



UNITED STATES MARINE CORPS
NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS DIVISION
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542-5001



IN REPLY REFER TO:

6241/2

NREAD

14 Jul 87

From: Director, Natural Resources and Environmental Affairs
Division, Marine Corps Base, Camp Lejeune
To: Base Maintenance Officer, Marine Corps Base, Camp Lejeune
Subj: WASTE OIL STORAGE TANKS; ANALYSIS OF

Ref: (a) BO 6240.5

Encl: (1) JTC Environmental Consultants, Inc., Report #87-247
(2) JTC Environmental Consultants, Inc., Report #87-247
Addendum

1. On 28 May 1987, the four waste oil storage tanks at Holcomb Boulevard, two of the three tanks at Marine Corps Air Station, New River, and three of the six tanks at Tarawa Terrace, were sampled by NREAD. Sample numbers 87-49 through 87-52 are the Holcomb Boulevard tanks S-888, S-889, S-890, and S-891, respectively. Sample number 87-53 is the Marine Corps Air Station, New River tank in the middle and sample number 87-54 is the Marine Corps Air Station, New River tank closest to the crash crew. Sample numbers 87-55 through 87-57 are the tanks at Tarawa Terrace, STT-61, STT-62, and STT-63 respectively.

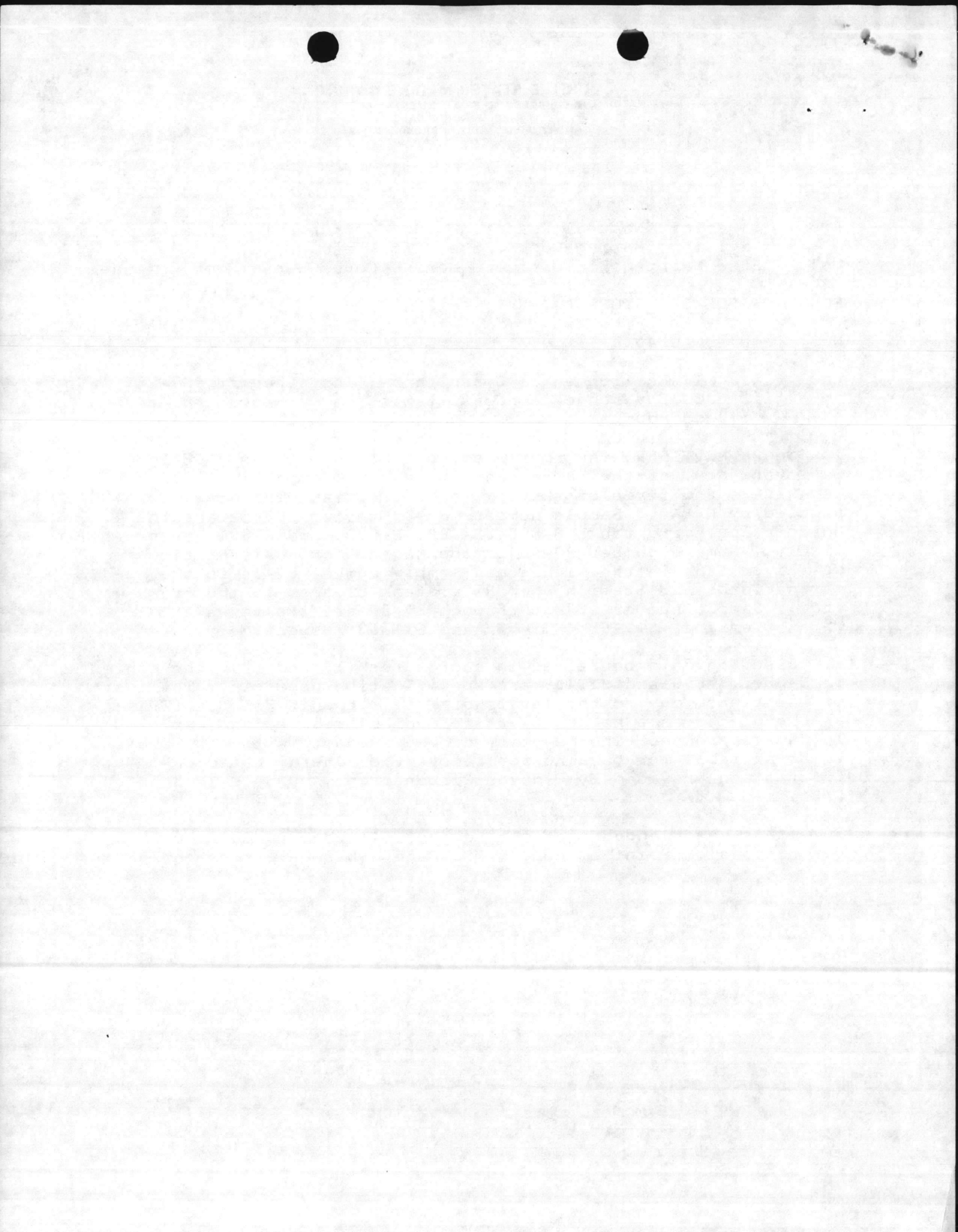
2. Based on data contained in enclosures (1) and (2), the contents of S-888, S-890 and STT-63 are specification used oil. The rest of the tanks, due to the levels of Total Organic Halogen (TOX), are regulated as a hazardous waste fuel by regulations outlined in the reference. The majority of the subject waste oil appears to be suitable for burning for recovery of energy based on information provided by Oldover Corporation, Aquadale, North Carolina.

3. It is recommended that the subject oil be turned in to DRMO for disposal. Point of contact is Danny Sharpe, extension 2083.

J. I. WOOTEN

Copy to:
DRMO
AC/S, FAC
EC&MS (2)

FOR ENCLOSURES SEE ~~HB TANKS~~
ATTACHED



Partial Results

JTC DATA REPORT # 87-247

LABORATORY ANALYSIS ON NAVAL SAMPLES

CONTRACT #N62470-86-C-8754

CASE # 42


PREPARED FOR:

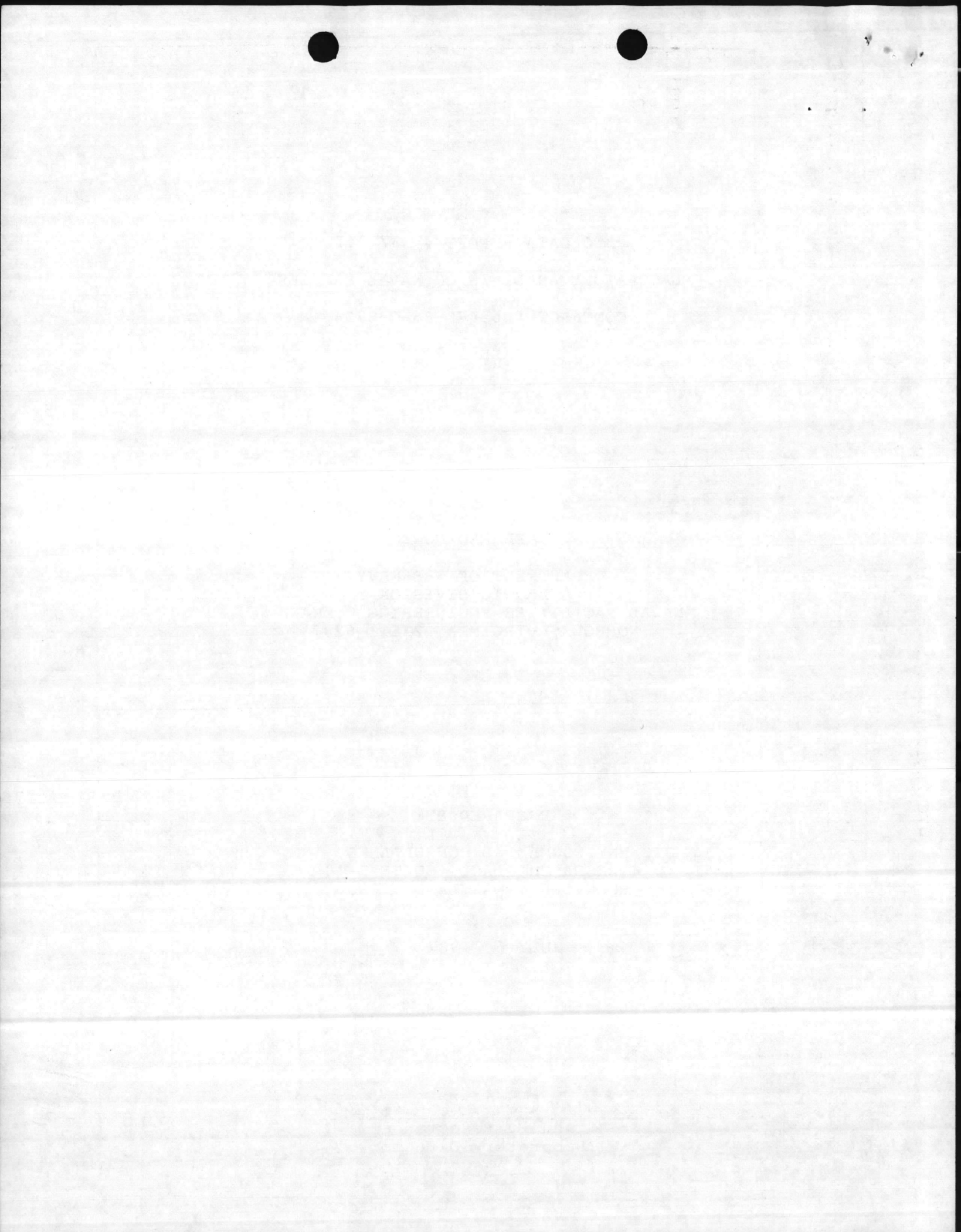
DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511-6287

PREPARED BY:

JTC ENVIRONMENTAL CONSULTANTS, INC.
4 RESEARCH PLACE, SUITE L-10
ROCKVILLE, MARYLAND 20850

JULY 6, 1987


Ann E. Rosecrance
Laboratory Director



Location: Camp Lejeune Date of Receipt: 6-5-87 Turnaround: routineDate: 7-6-87 Case No. 42 to Naval Facilities Engineering Command, Norfolk, VirginiaJTC Data Report No. 87-247 Table 1

