0232

State of North Carolina
Department of Natural Resources and Community Development
Wilmington Regional Office

James G. Martin, Governor

S. Thomas Rhodes, Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

June 21, 1985

Colonel R.A. Tiebout
Assistant Chief of Staff, Facilities
United States Marine Corps
Marine Corps Base
Camp Lejeune, NC 28542-5001

SUBJECT: Transmittal of Analytical Results
Three Community Water Supply Wells
Tarawa Terrace I
Camp Lejeune MCB
Onslow County

Dear Colonel Tiebout:

Attached please find copies of the analytical results completed on samples that I collected on 9 April 1985 from wells TT-25, TT-26, and new TT.

Your staff's cooperation in helping me collect these samples was greatly appreciated.

Sincerely,

Rick Shiver
Regional Hydrologist

RS/sbm

cc: Julien Wooten
Mike Bell
Perry Nelson

DEM [illegible] 3 weeks

Attachments

CLW

0000001244

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RECEIVED

N.C. DEPARTMENT OF NATURAL RESOURCES
& COMMUNITY DEVELOPMENT
DEM
GROUNDWATER FIELD/LAB FORM

JUN 6 1985

WILMINGTON REGIONAL OFFICE
DEM

RECEIVED
JUN 4 1985
GROUND WATER SECTION
RALEIGH, N.C.

COUNTY [illegible]

QUAD NO. X 24 b SERIAL NO. _____

REPORT TO: (circle one)
ARO, WSRO, MRO, FRO, WaRO, WIRO, RRO, Ahoskie FO, OTHER _____

LAB NUMBER [illegible]
DATE REC'D 4-10-85
REC'D BY [illegible]
DATA ENTRY BY [illegible] CK
DATA REPORTED ~~[illegible]~~ 6-3-85

PURPOSE: (circle one) baseline, pollution monitor, other _____

DATE COLLECTED 04 09 85 Time 1015 By [illegible] Location or site [illegible]

Description of sampling point [illegible] Sampled interval YORKTOWN AQUIFER [illegible]

Remarks [illegible]
(pumping time, air temp, etc.)

Field Analysis By: [illegible] Lat. 344423 N Long. 772152 W

pH [illegible] Spec. Cond. [illegible] Temp. [illegible] °C Odor [illegible] Appearance [illegible] Taste [illegible]

Lab Analysis

✓ Alkalinity to pH 4.5	P00410	180	mg/l
Alkalinity, Hydroxide	P71830	<1	mg/l
✓ Carbonate	P00445	<1	mg/l
✓ Bicarbonate	P00440	220	mg/l
✓ pH value (when analyzed)	P00400	8.2	units
✓ Arsenic (D)	P01000	<10	ug/l
Carbon dioxide	P00405		mg/l
✓ Chloride (D)	P00940	9	mg/l
✓ Color (True)	P00080	24	units
Cyanide	P00720		mg/l
✓ Dissolved solids (D)	P70301	230	mg/l
✓ Fluoride (D)	P00951	0.2	mg/l
✓ Hardness (as $CaCO_3$) (D)	P00900	190	mg/l
✓ Hardness (non-carbonate) (D)	P00902	10	mg/l
MBAS (D)	P38260		mg/l
✓ Phenol (D)	P34466	.5	ug/l
✓ Silica (D)	P00955	6	mg/l
✓ Sulfate (D)	P00946	5	mg/l
Specific Cond.	P00094	420	UMHOS/cm

✓ Ag-Silver (D)	P01075	<50	ug/l
✓ Al-Aluminum (D)	P01106	100	ug/l
✓ Ba-Barium (D)	P01005	<1000	ug/l
✓ Ca-Calcium (D)	P00915	80	mg/l
✓ Cd-Cadmium (D)	P01025	<20	ug/l
✓ Cr-Chromium (D)	P01030	<50	ug/l
✓ Cu-Copper (D)	P01040	<20	ug/l
✓ Fe-Iron (D)	P01046	1200	ug/l
✓ Hg-Mercury	P71900	<0.2	ug/l
Li-Lithium (D)	P01130	<50	ug/l
✓ Mg-Magnesium (D)	P00925	2.0	mg/l
✓ Mn-Manganese (D)	P01056	<50	ug/l
✓ Na-Sodium (D)	P00929	5.4	mg/l
✓ Pb-Lead (D)	P01049	<100	ug/l
✓ Zn-Zinc (D)	P01090	<20	ug/l
✓ K-Potassium (D)	P00935	1.6	mg/l
✓ Se-Selenium		<5.0	ug/l

