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Baker

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March 26, 1992

Commanding Officer
Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia 23511-6287

Attn: Mr. Byron Brandt
Code 1822

Re: Contract N62470-89-D-4814
CTO-0003, Drum Sampling Strategy Plan
Camp Lejeune, North Carolina

Dear Mr. Brandt:

This letter provides a Drum Sampling Strategy Plan (Strategy Plan) for sampling of approximately two hundred and fifty 55-gallon drums. The drums contain well cuttings, development/purge water, and other contents related to the Installation Restoration Program efforts at Camp Lejeune Marine Corps Base (CLEJ). This Strategy Plan was developed in accordance with your request dated February 28, 1992 (Scope of Work, CTO-0003, Sampling Strategy for Characterization of 55 Gallon Drum Contents).

OBJECTIVE

The objective of this Strategy Plan is to determine the representative quantity of drums to sample and analyses required to provide sufficient information to complete Waste Material Profile Sheets for subsequent treatment/disposal of the waste material by the Department of the Navy (DoN).

TECHNICAL APPROACH

LANTDIV and Camp Lejeune Environmental Management Division (EMD) provided Baker with an inventory of drums containing waste material generated by various contractors (ESE, Inc., Halliburton NUS, and Baker Environmental, Inc.) during drilling, monitoring well construction and groundwater sampling activities at Camp Lejeune. Analytical results of associated soil and groundwater samples were also provided to Baker.

In addition to this inventory, nine drums were located in the field by the Baker Project Manager during a site reconnaissance at Site 6, Lot 203 on March 10, 1992. These drums may be associated with recent drilling and groundwater sampling activities at CLEJ since the dates on the drums were identified as 1991 and the markings indicated a designation of "MW-01-Site 8", which is indicative of monitoring well installation and sampling activities. There are no available analytical results of any samples collected in association with this material nor is there any record of investigation activities at a "Site 8."

The soil and analytical results associated with the ESE (1991), Halliburton NUS (1991) and Baker (1991) investigations were used to evaluate the various contaminants and their concentrations present in drill cuttings and purge/development water. Baker reviewed the soil and groundwater analytical results that correspond to the drums. In addition, the history and past practices at the sites were also reviewed in order to determine the following:

1. Drums that would not be classified as a Resource Conservation and Recovery Act (RCRA) hazardous waste based on the analytical results of associated soil or groundwater samples. With respect to these wastes, what additional analyses, if any, would be required to properly characterize the waste in order to complete the Waste Material Profile Sheets.

2. Drums which would require additional analyses to determine if the contents would be classified as a RCRA hazardous waste. With respect to these wastes, what analyses would be required for waste characterization to complete the Waste Material Profile Sheets.

3. The recommended sampling scheme to properly complete Waste Material Profile Sheets (e.g., drums to be sampled, required analyses, and which drums can be composited for sampling.).

The information provided on a Waste Material Profile Sheet is used by the Treatment Storage and Disposal Facility (TSDF) to determine proper disposal and treatment methods. In addition to the analytical characterization of the wastes, the TSDF would be provided site-specific information if any of the waste was a mixture as referenced by Subpart D of 40 CFR 261, which Baker has researched through background historical information for each site.

DRUMMED WASTE CHARACTERIZATION

Based on a review of background information, none of the drums will be classified as a hazardous waste because of the above mentioned regulation. However, it is possible that the contents of some drums may be classified as a RCRA hazardous waste by characteristic if they fall within the parameters listed in 40 CFR 261. These parameters include: Toxicity Characteristic Leaching Procedure (TCLP) parameters (metals, semivolatiles, pesticides, herbicides and volatiles), flashpoint, corrosivity (pH) and reactivity (cyanide and sulfide). This will be determined by subsequent sampling of the waste materials.

Attachment A contains a listing of drums, which by their corresponding soil or groundwater characteristics (i.e., no detectable levels or levels of contamination in corresponding soil or groundwater samples below levels of concern), do not appear to exhibit the characteristics of a hazardous wastes. Composite samples will be collected from these drums for laboratory analyses to confirm this.

Attachment B lists the drums which require further characterization. These include drums with corresponding soil sample analytical results that may exhibit the characteristics of a hazardous waste due to elevated contaminant levels. Also included are drums for which there are no analytical data available.