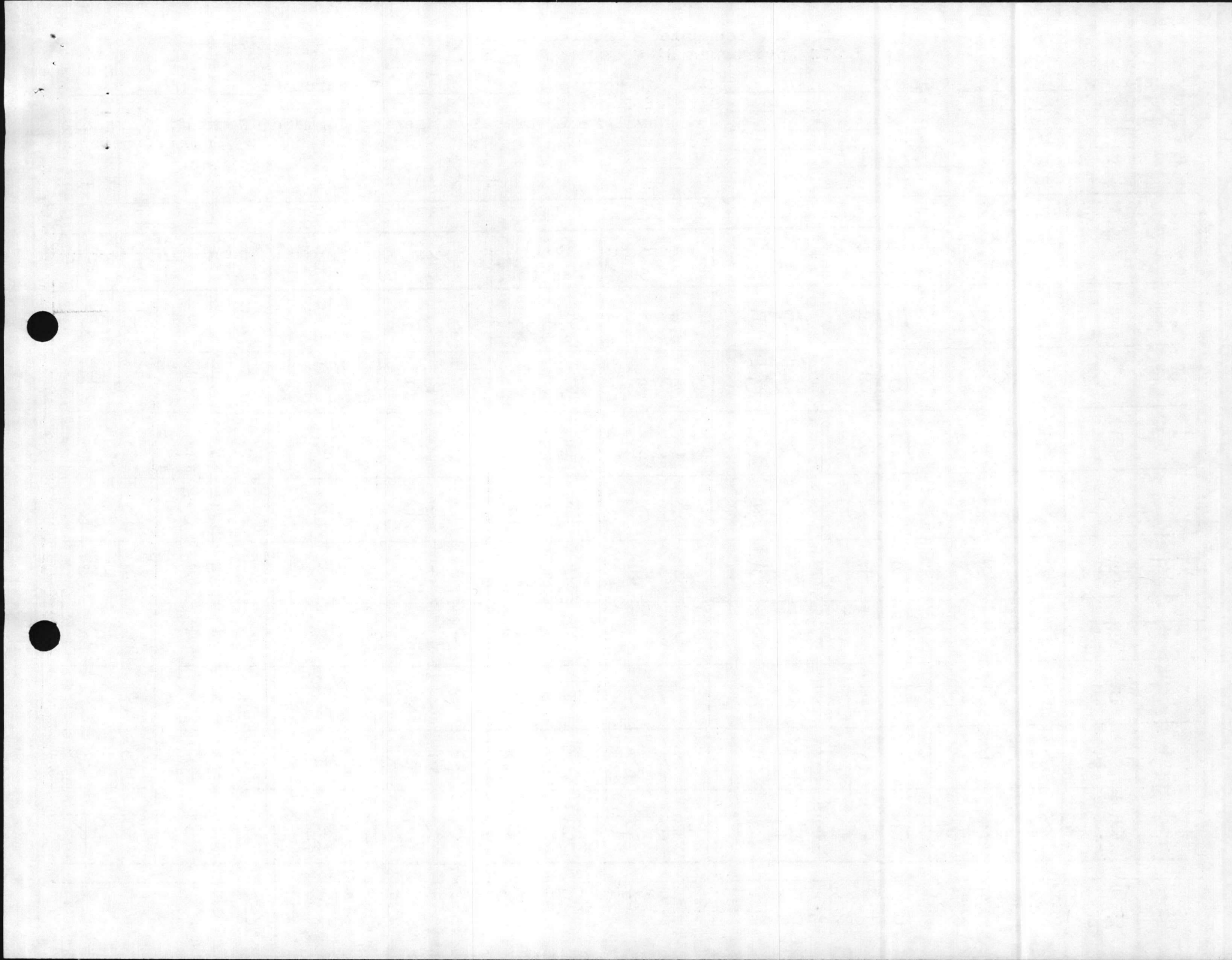
Oil Phase

NAVY SAMPLE ID	JTC SAMPLE ID	ANALYSIS PARAMETER							
		Water %	BS+W %	Viscosity @100°F, SUS	BTU per lb.	TOX %	Flashpoint °C	Sp. Gravity ^a g/ml	Sp. Gravity ^b g/ml
87-49	61-0305	19.5	19.5	93.6	15,550	<0.05	N.O. boiled at 70°	0.73	0.92
87-50	61-0306	13.5	20.0	100.8	16,500	0.20	N.O. boiled at 50°	0.77*	—
87-51	61-0307	17.6	24.0	103.8	15,500	<0.05	N.O. boiled at 45°	0.72	0.96
87-52	61-0308	0.76	0.80	53.0	19,300	0.12	35	0.73	0.88
87-53	61-0309	8.4	13.5	100.8	17,500	0.16	40	0.73	0.93
87-54	61-0310	8.1	13.0	56.1	17,500	0.25	35	0.75	0.88
87-55	61-0311	18.4	23.0	97.0	15,000	0.13	N.O. boiled at 45°	0.76	0.98
87-56	61-0312	12.0	17.5	104.6	16,650	0.22	40	0.73	0.89
87-57	61-0313	19.6	22.0	120.2	15,100	<0.05	N.O. boiled at 45°	0.76	0.98

N.O. = not observed

a = top layer b = bottom layer

* sample consisted of only one oil layer



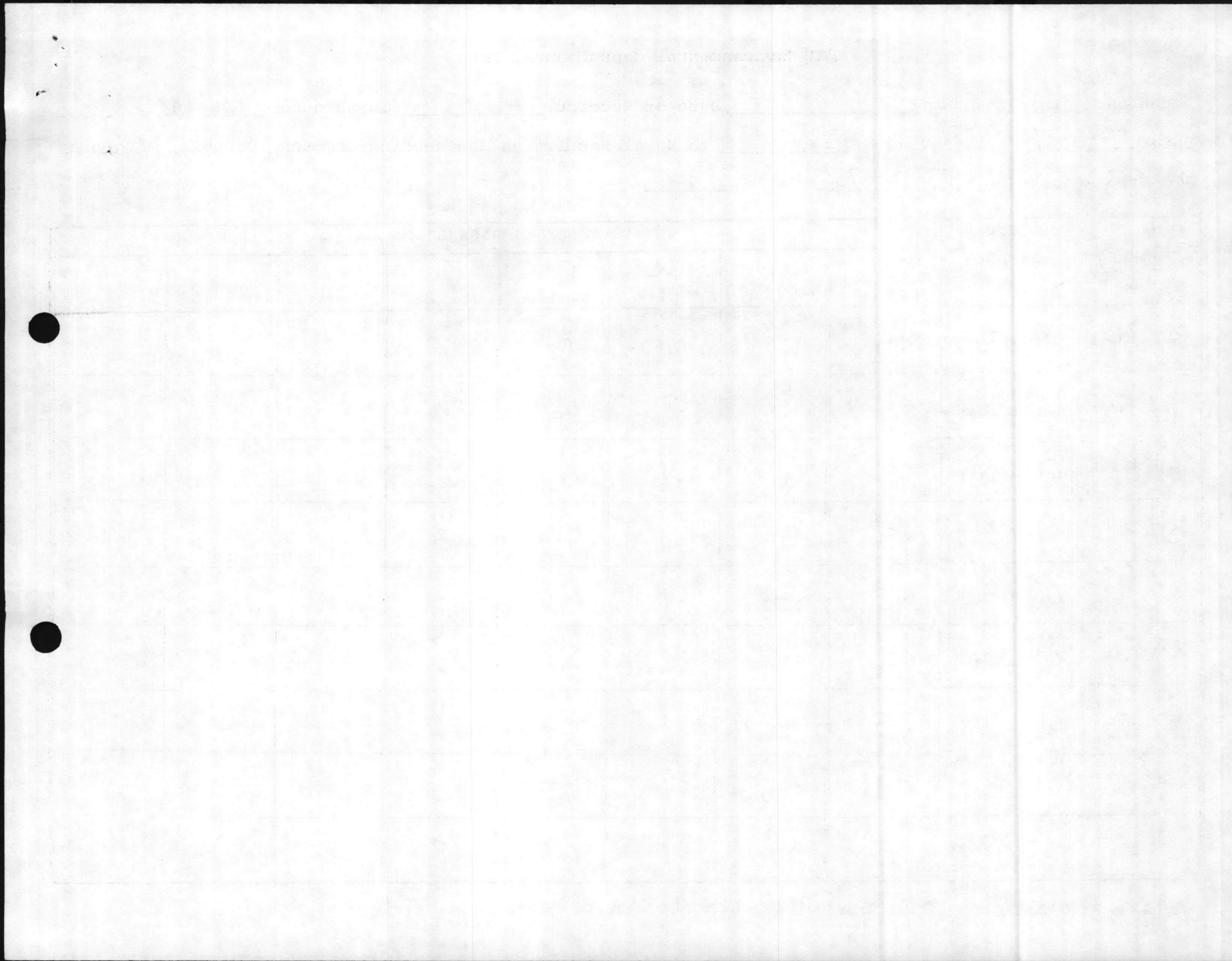
JTC Environmental Consultants, Inc.

Location: Camp Lejeune Date of Receipt: 6-5-87 Turnaround: routine
 Date: 7-6-87 Case No. 42 to Naval Facilities Engineering Command, Norfolk, Virginia
 JTC Data Report No. 87-247 Table 2

Oil Phase

NAVY SAMPLE ID	JTC SAMPLE ID	ANALYSIS PARAMETER						
		PCB ug/g	As mg/kg	Cd mg/kg	Cr mg/kg	Pb mg/kg		
87-49	61-0305	<5	NA	NA	NA	NA		
87-50	61-0306	<5	<5	<1	<0.75	30		
87-51	61-0307	<5	<5	1.1	2.2	59		
87-52	61-0308	<5	<5	<1	1.6	23		
87-53	61-0309	<5	<5	<1	1.6	35		
87-54	61-0310	<10	<5	<1	2.6	26		
87-55	61-0311	<5	<5	<1	1.3	26		
87-56	61-0312	<5	<5	<1	<0.75	8.2		
87-57	61-0313	<5	<5	<1	<0.75	28		

NA- not available, results will be reported in a report addendum



JTC Environmental Consultants, Inc.

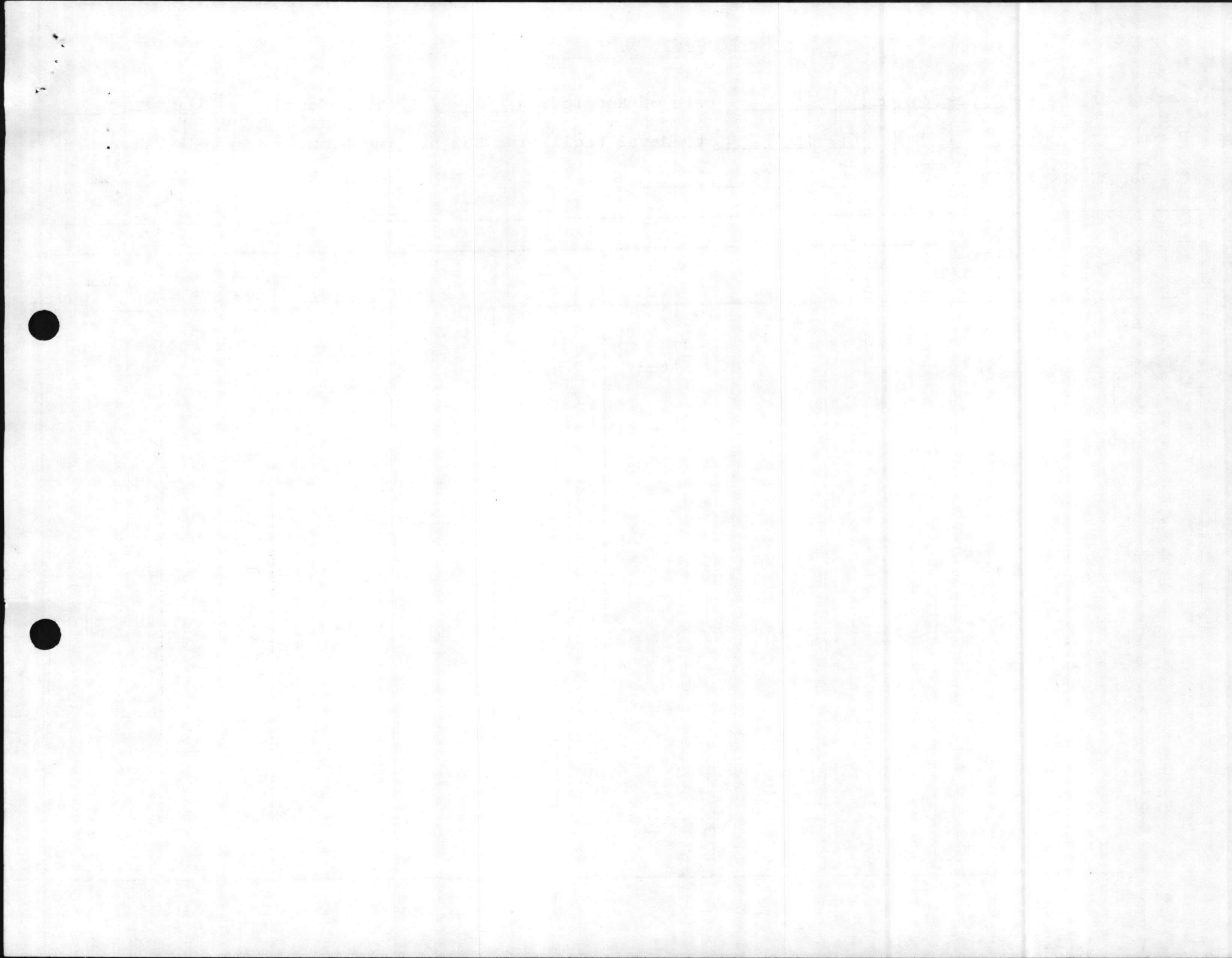
Location: Camp Lejeune Date of Receipt: 6-5-87 Turnaround: routine