BOD	P00310		mg/l
COD	P00341		mg/l
Coliform (Fecal MF)	P31616		/100ml
Coliform (total MF)	P31505		/100ml
✓ TOC	P00680	<5	mg/l
Turbidity	P82079		NTU
✓ Ammonia (as Nitorgen) (D)	P00612	.02	mg/l
✓ Kjeldahl (as Nitrogen) (D)	P00623	<0.1	mg/l
✓ Nitrate + Nitrite (as Nitrogen) (D)	P00631	<0.0	mg/l
✓ Phosphorus, total as P (D)	P00666	.27	mg/l
Dissolved Solids - cond. meter	P70304		mg/l

Other Analyses:

✓ [illegible] <.01 [illegible]

✓ [illegible]

VOA

OA

[illegible]

D = Dissolved Analysis - submit filtered sample

White copy - Headquarters Pink copy - Region Yellow copy - Lab

CLW 0000012 45

GW-54 Revised 1/12/82

Reported by NCU

Checked by PHD

Supervisor REK

Date 5-29-85

ORGANIC ANALYSIS

Entered by _____

Checked by _____

Lab No.	/ WATER Analytical Results
G-182	THE FOLLOWING COMPOUNDS WERE IDENTIFIED BY MATCHING TO LIBRARY MASS SPECTRA. THEY WERE NOT MATCHED TO STANDARDS. CONCENTRATIONS ( ) WERE ESTIMATED AS A RATIO TO A KNOWN INTERNAL STANDARD.
	BY GC/MS/PT:
	DICHLORO ETHENE (1.4 ug/l)
	TRICHLORO ETHENE (78 ug/l)
	TETRACHLORO ETHENE (630 ug/l)
	ONE UNIDENTIFIED PEAK DETECTED BY GC/MS/PT-

CLW

000000 1246

✓ GC/MS/DS used

N. [illegible] AL RESOURCES
COMMUNITY DEVELOPMENT
DEM
GROUNDWATER FIELD/LAB FORM
JUN 3 1985
WILMINGTON REGIONAL OFFICE
DEM

RECEIVED
MAY 31 1985
GROUND WATER SECTION
RALEIGH, N. C.

COUNTY [illegible]

QUAD NO. [illegible] SERIAL NO. [illegible]

REPORT TO: (circle one)
ARO, WSRO, MRO, FRO, WaRO,
WIRO, RRO, Ahoskie FO,
OTHER

PURPOSE: (circle one) baseline, pollution monitor, other

DATE COLLECTED [illegible] Time [illegible] By [illegible] Location or site [illegible]

Description of sampling point [illegible] Sampled interval [illegible]

Remarks [illegible]
(pumping time, air temp, etc.)

Field Analysis By: [illegible] Lat. [illegible] Long. [illegible]

pH [illegible] Spec. Cond. [illegible] Temp. 17 °C Odor [illegible] Appearance [illegible] Taste [illegible]

LAB NUMBER G-174
DATE REC'D 4-10-85
REC'D BY [illegible]
DATA ENTRY BY [illegible]
DATA REPORTED 5-29-85

Lab Analysis

√ Alkalinity to pH 4.5	P00410	180	mg/l
Alkalinity, Hydroxide	P71830	<1	mg/l
√ Carbonate	P00445	<1	mg/l
√ Bicarbonate	P00440	22	mg/l
√ pH value (when analyzed)	P00400	7.4	units
√ Arsenic (D)	P01000	<10	ug/l
Carbon dioxide	P00405		mg/l
√ Chloride (D)	P00940	15	mg/l
√ Color (True)	P00080	31	units
Cyanide	P00720		mg/l
√ Dissolved solids (D)	P70301	250	mg/l
√ Fluoride (D)	P00951	0.3	mg/l
√ Hardness (as $CaCO_3$) (D)	P00900	190	mg/l
√ Hardness (non-carbonate) (D)	P00902	10	mg/l
MBAS (D)	P38260		mg/l
√ Phenol (D)	P34466	<5	ug/l
√ Silica (D)	P00955	7	mg/l
√ Sulfate (D)	P00946	11	mg/l
√ Specific Cond.	P00094	450	MHOS/cm

