01.08- 10/5/94- 00315

Adjacent to Site 35/36

Site 39

ONE WELL SITE CHECK
PLUS RESAMPLE TWO EXISTING WELLS
MARINE CORPS BASE,
CAMP LEJEUNE, NORTH CAROLINA
UST STC-868

DSERTS UST 75

REWAI Project 94350
United States Navy Contract N62470-93-D-4035
Delivery Order No. 0021

Prepared for

Atlantic Division
Naval Facilities Engineering Command
Norfolk, VA 23511-6287

October 5, 1994

r.e. wright associates, inc.

Enclosure (7)

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PLUS RESAMPLE TWO EXISTING WELLS
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By

R. E. WRIGHT ASSOCIATES, INC.
#18 Koger Executive Center, Suite 109
Norfolk, VA 23502-4015
(804) 461-6906

September 1994

Respectfully submitted,

Eric L. Engle
Project Scientist II

Reviewed by:

Kent V. Littlefield, P.G.
Project Director

Michael W. Iannicelli
General Manager

94350TLE.TOC

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1.0 INTRODUCTION

On behalf of the Atlantic Division Naval Facilities Engineering Command (LANTDIV), R. E. Wright Associates, Inc. (REWAI) performed a one well site check adjacent to former underground storage tank (UST) STC-868 at Marine Corps Base (MCB) Camp Lejeune, North Carolina (Figure 1). It is appropriate to note that the original delivery order (D.O. No. 0021) had requested a three well site check. However, subsequent to the initial site visit, it was determined that due to surface obstructions and underground utilities, three locations accurately representing subsurface conditions could not be established. It was decided, in concurrence with EMD/IRD personnel, to install a single monitoring well southeast of the former UST position and utilize two existing monitoring wells positioned east and west of the former tank. One soil boring was drilled and a monitoring well subsequently installed in June 1994. Soil and groundwater samples were collected at this well (MW-1) for laboratory analysis. Additional groundwater samples were taken at two previously installed monitoring wells (arbitrarily named MW-2 and MW-3) to further characterize hydrocarbon contamination in the subsurface. In order to accurately determine the groundwater flow direction and gradient at the site, well locations and elevations were surveyed and depth to groundwater was measured at each well. Wastewater and soil cuttings generated during these activities were contained in 55-gallon drums and sampled for disposal off-site. This work complies with the requirements of basic contract No. N62470-93-D-4035 with LANTDIV. The following report documents the field activities performed and presents the results of the investigation conducted by REWAI.

2.0 BACKGROUND INFORMATION

2.1 Facility Description

The UST STC-868 site is located near the intersection of G and 8th Streets in the Camp Geiger area, MCB Camp Lejeune (Figure 2). UST STC-868, a steel 550-gallon waste oil tank, was installed in 1983 and removed in 1993. Based on elevated levels of both Total Petroleum Hydrocarbons (TPH) and oil and grease at the time of tank removal, a release is suspected to have occurred. UST STC-868 was located between building STC-867, a roofed contaminated soil storage facility, and an elevated wash rack. Two monitoring wells, presumably associated with building STC-867, are present east and west of the UST STC-868 excavation.

2.2 Regional Geology/Hydrogeology

MCB Camp Lejeune, North Carolina, is located within the Atlantic Coastal Plain Physiographic Province. Subsurface geology in the area consists of interbedded quaternary sands, gravels, and clays. Topography is relatively flat, and the elevation at the site is approximately 13 to 15 feet above mean sea level (AMSL). Groundwater is first encountered approximately 5 feet below ground surface (bgs).

3.0 SUBSURFACE INVESTIGATION - METHODS AND PROCEDURES

3.1 Boring/Monitoring Well Installation

For reasons stated in Section 1.0, a single boring location was selected so that when used in conjunction with the two existing monitoring wells on site, an accurate representation of subsurface conditions could be formed (Figure 3). The monitoring well was completed at the site by Hallmark Drilling on June 21, 1994, under the supervision of a REWAI geologist. Borings were advanced by the hollow-stem auger technique using a truck-mounted drill rig. The augers and split-spoon sampling equipment were steam-cleaned prior to the start of drilling activities and between boreholes to mitigate the possibility of sample cross-contamination.

The soil boring was initially advanced with two-inch outside-diameter (OD) split-spoon samplers for the purpose of subsurface soil sampling and characterization. The boring was subsequently redrilled with a larger 10-inch OD hollow-stem auger to a maximum depth of 13.7 feet bgs and completed as a groundwater monitoring well. Monitoring well MW-1 consists of four-inch diameter Schedule 40 polyvinyl chloride (PVC) well screen and casing threaded for flush joints. A 10-foot length of factory-slotted 0.010-inch well screen was installed so that the groundwater table bisects the screen. PVC casing was installed above the well screen in each well to extend the well construction to the ground surface. An expandable well cap with lock was installed at the top of the casing.

After placement of the well screen and riser pipe, the annular space between the monitoring well and the borehole wall was backfilled with a chemically inert, washed,

coarse silica sand to approximately two feet above the top of the well screen. A one-foot thickness of bentonite pellets was placed on top of the sand pack and hydrated with potable water. After the bentonite pellets were allowed to hydrate and seal the borehole, the remainder of the borehole was backfilled to the ground surface with concrete. A cast-iron drive-over was installed with the concrete to finish the well and allow future access. Soil boring and well construction logs are presented in Appendix B.

3.2 Soil Sampling

Continuous split-spoon samples were collected to a depth of 10 feet bgs. Split-spoon samples were screened in the field using a photoionization detector (PID) to quantify the presence of organic vapors. PID readings are recorded on the drilling log (Appendix B). The sample that exhibited the highest reading was placed in a laboratory-prepared, labeled, septum-sealed glass jar. Because of low soil recovery during drilling, a duplicate soil sample could not be collected. The sample was carefully packaged in ice and shipped with the appropriate chain of custody to Wright Lab Services, Inc. (WLSI) for analysis of oil and grease by United States Environmental Protection Agency (EPA) Method 9071 and halogenated solvents by EPA Method 8021.

3.3 Groundwater Sampling

The newly installed monitoring well was developed by pumping sediment-laden groundwater from the well at the maximum sustainable rate until the sediment cleared from the water. Prior to sampling, at least 3 well volumes (approximately 15 gallons) of water were removed from all three wells at a maximum rate of 1 gallon per minute (gpm).

Groundwater sampling was conducted at the site after the groundwater was allowed to recover from purging. Groundwater samples were collected from the newly installed monitoring well (MW-1) and from two previously drilled monitoring wells (referred to as MW-2 and MW-3) to determine if petroleum hydrocarbons had adversely impacted the groundwater quality underlying the site. No free-phase hydrocarbons were detected on the groundwater surface immediately after drilling or at the time of sampling (as measured with a sonic interface probe).

Disposable plastic bailers were used to obtain samples from the groundwater table. Disposable latex gloves were also used to insure sample integrity when transferring water to laboratory-cleaned, labeled, septum-sealed sample vials. One duplicate groundwater sample was taken for quality assurance/quality control (QA/QC) purposes. The samples were packaged in ice and shipped to Hydrologic Laboratories, Inc. in Frankfort, Kentucky, for analysis of volatile organic compounds (VOCs) by EPA Method 502.2, and to WLSI for analysis of polynuclear aromatic hydrocarbons (PAHs) by EPA Method 625 and Toxicity Characteristic Leaching Procedure (TCLP) 8 Resource Conservation and Recovery Act (RCRA) metals.

3.4 Elevation Survey

Elevation surveying was completed by Parker and Associates, Inc. on July 8, 1994, in order to obtain top of casing and ground surface elevations for future monitoring activities. The vertical elevations and horizontal coordinates of the three monitoring wells sampled at this time were surveyed with respect to mean sea level. Survey results are attached as Appendix C and summarized in Table 1.

4.0 RESULTS OF SITE CHECK

4.1 Site Geology and Hydrogeology

Subsurface materials encountered during drilling activities at the site indicate that the site is underlain by fine-grained sand with minor amounts of clay and silt. The surface topography near the wells is essentially flat. Groundwater was encountered at approximately 5 feet bgs, and bedrock was not encountered to 16 feet bgs (the maximum depth penetrated during drilling). Measured groundwater elevations at the three monitoring wells indicate an apparent groundwater flow direction to the northwest at a gradient of approximately 0.003 (Figure 3).

4.2 Petroleum Hydrocarbons

Minimal organic vapors were detected with a PID in the monitoring well. Neither hydrocarbon odors or staining were encountered in the soil. Additionally, no free-phase hydrocarbons were noted at the time of drilling or sampling. In order to quantify the concentrations of adsorbed-phase hydrocarbons in soils and dissolved-phase hydrocarbons in groundwater, samples were collected for laboratory analysis.

Copies of the laboratory chemistry reports are attached as Appendix D and summarized in Tables 2 and 3. Soil sampling at MW-1 indicated 1,400 milligrams per kilogram (mg/kg) oil and grease. Halogenated solvents were below the limits of detection for all parameters (Table 2). Since the oil and grease concentration exceeded the North Carolina published standard of 250 mg/kg, a full TCLP analysis was requested at MW-1. Results

of the TCLP tests were BDL for all parameters (Table 2). Results of groundwater sampling indicated concentrations of several chlorinated solvents detected at concentrations exceeding EPA maximum contaminant level (MCL) standards in all three monitoring wells. Semi-VOCs (SVOCs) and RCRA metals were not detected in any sample (Table 3). The QA/QC duplicate results (both soil and groundwater) are within an order of magnitude of the original samples, indicating the analytical results are reliable.

4.3 Waste Disposal

Soil cuttings generated during drilling, water from equipment decontamination activities, and water from development of the wells were collected in labeled Department of Transportation (DOT)-approved 55-gallon drums and staged at an activity-approved location for disposal at a later date. Disposal documentation is attached as Appendix E.

A composite soil sample was taken from the drums in which soil cuttings were containerized and analyzed by SW-846:8270 for SVOCs, SW-846:8260 for VOCs, SW-846:8080 for pesticides/polychlorinated biphenyls (PCBs), SW-846:8015M for gasoline range organics (GRO) and diesel range organics (DRO), and TCLP 8 RCRA metals. Results were below the limits of detection for all parameters except for 26 mg/kg DRO and concentrations of several chlorinated solvents (Table 4).

A composite water sample was taken from the drums in which development and decontamination water was stored. Analyses for benzene, toluene, ethylbenzene, and xylene (BTEX) and methyl tertiary-butyl ether (MTBE) by EPA Method 602 and lead by EPA Method 6010 were below detection limits for all parameters (Table 4).

5.0 SUMMARY AND CONCLUSIONS

Based on the results of this subsurface investigation conducted at UST STC-868, the following conclusions have been formed:

1. Soils under the site consist of sand with minor silt and clay content.

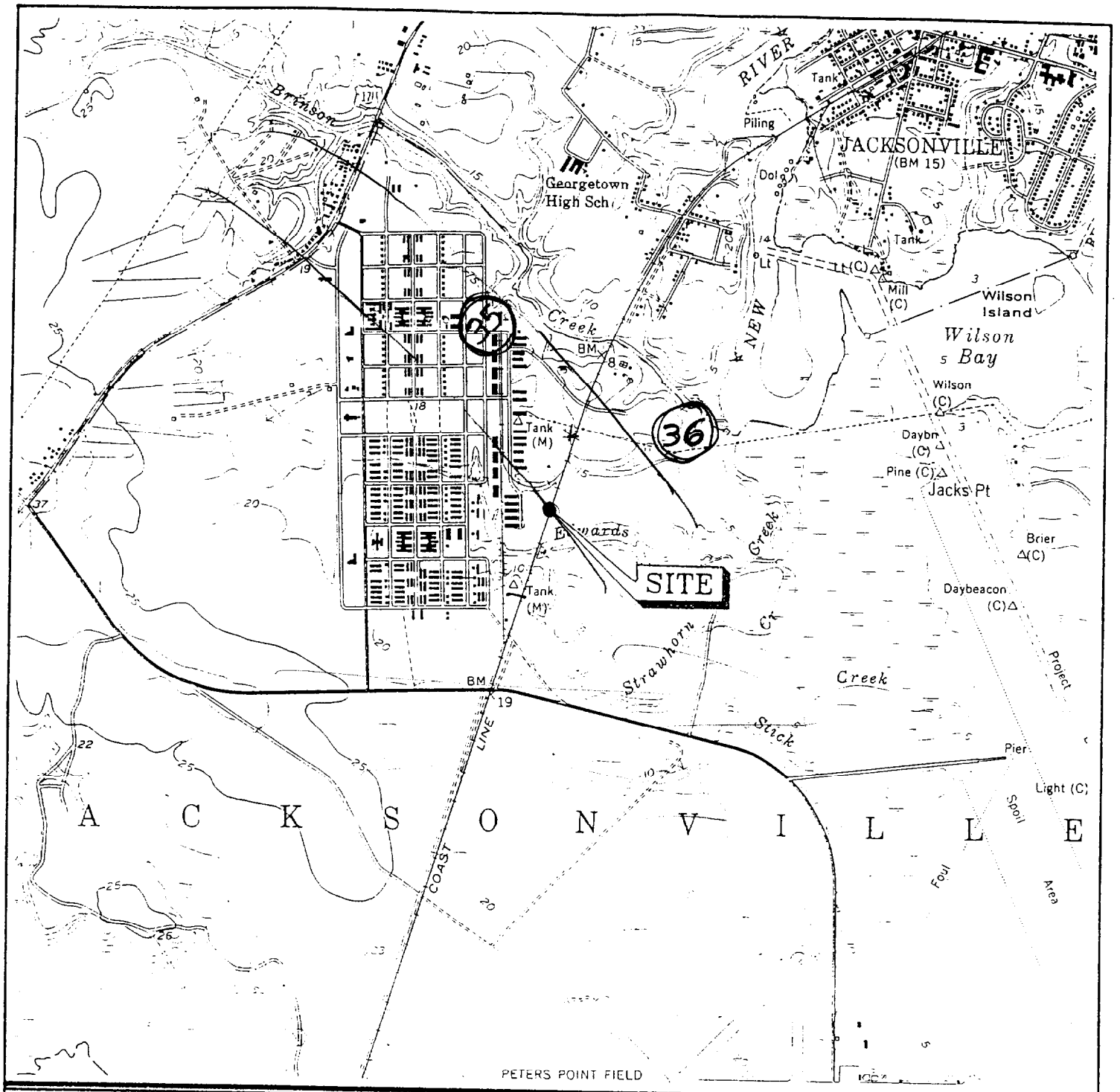
2. Apparent groundwater flow in the area is to the northwest at an average gradient of 0.003.

3. Soil sample analytical data indicates that subsurface soils have been impacted by hydrocarbon in the area of MW-1.

4. Groundwater sample analytical data indicates several chlorinated solvents detected at concentrations exceeding EPA MCL standards.

APPENDIX A

Figures and Tables



NOTE: BASE MAP FROM THE JACKSONVILLE SOUTH, NC 7.5 MINUTE USGS TOPOGRAPHIC QUADRANGLE. PHOTOREVISED 1988.

2000' 0 2000'

SCALE IN FEET

N

FIGURE 1

LANTDIV NAVFACENGROM CAMP LEJEUNE, NC		
SITE LOCATION MAP UST STC-868		
drawn CCS	approved MW	drawing no.
checked LAL	date 7/1/94	94350-004-AA
r.e. wright associates, inc. earth resources consultants middletown, pa. westminster, md.		