Date: 7-6-87 Case No. 42 to Naval Facilities Engineering Command, Norfolk, Virginia

JTC Data Report No. 87-247 Table 3

Water Phase Composite

NAVY SAMPLE ID	JTC SAMPLE ID	ANALYSIS PARAMETER						
		TOX ug/L	Phenols mg/L	VOA	As ug/L	Cd ug/L	Cr ug/L	Pb ug/L
87-49/ 87-57 composite	61-0305/ 61-0313	814	6.8	See attached sheet	498	<20	72	155



J
T
C

Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

VOLATILE FRACTION

JTC SAMPLE # 61-0305/0313 Composite PROJECT NO. NF-61 #42
CLIENT SAMPLE # 87-49787-57 DATE RECEIVED 6/5/87
Composite
METHOD NO. 624 DETECTION LIMIT 500 ug/L

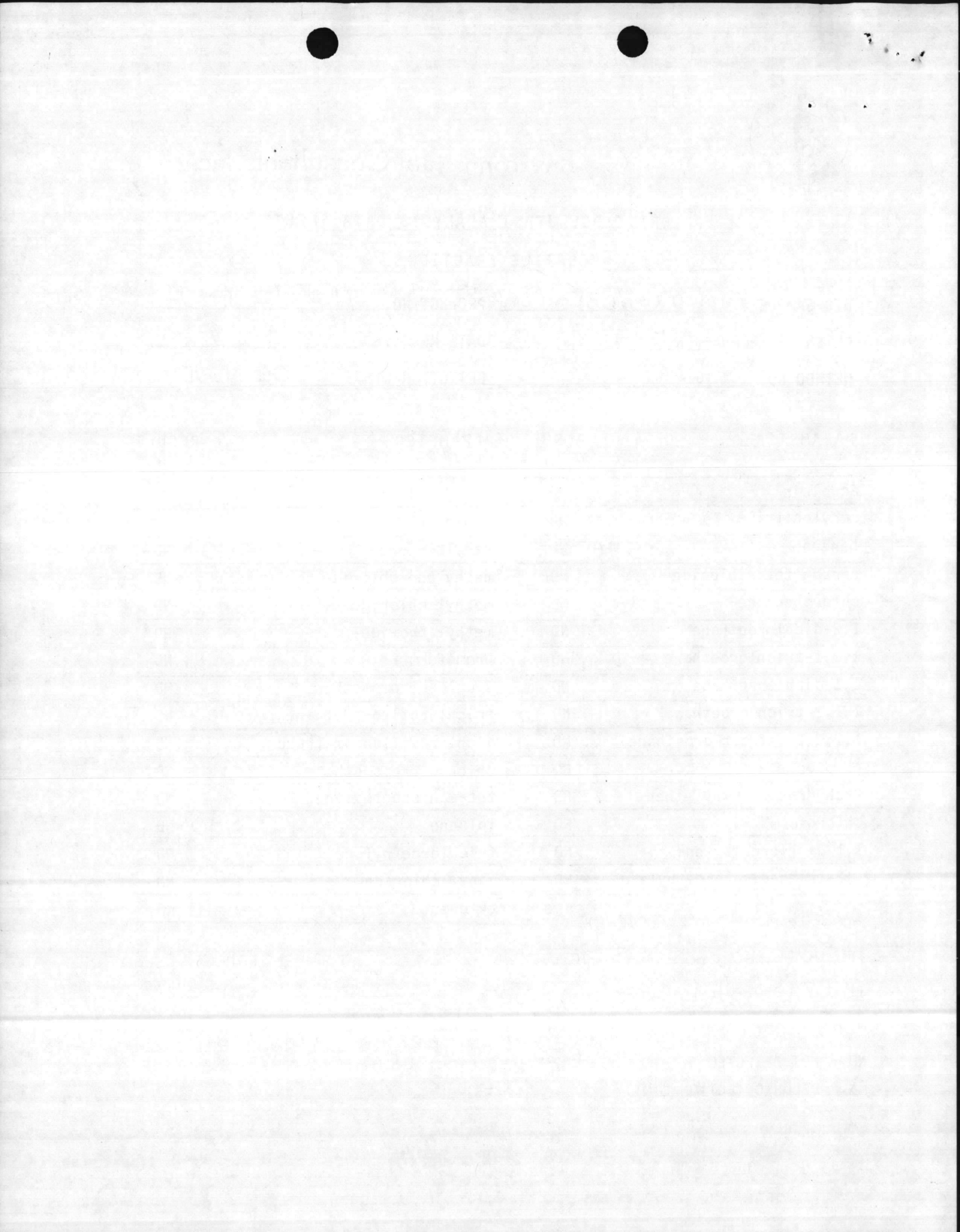
PARAMETER	RESULT ug/L	PARAMETER	RESULT ug/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	540 ND	ethylbenzene	110* ND
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	230* ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	990 ND
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylenes	620 ND

Acetone 70,000
MEK (2-Butanone) 13,000
MIBK (4-methyl-2-pentanone) 1200
1,1,2-Trichlorotrifluoroethane
(freon)

ND = NOT DETECTED

* = BELOW DETECTION LIMIT

present, concentration not available



Addendum

JTC DATA REPORT # 87-247

LABORATORY ANALYSIS ON NAVAL SAMPLES

CONTRACT #N62470-86-C-8754

CASE # 42

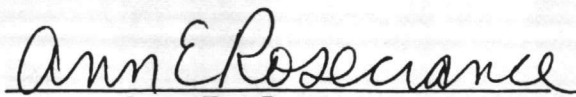
PREPARED FOR:

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511-6287

PREPARED BY:

JTC ENVIRONMENTAL CONSULTANTS, INC.
4 RESEARCH PLACE, SUITE L-10
ROCKVILLE, MARYLAND 20850

JULY 8, 1987


Ann E. Rosecrance
Laboratory Director

REC: JUL 19 3

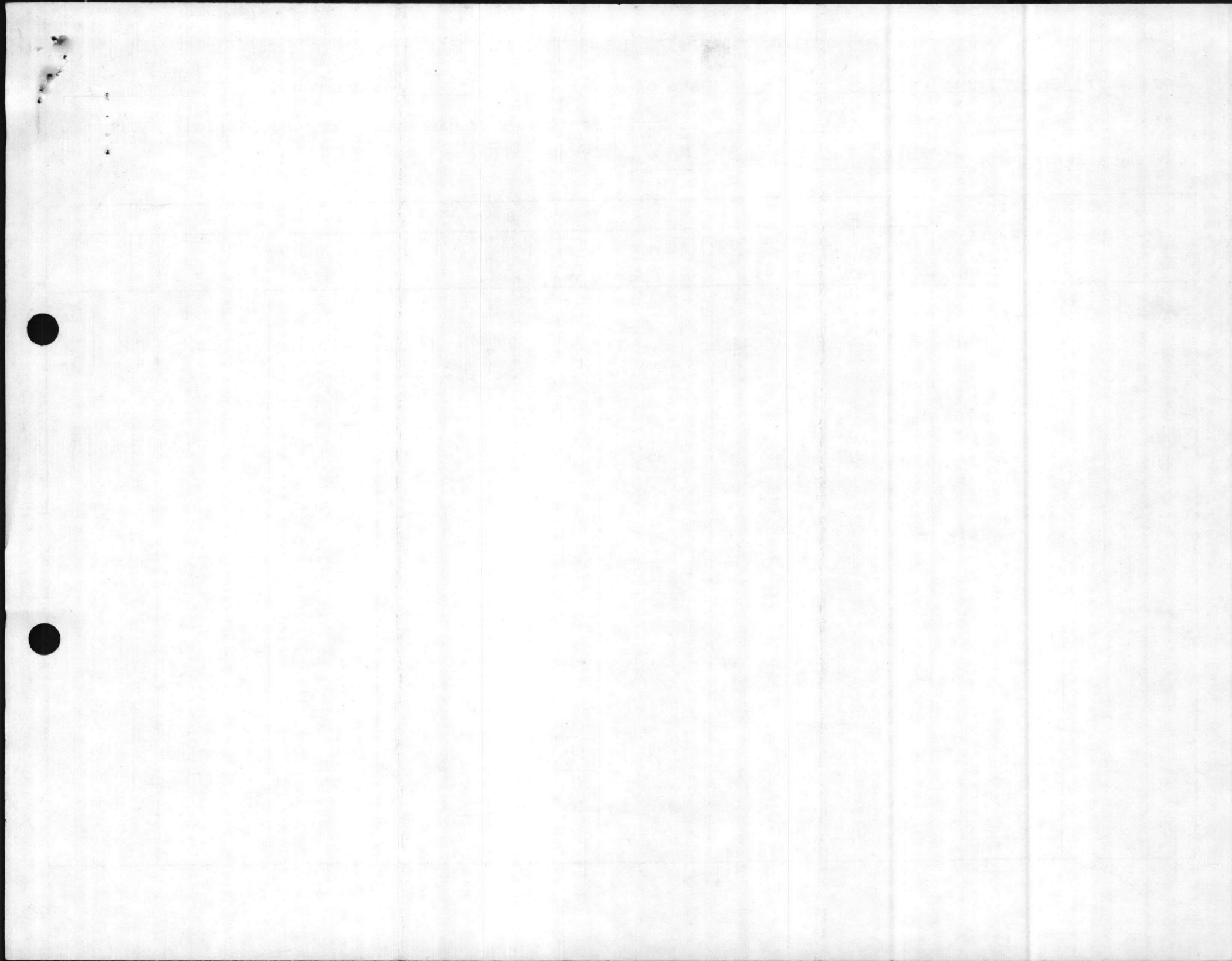
JTC Environmental Consultants, Inc.