√ Ag-Silver (D)	P01075	<50	ug/l
√ Al-Aluminum (D)	P01106	400	ug/l
√ Ba-Barium (D)	P01005	<1000	ug/l
√ Ca-Calcium (D)	P00915	77	mg/l
√ Cd-Cadmium (D)	P01025	<20	ug/l
√ Cr-Chromium (D)	P01030	<50	ug/l
√ Cu-Copper (D)	P01040	<20	ug/l
√ Fe-Iron (D)	P01046	1000	ug/l
√ Hg-Mercury	P71900	<0.2	ug/l
√ Li-Lithium (D)	P01130	<50	ug/l
√ Mg-Magnesium (D)	P00925	2.6	mg/l
√ Mn-Manganese (D)	P01056	<50	ug/l
√ Na-Sodium (D)	P00929	12	mg/l
√ Pb-Lead (D)	P01049	<100	ug/l
√ Zn-Zinc (D)	P01090	350	ug/l
√ K-Potassium (D)	P00935	4.3	mg/l
√ Se-Selenium		<5.0	ug/l

BOD	P00310		mg/l
COD	P00341		mg/l
Coliform (Fecal MF)	P31616		/100ml
Coliform (total MF)	P31505		/100ml
√ TOC	P00680	<5	mg/l
Turbidity	P82079		NTU
√ Ammonia (as Nitorgen) (D)	P00612	.04	mg/l
√ Kjeldahl (as Nitrogen) (D)	P00623	0.1	mg/l
√ Nitrate + Nitrite (as Nitrogen) (D)	P00631	.01	mg/l
√ Phosphorus, total as P (D)	P00666	.22	mg/l
Dissolved Solids - cond. meter	P70304		mg/l

Other Analyses:
√ NITRITE <.01 ug/L
√ [illegible] ORGANICS
VOA
VOA
See attached Organics Analysis Worksheet

D = Dissolved Analysis - submit filtered sample
White copy - Headquarters Pink copy - Region Yellow copy - Lab

GW-54 Revised 1/12/82

CLW

Reported by [illegible]

Checked by MS

Supervisor REK

Date 5-22-85

ORGANIC ANALYSIS

Entered by [illegible]

Checked by _____

Lab No.	Water Analytical Results
G-174	No base neutral or acid extractables detected by GC/MS.
	No purgeables detected by GC/MS/PT.

CLW

0000001248

✓ GC/MS/DS used

UIC PROGRAM

RECEIVED
N. C. DEPARTMENT OF NATURAL RESOURCES & COMMUNITY DEVELOPMENT
JUN 03 1985
DEM
WILMINGTON REGIONAL OFFICE

RECEIVED
MAY 31 1985
GROUND WATER SECTION
RALEIGH, N. C.

DEM

FIELD/LAB FORM

COUNTY ONSLOW

QUAD NO. X-24 NE SERIAL NO. ON-1130

REPORT TO: (circle one)
ARO, WSRO, MRO, FRO, WaRO, (WiRO) RRO, Ahoskie FO, OTHER

PURPOSE: (circle one) baseline, (pollution monitor) other

LAB NUMBER G-181
DATE REC'D 4-10-85
REC'D BY SD
DATA ENTRY BY CK
DATA REPORTED 5-29-85

DATE COLLECTED 04-09-85 Time 1200 By [illegible] Location or site TT-25 TOWNTOWN ASSOCIATES

Description of sampling point [illegible] Sampled interval 70-75; 85-95; 150-175

Remarks [illegible] CONTINUOUSLY SINCE 0 06-85 Q-1000 (pumping time, air temp, etc.)

