed at the site on 4/19/88 to establish horizontal locations and elevations of each of the monitoring wells. The locations of the wells were surveyed to the nearest foot and were plotted on an 1" = 200' scale map. Attached is a draft copy of the site map. The elevations of the wells were surveyed to the nearest 0.01 foot relative to an established USGS Benchmark datum. The well elevation data are also attached.

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4. Ground Water Sampling and Analysis


A ground water sample was collected from each of the monitoring wells between 4/20 and 4/21/88. The wells were sampled according to the protocols outlined in the Preliminary Report are being analyzed for volatile organic compounds (VOCs) using USEPA Methods 601 and 602. One field blank and one replicate sample are also being analyzed for VOCs for QA/QC controls. In addition, product samples were collected from five of the six wells that contained a floating product layer. These samples are being analyzed using a Gas Chromatograph/Flame Ionization Detector (GC/FID) scan for petroleum hydrocarbon identification. Product samples were collected from the following wells: MW-2, MW-7, MW-12, MW-16, MW-18. The laboratory analysis report is not yet available.

The data submitted with this letter is draft field data. We are currently in the process of reviewing and interpreting the data. An analysis of the data, along with conclusions and recommendations will be prepared and submitted with our Investigation Report as outlined in our Preliminary Report.

If you have any questions regarding this data, please do not hesitate to contact either John Tomik or myself at (315) 451-4700.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.


John C. Brod
Hydrogeologist

JCB:emr/37.2
Enclosures

cc: John Kresky (US Navy - Norfolk, Virginia)
Edward M. Halley, P.E., Vice President (O'Brien & Gere Engineers, Inc.)

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GROUND WATER ELEVATIONS AND PRODUCT THICKNESS MEASUREMENTS
HADNOT POINT TANK FARM
CAMP LEJEUNE, NC

WELL NUMBER	GROUND ELEV.	CASING ELEV.	3/15/88		4/20/88	
			GROUND WATER ELEV.	PRODUCT THICKNESS	GROUND WATER ELEV.	PRODUCT THICKNESS
MW-1	28.3	30.00	19.38	--	19.41	--
MW-2	30.0	31.68	15.97	2.97	15.93	3.17
MW-3	29.0	29.23	19.72	--	19.83	--
MW-4	29.8	31.61	21.69	--	21.73	--
MW-5	28.5	28.54	21.45	--	21.25	--
MW-6	27.8	29.95	19.26	--	19.20	--
MW-7	27.7	27.68	N/A	N/A	20.25	0.35
MW-8	26.6	26.35	20.12	--	20.18	--
MW-9	28.8	30.73	18.78	--	18.75	--
MW-10	28.1	28.01	18.26	--	18.42	--
MW-11	26.5	28.52	19.49	--	18.63	--
MW-12	26.9	28.62	16.92	4.33	11.32	9.81
MW-13	28.8	30.56	20.94	--	20.87	--
MW-14	27.7	27.87	19.72	--	20.05	--
MW-15	28.3	30.13	19.52	0.86	19.51	0.24
MW-16	28.4	30.33	6.49	14.85	6.16	15.34
MW-17	29.5	31.70	19.25	--	18.97	--
MW-18	29.9	31.80	14.92	4.59	14.68	5.10
MW-19	29.4	31.99	18.72	--	18.45	--
MW-20	26.8	31.01	20.84	--	19.65	--

N/A = DATA NOT AVAILABLE
-- = NO PRODUCT LAYER DETECTED

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