Location: Camp Lejeune Date of Receipt: 6-5-87 Turnaround: routine

Date: 7-8-87 Case No. 42 Add to Naval Facilities Engineering Command, Norfolk, Virginia

JTC Data Report No. 87-247 Table 1

NAVY SAMPLE ID	JTC SAMPLE ID	ANALYSIS PARAMETER					
		As mg/kg	Cd mg/kg	Cr mg/kg	Pb mg/kg		
87-49	61-0305	<5	2.0	1.7	75		





UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO
6240
NREAD
29 April 1986

From: Commanding General, Marine Corps Base, Camp Lejeune
To: Defense Reutilization and Marketing Office, Camp Lejeune,
North Carolina

Subj: ANALYSIS OF WASTE OIL

Encl: (1) JTC Report No. 264

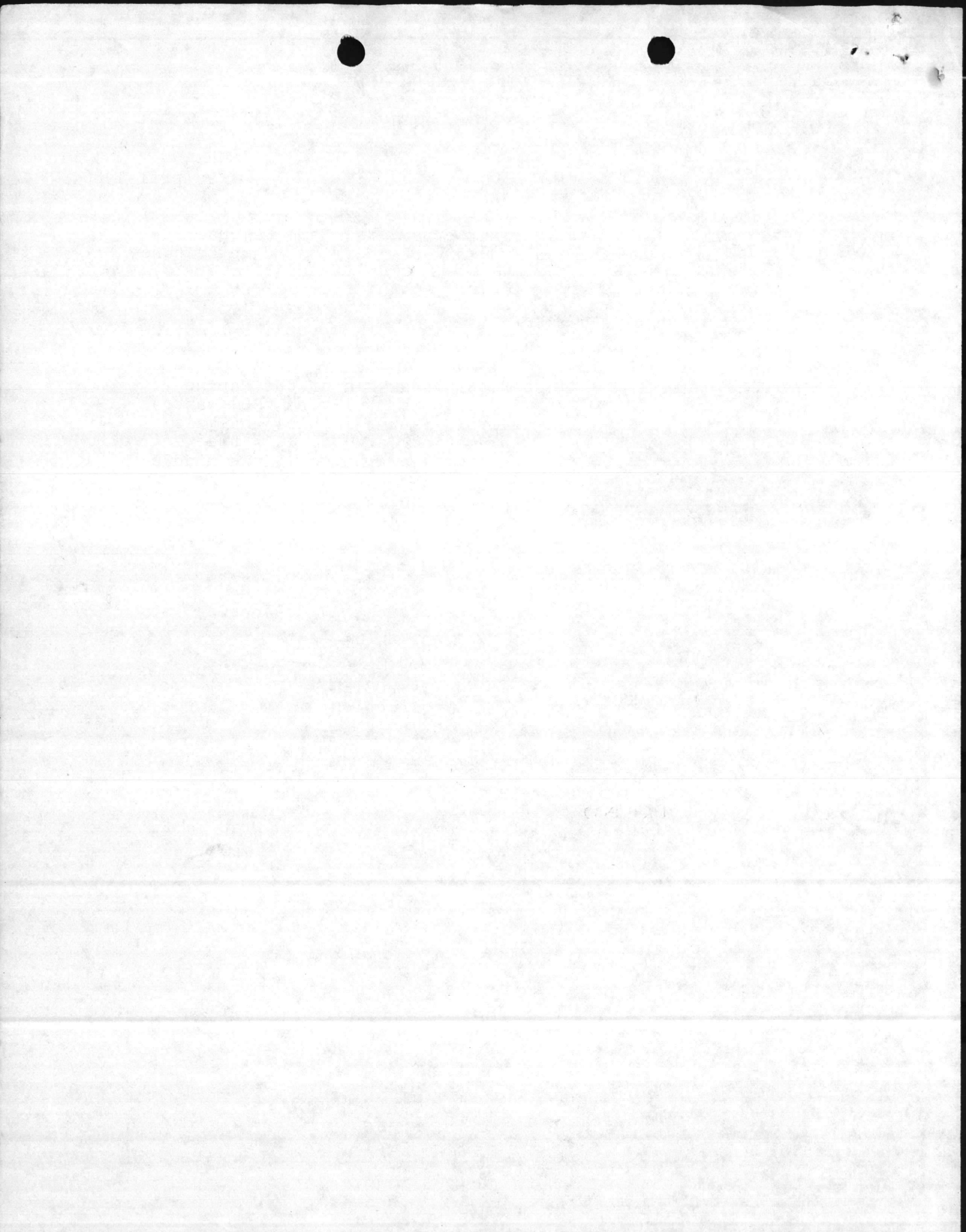
1. The enclosure is the most recent analysis of the Marine Corps Air Station, New River and Holcomb Boulevard (HB) waste oil tanks. The Air Station analysis is the initial analysis of the oil in those tanks. Air Station Tank No. 1 is the tank furthest from the crash crew. Tank No. 2 is the middle tank and Tank No. 3 is the nearest to the crash crew. The HB analysis provides additional information to that obtained when the oil was originally analyzed in June 1984. The sample numbers S-888 to S-891 coincide with the structure numbers on the tanks.

2. This information should be relayed to Mr. McFarlane, Defense Reutilization and Marketing Service, AV 369-6860.

A handwritten signature in black ink, appearing to read "J. I. Wooten", is written over the typed name.

J. I. WOOTEN
By direction

Blind copy to:
→ Chemist, NREAD



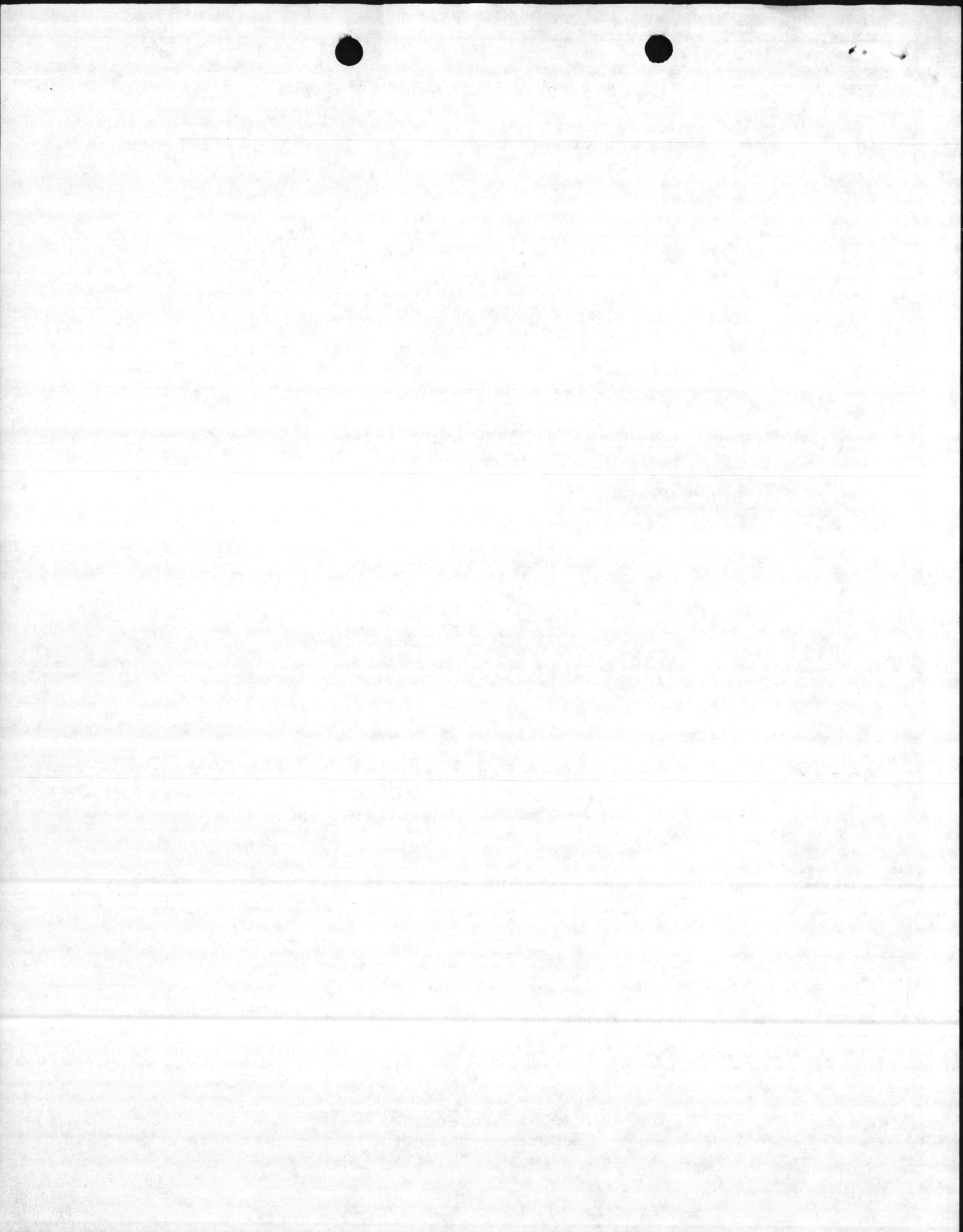
REPORT # 264
LABORATORY ANALYSIS ON
NAVAL SAMPLES
(A/E CONTRACT N62470-84-B-6932)
JTC REPORT # 86-194

PREPARED FOR:
DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VA 23511

PREPARED BY:
JTC ENVIRONMENTAL CONSULTANTS, INC.
4 RESEARCH PLACE, SUITE L-10
ROCKVILLE, MARYLAND 20850

APRIL 15, 1986

Ann E. Rosecrance
Ann E. Rosecrance
Laboratory Director

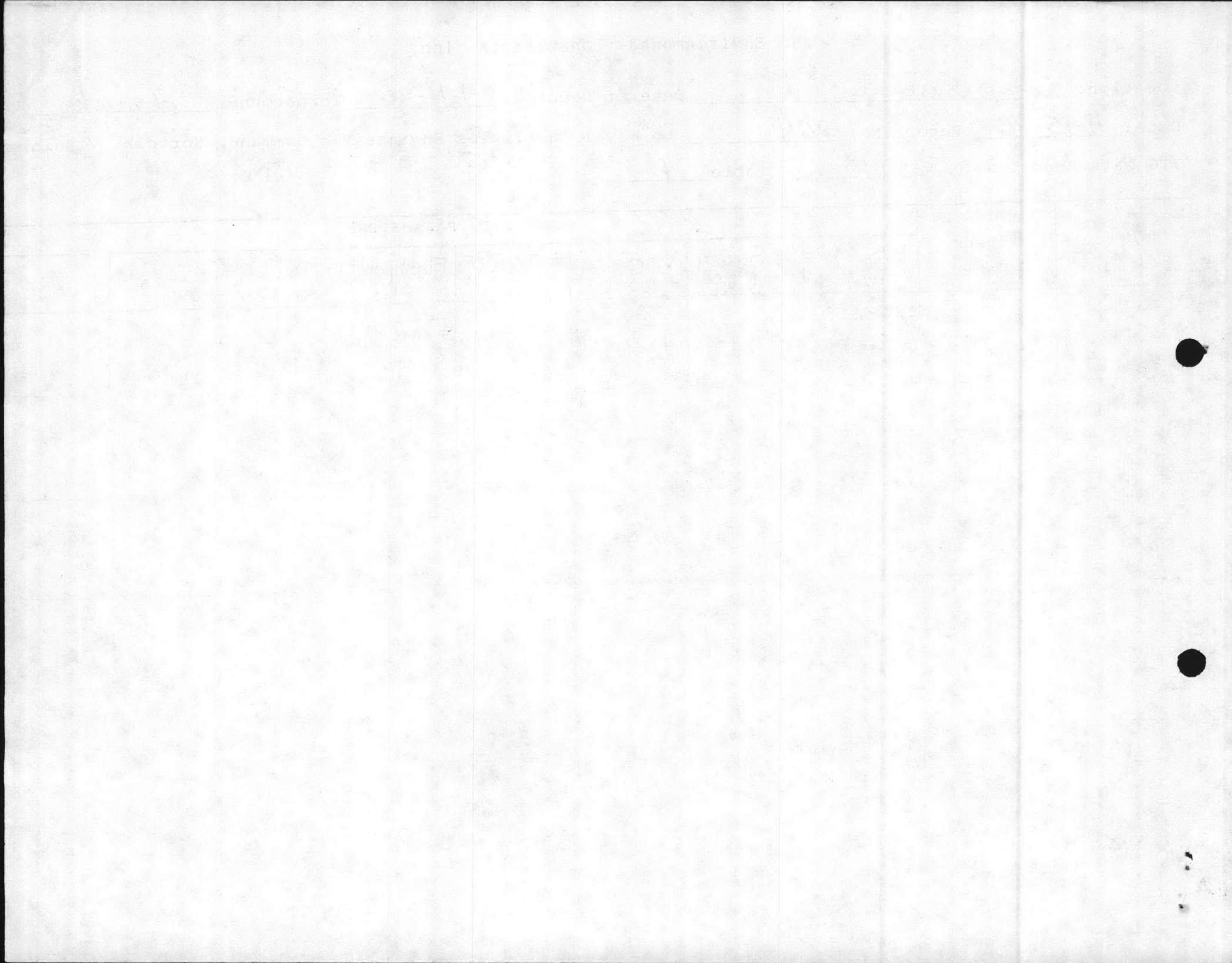


JTC Environmental Consultants, Inc.

