FILE FOLDER

DESCRIPTION ON TAB:

11331.A Chemical Analysis of

Water Treatment Plants Shop 83

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11331.A CHEMICAL ANALYSIS
OF WĄTER TREAT.PLANTS

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GSI
WSR
11331
BREAD
8 AUG 85

Mr. John McFadyen
Water Supply Branch
Division of Health Services
North Carolina Department of
Human Resources
Post Office Box 2091
Raleigh, North Carolina 27602

Dear Mr. McFadyen:

Enclosed are the completed Department of Health Forms (DHS 1942 2/74) for all water treatment plants aboard Marine Corps Base, Camp Lejeune for the period 1-31 July 1985. Also enclosed are the weekly Chemical Analysis Forms (MCBCL 11330/3 Rev 3-82) for the same period, as requested in the 23 October 1982 letter from Mr. Charles Rundgren of your office.

One sample of the 30 July 1985 collection from the Camp Johnson Water Treatment Plant, serial #04-67-045, was positive. The membrane filter was too numerous to count. Five colonies were picked off and run through Lauri Tryptose Broth (LTB) Tubes and Brilliant Green Bile Broth (BGB) Tubes. All five were confirmed to be coliform. The first check sample was negative on 31 July 1985. The second check sample was taken on 2 August 1985 because no one was home on 1 August 1985. It was negative. A third check sample was taken on 3 August 1985 showing 4/100 ml non-coliform colonies. The fourth and fifth check samples were taken on 4 and 5 August 1985 and were negative. Although only two samples are required of the Camp Johnson Syetem, 15 were collected in July 1985. Our determination of the enclosed data is that the contaminated sample was not a representative sample. It is requested that one of the 13 extra samples be substituted for the contaminated sample in computing the coliform density. This request is based on rules and regulations of the Safe Drinking Water Act published in the Federal Register, Volume 45, Number 168, Dated 27 August 1980.

One sample of the 30 July 1985 collection from the Rifle Range Water Treatment Plant, serial #04-67-046, was positive. The membrane filter contained 31/100 ml typical colonies and 16/100 ml atypical colonies. Five typical colonies were picked off and run through LTB and BGB Tubes. Two atypical colonies were also picked off and run through LTB and BGB Tubes. All five typical and one atypical were confirmed to be coliform. The adjusted count is 39 coliform/100 ml and eight non-coliform/100 ml for 30 July 1985. The first check sample was taken 31 July 1985 and was negative. However, the second check sample on 1 August 1985 showed numerous non-coliform. Two more check samples were taken on 2 and 3 August 1985 and were negative. During your 2 August 1985 telephone

conversation with Ms. Elizabeth A. Betz, Natural Resources and Environmental Affairs Division (NREAD), Marine Corps Base, Camp Lejeune, the positive sample was discussed. Since substitution had been requested for June's results for the Rifle Range System in our letter of 6 July 1995, you advised that public notification will be required.

The analysis is run by the Quality Control Laboratory located in the NREAD, Assistant Chief of Staff, Facilities. Ms. Elizabeth Betz, Supervisory Chemist, Quality Control Laboratory, telephone (919) 451-5977 is the point of contact in this matter.

Sincerely,

B. A. TIERNOUT
Colonel, U. S. Marine Corps
Assistant Chief of Staff, Facilities
By direction of the Commanding General

Encls: (1) Dept of Health Forms
(2) Chemical Analysis Forms

Copy to:
LANTDIV (Code 114)

Blind copy to:
CMC (Attn: UtilDiv)

SupvChem

Writer: E. Betz, NREAD, 5977
Typist: A. Blackstock, 8 August 1995

Month [illegible] HADNOT POINT WATER TREATMENT PLANT AT Camp Lejeune Method Code: 303

Year 1985 REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES Contaminant Code: 3000

Serial # 04-67-041 N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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2	>2nd															0	9	0	0	0	0	0				35
3																										
4																										
5																										
6																										
7																										
8																										
9	>9th															0	9	0	0	0	0	1	0	1		35
10																		0	0							
11																										
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16	>16th																									
17																0	9	0	0	0	0	1				35
18																				0	0	0				
19																										
20																										
21																										
22																										
23	>23rd															0	9	0	0	0	0	1	0	0		35
24																							0	0		
25																										
26																										
27																										
28																										
29																										
30	>30th															0	9	0	0	0	0	1	0	0		35
31																		0	0							
MF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN										0	DIST. SYSTEM	TOTAL NO. SAMPLES								45
TPC MEDIA						GEO. MEAN										1		SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml.								0

Laboratory Cert. #37807 Signed Elizabeth A Betz Cert. Grade B-Well No. 4087-W

Month JUNE MARINE CORPS AIR STATION WATER TREATMENT PLANT AT Camp Lejeune Method Code: 303

Year 1985 REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES Contaminant Code: 3000