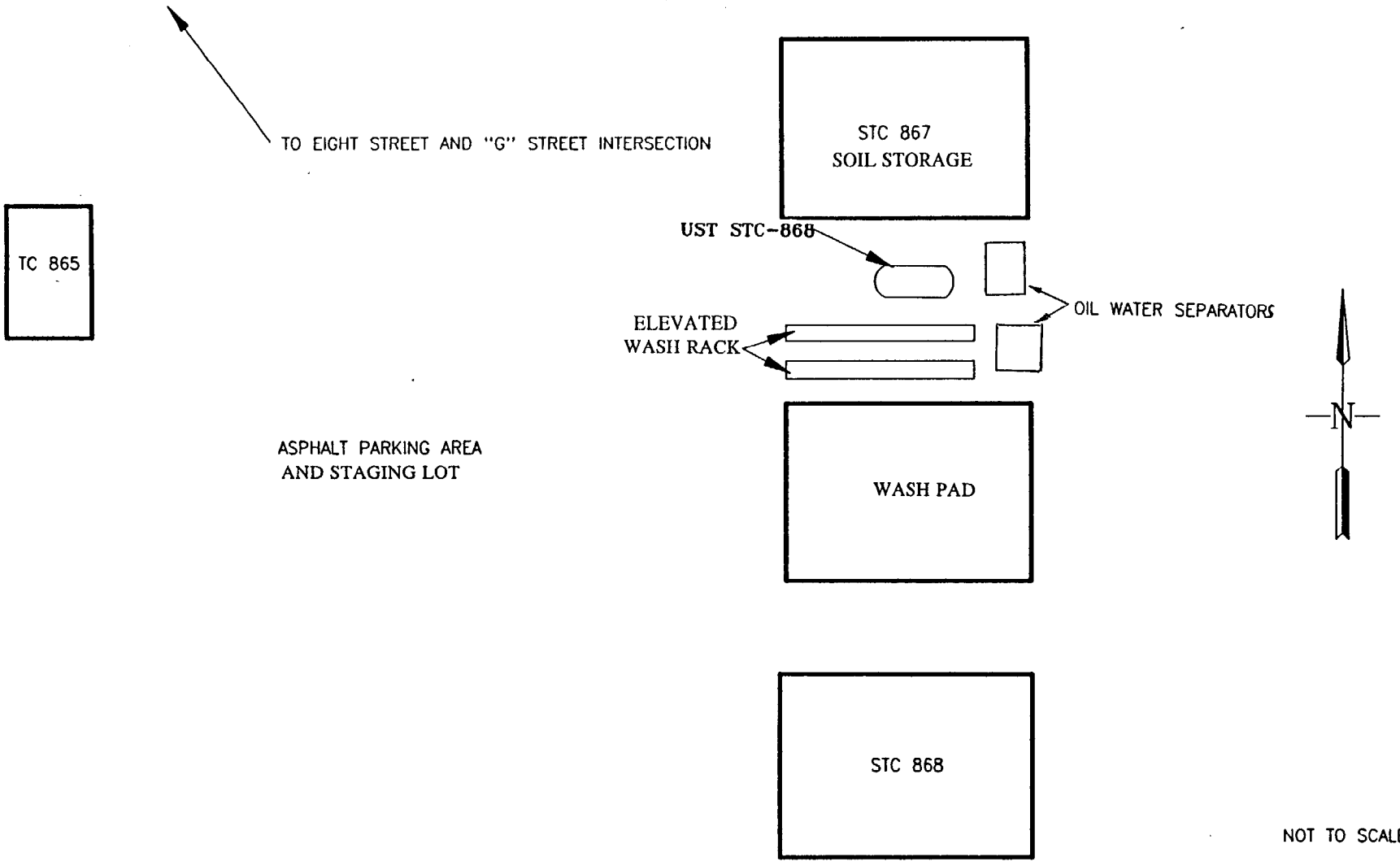


FIGURE 2

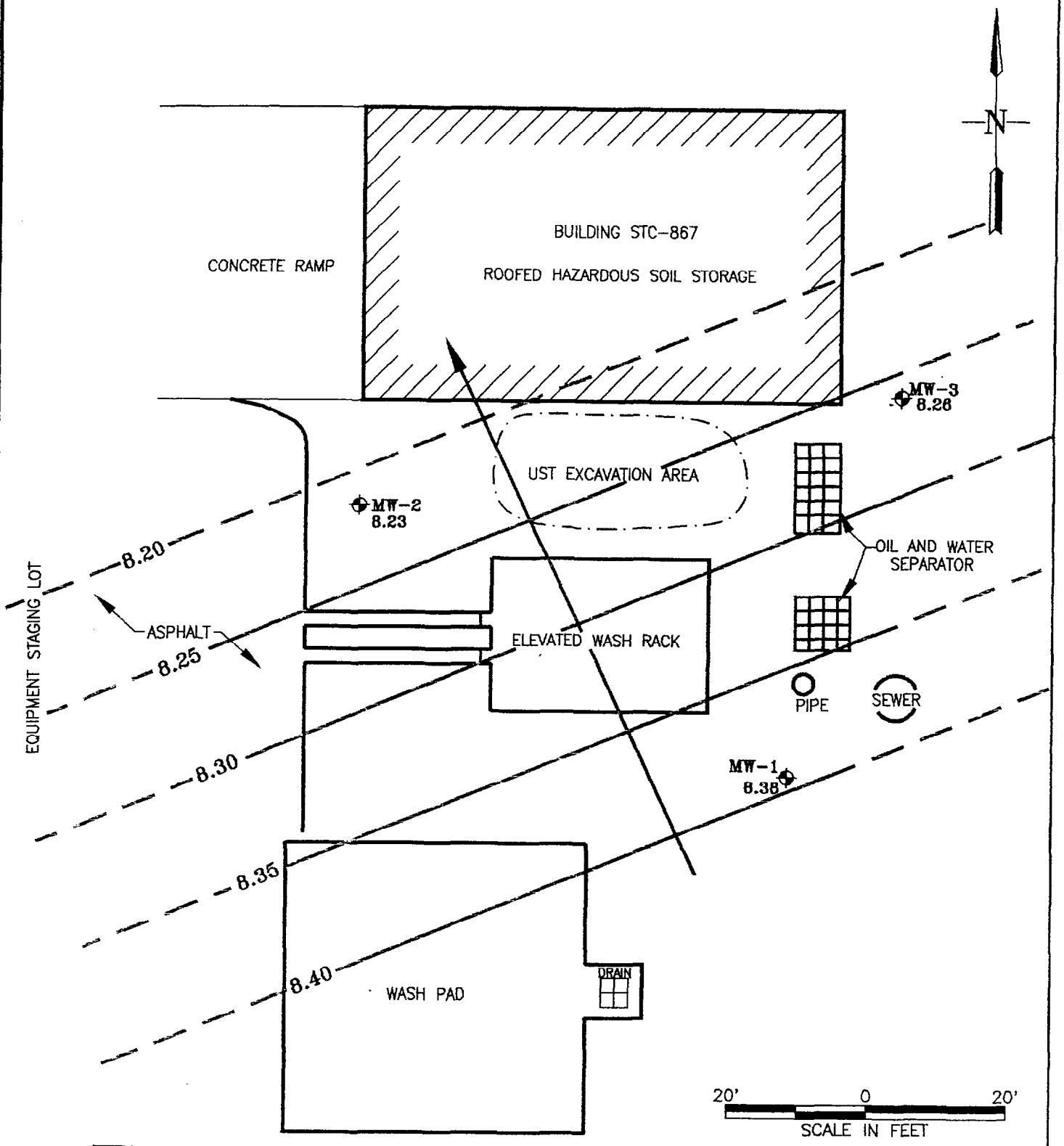
LANTDIV NAVFACENGCOM

CAMP LEJEUNE, NC

SPECIFIC LOCATION ON ACTIVITY
UST STC-868

drawn CCS	approved	drawing no.
checked LAL	date 6/14/94	94350-002-AA

r.e. wright associates, inc.
total environmental solutions
middletown, pa. wayne, pa westminster, md.



LEGEND

MW-1 8.35 — MONITORING WELL LOCATION AND GROUNDWATER ELEVATION (MSL)

— 8.20 — GROUNDWATER ELEVATION CONTOUR (MSL) DASHED WHERE INFERRED

GENERALIZED GROUNDWATER FLOW DIRECTION

FIGURE 3

LANTDIV NAVFACENGCOM
CAMP LEJEUNE, NC

MONITORING WELL LOCATIONS
STC-868

drawn CCS	approved [redacted]	drawing no. 94350-003-AA
checked FLF	date 9/30/94	

f.e. wright associates, inc.
total environmental solutions
middletown, pa. wayne, pa westminster, md.

94350MWD.TBL

TABLE 1

Monitoring Well Data - UST STC-868
Marine Corps Base, Camp Lejeune, North Carolina
REWAI Project 94350

Sample Location	Surface Elevation (AMSL)	Top of Casing Elevation (AMSL)	Depth to Groundwater (BTOC)	Calculated Groundwater Elevation (AMSL)
MW-1	13.7	13.32	4.94	8.38
MW-2	13.7	14.81	6.58	8.23
MW-3	14.2	15.38	7.12	8.26

AMSL - Above Mean Sea Level (in feet)
BTOC - Below Top of Casing (in feet)

TABLE 2

Soil Sample Analytical Results - UST STC-868
Marine Corps Base, Camp Lejeune, North Carolina
REWAI Project 94350

Concentrations reported in milligrams per kilogram (mg/kg)

Analysis	Reportable Concentrations	MW-1 (6-8 feet bgs)
SW-846:9071 (oil and grease)	250	**1,400**
SW-846:8021 (halogenated solvents)	MDL	BDL*
TCLP Volatiles	NPS	BDL*
TCLP Semi-volatiles	NPS	BDL*
TCLP Pesticides/PCBs	NPS	BDL*
TCLP Inorganics	MDL	BDL*

bgs = Below Ground Surface
TCLP = Toxicity Characteristic Leaching Procedure
MDL = Method Detection Limit
BDL = Below Detection Limits
NPS = No Published Standard
PCBs = Polychlorinated Biphenyls

*All parameters of analysis method were BDL, except as noted (Appendix D).

TABLE 3

Water Sample Analytical Results - UST STC-868
Marine Corps Base, Camp Lejeune, North Carolina
REWAI Project 94350

Concentrations reported in milligrams per liter (mg/l)

Analysis	MCL	MW-1	MW-1 Duplicate	MW-2	MW-3
EPA Method 502.2 (VOCs)	--	BDL*	BDL*	BDL*	BDL*
Cis-1,2-Dichloroethene	0.07	0.585	0.550	2.130	0.070
Trans-1,2-Dichloroethene	0.10	0.390	0.370	1.580	0.060
1,1,2,2-Tetrachloroethane	NPS	4.300	3.400	8.600	0.240
Tetrachloroethene	0.005	0.035	0.038	BDL	BDL
1,1,2-Trichloroethane	0.005	0.029	0.029	BDL	BDL
Trichloroethene	0.005	0.580	0.580	1.500	0.080
EPA Method 625 (SVOCs)	--	BDL*	BDL*	BDL*	BDL*
TCLP 8 RCRA Metals	--	BDL*	BDL*	BDL*	BDL*

EPA = United States Environmental Protection Agency
BDL = Below Detection Limits
TCLP = Toxicity Characteristic Leaching Procedure
RCRA = Resource Conservation and Recovery Act
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
MCL = EPA maximum contaminant level for compounds in drinking water.
NPS = No Published Standard
*All parameters of analysis method were BDL, except as noted (Appendix D).

TABLE 4

Composite Drum Sample Analytical Results
Marine Corps Base, Camp Lejeune, North Carolina
UST STC-868
REWAI Project 94350

Analysis		Drum Composite Soil (mg/kg)	Drum Composite Water (mg/l)
EPA Method 6010	(lead)	--	BDL
EPA Method 602	(VOCs)	--	BDL*
API Method	(BTEX)	BDL*	
SW-846:3550	(diesel)	**26**	--
SW-846:5030	(gasoline)	BDL	--
SW-846:8260	(VOCs)	BDL*	--
Cis-1,2-dichloroethene		**0.025**	
Trans-1,2-dichloroethene		**0.007**	
1,1,2,2-tetrachloroethane		**0.420**	
Tetrachloroethene		**0.022**	
Trichloroethene		**0.078**	
SW-846:8270	(SVOCs)	BDL*	--
SW-846:8080	(pesticides/PCBs)	BDL*	--
TCLP 8 RCRA Metals		BDL*	--

mg/kg = milligrams per kilogram
mg/l = milligrams per liter
EPA = United States Environmental Protection Agency
VOCs = Volatile Organic Compounds
BTEX = Benzene, Toluene, Ethylbenzene, and Xylene
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated Biphenyls
TCLP = Toxicity Characteristic Leaching Procedure
RCRA = Resource Conservation and Recovery Act
-- = Not Analyzed
BDL = Below Detection Limit

*All parameters of analysis method were BDL, except as noted (Appendix D).

APPENDIX B

Geologic Well Logs

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY	
QUAD. NO.	SERIAL NO.
Lat.	Long. / RO
Minor Basin	
Basin Code	
Header Ent.	GW-1 Ent.

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Hallmark Drilling Co.

DRILLER REGISTRATION NUMBER: 1495

STATE WELL CONSTRUCTION PERMIT NUMBER: STC-868-MW-1

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Jacksonville County: Onslow
8th and G Streets, Camp Lejeune MCB
(Road, Community, or Subdivision and Lot No.)

2. OWNER Environmental Management Dept./IRD
ADDRESS Commanding General, AC/S EMD (IRD)
MCB PSC (Street or Route No.) Box 20004
Camp Lejeune NC 28542-0004
City or Town State Zip Code

3. DATE DRILLED 6/22/94 USE OF WELL Monitoring
4. TOTAL DEPTH 13.7
5. CUTTINGS COLLECTED YES [X] NO [ ]
DOES WELL REPLACE EXISTING WELL? YES [ ] NO [X]
STATIC WATER LEVEL Below Top of Casing: 5.20 FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS -0.4 FT. Above Land Surface*
*Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118
9. YIELD (gpm): N/A METHOD OF TEST
10. WATER ZONES (depth): below 10' bgs
11. CHLORINATION: Type N/A Amount

DEPTH From	To	DRILLING LOG Formation Description
0.0	2.1	FG Sand
2.1	6.0	F to MGS Some Clay
6.0	13.7	F to MG Sand

If additional space is needed use back of form

12. CASING:

	Depth From	To	Diameter	Wall Thickness or Weight/Ft.	Material
	0.4	3.3	4"	SCHED. 40	PVC

13. GROUT:

	Depth From	To	Material	Method
	0.0	1.0	Cement	

14. SCREEN:

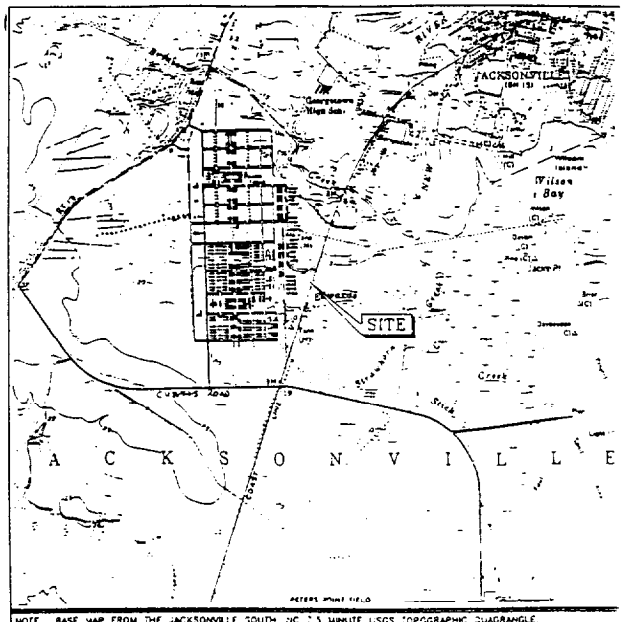
	Depth From	To	Diameter	Slot Size	Material
	3.3	13.3	4"	20	PVC

15. SAND/GRAVEL PACK:

	Depth From	To	Size	Material
	2.0	13.7	#2	Sand

16. REMARKS: Bentonite Seal 1-2' bgs

LOCATION SKETCH



NOTE: BASE MAP FROM THE JACKSONVILLE SOUTH, NC 7.5 MINUTE USGS TOPOGRAPHIC QUADRANGLE. PHOTOREVISED 1988.

SCALE IN FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Eric S. Engle 10-4-94

SIGNATURE OF CONTRACTOR OR AGENT DATE

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REV. 9/91

SOIL BORING LOG

Client: **LANTDIV NAVFACENGCOM**

Project No: **94350** Phase Task

Boring No. **868 MW-1** Piezometer No.