Location: Camp Lejeune Date of Receipt: 4-4-86 Turnaround: 2 weeks
 Date: 4-15-86 Report No. 264 to Naval Facilities Engineering Command, Norfolk, Virginia

JTC Data Report No. 86-194 Table 1

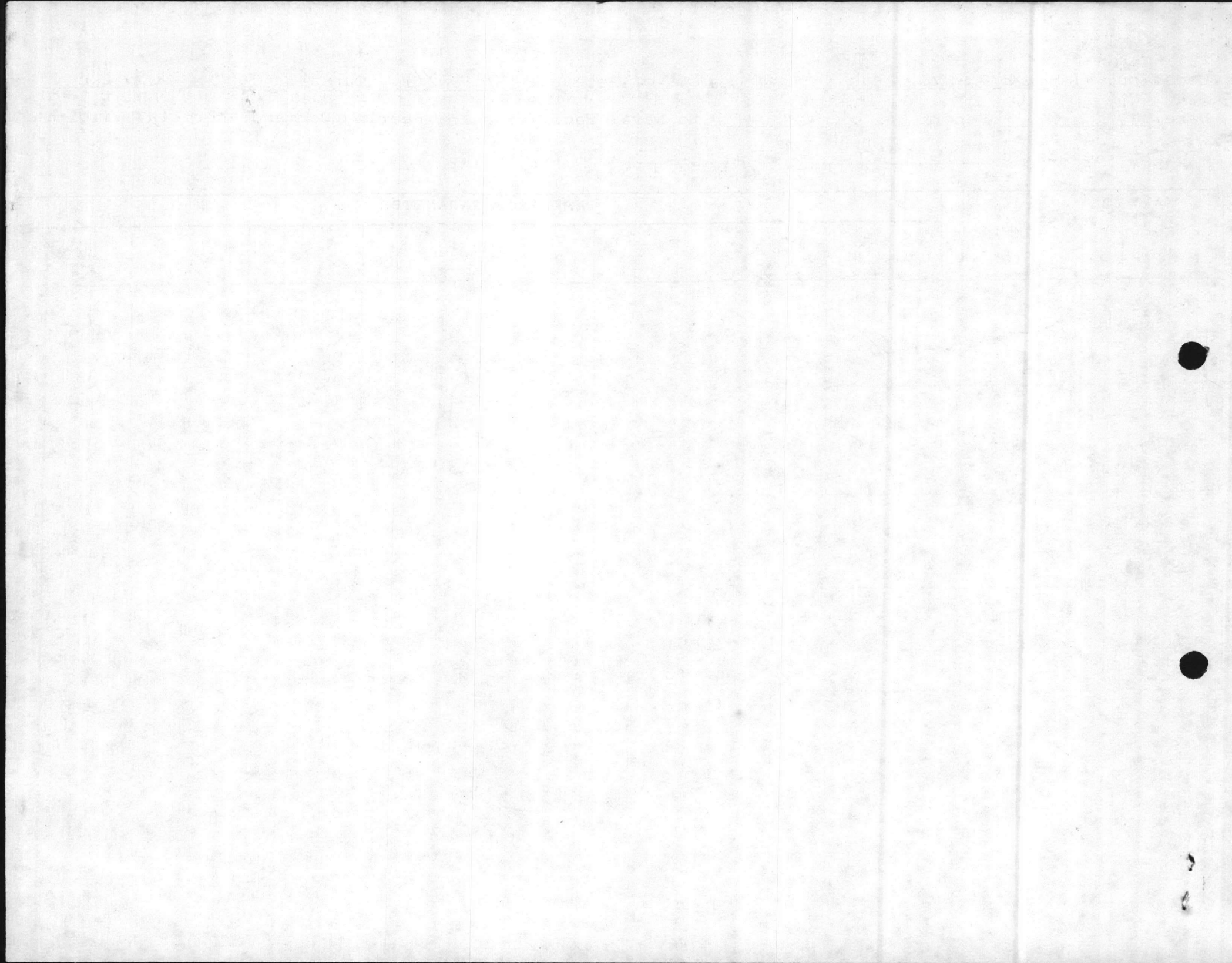
NAVY SAMPLE ID	JTC SAMPLE ID	ANALYSIS PARAMETER					
		B.S. + W %	Sp. Gravity API	Viscosity @ 100°C	TOX %	Flashpoint °C	BTU per lb.
86-13 Air Station Tank 1	12-2432	8.0	30.0	42.4 SUS	0.15	Flame at ~93	17,800
86-14 Air Station Tank 2	12-2433	0.2	34.3	38.2 SUS	0.04	45	19,400
86-15 Air Station Tank 3	12-2434	0.1	31.5	40.4 SUS	0.48	50	19,100
NAVY SAMPLE ID	JTC SAMPLE ID	As mg/kg	Cd mg/kg	Cr mg/kg	Pb mg/kg		
86-13 Air Station Tank 1	12-2432	<0.25	1.4	<0.5	48		
86-14 Air Station Tank 2	12-2433	<0.25	9.0	<0.5	26		
86-15 Air Station Tank 3	12-2434	<0.25	8.2	8.8	14		



Location: Camp Lejeune Date of Receipt: 4-4-86 Turnaround: 2 weeks
 Date: 4-15-86 Report No. 264 to Naval Facilities Engineering Command, Norfolk, Virginia
 JTC Data Report No. 86-194 Table 2

NAVY SAMPLE ID	JTC SAMPLE ID	ANALYSIS PARAMETER							
		B.S.+W %	TOX* %						
86-22 HB Tank 5-888	12-2435	2.8	0.13						
86-23 HB Tank 5-889	12-2436	0.45	0.14						
86-24 HB Tank 5-890	12-2437	42.0	0.10						
86-25 HB Tank 5-891	12-2438	18.0	0.16						

* test according to ASTM D808



Analysis Request

Samples: 86-22 }
 86-23 } Waste Oil from Holcomb Blvd Tanks
 86-24 }
 86-25 }

Parameters Requested: Bottoms (ASTM D396) %
 Total Halogens

Cover Under: Navy Contract

Samples Taken by: Water Quality Control Laboratory, NREAD, MCB, Camp
 Lejeune, North Carolina

Turnaround: Two Weeks

Note: I am sending four sets of samples all with two week turnaround on
 them. Below shows the order of priority in which I need them.

1. Samples #86-13-15 (MCAS Waste Oil)
2. Samples #86-22-25 (HB Waste Oil)
3. Samples #86-5-12 (MCAS Barrels)
4. Samples #86-16-20 (TT Waste Oil)

1941

1941

1941

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1941

1941

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1941

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1941

Betz: Give me
a weekly Status
report ON this. MAKE
sure Don has dewatered
oil prior to sampling
SHARPE

NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS DIVISION
Marine Corps Base
Camp Lejeune, North Carolina 28542

1 - March 84
Date

From: Director

To: *Danny*

Yours for action

I have a call in to Dan informing him that when the sample is taken he will have to secure the tanks. No more oil can be added.

Julian

I have told Don that he will have to dewater the tanks and take water to O/W separator. Told him Not to use one at Bld. 45. Recommended the one at 900 area wash rack. We will sample as soon as dewatering done.

D Sharp.

OK
gaw



UNITED STATES MARINE CORPS

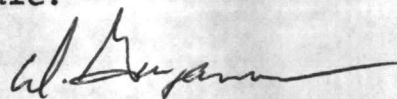
Base Maintenance Division
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO
MAIN/DRG/eap
11260
24 FEB 1984

From: Transportation General Foreman
To: Director, Natural Resources and Environmental Affairs Branch
Via: (1) Ground Structures General Foreman *for*
(2) Director, Maintenance and Repair Branch *lea*
(3) Base Maintenance Officer *JGM 1 MAR 84*

Subj: Waste Oil Analysis; request for

1. It is requested that the contents of the oil tanks located at Lot 803 be analyzed for future sale.


D. GURGANUS

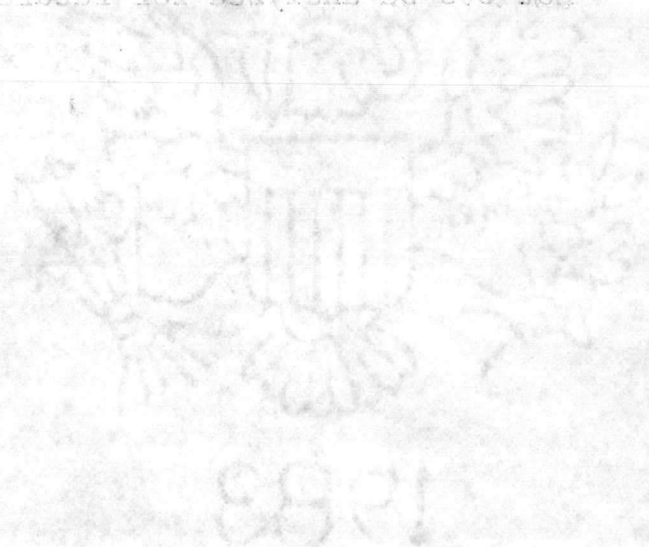
11280
24 FEB 1954

From: Transportation General Foreman
for: Director, Natural Resources and Environment, Alaska Branch
Via: (1) Ground Services General Foreman
(2) Director, Maintenance and Repair Branch
(3) Base Maintenance Office

Subject: Waste Oil Analysis; request for

1. It is requested that the contents of the oil tanks located on
Job 803 be analyzed for future sale.

3. CURRANT



MAIN/DRG/eap
11260
24 FEB 1984

From: Transportation General Foreman
To: Director, Natural Resources and Environmental Affairs Branch
Via: (1) Ground Structures General Foreman
(2) Director, Maintenance and Repair Branch
→ (3) Base Maintenance Officer

Subj: Waste Oil Analysis; request for

1. It is requested that the contents of the oil tanks located at Lot 803 be analyzed for future sale.

D. GURGANUS

MAILING/esp
1100
24 FEB 1954

From: Air Corps, General Foreman
To: Director, Natural Resources and Environmental Affairs Branch
Via: (1) Ground Services Foreman
(2) Director, Maintenance and Repair Branch
(3) Base Maintenance Officer

Subject: Waste Oil Analysis; request for

It is requested that the contents of the oil tanks located at
100 be analyzed for future sale.

D. G. ...



UNITED STATES MARINE CORPS
 Natural Resources and Environmental Affairs Division
 Marine Corps Base
 Camp Lejeune, North Carolina 29542

IN REPLY REFER TO:

5000
 NREAD
 7 June 1984

From: Director
 To: Traffic Management Officer

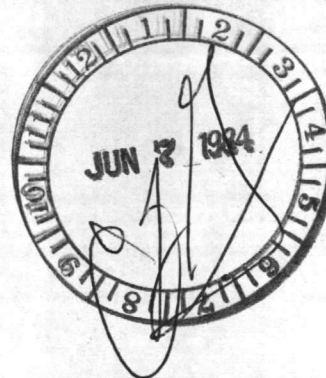
Subj: TRANSPORTATION OF LABORATORY SAMPLES; REQUEST FOR

1. Request shipment of one carton containing eight used oil samples to Grainger Laboratories, Incorporated, 5500 Commercial Avenue, Raleigh, North Carolina 27612 (919-787-3061) marked Attn: Kip Prichard.

J. I. Wooten

J. I. WOOTEN

FURTHER REFERENCE TO THIS SHIPMENT RECORD MUST QUOTE THE TRANSPORTATION CONTROL NUMBER (TCN) WHICH IS: TCN:M31000 4159 0130 XXX



THE TRANSITION TO THE NEW SYSTEM
IS BEING ACCOMPLISHED WITHOUT
ANY SIGNIFICANT DISRUPTIONS
TO THE SERVICE OF THE
PUBLIC.