The sampling strategy is outlined in Attachment C. Samples and sample analyses have been selected to:

1. Confirm that the contents of the drums listed in Attachment A are by characteristic nonhazardous.

2. Determine if the contents of the drums listed in Attachment B contain waste material that may, or may not, be considered a RCRA hazardous waste by characteristic.

RECOMMENDATIONS

In addition to the sampling strategy (Attachment C), Baker recommends the following:

1. During sampling, conduct a general inspection of drum integrity. All drums that will be transported off site must be Department of Transportation 17H steel drums in good condition.

2. When preparing the drums for shipment off site, remove free liquid from the drums, store the liquid in a holding container, and install clean dry material (e.g. fly ash) to stabilize any free liquids that remain or develop during transportation. All drums should be labeled (hazardous or nonhazardous).

If you have any questions relating to this letter report, please do not hesitate to contact me at (412) 269-2016.

Sincerely,

BAKER ENVIRONMENTAL, INC.

Raymond P Wattras

Raymond P. Wattras
Project Manager

RPW/DCS/rw
Attachments

cc: Ms. Laurie Boucher (LANTDIV)
Mr. George Radford (CLEJ, EMD)

ATTACHMENT A

DRUMS EXPECTED TO BE NONHAZARDOUS

DRUM ID	ORIGIN	CONTENTS	REFERENCE INVESTIGATION
GW4-2 38	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 43	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 44	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 46	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 47	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 48	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 49	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 50	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 51	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 52	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 53	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 54	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 55	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2 56	WELL 4 INT	SOIL CUTTINGS	ESE (1991)
GW4-2/3 57	WELL 4 INT/DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3/2 93	WELL 4 INT/DEEP	SOIL CUTTINGS	ESE (1991)
GW4-2/3 94	WELL 4 INT/DEEP	SOIL CUTTINGS	ESE (1991)
GW4-2/3 95	WELL 4 INT/DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 23	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 24	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 25	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 27	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 28	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 29	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 30	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 31	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 32	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 34	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 35	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 36	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 37	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 39	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 40	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)

ATTACHMENT A

DRUMS EXPECTED TO BE NONHAZARDOUS

DRUM ID	ORIGIN	CONTENTS	REFERENCE INVESTIGATION
GW4-3 41	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 42	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW4-3 45	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-2 18	WELL 30 INT	SOIL CUTTINGS	ESE (1991)
GW30-2 19	WELL 30 INT	SOIL CUTTINGS	ESE (1991)
GW30-2 20	WELL 30 INT	SOIL CUTTINGS	ESE (1991)
GW30-2 21	WELL 30 INT	SOIL CUTTINGS	ESE (1991)
GW30-2 22	WELL 30 INT	SOIL CUTTINGS	ESE (1991)
GW30-2/3 15	WELL 30 INT/DEEP	SOIL CUTTINGS	ESE (1991)
GW30-2/3 16	WELL 30 INT/DEEP	SOIL CUTTINGS	ESE (1991)
GW30-2/3 17	WELL 30 INT/DEEP	SOIL CUTTINGS	ESE (1991)
GW30-2/3 26	WELL 30 INT/DEEP	SOIL CUTTINGS	ESE (1991)
GW30-2/3 139	WELL 30 INT/DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 1	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
MW30-3 2	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 2	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
MW30-3 4	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 5	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 6	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 7	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 8	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 9	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 10	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 11	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 12	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 13	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
GW30-3 14	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)
G3W31-2 91	WELL 31 INT	SOIL CUTTINGS	ESE (1991)
GW31-2 92	WELL 31 INT	SOIL CUTTINGS	ESE (1991)
GW-31-2 96	WELL 31 INT	SOIL CUTTINGS	ESE (1991)
GW31-2 97	WELL 31 INT	SOIL CUTTINGS	ESE (1991)
GW31-2 98	WELL 31 INT	SOIL CUTTINGS	ESE (1991)
GW31-2 99	WELL 31 INT	SOIL CUTTINGS	ESE (1991)
GW31-3/2 90	WELL 31 INT/DEEP	SOIL CUTTINGS	ESE (1991)