Location **Camp Lejeune MCB, NC**

Surface Elev. **13.70 FT.**

Depth Feet	Blow Count	Sampler	Re-covery/ RQD	Overburden/Lithologic Description	FID (ppm)	Graphic Log	Well Construction Graphics	Depth Feet	Well Construction Details
									T.O.C. Elev. 13.32' MSL
0	Ground Surface		FEET					0	
	15-13-12-12		1.4/2.0	Fine-grained sand; dark to pale yellowish brown; clayey, tight. No noticeable hydrocarbon odors. (0.0 - 2.1')	56				Flushmount drive-over Cement grout (0.0-1.0') Bentonite plug (1.0-2.0')
	10-15-17-21		1.0/2.0	Fine to medium-grained sand and clay; pale yellowish brown mottled with light brown clay; cohesive; moist. No odors. (2.1 - 6.0')	24				PVC casing (0.4-3.3') PVC screen (3.3-13.3')
5	10-4-5-5		1.6/2.0		63			5	
	5-3-6-7		1.5/2.0'	Fine to medium-grained sand; light grey mottled with light brown; semi-cohesive, some clay zones, but increasing sand with depth; water saturated. No odors. (6.0 - 10.0')	132				Sand filter (2.0-13.7')
	3-5-5-6		1.7/2.0'		48				
10								10	
									PVC bottom cap Total depth = 13.7'
15								15	
20								20	
25								25	
30								30	

Driller **Hallmark Drilling**	Blown/Bailed Yield **<0.5 gpm**	Bentonite Seal **3/8" bentonite chips**
Logged By **E. Engle (REWAI)**	Well Casing **4"** Dia. **0.4'** to **3.3'**	Filter Pack Qty. **500 lbs.**
Drilling Started **6/22/94**	Casing Type **Schedule 40 PVC**	Filter Pack Type **Morie #2 sand**
Drilling Completed **6/22/94**	Well Screen **4"** Dia. **3.3'** to **13.3'**	Static Water Level **8.38** MSL
Construction Completed **6/22/94**	Screen Type **Schedule 40 PVC**	Date **6/23/94**
Development Completed **6/23/94**	Slot Size **0.010-inch**	Notes:
Water Bearing Zones **below 10' bgs**	Drilling Mud **NA**	
	Grout Type **Portland cement/benton.**	

Form #wl-sc-1 (02/90)

r.e. wright associates, inc.

APPENDIX C

Survey Data

PARKER & ASSOCIATES, INC.

Consulting Engineers - Land Surveyors - Land Planners

306 New Bridge Street - P.O. Box 976
Jacksonville, NC 28541-0976
(910) 455-2414 - Fax: (910) 455-3441

Shaping Horizons

RECEIVED

July 11, 1994

JUL 15 1994

RE AI

Mr. Mike Iannicelli
R. E. Wright Associates, Inc.
3240 Schoolhouse Road
Middletown, PA 17057-3595

RE: Monitoring Wells
Various Sites
Camp Lejeune, NC

Dear Mr. Iannicelli:

Attached you will find the results of our survey on the above referenced locations completed on July 8, 1994.

Coordinates on well locations are given in meters using Universal Transverse Mercator (UTM) Grid (NAD - 1927). Elevations listed are in feet -- per NGVD - 1929 (M.S.L.).

Starting monument information taken from a "trig list" or monument identification list prepared by 2nd Topographic Platoon, Camp Lejeune, North Carolina.

Parker & Associates, Inc. appreciated providing our professional services. If we can be of any assistance in the future, feel free to call.

Very truly yours,

PARKER & ASSOCIATES, INC.

Robert E. Wimmer, Jr.

Robert E. Wimmer, Jr., R.L.S.
Vice President of Surveying Division

REW/mpa
xc: CF (P)

ATTACHMENT I

July 11, 1994

WELL IDENTIFICATION	COORDINATES (M) NORTH	EAST	ELEVATIONS PVC	GROUND
CAMP GEIGER Building TC-868				
MW - 1	3845811.041	275887.511	13.32	13.2
MW - 2	3845819.336	275869.580	14.81	13.7
MW - 3	3845828.040	275891.870	15.38	14.2
CAMP LEJEUNE Building 1932 Golf Course				
MW - 1	3844086.426	281493.356	17.31	15.4
MW - 2	3844085.350	281485.083	18.16	16.2
MW - 3	3844091.974	281487.328	15.45	15.6
CAMP LEJEUNE Building 45				
MW - 1	3845769.192	284736.273	23.19	20.9
MW - 2	3845763.362	284732.694	19.92	20.2
MW - 3	3845763.074	284799.784	22.11	22.6
MW - 4	3845779.158	284677.693	18.61	16.2
MW - 5	3845775.175	284708.067	18.88	19.1
MW - 16	3845760.787	284741.368	20.34	20.6

94350SVY.TBL

APPENDIX C

Survey Data - UST STC-868
REWAI Project 94350

Coordinates on well locations are given in meters using Universal Transverse Mercator (UTM) Grid (NAD - 1927). Elevations listed are in feet-per NGVD - 1929 (M.S.L.).

Starting monument information taken from a "trig list" or monument identification list prepared by 2nd Topographic Platoon, Camp Lejeune, North Carolina.

Well Identification	Coordinates (M)		Elevations	
	North	East	PVC	Ground
Camp Geiger Building TC-868				
MW-1	3845811.041	275887.511	13.32	13.2
MW-2	3845819.336	275869.580	14.81	13.7
MW-3	3845828.040	275891.870	15.38	14.2

APPENDIX D

Laboratory Reports

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

Sample # 62237A-1

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 19, 1994

LAB ANALYSIS REPORT

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/22/94 08:55 AM
Location	: STC-868 MW-1 (6-8'bgs)	Date Received	: 06/24/94
Sample State	: Soil Grab	Date Completed	: 07/14/94
Collector	: ELE	Discard Date	: 07/29/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
METALS				
Silver, TCLP Leachate	N.D.	mg/l	0.04	7760
Water Quality/Prep				
TCLP LEACHATE PREPARATION				
Extraction Fluid Used	1			1311
Final pH of TCLP Extract	5.05			1311
Preliminary pH with DI Water	7.46			1311
Preliminary pH with HCl	1.42			1311
TCLP COMPOUNDS				
GAS CHROMATOGRAPH MASS SPEC.				
BASE/NEUTRALS/ACID COMP (TCLP)				
1,4-Dichlorobenzene	N.D.	ug/l	50	8270
2,4-Dinitrotoluene	N.D.	ug/l	100	8270
Hexachlorobenzene	N.D.	ug/l	50	8270
Hexachlorobutadiene	N.D.	ug/l	50	8270
Hexachloroethane	N.D.	ug/l	50	8270

**** Continued ****

July 19, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
m/p-Cresol	N.D.	ug/l	100	8270
Nitrobenzene	N.D.	ug/l	50	8270
o-Cresol	N.D.	ug/l	50	8270
Pentachlorophenol	N.D.	ug/l	100	8270
Pyridine	N.D.	ug/l	100	8270
2,4,5-Trichlorophenol	N.D.	ug/l	50	8270
2,4,6-Trichlorophenol	N.D.	ug/l	50	8270
TCLP VOLATILE ORGANICS - GC/MS				
Benzene	N.D.	ug/l	20	8260
Carbon Tetrachloride	N.D.	ug/l	20	8260
Chlorobenzene	N.D.	ug/l	20	8260
Chloroform	N.D.	ug/l	20	8260
1,2-Dichloroethane	N.D.	ug/l	20	8260
1,1-Dichloroethene	N.D.	ug/l	20	8260
Methyl Ethyl Ketone	N.D.	ug/l	200	8260
Tetrachloroethene	N.D.	ug/l	20	8260
Trichloroethene	N.D.	ug/l	20	8260
Vinyl Chloride	N.D.	ug/l	40	8260
METALS				
Arsenic, TCLP Leachate	N.D.	mg/l	0.006	7060
Mercury, TCLP Leachate	N.D.	mg/l	0.0005	7471
TCLP Metals by ICP				
Barium	N.D.	mg/l	0.55	6010
Cadmium	N.D.	mg/l	0.01	6010
Chromium	N.D.	mg/l	0.02	6010
Lead	N.D.	mg/l	0.11	6010
Selenium, TCLP	N.D.	mg/l	0.010	7740

SEE COMMENT AT THE END OF THE REPORT.

N.D. - Not Detected

**** Continued ****

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 19, 1994

Testing ordered 7-5-94 by Mike Iannicelli.

Acceptable matrix spike recoveries were not acheived on the sample when run under normal operating conditions. The sample was diluted until acceptable recoveries were achieved. The detection level was modified due to the dilution needed for the spike recovery.

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT		
GAS CHROMATOGRAPH MASS SPEC.			
BASE/NEUTRALS/ACID COMP (TCLP)			
2-Fluorobiphenyl	75	% Recovery	Surrogate
2-Fluorophenol	63	% Recovery	Surrogate
Nitrobenzene-d5	66	% Recovery	Surrogate
Phenol-d5	66	% Recovery	Surrogate
Terphenyl-d14	97	% Recovery	Surrogate
2,4,6-Tribromophenol	70	% Recovery	Surrogate
TCLP VOLATILE ORGANICS - GC/MS			
Bromofluorobenzene	103	% Recovery	Surrogate
Bromofluorobenzene	99	% Recovery	Surrogate
Bromofluorobenzene	99	% Recovery	Surrogate
1,2-Dichloroethane-d4	107	% Recovery	Surrogate
1,2-Dichloroethane-d4	110	% Recovery	Surrogate
1,2-Dichloroethane-d4	111	% Recovery	Surrogate
Toluene-d8	98	% Recovery	Surrogate
Toluene-d8	98	% Recovery	Surrogate
Toluene-d8	100	% Recovery	Surrogate

**** Continued ****

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Wright Lab SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Sample # 62237A-1

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 19, 1994

DATA PACKAGE FORM

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/22/94 08:55 AM
Location	: STC-868 MW-1 (6-8'bgs)	Date Received	: 06/24/94
Sample State	: Soil Grab	Date Completed	: 07/14/94
Collector	: ELE	Discard Date	: 07/29/94

TEST/PARAMETER	PRESERVATIVE	TECH	ANALYSIS DATE	TIME
Silver, TCLP Leachate	Cool to 4 Deg. C	BAS	07/13/94	05:48
TCLP LEACHATE PREPARATION		SLP	07/08/94	10:45
BASE/NEUTRALS/ACID COMP (TCLP)	Cool to 4 Deg. C	CWW	07/14/94	09:06
TCLP and Liq/Liq on Semi-Voa's		DRP	07/11/94	
TCLP VOLATILE ORGANICS - GC/MS	Cool to 4 Deg. C	CWW	07/11/94	07:30
0-Headspace Extract for TCLP		JLM	07/06/94	
Arsenic, TCLP Leachate	Cool to 4 Deg. C	JRG	07/13/94	12:26
TCLP/Digestion for Arsenic		MCB	07/11/94	
Mercury, TCLP Leachate	Cool to 4 Deg. C	JRG	07/12/94	23:00
TCLP Leachate		JRG	07/13/94	23:00
TCLP Metals by ICP	Cool to 4 Deg. C	JRG	07/11/94	21:46
TCLP/Digestion for ICP Metals		MCB	07/11/94	
Selenium, TCLP	Cool to 4 Deg. C	JRG	07/14/94	18:22
TCLP/Digestion for Arsenic		MCB	07/11/94	

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PHONE ORDER TAKEN BY: _____

DATE ORDERED: ___/___/___

Wright Lab Services, Inc.
CHAIN OF CUSTODY RECORD

062237

DATE REQUESTED: ___/___/___

REPORT TO: REWAI	CONTACT MIKE JANNICELLI	PHONE NO.	SALESMAN
	PROJECT NAME USN - CAMP LEJEUNE NC	PROJECT NO. 94350	P.O. NO.
	DATE SAMPLED 6-22-94	SAMPLER(S) ERIC L. ENGLE	
BILL TO: REWAI			

	SAMPLE DESCRIPTION/LOCATION	TIME OF SAMPLING	TOTAL NO. OF CONTAINERS	9071 (OG)	8021	TCLP(FULL) *HOLD												REMARKS
1	STC-868 - MW-1 (6-8' bgs)	0855	4	X	X													HOLD TCLP
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

SOIL

REMARKS:

HOLD TCLP

Lab Dir

SHIPPING CARRIER: FED X

SHIPPING TICKET NUMBER:

CHAIN-OF-CUSTODY SEAL: INTACT BROKEN ABSENT

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Eric L. Engle	6-23-94	17:00						
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
							6/24	1413

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

Sample # 62237-1

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 11, 1994

LAB ANALYSIS REPORT

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/22/94 08:55 AM
Location	: STC-868 MW-1 (6-8' bgs)	Date Received	: 06/24/94
Sample State	: Soil Grab	Date Completed	: 07/06/94
Collector	: ELE	Discard Date	: 07/17/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
GAS CHROMATOGRAPH ANALYSES				
HALOGENATED VOLATILE ORGANICS				
Benzene	N.D.	ug/kg	5	8021
Bromobenzene	N.D.	ug/kg	5	8021
Bromochloromethane	N.D.	ug/kg	5	8021
Bromodichloromethane (THM)	N.D.	ug/kg	5	8021
Bromoform (THM)	N.D.	ug/kg	5	8021
Bromomethane	N.D.	ug/kg	5	8021
Carbon Tetrachloride	N.D.	ug/kg	5	8021
Chlorobenzene	N.D.	ug/kg	5	8021
Chlorodibromomethane (THM)	N.D.	ug/kg	5	8021
Chloroethane	N.D.	ug/kg	5	8021
Chloroform (THM)	N.D.	ug/kg	5	8021
Chloromethane	N.D.	ug/kg	5	8021
1,2-Dibromo-3-Chloropropane	N.D.	ug/kg	5	8021
1,2-Dibromoethane	N.D.	ug/kg	5	8021
Dibromomethane	N.D.	ug/kg	5	8021
Dichlorodifluoromethane	N.D.	ug/kg	5	8021
1,1-Dichloroethane	N.D.	ug/kg	5	8021
1,2-Dichloroethane	N.D.	ug/kg	5	8021
1,1-Dichloroethene	N.D.	ug/kg	5	8021

**** Continued ****

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 11, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
cis-1,2-Dichloroethene	N.D.	ug/kg	5	8021
trans-1,2-Dichloroethene	N.D.	ug/kg	5	8021
Dichloromethane	N.D.	ug/kg	5	8021
1,2-Dichloropropane	N.D.	ug/kg	5	8021
1,3-Dichloropropane	N.D.	ug/kg	5	8021
2,2-Dichloropropane	N.D.	ug/kg	5	8021
1,1-Dichloropropene	N.D.	ug/kg	5	8021
cis/trans-1,3-Dichloropropene	N.D.	ug/kg	5	8021
Ethylbenzene	N.D.	ug/kg	5	8021
Hexachlorobutadiene	N.D.	ug/kg	5	8021
Isopropylbenzene	N.D.	ug/kg	5	8021
m-Dichlorobenzene	N.D.	ug/kg	5	8021
m-Xylene	N.D.	ug/kg	5	8021
n-Butylbenzene	N.D.	ug/kg	5	8021
n-Propyl Benzene	N.D.	ug/kg	5	8021
Naphthalene	N.D.	ug/kg	5	8021
o-Chlorotoluene	N.D.	ug/kg	5	8021
o-Dichlorobenzene	N.D.	ug/kg	5	8021
o-Xylene	N.D.	ug/kg	5	8021
p-Chlorotoluene	N.D.	ug/kg	5	8021
p-Dichlorobenzene	N.D.	ug/kg	5	8021
p-Isopropyltoluene	N.D.	ug/kg	5	8021
p-Xylene	N.D.	ug/kg	5	8021
sec-Butylbenzene	N.D.	ug/kg	5	8021
Styrene	N.D.	ug/kg	5	8021
tert-Butylbenzene	N.D.	ug/kg	5	8021
1,1,1,2-Tetrachloroethane	N.D.	ug/kg	5	8021
1,1,2,2-Tetrachloroethane	N.D.	ug/kg	5	8021
Tetrachloroethene	N.D.	ug/kg	5	8021
Toluene	N.D.	ug/kg	5	8021
1,2,3-Trichlorobenzene	N.D.	ug/kg	5	8021
1,2,4-Trichlorobenzene	N.D.	ug/kg	5	8021
1,1,1-Trichloroethane	N.D.	ug/kg	5	8021
1,1,2-Trichloroethane	N.D.	ug/kg	5	8021
Trichloroethene	N.D.	ug/kg	5	8021
Trichlorofluoromethane	N.D.	ug/kg	5	8021