TO: PRESERVATION, PACKAGING AND PACKING BRANCH, MOWASP DIV., BMATBN, MCB, CLNC

FROM (UNIT) Quality Control Lab Natural Resources & Environmental AFDiv	DATE 7 June 1984	UNIT PRIORITY DESIGNATOR ASAP
PERSON FAMILIAR WITH WORK REQUESTED Elizabeth Betz	PHONE - 451-5977	BLDG NO. Bldg. 65

FOLLOWING WORK IS REQUESTED

Package eight laboratory samples of used oil for shipment
 by Freight Traffic

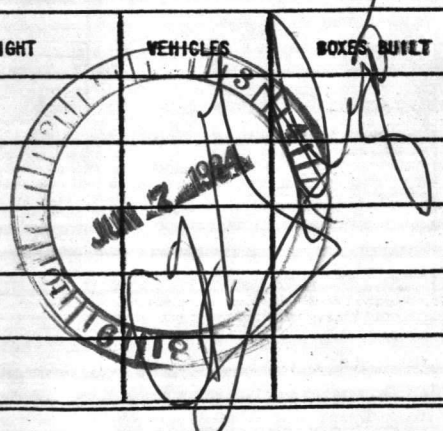
TYPE WORK REQUESTED (X)			
(-)PACKAGE AND PRESERVE <input type="checkbox"/>	LEVEL <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	(-)PACK <input type="checkbox"/>	LEVEL <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C
CONSTRUCT	BOXES <input type="checkbox"/> CRATES <input type="checkbox"/>	PAINT AND MARK <input type="checkbox"/>	TACTICAL MARK <input type="checkbox"/> YES <input type="checkbox"/> NO

DETAILS (LIST INSIDE DIMENSIONS IF CONSTRUCTION IS DESIRED; COLOR OF PAINT, PATTERN AND NUMBER OF TACTICAL MARK, ANY SPECIAL INSTRUCTIONS)

AA4 32 0479 3228 T/A

DEAD LINE DELIVERY DATE 11 June 1984	WR NO.	SIGNATURE <i>J. I. Wooten</i> J. I. WOOTEN, Director
Specs On and Below This Line For P&P Use Only	JON CHARGEABLE	P&P CONTROL NO.

WORK MEASUREMENT INFO PROJ 12				WORK MEASUREMENT INFO PROJ 11 & 94 TOTALS (LESS PROJ 12)			
NO. OF ITEMS	TONS	NO. OF PKGS		CUBE	WEIGHT	VEHICLES	BOXES BUILT



LINE ITEMS	NOMENCLATURE	FSH	QUANTITY	UNIT OF ISSUE	NO. OF INTERMEDIATE PACKAGE	NO. OF ITEMS PER PACK	ITEMS PER MULTIPLE PACK NO. OF PACK
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
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17.							
18.							
19.							
20.							
21.							
22.							
23.							
24.							
25.							
26.							
27.							

DATE RECORDED BY P&P BRANCH

PICKED UP BY

DATE COMPLETED BY P&P BRANCH

DATE



June 15, 1984
84-11142

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

United States Marine Corps
Natural Resources and Environmental Affairs Div.
QC Lab NREAD, Bldg. 1103
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analyses of Samples Received 6-12-84

Sample Identification: Purchase Order No. M3100041590130

- | | |
|---------|---------|
| 1. 1201 | 5. 1205 |
| 2. 1202 | 6. 1206 |
| 3. 1203 | 7. 1207 |
| 4. 1204 | 8. 1208 |

5500 Commercial Avenue
Raleigh, NC 27612
(919) 787-3061

1040 Greenfield Street
Wilmington, NC 28402
(919) 763-9793

RESULTS

	<u>Sample Number</u>	<u>Total Aroclors, µg/g</u>
Analytical Laboratory		
Environment Analysis	1	<1.0
Materials	2	<1.0
Identification of Unknowns	3	<1.0
Agricultural Products	4	<1.0
Fuels	5	<1.0
Textiles	6	<1.0
Hazardous Waste	7	<1.0
GC/MS	8	<1.0
ICP Metals		
Priority Pollutants		
Consultation		
Metallurgical Services		
Pollution Abatement		
Process Development		
Quality Control		
Methods Development		
Special Investigation		

Certifications

SDWA
NPDES
USDA
USEPA

Bruce A. Babson (WPP)

Bruce A. Babson
Staff Chemist

BAB:pph

Customer #92400



June 12, 1984
FBI - MEMPHIS

MEMPHIS
LABORATORY
SERIALS SECTION

The following information was received from the Memphis Laboratory on June 12, 1984.
The Memphis Laboratory has received a sample of cotton fiber from the Memphis Laboratory on June 12, 1984.

Attention: Mr. E. J. [Name]
Subject: [Name]

Sample description: 5% cotton fiber
1 - 1001
2 - 1002
3 - 1003

RESULTS

Total Protein %

Wet Weight

- < 1.0
- < 1.0
- < 1.0
- < 1.0
- < 1.0
- < 1.0
- < 1.0
- < 1.0

Date: [Date]
[Signature]
[Title]

T-6240

6240
NREAD
7 Aug 1984

From: Director, Natural Resources and Environmental Affairs
Division
To: Base Maintenance Officer

Subj: USED OIL TANKS S-888, S-889, S-890 AND S-891

Ref: (a) BO 6240.5

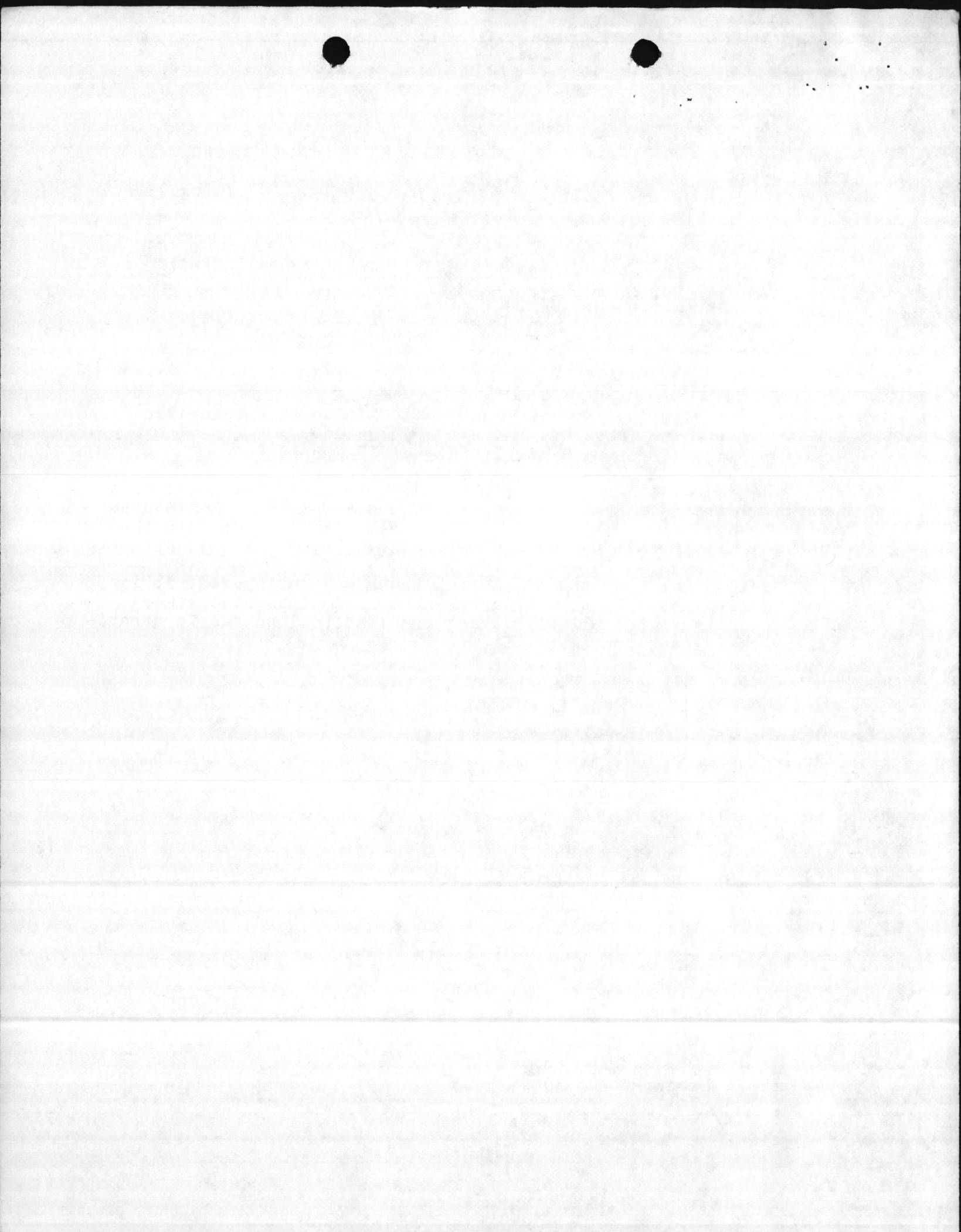
Encl: (1) Guilford Laboratories ltr of 21 Jun 1984 (received
7 Aug 1984)
(2) Grainger Laboratories ltr of 15 Jun 1984

1. Enclosures (1) and (2) are the analysis of the used oil presently stored in Tanks S-888, S-889, S-890 and S-891. Enclosures (1) and (2) should be attached to the document used to turn the subject oil in to DPDO per the reference.

2. Because the contents of subject tanks may be layered, it is recommended that the turn-in document contain this disclaimer: "The quality of the oil will vary from load to load due to stratification of tank contents".

C. D. PETERSON
Acting

Writer: E. Betz, NREAD, 5977
Typist: J. Cross, 7 Aug 1984, 5003



PIEDMONT RESEARCH LABORATORIES

Division Of
GUILFORD LABORATORIES, INC.

21 JUNE 1984

REPORT OF ANALYSIS

JOB#: DON40510

CUSTOMER: DEPT OF NAVY ATTN: ELIZABETH BETZ

SAMPLES: #1878 - TANK #5-888 (SAMPLES 1-4)
 #1879 - TANK #5-889 (SAMPLES 5-8)
 #1880 - TANK #5-890 (SAMPLES 9-12)
 #1881 - TANK #5-891 (SAMPLES 13-16)

RESULTS

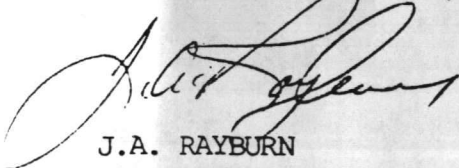
	<u>#1878</u>	<u>#1879</u>	<u>#1880</u>	<u>#1881</u>
→ % WATER	2.1	2.6	4.8	4.0
→ FLASH PT. (PMCC, deg F)	124 F	132 F	156 F	144 F
CORROSIVITY (pH)	7.59	7.10	6.50	7.63
→ BTU/gal	124,461	83,462	77,711	106,365
→ % SEDIMENT	< 0.001	< 0.001	1.60	0.71
→ VISCOSITY @ 100 ssu	62.2	42.0	80.5	73.5
@ 212 ssu	31.0	52.8	57.6	51.0
→ API GRAVITY @ 60	37.56	22.98	32.46	35.56
Cu STRIP CORROSIVITY	1	1	1	2
% SULFUR	0.40	0.19	0.24	0.30
→ ARSENIC (ppm)	4.37	7.69	5.20	5.68
BARIUM (ppm)	160.0	200.0	184.0	152.0
→ CADMIUM (ppm)	21.0	21.0	18.6	19.4
→ CHROMIUM (ppm)	7.0	7.66	7.06	9.29
→ LEAD (ppm)	229.0	222.0	225.0	218.0
MERCURY (ppm)	0.433	0.189	0.398	0.346
SELENIUM (ppm)	5.75	10.99	6.35	5.04
SILVER (ppm)	7.61	5.30	34.3	4.32
PHENOLS (ppm)	< 0.1	< 0.1	< 0.1	< 0.1
1,1,2-TCE (ppm)	3.7	< 0.1	< 0.1	< 0.1
1,1 DICHLOROETHANE (ppm)	< 0.1	< 0.1	< 0.1	< 0.1
TOLUENE (ppm)	143.5	129.0	83	66

PIEDMONT RESEARCH LABORATORIES

Division Of
GUILFORD LABORATORIES, INC.