ATTACHMENT A

DRUMS EXPECTED TO BE NONHAZARDOUS

DRUM ID	ORIGIN	CONTENTS	REFERENCE INVESTIGATION
GW31-3 58	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 59	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 60	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 61	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 62	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 63	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 64	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 65	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 66	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 67	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 68	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 69	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 70	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 71	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 72	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 74	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 75	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 75	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 76	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 77	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 78	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 79	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 80	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 81	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 82	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 83	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 84	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 85	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 86	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 87	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 88	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW31-3 89	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-2 127	WELL 32 INT	SOIL CUTTINGS	ESE (1991)
GW32-2 128	WELL 32 INT	SOIL CUTTINGS	ESE (1991)

ATTACHMENT A

DRUMS EXPECTED TO BE NONHAZARDOUS

DRUM ID	ORIGIN	CONTENTS	REFERENCE INVESTIGATION
GW32-2 129	WELL 32 INT	SOIL CUTTINGS	ESE (1991)
GW32-2 130	WELL 32 INT	SOIL CUTTINGS	ESE (1991)
GW32-2 131	WELL 32 INT	SOIL CUTTINGS	ESE (1991)
GW32-2 132	WELL 32 INT	SOIL CUTTINGS	ESE (1991)
GW32-2 133	WELL 32 INT	SOIL CUTTINGS	ESE (1991)
GW32-2 135	WELL 32 INT	SOIL CUTTINGS	ESE (1991)
GW32-2 136	WELL 32 INT	SOIL CUTTINGS	ESE (1991)
GW32-2 137	WELL 32 INT	SOIL CUTTINGS	ESE (1991)
GW32-2 138	WELL 32 INT	SOIL CUTTINGS	ESE (1991)
GW32-3/2 122	WELL 32 INT/DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 101	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 102	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 103	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 104	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 105	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 106	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 107	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 108	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 109	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 110	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 111	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 112	WELL 32 INT	SOIL CUTTINGS	ESE (1991)
GW32-3 113	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 114	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 115	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 116	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 117	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 118	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 119	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 120	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 121	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 123	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 124	WELL32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 125	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)

ATTACHMENT A

DRUMS EXPECTED TO BE NONHAZARDOUS

DRUM ID	ORIGIN	CONTENTS	REFERENCE INVESTIGATION
GW32-3 126	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
GW32-3 134	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)
"HOT TRASH"	UNKNOWN	PROTECTIVE CLOTHING	ESE (1991)
"UNLABELED"	UNKNOWN	UNKNOWN	ESE (1991)
SITE-3 S1	SITE-3	SOIL CUTTINGS	NUS (1991)
SITE-3 S2	SITE-3	SOIL CUTTINGS	NUS (1991)
SITE-3 S3	SITE-3	SOIL CUTTINGS	NUS (1991)
SITE-3 S4	SITE-3	SOIL CUTTINGS	NUS (1991)
SITE-3 W1	SITE-3	WATER	NUS (1991)
SITE-3 W2	SITE-3	WATER	NUS (1991)
SITE-3 W3	SITE-3	WATER	NUS (1991)
SITE-7W1	SITE-7	WATER	NUS (1991)
SITE-7W2	SITE-7	WATER	NUS (1991)
SITE-7W3	SITE-7	WATER	NUS (1991)
SITE-54 S1	SITE-54	SOIL CUTTINGS	NUS (1991)
SITE-54 S2	SITE-54	SOIL CUTTINGS	NUS (1991)
SITE-54-W1	SITE-54	WATER	NUS (1991)
SITE-54 W2	SITE-54	WATER	NUS (1991)
SITE-80 S1	SITE-80	SOIL CUTTINGS	NUS (1991)
SITE-80 S2	SITE-80	SOIL CUTTINGS	NUS (1991)
SITE-80 S3	SITE-80	SOIL CUTTINGS	NUS (1991)
SITE-80 S4	SITE-80	SOIL CUTTINGS	NUS (1991)
SITE-80 S5	SITE-80	SOIL CUTTINGS	NUS (1991)
SITE-80 S6	SITE-80	SOIL CUTTINGS	NUS (1991)
SITE-80 S7	SITE-80	SOIL CUTTINGS	NUS (1991)
SITE-80 W1	SITE-80	WATER	NUS (1991)
SITE-80 W2	SITE-80	WATER	NUS (1991)
SITE-80 W3	SITE-80	WATER	NUS (1991)
SITE-82 S1	SITE-82	SOIL CUTTINGS	NUS (1991)
SITE-82 S2	SITE-82	SOIL CUTTINGS	NUS (1991)
SITE-82 S3	SITE-82	SOIL CUTTINGS	NUS (1991)
SITE-82 W1	SITE-82	WATER	NUS (1991)
SITE-82 W2	SITE-82	WATER	NUS (1991)
SITE-82 W3	SITE-82	WATER	NUS (1991)