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 11, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
1,2,3-Trichloropropane	N.D.	ug/kg	5	8021
1,2,4-Trimethylbenzene	N.D.	ug/kg	5	8021
1,3,5-Trimethylbenzene	N.D.	ug/kg	5	8021
Vinyl Chloride	N.D.	ug/kg	5	8021
Benzene	< 5.7	ug/kg	Dry Weight	
Bromobenzene	< 5.7	ug/kg	Dry Weight	
Bromochloromethane	< 5.7	ug/kg	Dry Weight	
Bromodichloromethane (THM)	< 5.7	ug/kg	Dry Weight	
Bromoform (THM)	< 5.7	ug/kg	Dry Weight	
Bromomethane	< 5.7	ug/kg	Dry Weight	
Carbon Tetrachloride	< 5.7	ug/kg	Dry Weight	
Chlorobenzene	< 5.7	ug/kg	Dry Weight	
Chlorodibromomethane (THM)	< 5.7	ug/kg	Dry Weight	
Chloroethane	< 5.7	ug/kg	Dry Weight	
Chloroform (THM)	< 5.7	ug/kg	Dry Weight	
Chloromethane	< 5.7	ug/kg	Dry Weight	
1,2-Dibromo-3-Chloropropane	< 5.7	ug/kg	Dry Weight	
1,2-Dibromoethane	< 5.7	ug/kg	Dry Weight	
Dibromomethane	< 5.7	ug/kg	Dry Weight	
Dichlorodifluoromethane	< 5.7	ug/kg	Dry Weight	
1,1-Dichloroethane	< 5.7	ug/kg	Dry Weight	
1,2-Dichloroethane	< 5.7	ug/kg	Dry Weight	
1,1-Dichloroethene	< 5.7	ug/kg	Dry Weight	
cis-1,2-Dichloroethene	< 5.7	ug/kg	Dry Weight	
trans-1,2-Dichloroethene	< 5.7	ug/kg	Dry Weight	
Dichloromethane	< 5.7	ug/kg	Dry Weight	
1,2-Dichloropropane	< 5.7	ug/kg	Dry Weight	
1,3-Dichloropropane	< 5.7	ug/kg	Dry Weight	
2,2-Dichloropropane	< 5.7	ug/kg	Dry Weight	
1,1-Dichloropropene	< 5.7	ug/kg	Dry Weight	
cis/trans-1,3-Dichloropropene	< 5.7	ug/kg	Dry Weight	
Ethylbenzene	< 5.7	ug/kg	Dry Weight	
Hexachlorobutadiene	< 5.7	ug/kg	Dry Weight	
Isopropylbenzene	< 5.7	ug/kg	Dry Weight	
m-Dichlorobenzene	< 5.7	ug/kg	Dry Weight	

**** Continued ****

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ENVIRONMENTAL TESTING LABORATORIES

July 11, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
m-Xylene	< 5.7	ug/kg	Dry Weight	
n-Butylbenzene	< 5.7	ug/kg	Dry Weight	
n-Propyl Benzene	< 5.7	ug/kg	Dry Weight	
Naphthalene	< 5.7	ug/kg	Dry Weight	
o-Chlorotoluene	< 5.7	ug/kg	Dry Weight	
o-Dichlorobenzene	< 5.7	ug/kg	Dry Weight	
o-Xylene	< 5.7	ug/kg	Dry Weight	
p-Chlorotoluene	< 5.7	ug/kg	Dry Weight	
p-Dichlorobenzene	< 5.7	ug/kg	Dry Weight	
p-Isopropyltoluene	< 5.7	ug/kg	Dry Weight	
p-Xylene	< 5.7	ug/kg	Dry Weight	
sec-Butylbenzene	< 5.7	ug/kg	Dry Weight	
Styrene	< 5.7	ug/kg	Dry Weight	
tert-Butylbenzene	< 5.7	ug/kg	Dry Weight	
1,1,1,2-Tetrachloroethane	< 5.7	ug/kg	Dry Weight	
1,1,2,2-Tetrachloroethane	< 5.7	ug/kg	Dry Weight	
Tetrachloroethene	< 5.7	ug/kg	Dry Weight	
Toluene	< 5.7	ug/kg	Dry Weight	
1,2,3-Trichlorobenzene	< 5.7	ug/kg	Dry Weight	
1,2,4-Trichlorobenzene	< 5.7	ug/kg	Dry Weight	
1,1,1-Trichloroethane	< 5.7	ug/kg	Dry Weight	
1,1,2-Trichloroethane	< 5.7	ug/kg	Dry Weight	
Trichloroethene	< 5.7	ug/kg	Dry Weight	
Trichlorofluoromethane	< 5.7	ug/kg	Dry Weight	
1,2,3-Trichloropropane	< 5.7	ug/kg	Dry Weight	
1,2,4-Trimethylbenzene	< 5.7	ug/kg	Dry Weight	
1,3,5-Trimethylbenzene	< 5.7	ug/kg	Dry Weight	
Vinyl Chloride	< 5.7	ug/kg	Dry Weight	
WATER QUALITY				
Oil and Grease	1400	mg/kg	110	9071
Oil and Grease	1600	mg/kg	Dry Weight	
Total Solids	87.03	%	0.01	160.3

N.D. - Not Detected

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 11, 1994

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QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT	
GAS CHROMATOGRAPH ANALYSES		
HALOGENATED VOLATILE ORGANICS		
2-Bromo-1-Chloropropane	87	% Recovery Surrogate
Fluorobenzene	96	% Recovery Surrogate
Fluorobenzene	92	% Recovery Surrogate

Respectfully Submitted
WRIGHT LAB SERVICES

Ian Milnes
Laboratory Manager

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H Y D R O L O G I C , I N C .

July 7, 1994

REPORTING:

HydroLogic-Morris., Inc.
2500 Gateway Centre
Suite #900
Morrisville, NC 27560

Attention: Pomeroy Smith

INVOICING:

HydroLogic-Morris., Inc.
2500 Gateway Centre
Suite #900
Morrisville, NC 27560

PROJECT NUMBER: FL94-8555

DATE COMPLETED: July 7, 1994
DATE RECEIVED: June 28, 1994

PROJECT DESCRIPTION:

#94350--4 water samples for 502.2, sampled on 06/24/94.

Enclosed is the laboratory report for the project described above. If you have any questions or if we can be of further assistance, please feel free to contact Billie Wakefield. We appreciate your business and look forward to serving you again soon.

Respectfully,

Benjamin Carl Esterle/mjs
Benjamin Carl Esterle
Laboratory Director

1491 Twilight Trail ☐ Frankfort, KY 40601 ☐ 502/223-0251 ☐ FAX 502/875-8016 ☐ Toll Free 1-800/728-2251

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8555
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 MW-1
DATE SAMPLED: 6/24/94
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 6/30/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	10	BDL
Bromobenzene	108-86-1	10	BDL
Bromochloromethane	74-97-5	10	BDL
Bromodichloromethane	75-27-4	10	BDL
Bromoform	75-25-2	10	BDL
Bromomethane	74-83-9	10	BDL
n-Butylbenzene	104-51-8	10	BDL
sec-Butylbenzene	135-98-8	10	BDL
tert-Butylbenzene	98-06-6	10	BDL
Carbon tetrachloride	56-23-5	10	BDL
Chlorobenzene	108-90-7	10	BDL
Chloroethane	75-00-3	10	BDL
Chloroform	67-66-3	10	BDL
Chloromethane	74-87-3	10	BDL
2-Chlorotoluene	95-45-8	10	BDL
4-Chlorotoluene	106-43-4	10	BDL
Dibromochloromethane	124-48-1	10	BDL
1,2-Dibromo-3-chloropropane	96-12-8	10	BDL
1,2-Dibromomethane (EDB)	106-93-4	10	BDL
Dibromomethane	74-95-3	10	BDL
1,2-Dichlorobenzene	95-50-1	10	BDL
1,3-Dichlorobenzene	541-73-1	10	BDL
1,4-Dichlorobenzene	106-46-7	10	BDL
Dichlorodifluoromethane	75-71-8	10	BDL
1,1-Dichloroethane	75-34-3	10	BDL

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8555
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 MW-1
DATE SAMPLED: 6/24/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
1,2-Dichloroethane	107-06-2	10	BDL
1,1-Dichloroethene	75-35-4	10	BDL
cis-1,2-Dichloroethene	**156-59-4**	**10**	**585**
trans-1,2-Dichloroethene	**156-60-5**	**10**	**390**
1,2-Dichloropropane	78-87-5	10	BDL
1,3-Dichloropropane	142-28-9	10	BDL
2,2-Dichloropropane	590-20-7	10	BDL
1,1-Dichloropropene	563-58-6	10	BDL
cis-1,3-Dichloropropene	10061-01-5	10	BDL
trans-1,3-Dichloropropene	10061-02-6	10	BDL
Ethylbenzene	100-41-4	10	BDL
Hexachlorobutadiene	87-68-3	10	BDL
Isopropylbenzene	98-82-8	10	BDL
p-Isopropyltoluene	99-87-6	10	BDL
Methylene Chloride	75-09-2	10	BDL
Naphthalene	91-20-3	10	BDL
n-Propylbenzene	103-65-1	10	BDL
Styrene	100-42-5	10	BDL
1,1,1,2-Tetrachloroethane	630-20-6	10	BDL
1,1,2,2-Tetrachloroethane	**79-34-5**	**10**	**4300**
Tetrachloroethene	**127-18-4**	**10**	**35.0**
Toluene	108-88-3	10	BDL
1,2,3-Trichlorobenzene	87-61-6	10	BDL
1,2,4-Trichlorobenzene	120-82-1	10	BDL

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8555
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 MW-1
DATE SAMPLED: 6/24/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
1,1,1-Trichloroethane	71-55-6	10	BDL
1,1,2-Trichloroethane	**79-00-5**	**10**	**29.0**
Trichloroethene	**79-01-6**	**10**	**580**
Trichlorofluoromethane	75-69-4	10	BDL
1,2,3-Trichloropropane	96-18-4	10	BDL
1,2,4-Trimethylbenzene	95-63-6	10	BDL
1,3,5-Trimethylbenzene	108-67-8	10	BDL
Vinyl Chloride	75-01-4	10	BDL
Xylenes (total)	1330-20-7	10	BDL
Dichloromethane	75-09-2	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: DILUTION FACTOR X 100 FOR 1,1,2,2-TETRACHLOROETHANE; DILUTION FACTOR X 10 FOR OTHERS.

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8556
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 MW-2
DATE SAMPLED: 6/24/94
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 6/30/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	100	BDL
Bromobenzene	108-86-1	100	BDL
Bromochloromethane	74-97-5	100	BDL
Bromodichloromethane	75-27-4	100	BDL
Bromoform	75-25-2	100	BDL
Bromomethane	74-83-9	100	BDL
n-Butylbenzene	104-51-8	100	BDL
sec-Butylbenzene	135-98-8	100	BDL
tert-Butylbenzene	98-06-6	100	BDL
Carbon tetrachloride	56-23-5	100	BDL
Chlorobenzene	108-90-7	100	BDL
Chloroethane	75-00-3	100	BDL
Chloroform	67-66-3	100	BDL
Chloromethane	74-87-3	100	BDL
2-Chlorotoluene	95-45-8	100	BDL
4-Chlorotoluene	106-43-4	100	BDL
Dibromochloromethane	124-48-1	100	BDL
1,2-Dibromo-3-chloropropane	96-12-8	100	BDL
1,2-Dibromomethane (EDB)	106-93-4	100	BDL
Dibromomethane	74-95-3	100	BDL
1,2-Dichlorobenzene	95-50-1	100	BDL
1,3-Dichlorobenzene	541-73-1	100	BDL
1,4-Dichlorobenzene	106-46-7	100	BDL
Dichlorodifluoromethane	75-71-8	100	BDL
1,1-Dichloroethane	75-34-3	100	BDL

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8556
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 MW-2
DATE SAMPLED: 6/24/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
1,2-Dichloroethane	107-06-2	100	BDL
1,1-Dichloroethene	75-35-4	100	BDL
cis-1,2-Dichloroethene	**156-59-4**	**100**	**2130**
trans-1,2-Dichloroethene	**156-60-5**	**100**	**1580**
1,2-Dichloropropane	78-87-5	100	BDL
1,3-Dichloropropane	142-28-9	100	BDL
2,2-Dichloropropane	590-20-7	100	BDL
1,1-Dichloropropene	563-58-6	100	BDL
cis-1,3-Dichloropropene	10061-01-5	100	BDL
trans-1,3-Dichloropropene	10061-02-6	100	BDL
Ethylbenzene	100-41-4	100	BDL
Hexachlorobutadiene	87-68-3	100	BDL
Isopropylbenzene	98-82-8	100	BDL
p-Isopropyltoluene	99-87-6	100	BDL
Methylene Chloride	75-09-2	100	BDL
Naphthalene	91-20-3	100	BDL
n-Propylbenzene	103-65-1	100	BDL
Styrene	100-42-5	100	BDL
1,1,1,2-Tetrachloroethane	630-20-6	100	BDL
1,1,2,2-Tetrachloroethane	**79-34-5**	**200**	**8600**
Tetrachloroethene	127-18-4	100	BDL
Toluene	108-88-3	100	BDL
1,2,3-Trichlorobenzene	87-61-6	100	BDL
1,2,4-Trichlorobenzene	120-82-1	100	BDL

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8556
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 MW-2
DATE SAMPLED: 6/24/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
1,1,1-Trichloroethane	71-55-6	100	BDL
1,1,2-Trichloroethane	79-00-5	100	BDL
Trichloroethene	**79-01-6**	**100**	**1500**
Trichlorofluoromethane	75-69-4	100	BDL
1,2,3-Trichloropropane	96-18-4	100	BDL
1,2,4-Trimethylbenzene	95-63-6	100	BDL
1,3,5-Trimethylbenzene	108-67-8	100	BDL
Vinyl Chloride	75-01-4	100	BDL
Xylenes (total)	1330-20-7	100	BDL
Dichloromethane	75-09-2	100	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: DILUTION FACTOR X 100 FOR ALL EXCEPT 1,1,2,2-TETRACHLOROETHANE; DILUTION FACTOR X 200 FOR 1,1,2,2-TETREACHLORETHANE.

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8557
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 MW-3
DATE SAMPLED: 6/24/94
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 6/30/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	10	BDL
Bromobenzene	108-86-1	10	BDL
Bromochloromethane	74-97-5	10	BDL
Bromodichloromethane	75-27-4	10	BDL
Bromoform	75-25-2	10	BDL
Bromomethane	74-83-9	10	BDL
n-Butylbenzene	104-51-8	10	BDL
sec-Butylbenzene	135-98-8	10	BDL
tert-Butylbenzene	98-06-6	10	BDL
Carbon tetrachloride	56-23-5	10	BDL
Chlorobenzene	108-90-7	10	BDL
Chloroethane	75-00-3	10	BDL
Chloroform	67-66-3	10	BDL
Chloromethane	74-87-3	10	BDL
2-Chlorotoluene	95-45-8	10	BDL
4-Chlorotoluene	106-43-4	10	BDL
Dibromochloromethane	124-48-1	10	BDL
1,2-Dibromo-3-chloropropane	96-12-8	10	BDL
1,2-Dibromomethane (EDB)	106-93-4	10	BDL
Dibromomethane	74-95-3	10	BDL
1,2-Dichlorobenzene	95-50-1	10	BDL
1,3-Dichlorobenzene	541-73-1	10	BDL
1,4-Dichlorobenzene	106-46-7	10	BDL
Dichlorodifluoromethane	75-71-8	10	BDL
1,1-Dichloroethane	75-34-3	10	BDL

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8557
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 MW-3
DATE SAMPLED: 6/24/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
1,2-Dichloroethane	107-06-2	10	BDL
1,1-Dichloroethene	75-35-4	10	BDL
cis-1,2-Dichloroethene	**156-59-4**	**10**	**70.0**
trans-1,2-Dichloroethene	**156-60-5**	**10**	**60.0**
1,2-Dichloropropane	78-87-5	10	BDL
1,3-Dichloropropane	142-28-9	10	BDL
2,2-Dichloropropane	590-20-7	10	BDL
1,1-Dichloropropene	563-58-6	10	BDL
cis-1,3-Dichloropropene	10061-01-5	10	BDL
trans-1,3-Dichloropropene	10061-02-6	10	BDL
Ethylbenzene	100-41-4	10	BDL
Hexachlorobutadiene	87-68-3	10	BDL
Isopropylbenzene	98-82-8	10	BDL
p-Isopropyltoluene	99-87-6	10	BDL
Methylene Chloride	75-09-2	10	BDL
Naphthalene	91-20-3	10	BDL
n-Propylbenzene	103-65-1	10	BDL
Styrene	100-42-5	10	BDL
1,1,1,2-Tetrachloroethane	630-20-6	10	BDL
1,1,2,2-Tetrachloroethane	**79-34-5**	**10**	**240**
Tetrachloroethene	127-18-4	10	BDL
Toluene	108-88-3	10	BDL
1,2,3-Trichlorobenzene	87-61-6	10	BDL
1,2,4-Trichlorobenzene	120-82-1	10	BDL