	<u>#1878</u>	<u>#1879</u>	<u>#1880</u>	<u>#1881</u>
LEACHABLE METALS - EP TOXICITY				
ARSENIC (ppm)	<0.001	<0.001	<0.001	<0.001
BARIUM (ppm)	0.153	<0.01	<0.001	0.153
CADMIUM (ppm)	0.085	0.068	0.068	0.08
CHROMIUM (ppm)	0.058	0.058	0.235	0.176
LEAD (ppm)	2.59	1.58	1.39	2.14
MERCURY (ppm)	0.001	0.001	0.001	<0.001
SELENIUM (ppm)	<0.001	<0.001	<0.001	<0.001
SILVER (ppm)	0.025	0.012	0.012	0.025

GUILFORD LABORATORIES, INC.



J.A. RAYBURN

STATISTICS

1981

1982



June 15, 1984
84-11142

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

100 Commercial Avenue
Raleigh, NC 27612
(919) 787-3061

1040 Greenfield Street
Wilmington, NC 28402
(919) 763-9793

United States Marine Corps
Natural Resources and Environmental Affairs Div.
QC Lab NREAD, Bldg. 1103
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analyses of Samples Received 6-12-84

Sample Identification: Purchase Order No. M3100041590130

- | | |
|-----------------|-----------------|
| 1. 1201 - S-888 | 5. 1205 - S-888 |
| 2. 1202 - S-890 | 6. 1206 - S-890 |
| 3. 1203 > S-889 | 7. 1207 > S-891 |
| 4. 1204 > S-889 | 8. 1208 > S-891 |

RESULTS

Analytical Laboratory	<u>Sample Number</u>	<u>Total Aroclors, µg/g</u>
Environment Analysis	1	<1.0
Materials	2	<1.0
Identification of Unknowns	3	<1.0
Agricultural Products	4	<1.0
Fuels	5	<1.0
Textiles	6	<1.0
Hazardous Waste	7	<1.0
GC/MS	8	<1.0
ICP Metals		
Priority Pollutants		
Consultation		
Metallurgical Services		
Pollution Abatement		
Process Development		
Quality Control		
Methods Development		
Special Investigation		

Certifications

SDWA
NPDES
USDA
USEPA

Bruce A. Babson (WPB)

Bruce A. Babson
Staff Chemist

BAB:pph

Customer #92400



1952
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1981

DATE: 26 JUN 1984

FROM: ~~A~~ SUPVY CHEMIST

TO: SUPVY ECOLOGIST

SUBJ: USED OIL TANKS S-888, S-889, S-890 AND S-891

ENCL: (1) GUILFORD LABORATORIES LTR OF 21 JUN 1984

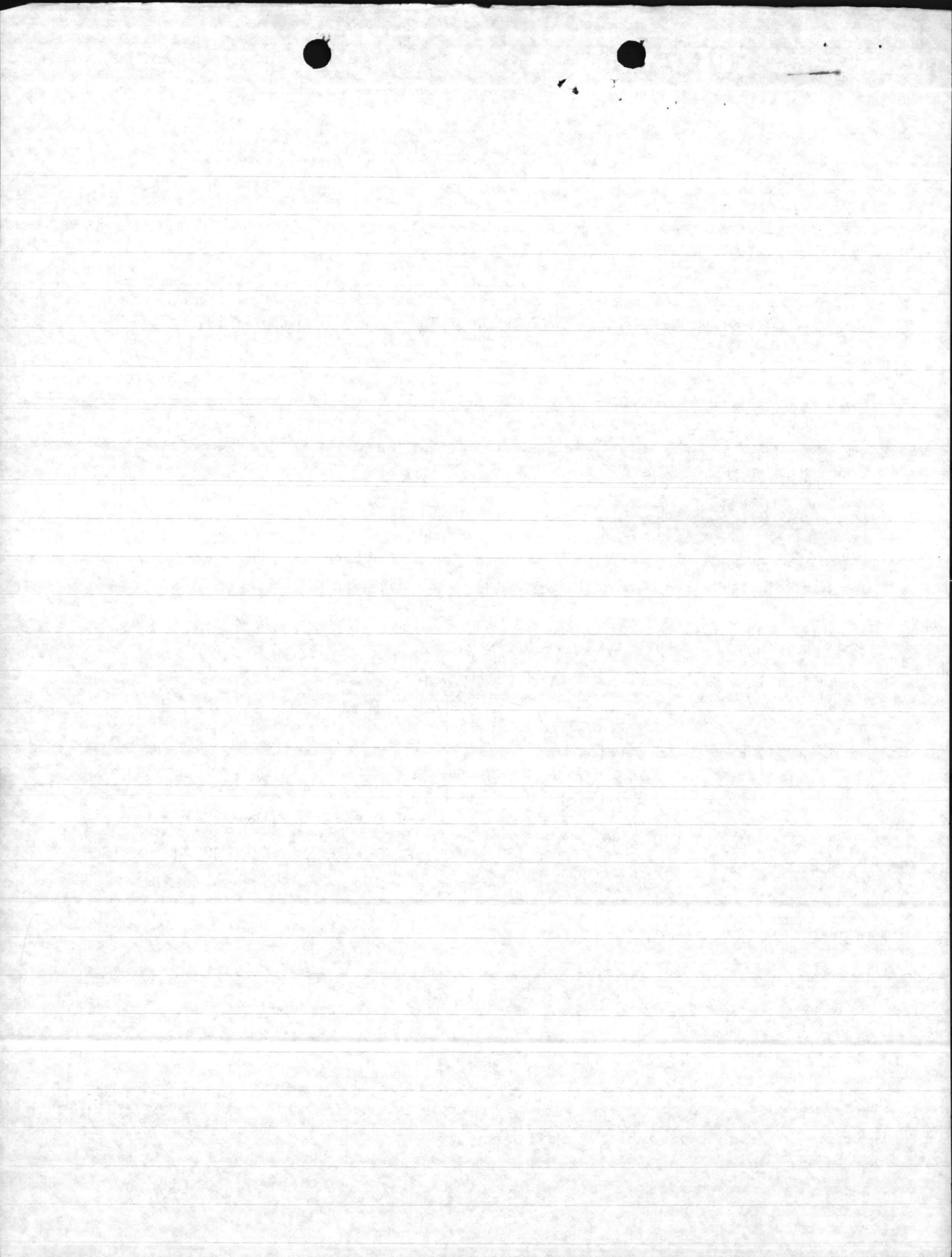
(2) GRAINGER LABORATORIES LTR OF 15 JUN 1984

1. ENCLOSURES (1) AND (2) PROVIDE DATA REQUIRED FOR TURN-IN TO DEFENSE PROPERTY DISPOSAL OFFICER OF USED OIL IN TANKS S-888, S-889, S-890 AND S-891. THIS INFORMATION SHOULD BE PROVIDED TO BASE MAINTENANCE.

Elizabeth A. Beth

SAMPLED: 3 MAY 1984

FOR PCB: 24 MAY 1984





GUILFORD LABORATORIES, INC.

P.O. Box 9735/Plaza Station/Greensboro, N.C. 27408

21 JUNE 1984

REPORT OF ANALYSIS

JOB#: DON40510

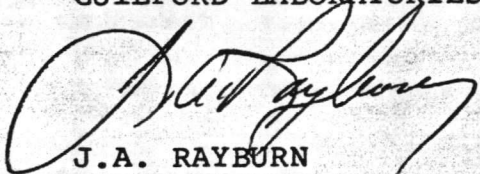
CUSTOMER: DEPT OF NAVY ATTN: ELIZABETH BETZ

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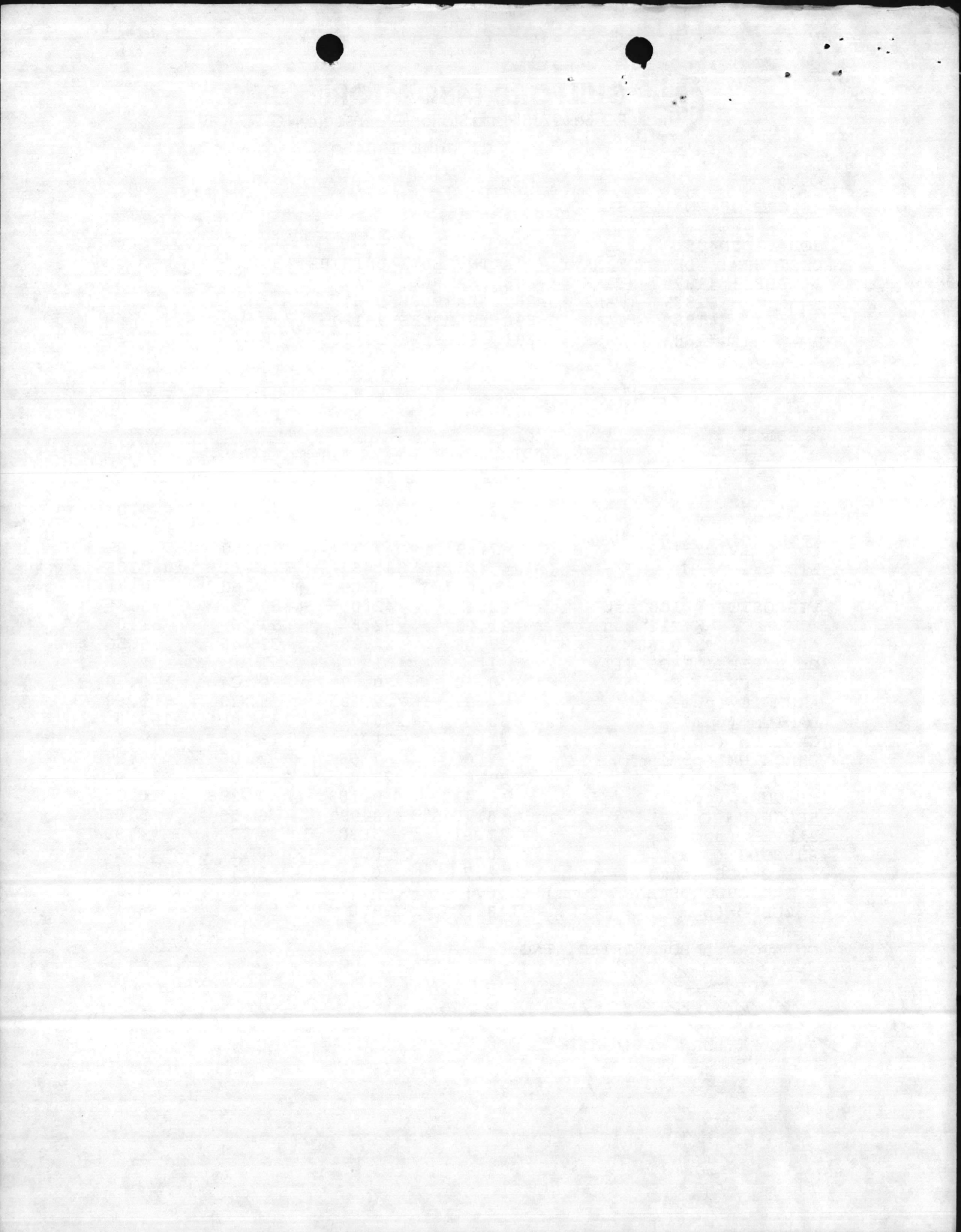
RESULTS

	<u>#1878</u>	<u>#1879</u>	<u>#1880</u>	<u>#1881</u>
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FLASH PT. (PMCC, deg °F)	124°F	132°F	156°F	144°F
CORROSIVITY (pH)	7.59	7.10	6.50	7.63
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% SEDIMENT	< 0.001	< 0.001	1.60	0.71
VISCOSITY @ 100° ssu	62.2	42.0	80.5	73.5
@ 212° ssu	31.0	52.8	57.6	51.0
API GRAVITY @ 60°	37.56	22.98	32.46	35.56
Cu STRIP CORROSIVITY	1	1	1	2
% SULFUR	0.40	0.19	0.24	0.30
ARSENIC (ppm)	4.37	7.69	5.20	5.68
BARIUM (ppm)	160.0	200.0	184.0	152.0
CADMIUM (ppm)	21.0	21.0	18.6	19.4
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LEAD (ppm)	229.0	222.0	225.0	218.0
MERCURY (ppm)	0.433	0.189	0.398	0.346
SELENIUM (ppm)	5.75	10.99	6.35	5.04
SILVER (ppm)	7.61	5.30	34.3	4.32
PHENOLS (ppm)	< 0.1	< 0.1	< 0.1	< 0.1
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TOLUENE (ppm)	143.5	129.0	83	66

GUILFORD LABORATORIES, INC.