ATTACHMENT A

DRUMS EXPECTED TO BE NONHAZARDOUS

DRUM ID	ORIGIN	CONTENTS	REFERENCE INVESTIGATION
SITE-82 W4	SITE-82	WATER	NUS (1991)
SITE-43 S1	SITE-43	SOIL CUTTINGS	BAKER (1991)
SITE-43 S2	SITE-43	SOIL CUTTINGS	BAKER (1991)
SITE-43 S3	SITE-43	SOIL CUTTINGS	BAKER (1991)
SITE-43 S4	SITE-43	SOIL CUTTINGS	BAKER (1991)
SITE-43 S5	SITE-43	SOIL CUTTINGS	BAKER (1991)
SITE-43 S6	SITE-43	SOIL CUTTINGS	BAKER (1991)
SITE-43 S7	SITE-43	SOIL CUTTINGS	BAKER (1991)
SITE-43 S8	SITE-43	SOIL CUTTINGS	BAKER (1991)
SITE-43 W1	SITE-43	WATER	BAKER (1991)
SITE-43 W2	SITE-43	WATER	BAKER (1991)
SITE-43 W3	SITE-43	WATER	BAKER (1991)
SITE-44 S1	SITE-44	SOIL CUTTINGS	BAKER (1991)
SITE-44 S2	SITE-44	SOIL CUTTINGS	BAKER (1991)
SITE-44 S3	SITE-44	SOIL CUTTINGS	BAKER (1991)
SITE-44 S4	SITE-44	SOIL CUTTINGS	BAKER (1991)
SITE-44 S5	SITE-44	SOIL CUTTINGS	BAKER (1991)
SITE-44 S6	SITE-44	SOIL CUTTINGS	BAKER (1991)
SITE-44 S7	SITE-44	SOIL CUTTINGS	BAKER (1991)
SITE-44 S8	SITE-44	SOIL CUTTINGS	BAKER (1991)
SITE-44 S9	SITE-44	SOIL CUTTINGS	BAKER (1991)
SITE-44 W1	SITE-44	WATER	BAKER (1991)
SITE-44 W2	SITE-44	WATER	BAKER (1991)
SITE-44 W3	SITE-44	WATER	BAKER (1991)
SITE-63 S1	SITE-63	SOIL CUTTINGS	BAKER (1991)
SITE-63 S2	SITE-63	SOIL CUTTINGS	BAKER (1991)
SITE-63 S3	SITE-63	SOIL CUTTINGS	BAKER (1991)
SITE-63 S4	SITE-63	SOIL CUTTINGS	BAKER (1991)
SITE-63 S5	SITE-63	SOIL CUTTINGS	BAKER (1991)
SITE-63 S6	SITE-63	SOIL CUTTINGS	BAKER (1991)
SITE-63 S7	SITE-63	SOIL CUTTINGS	BAKER (1991)
SITE-63 S8	SITE-63	SOIL CUTTINGS	BAKER (1991)
SITE-63 S9	SITE-63	SOIL CUTTINGS	BAKER (1991)
SITE-63 W1	SITE-63	WATER	BAKER (1991)