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8557
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 MW-3
DATE SAMPLED: 6/24/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
1,1,1-Trichloroethane	71-55-6	10	BDL
1,1,2-Trichloroethane	79-00-5	10	BDL
Trichloroethene	**79-01-6**	**10**	**80.0**
Trichlorofluoromethane	75-69-4	10	BDL
1,2,3-Trichloropropane	96-18-4	10	BDL
1,2,4-Trimethylbenzene	95-63-6	10	BDL
1,3,5-Trimethylbenzene	108-67-8	10	BDL
Vinyl Chloride	75-01-4	10	BDL
Xylenes (total)	1330-20-7	10	BDL
Dichloromethane	75-09-2	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: DILUTION FACTOR X 10

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8558
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 Water Dup.
DATE SAMPLED: 6/24/94
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 6/30/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	10	BDL
Bromobenzene	108-86-1	10	BDL
Bromochloromethane	74-97-5	10	BDL
Bromodichloromethane	75-27-4	10	BDL
Bromoform	75-25-2	10	BDL
Bromomethane	74-83-9	10	BDL
n-Butylbenzene	104-51-8	10	BDL
sec-Butylbenzene	135-98-8	10	BDL
tert-Butylbenzene	98-06-6	10	BDL
Carbon tetrachloride	56-23-5	10	BDL
Chlorobenzene	108-90-7	10	BDL
Chloroethane	75-00-3	10	BDL
Chloroform	67-66-3	10	BDL
Chloromethane	74-87-3	10	BDL
2-Chlorotoluene	95-45-8	10	BDL
4-Chlorotoluene	106-43-4	10	BDL
Dibromochloromethane	124-48-1	10	BDL
1,2-Dibromo-3-chloropropane	96-12-8	10	BDL
1,2-Dibromomethane (EDB)	106-93-4	10	BDL
Dibromomethane	74-95-3	10	BDL
1,2-Dichlorobenzene	95-50-1	10	BDL
1,3-Dichlorobenzene	541-73-1	10	BDL
1,4-Dichlorobenzene	106-46-7	10	BDL
Dichlorodifluoromethane	75-71-8	10	BDL
1,1-Dichloroethane	75-34-3	10	BDL

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8558
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 Water Dup.
DATE SAMPLED: 6/24/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
1,2-Dichloroethane	107-06-2	10	BDL
1,1-Dichloroethene	75-35-4	10	BDL
cis-1,2-Dichloroethene	**156-59-4**	**10**	**550**
trans-1,2-Dichloroethene	**156-60-5**	**10**	**370**
1,2-Dichloropropane	78-87-5	10	BDL
1,3-Dichloropropane	142-28-9	10	BDL
2,2-Dichloropropane	590-20-7	10	BDL
1,1-Dichloropropene	563-58-6	10	BDL
cis-1,3-Dichloropropene	10061-01-5	10	BDL
trans-1,3-Dichloropropene	10061-02-6	10	BDL
Ethylbenzene	100-41-4	10	BDL
Hexachlorobutadiene	87-68-3	10	BDL
Isopropylbenzene	98-82-8	10	BDL
p-Isopropyltoluene	99-87-6	10	BDL
Methylene Chloride	75-09-2	10	BDL
Naphthalene	91-20-3	10	BDL
n-Propylbenzene	103-65-1	10	BDL
Styrene	100-42-5	10	BDL
1,1,1,2-Tetrachloroethane	630-20-6	10	BDL
1,1,2,2-Tetrachloroethane	**79-34-5**	**100**	**3400**
Tetrachloroethene	**127-18-4**	**10**	**38**
Toluene	108-88-3	10	BDL
1,2,3-Trichlorobenzene	87-61-6	10	BDL
1,2,4-Trichlorobenzene	120-82-1	10	BDL

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #94350

HYDROLOGIC PROJECT NUMBER: FL94-8555
HYDROLOGIC SAMPLE NUMBER: 8558
HYDROLOGIC LAB I.D.#: 399
SAMPLE IDENTIFICATION: STC-868 Water Dup.
DATE SAMPLED: 6/24/94

METHOD EPA 502.2

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
1,1,1-Trichloroethane	71-55-6	10	BDL
1,1,2-Trichloroethane	**79-00-5**	**10**	**29**
Trichloroethene	**79-01-6**	**10**	**580**
Trichlorofluoromethane	75-69-4	10	BDL
1,2,3-Trichloropropane	96-18-4	10	BDL
1,2,4-Trimethylbenzene	95-63-6	10	BDL
1,3,5-Trimethylbenzene	108-67-8	10	BDL
Vinyl Chloride	75-01-4	10	BDL
Xylenes (total)	1330-20-7	10	BDL
Dichloromethane	75-09-2	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: DILUTION FACTOR X 100 FOR 1,1,2,2-TETRACHLORETHANE; DILUTION FACTOR X 10 FOR ALL THE OTHERS.

Wright Lab SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Sample # 62288-1

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 14, 1994

LAB ANALYSIS REPORT

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/24/94 10:30 AM
Location	: STC-868 MW-1	Date Received	: 06/27/94
Sample State	: Water Grab	Date Completed	: 07/12/94
Collector	: ELE	Discard Date	: 07/26/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
GAS CHROMATOGRAPH MASS SPEC.				
BASE/NEUTRALS/ACID COMP + 30				
3,3'-Dichlorobenzidine	N.D.	ug/l	40	625
Acenaphthene	N.D.	ug/l	10	625
Acenaphthylene	N.D.	ug/l	10	625
Anthracene	N.D.	ug/l	10	625
Benzidine	N.D.	ug/l	40	625
Benzo(a)anthracene	N.D.	ug/l	10	625
Benzo(a)pyrene	N.D.	ug/l	10	625
Benzo(b)fluoranthene	N.D.	ug/l	10	625
Benzo(g,h,i)perylene	N.D.	ug/l	20	625
Benzo(k)fluoranthene	N.D.	ug/l	10	625
4-Bromophenyl Phenyl Ether	N.D.	ug/l	20	625
Butylbenzyl Phthalate	N.D.	ug/l	10	625
Indeno(1,2,3-cd)pyrene	N.D.	ug/l	20	625
Bis(2-chloroethoxy)methane	N.D.	ug/l	10	625
Bis(2-chloroethyl)ether	N.D.	ug/l	10	625
Bis(2-chloroisopropyl)ether	N.D.	ug/l	10	625
2-Chloronaphthalene	N.D.	ug/l	10	625
2-Chlorophenol	N.D.	ug/l	10	625
4-Chlorophenyl Phenyl Ether	N.D.	ug/l	10	625

**** Continued ****

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 14, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
Chrysene	N.D.	ug/l	10	625
Di-n-Butylphthalate	N.D.	ug/l	10	625
Di-n-octylphthalate	N.D.	ug/l	20	625
Dibenzo(a,h)anthracene	N.D.	ug/l	20	625
1,2-Dichlorobenzene	N.D.	ug/l	10	625
1,3-Dichlorobenzene	N.D.	ug/l	10	625
1,4-Dichlorobenzene	N.D.	ug/l	10	625
2,4-Dichlorophenol	N.D.	ug/l	10	625
Diethylphthalate	N.D.	ug/l	20	625
2,4-Dimethylphenol	N.D.	ug/l	10	625
Dimethylphthalate	N.D.	ug/l	20	625
2-Methyl-4,6-Dinitrophenol	N.D.	ug/l	40	625
2,4-Dinitrophenol	N.D.	ug/l	40	625
2,4-Dinitrotoluene	N.D.	ug/l	20	625
2,6-Dinitrotoluene	N.D.	ug/l	20	625
1,2-Diphenylhydrazine	N.D.	ug/l	20	625
Bis(2-ethylhexyl)phthalate	N.D.	ug/l	20	625
Fluoranthene	N.D.	ug/l	10	625
Fluorene	N.D.	ug/l	10	625
Hexachlorobenzene	N.D.	ug/l	10	625
Hexachlorobutadiene	N.D.	ug/l	10	625
Hexachlorocyclopentadiene	N.D.	ug/l	100	625
Hexachloroethane	N.D.	ug/l	10	625
Isophorone	N.D.	ug/l	10	625
4-Chloro-3-Methylphenol	N.D.	ug/l	10	625
N-Nitrosodi-n-propylamine	N.D.	ug/l	10	625
N-Nitrosodimethylamine	N.D.	ug/l	10	625
N-Nitrosodiphenylamine	N.D.	ug/l	10	625
Naphthalene	N.D.	ug/l	10	625
Nitrobenzene	N.D.	ug/l	10	625
2-Nitrophenol	N.D.	ug/l	10	625
4-Nitrophenol	N.D.	ug/l	40	625
Pentachlorophenol	N.D.	ug/l	20	625
Phenanthrene	N.D.	ug/l	10	625
Phenol	N.D.	ug/l	20	625
Pyrene	N.D.	ug/l	10	625

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 14, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
1,2,4-Trichlorobenzene	N.D.	ug/l	10	625
2,4,6-Trichlorophenol	N.D.	ug/l	20	625
METALS				
Mercury on TCLP	N.D.	mg/l	0.0005	245.2
Silver, TCLP Leachate	N.D.	mg/l	0.04	272.1
TCLP METALS by ICP				
Arsenic	N.D.	mg/l	0.006	200.7
Selenium	N.D.	mg/l	0.055	200.7
TCLP METALS by ICP				
Barium	N.D.	mg/l	0.55	200.7
Cadmium	N.D.	mg/l	0.01	200.7
Chromium	N.D.	mg/l	0.02	200.7
Lead	N.D.	mg/l	0.11	200.7
Water Quality/Prep				
TCLP LEACHATE PREPARATION				
Extraction Fluid Used	See Comments			1311
Final pH of TCLP Extract	4.99			1311
Preliminary pH with DI Water	See Comments			1311
Preliminary pH with HCl	See Comments			1311

N.D. - Not Detected

Sample contained < 0.5% solids. Sample was filtered to obtain TCLP leachate.

**** Continued ****

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ENVIRONMENTAL TESTING LABORATORIES

July 14, 1994

A dilution was necessary to overcome matrix interferences in the semi-volatile analysis. The detection limits were raised accordingly.

An NBS library search was performed on the semi-volatile fraction of this sample. See attached sheet for a list of Tentatively Identified Compounds.

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT	
GAS CHROMATOGRAPH MASS SPEC.		
BASE/NEUTRALS/ACID COMP + 30		
2-Fluorobiphenyl	82	% Recovery Surrogate
2-Fluorophenol	75	% Recovery Surrogate
Nitrobenzene-d5	79	% Recovery Surrogate
Phenol-d5	80	% Recovery Surrogate
Terphenyl-d14	79	% Recovery Surrogate
2,4,6-Tribromophenol	78	% Recovery Surrogate

Respectfully Submitted,
WRIGHT LAB SERVICES

Ian Milnes
Laboratory Manager

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Wright Lab SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Sample # 62288-1

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 14, 1994

DATA PACKAGE FORM

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/24/94 10:30 AM
Location	: STC-868 MW-1	Date Received	: 06/27/94
Sample State	: Water Grab	Date Completed	: 07/12/94
Collector	: ELE	Discard Date	: 07/26/94

TEST/PARAMETER	PRESERVATIVE	TECH	ANALYSIS DATE	TIME
BASE/NEUTRALS/ACID COMP + 30	Cool to 4 Deg. C	CWW	06/30/94	22:48
Liq/Liq Ext for Semi-Volatiles		DRP	06/27/94	
Mercury on TCLP	HNO3 to pH <2	JRG	07/12/94	23:00
TCLP Leachate		JRG	07/13/94	23:00
Silver, TCLP Leachate	HNO3 to pH <2	JRG	07/07/94	05:00
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP METALS by ICP	HNO3 to pH <2	MMH	07/11/94	15:00
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP METALS by ICP	HNO3 to pH <2	JRG	07/11/94	21:46
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP LEACHATE PREPARATION		BJC	06/28/94	12:00
TCLP Leachate		BJC	06/28/94	

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 14, 1994

LAB ANALYSIS REPORT

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/24/94 10:45 AM
Location	: STC-868 MW-2	Date Received	: 06/27/94
Sample State	: Water Grab	Date Completed	: 07/12/94
Collector	: ELE	Discard Date	: 07/27/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
GAS CHROMATOGRAPH MASS SPEC.				
BASE/NEUTRALS/ACID COMP + 30				
3,3'-Dichlorobenzidine	N.D.	ug/l	40	625
Acenaphthene	N.D.	ug/l	10	625
Acenaphthylene	N.D.	ug/l	10	625
Anthracene	N.D.	ug/l	10	625
Benzidine	N.D.	ug/l	40	625
Benzo(a)anthracene	N.D.	ug/l	10	625
Benzo(a)pyrene	N.D.	ug/l	10	625
Benzo(b)fluoranthene	N.D.	ug/l	10	625
Benzo(g,h,i)perylene	N.D.	ug/l	20	625
Benzo(k)fluoranthene	N.D.	ug/l	10	625
4-Bromophenyl Phenyl Ether	N.D.	ug/l	20	625
Butylbenzyl Phthalate	N.D.	ug/l	10	625
Indeno(1,2,3-cd)pyrene	N.D.	ug/l	20	625
Bis(2-chloroethoxy)methane	N.D.	ug/l	10	625
Bis(2-chloroethyl)ether	N.D.	ug/l	10	625
Bis(2-chloroisopropyl)ether	N.D.	ug/l	10	625
2-Chloronaphthalene	N.D.	ug/l	10	625
2-Chlorophenol	N.D.	ug/l	10	625
4-Chlorophenyl Phenyl Ether	N.D.	ug/l	10	625

**** Continued ****

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 14, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
Chrysene	N.D.	ug/l	10	625
Di-n-Butylphthalate	N.D.	ug/l	10	625
Di-n-octylphthalate	N.D.	ug/l	20	625
Dibenzo(a,h)anthracene	N.D.	ug/l	20	625
1,2-Dichlorobenzene	N.D.	ug/l	10	625
1,3-Dichlorobenzene	N.D.	ug/l	10	625
1,4-Dichlorobenzene	N.D.	ug/l	10	625
2,4-Dichlorophenol	N.D.	ug/l	10	625
Diethylphthalate	N.D.	ug/l	20	625
2,4-Dimethylphenol	N.D.	ug/l	10	625
Dimethylphthalate	N.D.	ug/l	20	625
2-Methyl-4,6-Dinitrophenol	N.D.	ug/l	40	625
2,4-Dinitrophenol	N.D.	ug/l	40	625
2,4-Dinitrotoluene	N.D.	ug/l	20	625
2,6-Dinitrotoluene	N.D.	ug/l	20	625
1,2-Diphenylhydrazine	N.D.	ug/l	20	625
Bis(2-ethylhexyl)phthalate	N.D.	ug/l	20	625
Fluoranthene	N.D.	ug/l	10	625
Fluorene	N.D.	ug/l	10	625
Hexachlorobenzene	N.D.	ug/l	10	625
Hexachlorobutadiene	N.D.	ug/l	10	625
Hexachlorocyclopentadiene	N.D.	ug/l	100	625
Hexachloroethane	N.D.	ug/l	10	625
Isophorone	N.D.	ug/l	10	625
4-Chloro-3-Methylphenol	N.D.	ug/l	10	625
N-Nitrosodi-n-propylamine	N.D.	ug/l	10	625
N-Nitrosodimethylamine	N.D.	ug/l	10	625
N-Nitrosodiphenylamine	N.D.	ug/l	10	625
Naphthalene	N.D.	ug/l	10	625
Nitrobenzene	N.D.	ug/l	10	625
2-Nitrophenol	N.D.	ug/l	10	625
4-Nitrophenol	N.D.	ug/l	40	625
Pentachlorophenol	N.D.	ug/l	20	625
Phenanthrene	N.D.	ug/l	10	625
Phenol	N.D.	ug/l	20	625
Pyrene	N.D.	ug/l	10	625

**** Continued ****

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ENVIRONMENTAL TESTING LABORATORIES

July 14, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
1,2,4-Trichlorobenzene	N.D.	ug/l	10	625
2,4,6-Trichlorophenol	N.D.	ug/l	20	625
METALS				
Mercury on TCLP	N.D.	mg/l	0.0005	245.2
Silver, TCLP Leachate	N.D.	mg/l	0.04	272.1
TCLP METALS by ICP				
Arsenic	N.D.	mg/l	0.006	200.7
Selenium	N.D.	mg/l	0.055	200.7
TCLP METALS by ICP				
Barium	N.D.	mg/l	0.55	200.7
Cadmium	N.D.	mg/l	0.01	200.7
Chromium	N.D.	mg/l	0.02	200.7
Lead	N.D.	mg/l	0.11	200.7
Water Quality/Prep				
TCLP LEACHATE PREPARATION				
Extraction Fluid Used	See Comments			1311
Final pH of TCLP Extract	6.09			1311
Preliminary pH with DI Water	See Comments			1311
Preliminary pH with HCl	See Comments			1311

N.D. - Not Detected

Sample contained < 0.5% solids. Sample was filtered to obtain TCLP leachate.