Field Analysis By: [illegible] Lat. 344419N Long. 772143W

pH 5.4 Spec. Cond. [illegible] Temp. 17 °C Odor [illegible] Appearance CLEAR Taste [illegible]

Lab Analysis

✓	Alkalinity to pH 4.5	P00410	170	mg/l
	Alkalinity, Hydroxide	P71830	<1	mg/l
✓	Carbonate	P00445	<1	mg/l
✓	Bicarbonate	P00440	200	mg/l
✓	pH value (when analyzed)	P00400	7.5	units
✓	Arsenic (D)	P01000	<10	ug/l
	Carbon dioxide	P00405		mg/l
✓	Chloride (D)	P00940	9	mg/l
✓	Color (True)	P00080	23	units
	Cyanide	P00720		mg/l
✓	Dissolved solids (D)	P70301	220	mg/l
✓	Fluoride (D)	P00951	0.2	mg/l
✓	Hardness (as $CaCO_3$) (D)	P00900	180	mg/l
✓	Hardness (non-carbonate) (D)	P00902	10	mg/l
	MBAS (D)	P38260		mg/l
✓	Phenol (D)	P34466	<5	ug/l
✓	Silica (D)	P00955	7	mg/l
✓	Sulfate (D)	P00946	7	mg/l
✓	Specific Cond.	P00094	390	UMHOS/cm

✓	Ag-Silver (D)	P01075	<50	ug/l
✓	Al-Aluminum (D)	P01106	100	ug/l
✓	Ba-Barium (D)	P01005	<1000	ug/l
✓	Ca-Calcium (D)	P00915	73	mg/l
✓	Cd-Cadmium (D)	P01025	<20	ug/l
✓	Cr-Chromium (D)	P01030	<50	ug/l
✓	Cu-Copper (D)	P01040	<20	ug/l
✓	Fe-Iron (D)	P01046	700	ug/l
✓	Hg-Mercury	P71900	<0.2	ug/l
✓	Li-Lithium (D)	P01130	<50	ug/l
✓	Mg-Magnesium (D)	P00925	1.9	mg/l
✓	Mn-Manganese (D)	P01056	<50	ug/l
✓	Na-Sodium (D)	P00929	6.1	mg/l
✓	Pb-Lead (D)	P01049	<100	ug/l
✓	Zn-Zinc (D)	P01090	<20	ug/l
✓	K-Potassium (D)	P00935	1.8	mg/l
✓	Selenium		<5.0	ug/l

	BOD	P00310	mg/l
	COD	P00341	mg/l
	Coliform (Fecal MF)	P31616	/100ml
	Coliform (total MF)	P31505	/100ml
✓	TOC	P00680 <5	mg/l
	Turbidity	P82079	NTU
✓	Ammonia (as Nitrogen) (D)	P00612 .01	mg/l
✓	Kjeldahl (as Nitrogen) (D)	P00623 <0.1	mg/l
✓	Nitrate ~~+ Nitrite~~ (as Nitrogen) (D)	P00631 <.01	mg/l
✓	Phosphorus, total as P (D)	P00666 .26	mg/l
	Dissolved Solids - cond. meter	P70304	mg/l

Other Analyses:

✓ NITRITE <.01 mg/L

✓ UNKNOWN ORGANICS
YES
NO

One unidentified peak detected by GC/MS CLW

D = Dissolved Analysis - submit filtered sample

White copy - Headquarters Pink copy - Region Yellow copy - Lab

0000001249

Two peaks found extractable acids by GC/MS

GW-54 Revised 1/12/82

1350

North Carolina Department of Natural
Resources & Community Development
7225 Wrightsville Ave. Wilmington, North Carolina 28403-3696

FAYETTEVILLE NC
PM
JUN 21
1985
283

N.C.

COLONEL R.A. TIEBOUT
ASSISTANT CHIEF OF STAFF, FACILITIES
UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE NC 28542-5001

CLW

0000001250

ROUTING SLIP

22 JUL 1985

	ACTION	INFO	INITIAL
BMO		✓	
ABMO		✓	
ADMIN			
F&A			
MAINT NCO			
M&R			
OPNS			
PROP			
UMACS			
UTIL		✓	GSJ
SECRETARY			

COMMENTS:

CLW

0000001251