ATTACHMENT A

DRUMS EXPECTED TO BE NONHAZARDOUS

DRUM ID	ORIGIN	CONTENTS	REFERENCE INVESTIGATION
SITE-63 W2	SITE-63	WATER	BAKER (1991)
SITE-63 W3	SITE-63	WATER	BAKER (1991)
SITE-65 S1	SITE-65	SOIL CUTTINGS	BAKER (1991)
SITE-65 S2	SITE-65	SOIL CUTTINGS	BAKER (1991)
SITE-65 S3	SITE-65	SOIL CUTTINGS	BAKER (1991)
SITE-65 S4	SITE-65	SOIL CUTTINGS	BAKER (1991)
SITE-65 S5	SITE-65	SOIL CUTTINGS	BAKER (1991)
SITE-65 S6	SITE-65	SOIL CUTTINGS	BAKER (1991)
SITE-65 S7	SITE-65	SOIL CUTTINGS	BAKER (1991)
SITE-65 S8	SITE-65	SOIL CUTTINGS	BAKER (1991)
SITE-65 W1	SITE-65	WATER	BAKER (1991)
SITE-65 W2	SITE-65	WATER	BAKER (1991)
SITE-65 W3	SITE-65	WATER	BAKER (1991)

ATTACHMENT B

DRUMS THAT REQUIRE FURTHER CHARACTERIZATION

DRUM ID	ORIGIN	CONTENTS	REFERENCE INVESTIGATION
SITE-7 S1	SITE-7	SOIL CUTTINGS	NUS (1991)
SITE-7 S2	SITE-7	SOIL CUTTINGS	NUS (1991)
SITE-7 S3	SITE-7	SOIL CUTTINGS	NUS (1991)
SITE-6 D1	SITE-8 (?)	UNKNOWN	UNKNOWN
SITE-6 D2	SITE-8 (?)	UNKNOWN	UNKNOWN
SITE-6 D3	SITE-8 (?)	UNKNOWN	UNKNOWN
SITE-6 D4	SITE-8 (?)	UNKNOWN	UNKNOWN
SITE-6 D5	SITE-8 (?)	UNKNOWN	UNKNOWN
SITE-6 D6	SITE-8 (?)	UNKNOWN	UNKNOWN
SITE-6 D7	SITE-8 (?)	UNKNOWN	UNKNOWN
SITE-6 D8	SITE-8 (?)	UNKNOWN	UNKNOWN
SITE-6 D9	SITE-8 (?)	UNKNOWN	UNKNOWN

ATTATCHMENT C

DRUM CONTENTS SAMPLING STRATEGY

COMPOSITE SAMPLE ID	DRUM	ORIGIN	CONTENTS	REFERENCE INVESTIGATION	RECOMMENDED COMPOSITE ANALYSIS	SAMPLING RATIONALE
CLJ-D-SC-01	GW4-2 56	WELL 4 INT	SOIL CUTTINGS	ESE (1991)	FULL RCRA (2)	PROVIDE REPRESENTATIVE CHARACTERIZATION
	GW4-3 27	WELL 4 DEEP	SOIL CUTTINGS	ESE (1991)		OF ESE DRUMS TO CONFIRM THAT
	GW30-2 20	WELL 30 INT	SOIL CUTTINGS	ESE (1991)		CONTENTS ARE NONHAZARDOUS
	GW30-3 6	WELL 30 DEEP	SOIL CUTTINGS	ESE (1991)		
	GW31-2 92	WELL 31 INT	SOIL CUTTINGS	ESE (1991)		
	GW31-3 72	WELL 31 DEEP	SOIL CUTTINGS	ESE (1991)		
	GW32-2 133	WELL 32 INT	SOIL CUTTINGS	ESE (1991)		
	GW32-3 111	WELL 32 DEEP	SOIL CUTTINGS	ESE (1991)		
	"UNLABELED"	UNKNOWN	UNKNOWN (1)	ESE (1991)		
CLJ-D-SC-02	SITE-3 S1	SITE-3	SOIL CUTTINGS	NUS (1991)	FULL RCRA	PROVIDE REPRESENTATIVE CHARACTERIZATION
	SITE-54 S2	SITE-54	SOIL CUTTINGS	NUS (1991)		OF NUS AND BAKER DRUMS TO CONFIRM THAT
	SITE-80 S3	SITE-80	SOIL CUTTINGS	NUS (1991)		CONTENTS ARE NONHAZARDOUS
	SITE-82 S1	SITE-82	SOIL CUTTINGS	NUS (1991)		
	SITE-43 S2	SITE-43	SOIL CUTTINGS	BAKER (1991)		
	SITE-44 S3	SITE-44	SOIL CUTTINGS	BAKER (1991)		
	SITE-63 S4	SITE-63	SOIL CUTTINGS	BAKER (1991)		
	SITE-65 S5	SITE-65	SOIL CUTTINGS	BAKER (1991)		
CLJ-D-SC-03	SITE-7 S1	SITE-7	SOIL CUTTINGS	NUS (1991)	FULL RCRA	PROVIDE REPRESENTATIVE CHARACTERIZATION
	SITE-7 S2	SITE-7	SOIL CUTTINGS	NUS (1991)		OF SITE 7 SOIL CUTTINGS TO DETERMINE
	SITE-7 S3	SITE-7	SOIL CUTTINGS	NUS (1991)		IF DRUM CONTENTS ARE HAZARDOUS
CLJ-D-WC-01	SITE-3 W1	SITE-3	WATER	NUS (1991)	RCRA PH	PROVIDE REPRESENTATIVE CHARACTERIZATION
	SITE-54 W2	SITE-54	WATER	NUS (1991)		OF NUS AND BAKER DRUMS TO CONFIRM THAT
	SITE-80 W1	SITE-80	WATER	NUS (1991)		CONTENTS ARE NONHAZARDOUS
	SITE-82 W2	SITE-82	WATER	NUS (1991)		
	SITE-43 W3	SITE-43	WATER	BAKER (1991)		