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 14, 1994

A dilution was necessary to overcome matrix interferences in the semi-volatile analysis. The detection limits were raised accordingly.

An NBS library search was performed on the semi-volatile fraction of this sample. See attached sheet for a list of Tentatively Identified Compounds.

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT		
GAS CHROMATOGRAPH MASS SPEC.			
BASE/NEUTRALS/ACID COMP + 30			
2-Fluorobiphenyl	79	% Recovery	Surrogate
2-Fluorophenol	78	% Recovery	Surrogate
Nitrobenzene-d5	77	% Recovery	Surrogate
Phenol-d5	80	% Recovery	Surrogate
Terphenyl-d14	59	% Recovery	Surrogate
2,4,6-Tribromophenol	80	% Recovery	Surrogate

Respectfully Submitted,
WRIGHT LAB SERVICES

Ian Milnes
Laboratory Manager

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Wright Lab SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 62288-2

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 14, 1994

DATA PACKAGE FORM

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/24/94 10:45 AM
Location	: STC-868 MW-2	Date Received	: 06/27/94
Sample State	: Water Grab	Date Completed	: 07/12/94
Collector	: ELE	Discard Date	: 07/27/94

TEST/PARAMETER	PRESERVATIVE	TECH	ANALYSIS DATE	TIME
BASE/NEUTRALS/ACID COMP + 30	Cool to 4 Deg. C	CWW	06/30/94	23:27
Liq/Liq Ext for Semi-Volatiles		DRP	06/27/94	
Mercury on TCLP	HNO3 to pH <2	JRG	07/12/94	23:00
TCLP Leachate		JRG	07/13/94	23:00
Silver, TCLP Leachate	HNO3 to pH <2	JRG	07/07/94	05:00
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP METALS by ICP	HNO3 to pH <2	MMH	07/11/94	15:00
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP METALS by ICP	HNO3 to pH <2	JRG	07/11/94	21:46
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP LEACHATE PREPARATION		BJC	06/28/94	12:00
TCLP Leachate		BJC	06/28/94	

Wright Lab SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Sample # 62288-3

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 14, 1994

LAB ANALYSIS REPORT

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/24/94 11:00 AM
Location	: STC-868 MW-3	Date Received	: 06/27/94
Sample State	: Water Grab	Date Completed	: 07/12/94
Collector	: ELE	Discard Date	: 07/27/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
GAS CHROMATOGRAPH MASS SPEC.				
BASE/NEUTRALS/ACID COMP + 30				
3,3'-Dichlorobenzidine	N.D.	ug/l	20	625
Acenaphthene	N.D.	ug/l	5	625
Acenaphthylene	N.D.	ug/l	5	625
Anthracene	N.D.	ug/l	5	625
Benzidine	N.D.	ug/l	20	625
Benzo(a)anthracene	N.D.	ug/l	5	625
Benzo(a)pyrene	N.D.	ug/l	5	625
Benzo(b)fluoranthene	N.D.	ug/l	5	625
Benzo(g,h,i)perylene	N.D.	ug/l	10	625
Benzo(k)fluoranthene	N.D.	ug/l	5	625
4-Bromophenyl Phenyl Ether	N.D.	ug/l	10	625
Butylbenzyl Phthalate	N.D.	ug/l	5	625
Indeno(1,2,3-cd)pyrene	N.D.	ug/l	10	625
Bis(2-chloroethoxy)methane	N.D.	ug/l	5	625
Bis(2-chloroethyl)ether	N.D.	ug/l	5	625
Bis(2-chloroisopropyl)ether	N.D.	ug/l	5	625
2-Chloronaphthalene	N.D.	ug/l	5	625
2-Chlorophenol	N.D.	ug/l	5	625
4-Chlorophenyl Phenyl Ether	N.D.	ug/l	5	625

**** Continued ****

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

Sample # 62288-3

July 14, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
Chrysene	N.D.	ug/l	5	625
Di-n-Butylphthalate	N.D.	ug/l	5	625
Di-n-octylphthalate	N.D.	ug/l	10	625
Dibenzo(a,h)anthracene	N.D.	ug/l	10	625
1,2-Dichlorobenzene	N.D.	ug/l	5	625
1,3-Dichlorobenzene	N.D.	ug/l	5	625
1,4-Dichlorobenzene	N.D.	ug/l	5	625
2,4-Dichlorophenol	N.D.	ug/l	5	625
Diethylphthalate	N.D.	ug/l	10	625
2,4-Dimethylphenol	N.D.	ug/l	5	625
Dimethylphthalate	N.D.	ug/l	10	625
2-Methyl-4,6-Dinitrophenol	N.D.	ug/l	20	625
2,4-Dinitrophenol	N.D.	ug/l	20	625
2,4-Dinitrotoluene	N.D.	ug/l	10	625
2,6-Dinitrotoluene	N.D.	ug/l	10	625
1,2-Diphenylhydrazine	N.D.	ug/l	10	625
Bis(2-ethylhexyl)phthalate	N.D.	ug/l	10	625
Fluoranthene	N.D.	ug/l	5	625
Fluorene	N.D.	ug/l	5	625
Hexachlorobenzene	N.D.	ug/l	5	625
Hexachlorobutadiene	N.D.	ug/l	5	625
Hexachlorocyclopentadiene	N.D.	ug/l	50	625
Hexachloroethane	N.D.	ug/l	5	625
Isophorone	N.D.	ug/l	5	625
4-Chloro-3-Methylphenol	N.D.	ug/l	5	625
N-Nitrosodi-n-propylamine	N.D.	ug/l	5	625
N-Nitrosodimethylamine	N.D.	ug/l	5	625
N-Nitrosodiphenylamine	N.D.	ug/l	5	625
Naphthalene	N.D.	ug/l	5	625
Nitrobenzene	N.D.	ug/l	5	625
2-Nitrophenol	N.D.	ug/l	5	625
4-Nitrophenol	N.D.	ug/l	20	625
Pentachlorophenol	N.D.	ug/l	10	625
Phenanthrene	N.D.	ug/l	5	625
Phenol	N.D.	ug/l	10	625
Pyrene	N.D.	ug/l	5	625

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 14, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
1,2,4-Trichlorobenzene	N.D.	ug/l	5	625
2,4,6-Trichlorophenol	N.D.	ug/l	10	625
METALS				
Mercury on TCLP	N.D.	mg/l	0.0005	245.2
Silver, TCLP Leachate	N.D.	mg/l	0.04	272.1
TCLP METALS by ICP				
Arsenic	N.D.	mg/l	0.006	200.7
Selenium	N.D.	mg/l	0.055	200.7
TCLP METALS by ICP				
Barium	N.D.	mg/l	0.55	200.7
Cadmium	N.D.	mg/l	0.01	200.7
Chromium	N.D.	mg/l	0.02	200.7
Lead	N.D.	mg/l	0.11	200.7
Water Quality/Prep				
TCLP LEACHATE PREPARATION				
Extraction Fluid Used	See Comments			1311
Final pH of TCLP Extract	4.45			1311
Preliminary pH with DI Water	See Comments			1311
Preliminary pH with HCl	See Comments			1311

N.D. - Not Detected

Sample contained < 0.5% solids. Sample was filtered to obtain TCLP leachate.

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 14, 1994

An NBS library search was performed on the semi-volatile fraction of this sample. See attached sheet for a list of Tentatively Identified Compounds.

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT	
GAS CHROMATOGRAPH MASS SPEC.		
BASE/NEUTRALS/ACID COMP + 30		
2-Fluorobiphenyl	88	% Recovery Surrogate
2-Fluorophenol	92	% Recovery Surrogate
Nitrobenzene-d5	93	% Recovery Surrogate
Phenol-d5	95	% Recovery Surrogate
Terphenyl-d14	78	% Recovery Surrogate
2,4,6-Tribromophenol	86	% Recovery Surrogate

Respectfully Submitted,
WRIGHT LAB SERVICES

Ian Milnes
Laboratory Manager

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 14, 1994

DATA PACKAGE FORM

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/24/94 11:00 AM
Location	: STC-868 MW-3	Date Received	: 06/27/94
Sample State	: Water Grab	Date Completed	: 07/12/94
Collector	: ELE	Discard Date	: 07/27/94

TEST/PARAMETER	PRESERVATIVE	TECH	ANALYSIS DATE	TIME
BASE/NEUTRALS/ACID COMP + 30	Cool to 4 Deg. C	CWW	07/01/94	00:46
Liq/Liq Ext for Semi-Volatiles		DRP	06/27/94	
Mercury on TCLP	HNO3 to pH <2	JRG	07/12/94	23:00
TCLP Leachate		JRG	07/13/94	23:00
Silver, TCLP Leachate	HNO3 to pH <2	JRG	07/07/94	05:00
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP METALS by ICP	HNO3 to pH <2	MMH	07/11/94	15:00
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP METALS by ICP	HNO3 to pH <2	JRG	07/11/94	21:46
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP LEACHATE PREPARATION		BJC	06/28/94	12:00
TCLP Leachate		BJC	06/28/94	

Wright Lab SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Sample # 62288-4

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 14, 1994

LAB ANALYSIS REPORT

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/24/94 11:15 AM
Location	: STC-868 Water Dup	Date Received	: 06/27/94
Sample State	: Water Grab	Date Completed	: 07/12/94
Collector	: ELE	Discard Date	: 07/27/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
GAS CHROMATOGRAPH MASS SPEC.				
BASE/NEUTRALS/ACID COMP + 30				
3,3'-Dichlorobenzidine	N.D.	ug/l	20	625
Acenaphthene	N.D.	ug/l	5	625
Acenaphthylene	N.D.	ug/l	5	625
Anthracene	N.D.	ug/l	5	625
Benzidine	N.D.	ug/l	20	625
Benzo(a)anthracene	N.D.	ug/l	5	625
Benzo(a)pyrene	N.D.	ug/l	5	625
Benzo(b)fluoranthene	N.D.	ug/l	5	625
Benzo(g,h,i)perylene	N.D.	ug/l	10	625
Benzo(k)fluoranthene	N.D.	ug/l	5	625
4-Bromophenyl Phenyl Ether	N.D.	ug/l	10	625
Butylbenzyl Phthalate	N.D.	ug/l	5	625
Indeno(1,2,3-cd)pyrene	N.D.	ug/l	10	625
Bis(2-chloroethoxy)methane	N.D.	ug/l	5	625
Bis(2-chloroethyl)ether	N.D.	ug/l	5	625
Bis(2-chloroisopropyl)ether	N.D.	ug/l	5	625
2-Chloronaphthalene	N.D.	ug/l	5	625
2-Chlorophenol	N.D.	ug/l	5	625
4-Chlorophenyl Phenyl Ether	N.D.	ug/l	5	625

**** Continued ****

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 14, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
Chrysene	N.D.	ug/l	5	625
Di-n-Butylphthalate	N.D.	ug/l	5	625
Di-n-octylphthalate	N.D.	ug/l	10	625
Dibenzo(a,h)anthracene	N.D.	ug/l	10	625
1,2-Dichlorobenzene	N.D.	ug/l	5	625
1,3-Dichlorobenzene	N.D.	ug/l	5	625
1,4-Dichlorobenzene	N.D.	ug/l	5	625
2,4-Dichlorophenol	N.D.	ug/l	5	625
Diethylphthalate	N.D.	ug/l	10	625
2,4-Dimethylphenol	N.D.	ug/l	5	625
Dimethylphthalate	N.D.	ug/l	10	625
2-Methyl-4,6-Dinitrophenol	N.D.	ug/l	20	625
2,4-Dinitrophenol	N.D.	ug/l	20	625
2,4-Dinitrotoluene	N.D.	ug/l	10	625
2,6-Dinitrotoluene	N.D.	ug/l	10	625
1,2-Diphenylhydrazine	N.D.	ug/l	10	625
Bis(2-ethylhexyl)phthalate	N.D.	ug/l	10	625
Fluoranthene	N.D.	ug/l	5	625
Fluorene	N.D.	ug/l	5	625
Hexachlorobenzene	N.D.	ug/l	5	625
Hexachlorobutadiene	N.D.	ug/l	5	625
Hexachlorocyclopentadiene	N.D.	ug/l	50	625
Hexachloroethane	N.D.	ug/l	5	625
Isophorone	N.D.	ug/l	5	625
4-Chloro-3-Methylphenol	N.D.	ug/l	5	625
N-Nitrosodi-n-propylamine	N.D.	ug/l	5	625
N-Nitrosodimethylamine	N.D.	ug/l	5	625
N-Nitrosodiphenylamine	N.D.	ug/l	5	625
Naphthalene	N.D.	ug/l	5	625
Nitrobenzene	N.D.	ug/l	5	625
2-Nitrophenol	N.D.	ug/l	5	625
4-Nitrophenol	N.D.	ug/l	20	625
Pentachlorophenol	N.D.	ug/l	10	625
Phenanthrene	N.D.	ug/l	5	625
Phenol	N.D.	ug/l	10	625
Pyrene	N.D.	ug/l	5	625

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 14, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
1,2,4-Trichlorobenzene	N.D.	ug/l	5	625
2,4,6-Trichlorophenol	N.D.	ug/l	10	625
METALS				
Mercury on TCLP	N.D.	mg/l	0.0005	245.2
Silver, TCLP Leachate	N.D.	mg/l	0.04	272.1
TCLP METALS by ICP				
Arsenic	N.D.	mg/l	0.006	200.7
Selenium	N.D.	mg/l	0.055	200.7
TCLP METALS by ICP				
Barium	N.D.	mg/l	0.55	200.7
Cadmium	N.D.	mg/l	0.01	200.7
Chromium	N.D.	mg/l	0.02	200.7
Lead	N.D.	mg/l	0.11	200.7
Water Quality/Prep				
TCLP LEACHATE PREPARATION				
Extraction Fluid Used	See Comments			1311
Final pH of TCLP Extract	5.14			1311
Preliminary pH with DI Water	See Comments			1311
Preliminary pH with HCl	See Comments			1311

N.D. - Not Detected

Sample contained < 0.5% solids. Sample was filtered to obtain TCLP leachate.

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 14, 1994

An NBS library search was performed on the semi-volatile fraction of this sample. See attached sheet for a list of Tentatively Identified Compounds.