J.A. RAYBURN





GUILFORD LABORATORIES, INC.

P.O. Box 9735/Plaza Station/Greensboro, N.C. 27408

21 JUNE 1984

REPORT OF ANALYSIS

JOB#: DON40510

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GUILFORD LABORATORIES, INC.

J.A. RAYBURN

PIEDMONT RESEARCH LABORATORIES

Division Of
GUILFORD LABORATORIES, INC.

21 JUNE 1984

REPORT OF ANALYSIS

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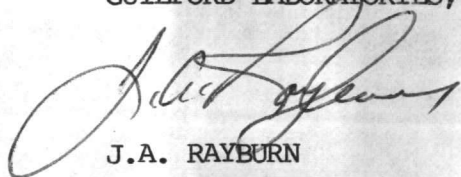
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SILVER (ppm)	0.025	0.012	0.012	0.025

GUILFORD LABORATORIES, INC.



J.A. RAYBURN



1

DATE	DESCRIPTION	AMOUNT	BALANCE
10/1/01
10/2/01
10/3/01
10/4/01
10/5/01
10/6/01
10/7/01
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10/29/01
10/30/01
10/31/01

STATE OF TEXAS

PIEDMONT RESEARCH LABORATORIES

2748 PATTERSON STREET
GREENSBORO, N.C. 27407



Dept. of Navy -Quality Control Lab
Natural Resource & Environmental Affairs
Marine Corp. Base
Camp Lejune, NC 28542

ATTN: ELIZABETH BETZ

(B7)

Rec'd

7 Aug 1984

20/2

SAMPLE INFORMATION

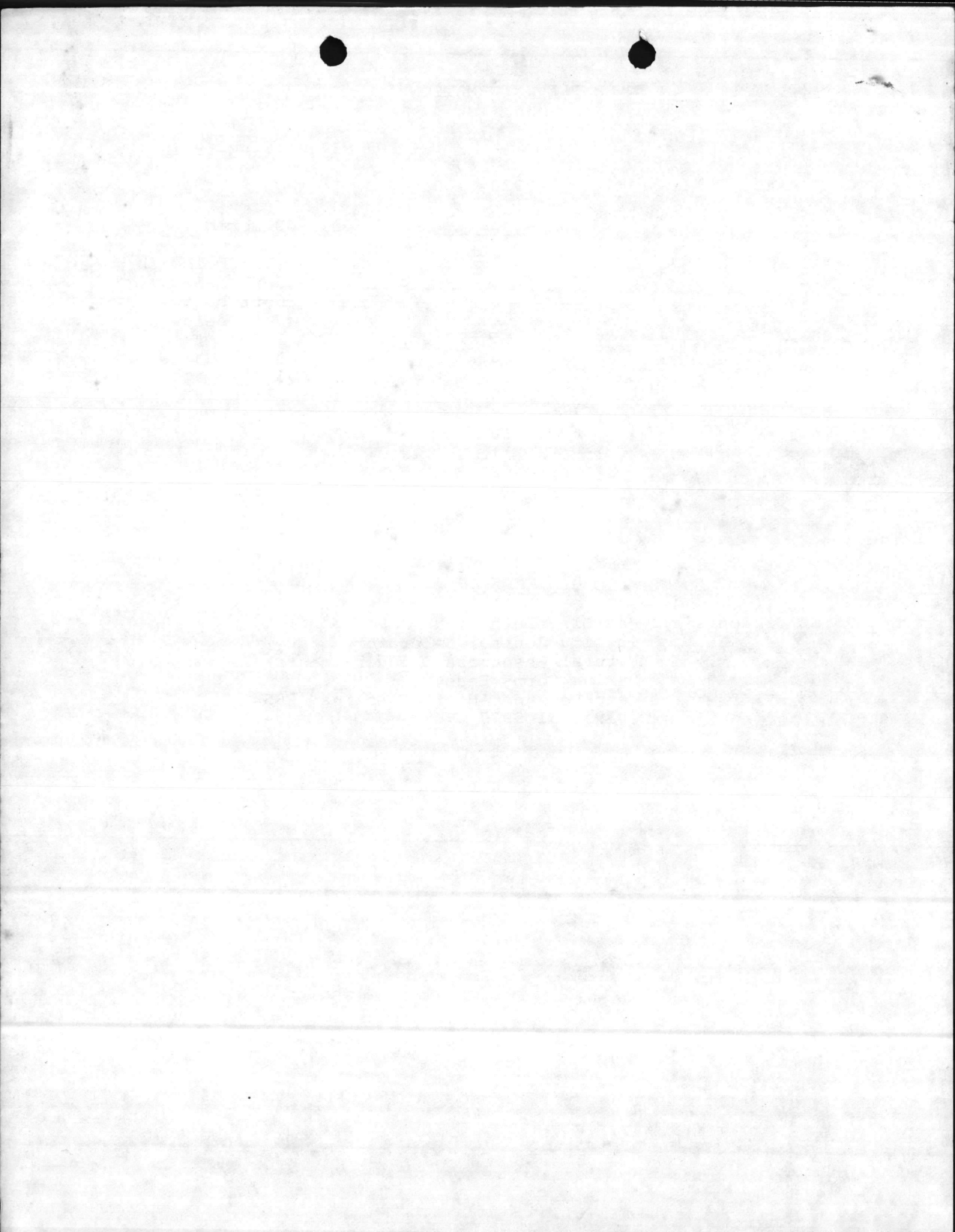
Type: Used Oil

PO# M67001-84-M-5311

Collected: 3 May 1984 0930-1100

<u>Tank #</u>	<u>Sample #</u>	<u>Description</u>
S-888	1	1 ft below surface
S-888	2	3 ft below "
S-888	3	5 ft below "
S-888	4	7 ft below "
S-889	5	1 ft " "
"	6	3 ft " "
"	7	5 ft " "
"	8	7 ft " "
S-890	9	1 ft " "
"	10	3 ft " "
"	11	5 ft " "
"	12	7 ft " "
S-891	13	1 ft " "
"	14	3 ft " "
"	15	5 ft " "
"	16	7 ft " "

Point of Contact: Ms. Elizabeth Betz
 Quality Control Laboratory
 Natural Resources & Environmental Affairs Div
 Marine Corps Base
 Camp Lejeune, North Carolina 28542
 (919) 451-5977



3 MAY 1984

TANK S-888

SAMPLES 1-4

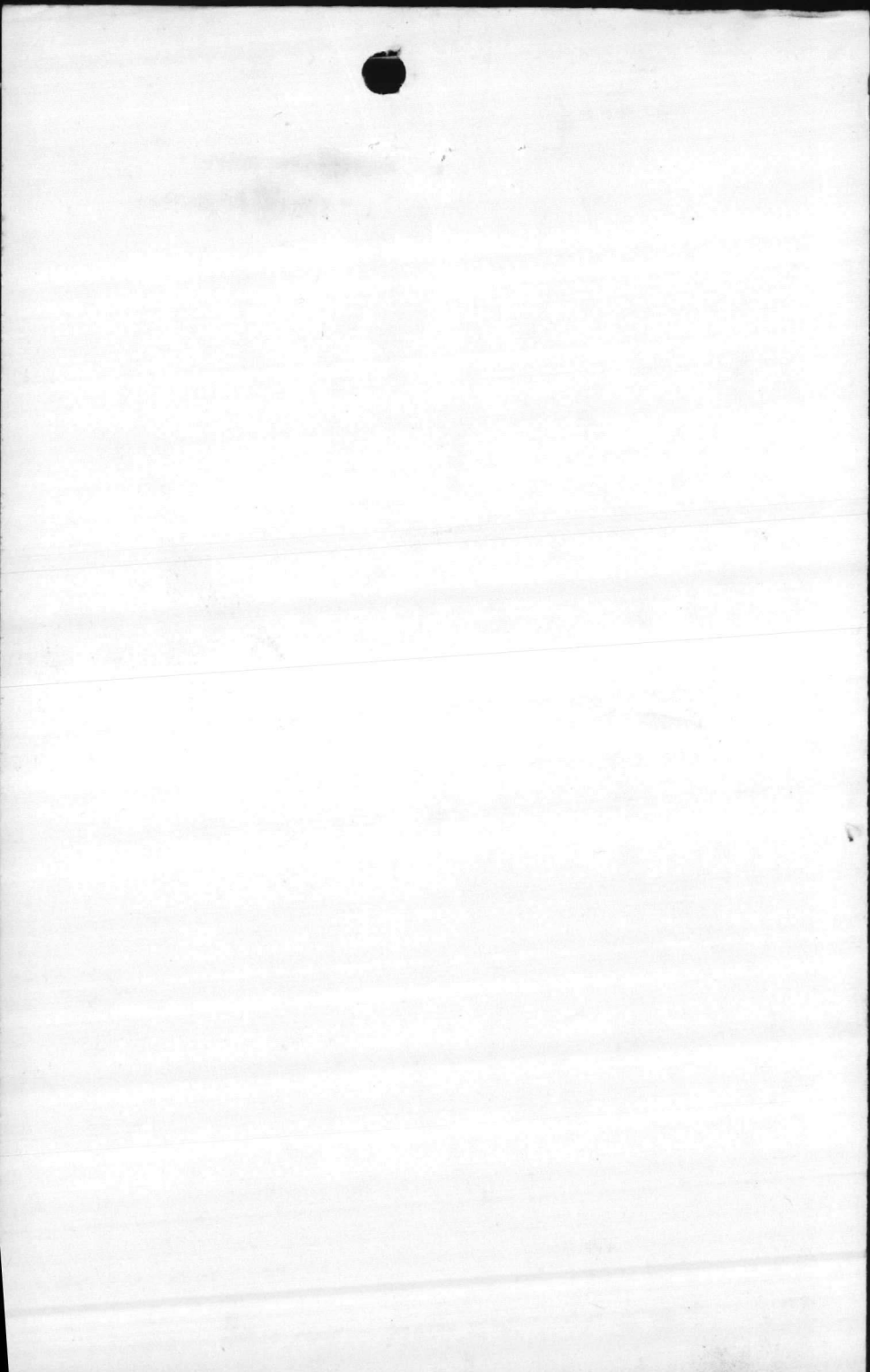
- # 1 @ 1 FT BELOW SURFACE
 - # 2 @ 3 FT BELOW SURFACE
 - # 3 @ 5 FT BELOW SURFACE
 - # 4 @ 7 FT BELOW SURFACE
-

S-889

SAMPLES 5-8

S-890

SAMPLES 9-12



HOLCOMB BLVD TANKS

6241/2A