ATTATCHMENT C

DRUM CONTENTS SAMPLING STRATEGY

COMPOSITE SAMPLE ID	DRUM	ORIGIN	CONTENTS	REFERENCE INVESTIGATION	RECOMMENDED COMPOSITE ANALYSIS	SAMPLING RATIONALE
	SITE-44 W1	SITE-44	WATER	BAKER (1991)		
	SITE-63 W1	SITE-63	WATER	BAKER (1991)		
	SITE-65 W2	SITE-65	WATER	BAKER (1991)		
CLJ-D-WC-02	SITE-7 W1	SITE-7	WATER	NUS (1991)	RCRA PH	PROVIDE REPRESENTATIVE CHARACTERIZATION
	SITE-7 W2	SITE-7	WATER	NUS (1991)		OF SITE 7 WATER TO DETERMINE
	SITE-7 W3	SITE-7	WATER	NUS (1991)		IF DRUM CONTENTS ARE HAZARDOUS
CLJ-D-SC/WC-0X (3)	SITE-8 D1	SITE-8 (?)	UNKNOWN	UNKNOWN	FULL RCRA	NO ASSOCIATED SOIL OR GROUNDWATER
	SITE-8 D2	SITE-8 (?)	UNKNOWN	UNKNOWN		ANALYTICAL DATA AVAILABLE. PROVIDE
	SITE-8 D3	SITE-8 (?)	UNKNOWN	UNKNOWN		REPRESENTATIVE CHARACTERIZATION
	SITE-8 D4	SITE-8 (?)	UNKNOWN	UNKNOWN		OF DRUMS TO DETERMINE IF
	SITE-8 D5	SITE-8 (?)	UNKNOWN	UNKNOWN		CONTENTS ARE HAZARDOUS
	SITE-8 D6	SITE-8 (?)	UNKNOWN	UNKNOWN		
	SITE-8 D7	SITE-8 (?)	UNKNOWN	UNKNOWN		
	SITE-8 D8	SITE-8 (?)	UNKNOWN	UNKNOWN		
	SITE-8 D9	SITE-8 (?)	UNKNOWN	UNKNOWN		

SAMPLE DESIGNATION

CLEJ = MARINE CORPS BASE CAMP LEJEUNE

D= DRUM

SC=SOIL COMPOSITE

WC=WATER COMPOSITE

00=SAMPLE NUMBER

(1) UNLABELED DRUM ASSUMED TO CONTAIN SOIL CUTTINGS

(2) FULL RCRA = TCLP (METALS,SEMIVOLATILES, PESTICIDES, HERBICIDES, VOLATILES)
FLASH POINT, CORROSIVITY (PH) AND REACTIVITY (CYANIDE AND SULFIDE)

(3) CONTENTS OF DRUM UNKNOWN - ASSUMED TO BE SOIL OR WATER