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT		
GAS CHROMATOGRAPH MASS SPEC.			
BASE/NEUTRALS/ACID COMP + 30			
2-Fluorobiphenyl	92	% Recovery	Surrogate
2-Fluorophenol	94	% Recovery	Surrogate
Nitrobenzene-d5	99	% Recovery	Surrogate
Phenol-d5	97	% Recovery	Surrogate
Terphenyl-d14	82	% Recovery	Surrogate
2,4,6-Tribromophenol	94	% Recovery	Surrogate
METALS			
Mercury on TCLP	91	% Recovery	Spike

Respectfully Submitted,
WRIGHT LAB SERVICES

Ian Milnes
Laboratory Manager

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Wright Lab SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 62288-4

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 14, 1994

DATA PACKAGE FORM

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/24/94 11:15 AM
Location	: STC-868 Water Dup	Date Received	: 06/27/94
Sample State	: Water Grab	Date Completed	: 07/12/94
Collector	: ELE	Discard Date	: 07/27/94

TEST/PARAMETER	PRESERVATIVE	TECH	ANALYSIS DATE	TIME
BASE/NEUTRALS/ACID COMP + 30	Cool to 4 Deg. C	CWW	07/01/94	01:25
Liq/Liq Ext for Semi-Volatiles		DRP	06/27/94	
Mercury on TCLP	HNO3 to pH <2	JRG	07/12/94	23:00
TCLP Leachate		JRG	07/13/94	23:00
Silver, TCLP Leachate	HNO3 to pH <2	JRG	07/07/94	05:00
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP METALS by ICP	HNO3 to pH <2	MMH	07/11/94	15:00
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP METALS by ICP	HNO3 to pH <2	JRG	07/11/94	21:46
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP LEACHATE PREPARATION		BJC	06/28/94	12:00
TCLP Leachate		BJC	06/28/94	

PHONE ORDER TAKEN BY: _____

DATE ORDERED: ___/___/___

Wright Lab Services, Inc.
CHAIN OF CUSTODY RECORD

DATE REQUESTED: 062288 / /

REPORT TO:	CONTACT Mike Iannicelli	PHONE NO. 717-944-5501	SALESMAN
Rewai	PROJECT NAME USN-Camp Lejeune	PROJECT NO. 94350	P.O. NO.
	DATE SAMPLED 6-24-94	SAMPLER(S) ELE	

BILL TO: REWAI

ANALYSES TO BE PERFORMED

	SAMPLE DESCRIPTION/LOCATION	TIME OF SAMPLING	TOTAL NO. OF CONTAINERS	625 + 10 pathogen 6/28/94	TCLP 8 RCRA METALS													REMARKS
1	STC-868 MW-1	10:30	3	X	X													
2	STC-868 MW-2	10:45	3	X	X													
3	STC-868 MW-3	11:00	3	X	X													
4	STC-868 WATER DUP	11:15	3	X	X													
5																		
6																		
7																		
8																		
9																		
10																		

WATER

REMARKS: 1 set ORG. back in prep

SHIPPING CARRIER: FED X

SHIPPING TICKET NUMBER:

CHAIN-OF-CUSTODY SEAL: INTACT BROKEN ABSENT

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Eric L. Eyle	6-24-94		Daryl Pulsin	6/25/94	11:00			
RECEIVED BY:	**DATE**	**TIME**	**RELINQUISHED BY:**	**DATE**	**TIME**	**RECEIVED BY:**	**DATE**	**TIME**
RELINQUISHED BY:	**DATE**	**TIME**	**RELINQUISHED BY:**	**DATE**	**TIME**	**RECEIVED BY:**	**DATE**	**TIME**
						DS	6/27	1304

CHAIN OF CUSTODY

PO # 63 74 i

REPORT TO:
RE WRIGHT ASSOCIATES INC
3240 Schoolhouse Road
MIDDLETOWN PA
ATTN MIKE IANNICELLI

HydroLogic, Inc.
2500 Gateway Centre Blvd., Suite 900
Morrisville, NC 27560
800-241-4174
919-380-9699

PAGE 1 OF 1

942261

CLIENT: RE WRIGHT
PHONE: 717-944-5501
PROJ #: 94350 PO #:
SAMPLER: ERIC ENGLE

PROJECT ID #: 94350
REPORT DUE:
VERBAL FAX COPY HARD COPY

ANALYSES

FIELD ID	SAMPLE MATRIX	TIME COLLECTED	DATE COLLECTED	SO2,2
STC-868 MW-1	WATER	10:30	6-24-94	X
STC-868 MW-2	WATER	10:45	6-24-94	X
STC-868 MW-3	WATER	10:00	6-24-94	X
STC-868 WATER DUP	WATER	11:15	6-24-94	X

REMARKS

94-8555

TEMPERATURE BLANK 1.8 °C.

☑ REC'D ON ICE
☐ PRESERVED
by:

RELINQUISHED BY: Eric Engle	DATE / TIME: 6-24-94 17:00	RECEIVED BY: Allan W Mintz	DATE / TIME: 6-25-94 1230
RELINQUISHED BY: [illegible]	DATE / TIME: 6 27 94 1800	RECEIVED BY: Christy Burge	DATE / TIME: 6/28/94 9:[illegible]
RELINQUISHED BY:	DATE / TIME:	RECEIVED BY:	DATE / TIME:
DISPATCHED BY:	DATE / TIME:	RECEIVED BY:	DATE / TIME:

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

..TTN: Mike Iannicelli
R. E. Wright Associates Inc.
^240 Schoolhouse Road
iddletown PA 17057

July 6, 1994

LAB ANALYSIS REPORT

ob Name	: USN-Camp LeJeune NC	Customer PO#	:
ob Number	: 94350-99-99	Date Sampled	: 06/24/94 10:15 AM
Location	: STC 868 Drum Composite W	Date Received	: 06/27/94
Sample State	: Water Composite	Date Completed	: 07/06/94
ollector	: ELE	Discard Date	: 07/13/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
GAS CHROMATOGRAPH ANALYSES				
Methyl-t-Butyl Ether	N.D.	ug/l	50	602
PURGEABLE AROMATICS				
Benzene	N.D.	ug/l	1	602
Ethylbenzene	N.D.	ug/l	1	602
m-Xylene	N.D.	ug/l	1	602
o-Xylene	N.D.	ug/l	1	602
p-Xylene	N.D.	ug/l	1	602
Toluene	N.D.	ug/l	1	602
METALS				
Total Lead by ICP	N.D.	mg/l	0.1	6010

N.D. - Not Detected

The detection limit of MTBE was raised due to an interference peak that eluted close to MTBE.

**** Continued ****

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 6, 1994

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QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT	
GAS CHROMATOGRAPH ANALYSES		
PURGEABLE AROMATICS		
a,a,a-Trifluorotoluene	95	% Recovery Surrogate

Respectfully Submitted,
WRIGHT LAB SERVICES

Ian Milnes
Laboratory Manager

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Wright Lab SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 62287-2

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 6, 1994

DATA PACKAGE FORM

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/24/94 10:15 AM
Location	: STC 868 Drum Composite W	Date Received	: 06/27/94
Sample State	: Water Composite	Date Completed	: 07/06/94
Collector	: ELE	Discard Date	: 07/13/94

TEST/PARAMETER	PRESERVATIVE	TECH	ANALYSIS DATE	TIME
Methyl-t-Butyl Ether	Cool to 4 Deg. C	TEH	06/28/94	17:30
PURGEABLE AROMATICS	HCl to pH <2	TEH	06/28/94	17:30
Total Lead by ICP	HNO3 to pH <2	JLA	07/06/94	18:08
Digestion for Total Lead / ICP		CPK	06/29/94	

Wright Lab SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 12, 1994

LAB ANALYSIS REPORT

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/24/94 10:00 AM
Location	: STC-868 Drum Composite S	Date Received	: 06/27/94
Sample State	: Soil Composite	Date Completed	: 07/11/94
Collector	: ELE	Discard Date	: 07/26/94

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
GAS CHROMATOGRAPH ANALYSES				
Gasoline Range Organics/BTEX				
Benzene	N.D.	ug/kg	5	API
Ethylbenzene	N.D.	ug/kg	5	API
m-Xylene	N.D.	ug/kg	5	API
o-Xylene	N.D.	ug/kg	5	API
p-Xylene	N.D.	ug/kg	5	API
Toluene	N.D.	ug/kg	5	API
TPH-Gasoline Range Organics	N.D.	ug/kg	500	API
Benzene	< 6.6	ug/kg	Dry Weight	
Ethylbenzene	< 6.6	ug/kg	Dry Weight	
m-Xylene	< 6.6	ug/kg	Dry Weight	
o-Xylene	< 6.6	ug/kg	Dry Weight	
p-Xylene	< 6.6	ug/kg	Dry Weight	
Toluene	< 6.6	ug/kg	Dry Weight	
TPH-Gasoline Range Organics	< 660	ug/kg	Dry Weight	

**** Continued ****

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 12, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
GAS CHROMATOGRAPH MASS SPEC.				
ACID/BASE/NEUTRAL COMPOUNDS				
3,3'-Dichlorobenzidine	N.D.	mg/kg	0.8	8270
Acenaphthene	N.D.	mg/kg	0.2	8270
Acenaphthylene	N.D.	mg/kg	0.2	8270
Anthracene	N.D.	mg/kg	0.2	8270
Benzidine	N.D.	mg/kg	0.8	8270
Benzo(a)anthracene	N.D.	mg/kg	0.2	8270
Benzo(a)pyrene	N.D.	mg/kg	0.2	8270
Benzo(b + k)fluoranthene	N.D.	mg/kg	0.2	8270
Benzo(b)fluoranthene	N.D.	mg/kg	0.2	8270
Benzo(g,h,i)perylene	N.D.	mg/kg	0.4	8270
Benzo(k)fluoranthene	N.D.	mg/kg	0.2	8270
4-Bromophenyl Phenyl Ether	N.D.	mg/kg	0.4	8270
Butylbenzyl Phthalate	N.D.	mg/kg	0.2	8270
Indeno(1,2,3-cd)pyrene	N.D.	mg/kg	0.4	8270
Bis(2-chloroethoxy)methane	N.D.	mg/kg	0.2	8270
Bis(2-chloroethyl)ether	N.D.	mg/kg	0.2	8270
Bis(2-chloroisopropyl)ether	N.D.	mg/kg	0.2	8270
2-Chloronaphthalene	N.D.	mg/kg	0.2	8270
2-Chlorophenol	N.D.	mg/kg	0.2	8270
4-Chlorophenyl Phenyl Ether	N.D.	mg/kg	0.2	8270
Chrysene	N.D.	mg/kg	0.2	8270
Di-n-Butylphthalate	N.D.	mg/kg	0.2	8270
Di-n-octylphthalate	N.D.	mg/kg	0.4	8270
Dibenzo(a,h)anthracene	N.D.	mg/kg	0.4	8270
1,2-Dichlorobenzene	N.D.	mg/kg	0.2	8270
1,3-Dichlorobenzene	N.D.	mg/kg	0.2	8270
1,4-Dichlorobenzene	N.D.	mg/kg	0.2	8270
2,4-Dichlorophenol	N.D.	mg/kg	0.2	8270
Diethylphthalate	N.D.	mg/kg	0.4	8270
2,4-Dimethylphenol	N.D.	mg/kg	0.2	8270
Dimethylphthalate	N.D.	mg/kg	0.4	8270
2-Methyl-4,6-Dinitrophenol	N.D.	mg/kg	0.8	8270

**** Continued ****

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ENVIRONMENTAL TESTING LABORATORIES

July 12, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
2,4-Dinitrophenol	N.D.	mg/kg	0.8	8270
2,4-Dinitrotoluene	N.D.	mg/kg	0.4	8270
2,6-Dinitrotoluene	N.D.	mg/kg	0.4	8270
1,2-Diphenylhydrazine	N.D.	mg/kg	0.4	8270
Bis(2-ethylhexyl)phthalate	N.D.	mg/kg	0.4	8270
Fluoranthene	N.D.	mg/kg	0.2	8270
Fluorene	N.D.	mg/kg	0.2	8270
Hexachlorobenzene	N.D.	mg/kg	0.2	8270
Hexachlorobutadiene	N.D.	mg/kg	0.2	8270
Hexachlorocyclopentadiene	N.D.	mg/kg	2.0	8270
Hexachloroethane	N.D.	mg/kg	0.2	8270
Isophorone	N.D.	mg/kg	0.2	8270
4-Chloro-3-Methylphenol	N.D.	mg/kg	0.2	8270
N-Nitrosodi-n-propylamine	N.D.	mg/kg	0.2	8270
N-Nitrosodimethylamine	N.D.	mg/kg	0.2	8270
N-Nitrosodiphenylamine	N.D.	mg/kg	0.2	8270
Naphthalene	N.D.	mg/kg	0.2	8270
Nitrobenzene	N.D.	mg/kg	0.2	8270
2-Nitrophenol	N.D.	mg/kg	0.2	8270
4-Nitrophenol	N.D.	mg/kg	0.8	8270
Pentachlorophenol	N.D.	mg/kg	0.4	8270
Phenanthrene	N.D.	mg/kg	0.2	8270
Phenol	N.D.	mg/kg	0.4	8270
Pyrene	N.D.	mg/kg	0.2	8270
1,2,4-Trichlorobenzene	N.D.	mg/kg	0.2	8270
2,4,6-Trichlorophenol	N.D.	mg/kg	0.2	8270
3,3'-Dichlorobenzidine	< 1.1	mg/kg	Dry Weight	
Acenaphthene	< 0.27	mg/kg	Dry Weight	
Acenaphthylene	< 0.27	mg/kg	Dry Weight	
Anthracene	< 0.27	mg/kg	Dry Weight	
Benzidine	< 1.1	mg/kg	Dry Weight	
Benzo(a)anthracene	< 0.27	mg/kg	Dry Weight	
Benzo(a)pyrene	< 0.27	mg/kg	Dry Weight	
Benzo(b + k)fluoranthene	< 0.27	mg/kg	Dry Weight	
Benzo(b)fluoranthene	< 0.27	mg/kg	Dry Weight	

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 12, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
Benzo(g,h,i)perylene	< 0.53	mg/kg	Dry Weight	
Benzo(k)fluoranthene	< 0.27	mg/kg	Dry Weight	
4-Bromophenyl Phenyl Ether	< 0.53	mg/kg	Dry Weight	
Butylbenzyl Phthalate	< 0.27	mg/kg	Dry Weight	
Indeno(1,2,3-cd)pyrene	< 0.53	mg/kg	Dry Weight	
Bis(2-chloroethoxy)methane	< 0.27	mg/kg	Dry Weight	
Bis(2-chloroethyl)ether	< 0.27	mg/kg	Dry Weight	
Bis(2-chloroisopropyl)ether	< 0.27	mg/kg	Dry Weight	
2-Chloronaphthalene	< 0.27	mg/kg	Dry Weight	
2-Chlorophenol	< 0.27	mg/kg	Dry Weight	
4-Chlorophenyl Phenyl Ether	< 0.27	mg/kg	Dry Weight	
Chrysene	< 0.27	mg/kg	Dry Weight	
Di-n-Butylphthalate	< 0.27	mg/kg	Dry Weight	
Di-n-octylphthalate	< 0.53	mg/kg	Dry Weight	
Dibenzo(a,h)anthracene	< 0.53	mg/kg	Dry Weight	
1,2-Dichlorobenzene	< 0.27	mg/kg	Dry Weight	
1,3-Dichlorobenzene	< 0.27	mg/kg	Dry Weight	
1,4-Dichlorobenzene	< 0.27	mg/kg	Dry Weight	
2,4-Dichlorophenol	< 0.27	mg/kg	Dry Weight	
Diethylphthalate	< 0.53	mg/kg	Dry Weight	
2,4-Dimethylphenol	< 0.27	mg/kg	Dry Weight	
Dimethylphthalate	< 0.53	mg/kg	Dry Weight	
2-Methyl-4,6-Dinitrophenol	< 1.1	mg/kg	Dry Weight	
2,4-Dinitrophenol	< 1.1	mg/kg	Dry Weight	
2,4-Dinitrotoluene	< 0.53	mg/kg	Dry Weight	
2,6-Dinitrotoluene	< 0.53	mg/kg	Dry Weight	
1,2-Diphenylhydrazine	< 0.53	mg/kg	Dry Weight	
Bis(2-ethylhexyl)phthalate	< 0.53	mg/kg	Dry Weight	
Fluoranthene	< 0.27	mg/kg	Dry Weight	
Fluorene	< 0.27	mg/kg	Dry Weight	
Hexachlorobenzene	< 0.27	mg/kg	Dry Weight	
Hexachlorobutadiene	< 0.27	mg/kg	Dry Weight	
Hexachlorocyclopentadiene	< 2.7	mg/kg	Dry Weight	
Hexachloroethane	< 0.27	mg/kg	Dry Weight	
Isophorone	< 0.27	mg/kg	Dry Weight	
4-Chloro-3-Methylphenol	< 0.27	mg/kg	Dry Weight	

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 12, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
N-Nitrosodi-n-propylamine	< 0.27	mg/kg	Dry Weight	
N-Nitrosodimethylamine	< 0.27	mg/kg	Dry Weight	
N-Nitrosodiphenylamine	< 0.27	mg/kg	Dry Weight	
Naphthalene	< 0.27	mg/kg	Dry Weight	
Nitrobenzene	< 0.27	mg/kg	Dry Weight	
2-Nitrophenol	< 0.27	mg/kg	Dry Weight	
4-Nitrophenol	< 1.1	mg/kg	Dry Weight	
Pentachlorophenol	< 0.53	mg/kg	Dry Weight	
Phenanthrene	< 0.27	mg/kg	Dry Weight	
Phenol	< 0.53	mg/kg	Dry Weight	
Pyrene	< 0.27	mg/kg	Dry Weight	
1,2,4-Trichlorobenzene	< 0.27	mg/kg	Dry Weight	
2,4,6-Trichlorophenol	< 0.27	mg/kg	Dry Weight	
VOLATILE ORGANICS BY GC/MS				
Benzene	N.D.	ug/kg	5	8260
Bromoform	N.D.	ug/kg	5	8260
Carbon Tetrachloride	N.D.	ug/kg	5	8260
Chlorobenzene	N.D.	ug/kg	5	8260
Chlorodibromomethane	N.D.	ug/kg	5	8260
Chloroethane	N.D.	ug/kg	10	8260
2-Chloroethylvinyl Ether	N.D.	ug/kg	50	8260
Chloroform	N.D.	ug/kg	5	8260
Dichlorobromomethane	N.D.	ug/kg	5	8260
1,1-Dichloroethane	N.D.	ug/kg	5	8260
1,2-Dichloroethane	N.D.	ug/kg	5	8260
1,1-Dichloroethene	N.D.	ug/kg	5	8260
cis-1,2-Dichloroethene	25	ug/kg	5	8260
trans-1,2-Dichloroethene	7	ug/kg	5	8260
1,2-Dichloropropane	N.D.	ug/kg	5	8260
1,3-Dichloropropene	N.D.	ug/kg	5	8260
Ethylbenzene	N.D.	ug/kg	5	8260
Methyl Bromide	N.D.	ug/kg	10	8260
Methyl Chloride	N.D.	ug/kg	10	8260
Methylene Chloride	N.D.	ug/kg	10	8260

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 12, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
1,1,2,2-Tetrachloroethane	420	ug/kg	15	8260
Tetrachloroethene	22	ug/kg	5	8260
Toluene	N.D.	ug/kg	5	8260
1,1,1-Trichloroethane	N.D.	ug/kg	5	8260
1,1,2-Trichloroethane	N.D.	ug/kg	5	8260
Trichloroethene	78	ug/kg	5	8260
Vinyl Chloride	N.D.	ug/kg	10	8260
Benzene	< 6.6	ug/kg	Dry Weight	
Bromoform	< 6.6	ug/kg	Dry Weight	
Carbon Tetrachloride	< 6.6	ug/kg	Dry Weight	
Chlorobenzene	< 6.6	ug/kg	Dry Weight	
Chlorodibromomethane	< 6.6	ug/kg	Dry Weight	
Chloroethane	< 13	ug/kg	Dry Weight	
2-Chloroethylvinyl Ether	< 66	ug/kg	Dry Weight	
Chloroform	< 6.6	ug/kg	Dry Weight	
Dichlorobromomethane	< 6.6	ug/kg	Dry Weight	
1,1-Dichloroethane	< 6.6	ug/kg	Dry Weight	
1,2-Dichloroethane	< 6.6	ug/kg	Dry Weight	
1,1-Dichloroethene	< 6.6	ug/kg	Dry Weight	
cis-1,2-Dichloroethene	33	ug/kg	Dry Weight	
trans-1,2-Dichloroethene	9.3	ug/kg	Dry Weight	
1,2-Dichloropropane	< 6.6	ug/kg	Dry Weight	
1,3-Dichloropropene	< 6.6	ug/kg	Dry Weight	
Ethylbenzene	< 6.6	ug/kg	Dry Weight	
Methyl Bromide	< 13	ug/kg	Dry Weight	
Methyl Chloride	< 13	ug/kg	Dry Weight	
Methylene Chloride	< 13	ug/kg	Dry Weight	
1,1,2,2-Tetrachloroethane	560	ug/kg	Dry Weight	
Tetrachloroethene	29	ug/kg	Dry Weight	
Toluene	< 6.6	ug/kg	Dry Weight	
1,1,1-Trichloroethane	< 6.6	ug/kg	Dry Weight	
1,1,2-Trichloroethane	< 6.6	ug/kg	Dry Weight	
Trichloroethene	100	ug/kg	Dry Weight	
Vinyl Chloride	< 13	ug/kg	Dry Weight	

**** Continued ****

34 Dogwood Lane • Middletown, PA 17057
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Philadelphia • (215) 640-1323
Maryland • (410) 244-8889

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 12, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
METALS				
Mercury, TCLP Leachate	N.D.	mg/l	0.0005	7471
Silver, TCLP Leachate	N.D.	mg/l	0.04	7760
TCLP Metals by ICP				
Arsenic	N.D.	mg/l	0.007	6010
Selenium	N.D.	mg/l	0.055	6010
TCLP Metals by ICP				
Barium	N.D.	mg/l	0.55	6010
Cadmium	N.D.	mg/l	0.01	6010
Chromium	N.D.	mg/l	0.02	6010
Lead	N.D.	mg/l	0.11	6010
WATER QUALITY				
Total Solids	75.27	%	0.01	160.3
GAS CHROMATOGRAPH ANALYSES				
PESTICIDES/PCBs				
4,4'-DDD	N.D.	mg/kg	0.05	8080
4,4'-DDE	N.D.	mg/kg	0.05	8080
4,4'-DDT	N.D.	mg/kg	0.10	8080
Aldrin	N.D.	mg/kg	0.05	8080
alpha-BHC	N.D.	mg/kg	0.05	8080
alpha-Endosulfan	N.D.	mg/kg	0.05	8080
beta-BHC	N.D.	mg/kg	0.05	8080
beta-Endosulfan	N.D.	mg/kg	0.05	8080
Chlordane	N.D.	mg/kg	0.2	8080
delta-BHC	N.D.	mg/kg	0.05	8080
Dieldrin	N.D.	mg/kg	0.05	8080
Endosulfan Sulfate	N.D.	mg/kg	0.10	8080
Endrin	N.D.	mg/kg	0.05	8080

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 12, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
Endrin Aldehyde	N.D.	mg/kg	0.05	8080
gamma-BHC (Lindane)	N.D.	mg/kg	0.05	8080
Heptachlor	N.D.	mg/kg	0.05	8080
Heptachlor Epoxide	N.D.	mg/kg	0.05	8080
PCB-1016	N.D.	mg/kg	1.0	8080
PCB-1221	N.D.	mg/kg	1.0	8080
PCB-1232	N.D.	mg/kg	1.0	8080
PCB-1242	N.D.	mg/kg	1.0	8080
PCB-1248	N.D.	mg/kg	1.0	8080
PCB-1254	N.D.	mg/kg	1.0	8080
PCB-1260	N.D.	mg/kg	1.0	8080
Toxaphene	N.D.	mg/kg	0.50	8080
4,4'-DDD	< 0.066	mg/kg	Dry Weight	
4,4'-DDE	< 0.066	mg/kg	Dry Weight	
4,4'-DDT	< 0.13	mg/kg	Dry Weight	
Aldrin	< 0.066	mg/kg	Dry Weight	
alpha-BHC	< 0.066	mg/kg	Dry Weight	
alpha-Endosulfan	< 0.066	mg/kg	Dry Weight	
beta-BHC	< 0.066	mg/kg	Dry Weight	
beta-Endosulfan	< 0.066	mg/kg	Dry Weight	
Chlordane	< 0.27	mg/kg	Dry Weight	
delta-BHC	< 0.066	mg/kg	Dry Weight	
Dieldrin	< 0.066	mg/kg	Dry Weight	
Endosulfan Sulfate	< 0.13	mg/kg	Dry Weight	
Endrin	< 0.066	mg/kg	Dry Weight	
Endrin Aldehyde	< 0.066	mg/kg	Dry Weight	
gamma-BHC (Lindane)	< 0.066	mg/kg	Dry Weight	
Heptachlor	< 0.066	mg/kg	Dry Weight	
Heptachlor Epoxide	< 0.066	mg/kg	Dry Weight	
PCB-1016	< 1.3	mg/kg	Dry Weight	
PCB-1221	< 1.3	mg/kg	Dry Weight	
PCB-1232	< 1.3	mg/kg	Dry Weight	
PCB-1242	< 1.3	mg/kg	Dry Weight	
PCB-1248	< 1.3	mg/kg	Dry Weight	
PCB-1254	< 1.3	mg/kg	Dry Weight	

**** Continued ****

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Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 12, 1994

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
PCB-1260	< 1.3	mg/kg	Dry Weight	
Toxaphene	< 0.66	mg/kg	Dry Weight	
TPH - Diesel Range Organics	26	mg/kg	5.3	8015M
TPH - Diesel Range Organics	35	mg/kg	Dry Weight	

Water Quality/Prep

TCLP LEACHATE PREPARATION		
Extraction Fluid Used	1	1311
Final pH of TCLP Extract	5.23	1311
Preliminary pH with DI Water	7.00	1311
Preliminary pH with HCl	1.36	1311

N.D. - Not Detected

Hydrocarbons later eluting than the typical diesel fuel fingerprint were detected during the diesel range organics analysis. The result was calculated using a diesel range organics standard. The result should be considered as an estimate of the true concentration of these later eluting hydrocarbons.

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT

GAS CHROMATOGRAPH ANALYSES

**** Continued ****

Wright Lab SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

July 12, 1994

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT	
Gasoline Range Organics/BTEX		
a,a,a-Trifluorotoluene	87	% Recovery Surrogate
GAS CHROMATOGRAPH MASS SPEC.		
VOLATILE ORGANICS BY GC/MS		
Bromofluorobenzene	84	% Recovery Surrogate
1,2-Dichloroethane-d4	88	% Recovery Surrogate
Toluene-d8	104	% Recovery Surrogate
ACID/BASE/NEUTRAL COMPOUNDS		
2-Fluorobiphenyl	72	% Recovery Surrogate
2-Fluorophenol	65	% Recovery Surrogate
Nitrobenzene-d5	75	% Recovery Surrogate
Phenol-d5	67	% Recovery Surrogate
Terphenyl-d14	90	% Recovery Surrogate
2,4,6-Tribromophenol	88	% Recovery Surrogate
GAS CHROMATOGRAPH ANALYSES		
PESTICIDES/PCBs		
Decachlorobiphenyl	87	% Recovery Surrogate
2,4,5,6-Tetrachloro-m-xylene	90	% Recovery Surrogate

Respectfully Submitted,
WRIGHT LAB SERVICES

Ian Milnes
Laboratory Manager

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Wright Lab SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Sample # 62287-1

ATTN: Mike Iannicelli
R. E. Wright Associates Inc.
3240 Schoolhouse Road
Middletown PA 17057

July 12, 1994

DATA PACKAGE FORM

Job Name	: USN-Camp LeJeune NC	Customer PO#	:
Job Number	: 94350-99-99	Date Sampled	: 06/24/94 10:00 AM
Location	: STC-868 Drum Composite S	Date Received	: 06/27/94
Sample State	: Soil Composite	Date Completed	: 07/11/94
Collector	: ELE	Discard Date	: 07/26/94

TEST/PARAMETER	PRESERVATIVE	TECH	ANALYSIS DATE	TIME
Gasoline Range Organics/BTEX	Cool to 4 Deg. C	TEH	06/28/94	14:26
ACID/BASE/NEUTRAL COMPOUNDS	Cool to 4 Deg. C	CWW	07/05/94	10:10
Soxhlet Ext for Semi-Volatiles		DRP	06/29/94	
VOLATILE ORGANICS BY GC/MS	Cool to 4 Deg. C	CWW	07/05/94	07:14
Mercury, TCLP Leachate	Cool to 4 Deg. C	JLA	07/07/94	08:00
TCLP Leachate		JLA	07/06/94	16:00
Silver, TCLP Leachate	Cool to 4 Deg. C	JRG	07/07/94	05:00
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP Metals by ICP	Cool to 4 Deg. C	MMH	07/11/94	15:00
TCLP/Digestion for ICP Metals		CPK	07/01/94	
TCLP Metals by ICP	Cool to 4 Deg. C	JRG	07/11/94	21:46
TCLP/Digestion for ICP Metals		CPK	07/01/94	
Total Solids	Cool to 4 Deg. C	AJL	06/30/94	20:15
PESTICIDES/PCBs	Cool to 4 Deg. C	KKF	07/06/94	07:21
Pest/PCB extraction/soil		DRP	06/27/94	
TPH - Diesel Range Organics	Cool to 4 Deg. C	KKF	07/02/94	12:52
Petroleum Hydrocarbon Extractn		DRP	06/28/94	
TCLP LEACHATE PREPARATION		MCB	06/29/94	12:45
TCLP Leachate		BJC	06/28/94	

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PHONE ORDER TAKEN BY: _____

DATE ORDERED: ___/___/___

Wright Lab Services, Inc.
CHAIN OF CUSTODY RECORD

DATE REQUESTED: 062287 /

REPORT TO: REWAI	CONTACT MIKE IANNICELLI	PHONE NO.	SALESMAN
	PROJECT NAME USN - CAMP LEJEUNE	PROJECT NO. 94350	P.O. NO.
	DATE SAMPLED 6-24-94	SAMPLER(S) ELE	

BILL TO: REWAI

ANALYSES TO BE PERFORMED

	SAMPLE DESCRIPTION/LOCATION	TIME OF SAMPLING	TOTAL NO. OF CONTAINERS	TCLP 8 RCRA METALS	TPH GRO\DRO	8260 (VOCS)	8270 (SVOCS)	PCBs (8080)	602 BTEX + MTBE	TOTAL Pb 200.7	Tg per Gram							REMARKS
1 (Soil)	STC-868 Drum Comp S	10:00	5	X	X	X	X	X			✓							
2 (Water)	STC-868 Drum Comp W	10:15	4						X	X								
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

REMARKS:

Lab Disp

SHIPPING CARRIER:

SHIPPING TICKET NUMBER:

CHAIN-OF-CUSTODY SEAL: INTACT BROKEN ABSENT

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Eric L. Eyler	6-24-94	14:00	Dary Palmer	6/25/94	11:00			
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY: GB	DATE 6/27	TIME 1737

APPENDIX E

Soil/Water Disposal Documentation

NOBLE
OIL SERVICES

INDUSTRIAL SERVICES DIVISION

25304

1-800-662-5364 5617 CLYDE RHYNE DR. SANFORD, N.C. 27330

FOR EMERGENCY RESPONSE:
Spill, Leak, Fire, Accident
24 HRS. PER DAY, 7 DAYS PER WEEK

EPA ID# NCD 9861-72476

DATE 12/08/94

TRUCK# 55

16475

GENERATOR

CUSTOMER CAMP LEJEUNE

ADDRESS HWY 24

JACKSONVILLE, NC ZIP

CONTACT MARK SPANGLER

PHONE( ) 910-451-5068

START TIME 1200 STOP TIME 1750

BILL TO:

CUSTOMER R.E. WRIGHT ASSOC. INC

ADDRESS #18 KOGER EXC. CENTER, SUITE/C

NORFOLK, VA. ZIP 23502

CONTACT MICHAEL W. LANHECHELLT

PHONE( ) 804-461-6906

P.O.#

DRUMS/ GAL.	MATERIAL	UNIT PRICE	SRV. CHARGE	TOTAL
3	PETROLEUM OIL MIXTURE, N.O.S. (USED OIL/WATER MIXTURE), COMBUSTIBLE LIQUID, UN 1270, PG III			
10	SLUDGE/NON-HAZARDOUS SOLIDS SOIL (HEAVY SOLIDS)			
	GASOLINE, CLASS 3, UN 1203, PG II (GASOLINE) FOR RECOVERY/RECYCLING			
	GASOLINE/MIXTURE, CLASS 3, UN 1203, PG II (GASOLINE/WATER MIXTURE) FROM U.S.T.'S OR EXEMPT			
	FUEL OIL MIXTURE, COMBUSTIBLE LIQUID, NA 1993, PG III (FUEL OIL/WATER MIX)			
	270 MILES PER MILE No Charge			
	5.5 HOURS - delay due			

TERMS: PAYABLE UPON RECEIPT To Govt. personnel TOTAL DUE

PROFILE NUMBER

Generators Certification:

I certify that the materials above are accurately described, classified, packaged, marked and labeled, and are in proper condition for transport according to applicable state, EPA, and D.O.T, regulations. Furthermore, I have no knowledge of any hazardous waste contained or mixed with the material that is to be transported. I, the generator, expressly agree and promise to hold Noble Oil Services, Inc. and all its officers and employees free from and otherwise indemnify the same against any and all penalties and other liability resulting from the transfer of such materials under this manifest.

Authorized Customer Agent (Sign) x N/A / (Print) N/A

Noble Oil Services Agent (Sign) x / (Print) STEVE PETTUS

Job Description

NO OHLE ON SITE TO SEW @ 1750 12/8/94

Materials Used 4 TIRES STC 868 & 45 PICKED-UP. MIDWAY PARK WAS OFFLOADED

White - Office Copy • Canary - Office Copy • Pink - Customer Copy • Gold - Driver's Copy

APPROVAL REQUIRED