Serial # 04-67-042 N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES #1L ON 7/31 8/1 COLIFORMS per 100 ml.	REPEAT SAMPLES #2L ON 7/31 8/1 COLIFORMS per 100 ml.	REPEAT SAMPLES COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
1																												
2	>2															0	7	0 | 0	0 | 0	0 | 0	0 | 1					35	
3																												
4																												
5																												
6																												
7																												
8																												
9	>9															0	7	0 | 0	0 | 0	0 | 0	1 | 0					35	
10																												
11																												
12																												
13																												
14																												
15																												
16	>16															0	7	0 | 0	0 | 0	0 | 0	1	0				35	
17																												
18																												
19																												
20																												
21																												
22																												
23	>23															0	7	0 | 0	0 | 0	0 | 0		10				35	
24																												
25																												
26																												
27																												
28																												
29																												
30	>30															0.6	7	1 | 0	1 | 0	0 | 0			0 | 0	0 | 0	1	35	
31																		2					0 | 0					
MF MEDIA / TPC MEDIA			BBL mEndo			BACTERIAL DENSITY		ARITH. MEAN / GEO. MEAN								0.11 / 1.02	DIST. SYSTEM	TOTAL NO. SAMPLES									35	
																		SAMPLES EXCEEDING 3/50. (4/100, 7/200. 13/500ml.									0	

Laboratory Cert. #37807 Signed Elizabeth O Bell Cert. Grade B-Well No. 4087-W

Month July Year 1985

HOLCOMB BLVD. WATER TREATMENT PLANT AT Camp Lejeune

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

Method Code: 303
Contaminant Code: 3000

Serial # 04-67-043

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
1																												
2	>22															0	7	0 1 0	0 1 0	0 1 0	0 1					35	
3																												
4																												
5																												
6																												
7																												
8																												
9	>9															0	7	0 1 0	0 1 0		0 1 0	0 1				35	
10																												
11																												
12																												
13																												
14																												
15																												
16	>16															0	7	0 1 0	0 1 0			1 0				35	
17																		0 1 0										
18																												
19																												
20																												
21																												
22																												
23	>23															0	7	0 1 0	0 1 0 1	-	0 1	0 1				35	
24																												
25																												
26																												
27																												
28																												
29																												
30	> 30															0	7	0 1 0	0 1 0		0 1 0	0 1				35	
31																												
MF MEDIA			BBL mEndo			BACTERIAL DENSITY		ARITH. MEAN								0	DIST. SYSTEM	TOTAL NO. SAMPLES								35	
TPC MEDIA								GEO. MEAN										SAMPLES EXCEEDING 3/50. 4/100. 7/200. 13/500ml.								0	

Laboratory Cert. #37807

Signed Elizabeth A Bell Cert. Grade B-Well No. 4087-W

Month JULY

Year 1985

TARAWA TERRACE

WATER TREATMENT PLANT AT Camp Lejeune

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

Method Code: 303
Contaminant Code: 3000

Serial # 04-67-044

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
1																										
2	22															0	3	0 1 0	0 1							35
3																										
4																										
5																										
6																										
7																										
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9	29															0	3	0 1 0	1 0							35
10																										
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16	16															0	3	0 1 0		0						35
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23	23															0	3	0 1 0		1 0						35
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27																										
28																										
29																										
30	30															0	3	0 1 0			0 1					35
31																										
MF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN										0	DIST. SYSTEM	TOTAL NO. SAMPLES								15
TPC MEDIA						GEO. MEAN										1		SAMPLES EXCEEDING 3/50. (4/100), 7/200. 13/500ml								0

Laboratory Cert. #37807

Signed Elizabeth a Bell

Cert. Grade B-Well No. 4087-W

Month SEPT — CAMP JOHNSON — WATER TREATMENT PLANT AT Camp Lejeune — Method Code: 303

Year 1985 — REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES — Contaminant Code: 3000

N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-045

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	1	2	3	4	5	REPEAT SAMPLES #5R JN 7/31 COLIFORMS per 100 ml.	#5R JN 8/2	#5R JN 8/3 COLIFORMS per 100 ml.	#5R JN 8/4	#5R JN 8/5 COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
1																													
2	52															0.3	3	0	1	0									
~~4~~																												35	
4																													
5																													
6																													
7																													
8																													
9	59															0	3	0		0	0								
~~10~~																												35	
11																													
12																													
13																													
14																													
15																													
16	516															0	3	0			0	0							
~~17~~																												35	
18																													
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23	523															0	3	0				0	0						
~~24~~																												35	
25																													
26																													
27																													
29																													
29																													
30	530															26.7	3	0		0				*	0	0	NC	0	0
~~31~~																												35	
MF MEDIA / TPC MEDIA		BBL mEndo				BACTERIAL DENSITY		ARITH. MEAN / GEO. MEAN								5.4 / 1.34	DIST. SYSTEM	TOTAL NO. SAMPLES											15
																		SAMPLES EXCEEDING 3/50. 4/100. 7/200. 13/500ml.											1

Laboratory Cert. #37807

* SAMPLE WAS TNTC, FOR CALCULATING AVERAGES A COUNT OF 90/100 ML WAS USED

Signed Elizabeth A Bell

Cert. Grade B-Well No. 4087-W

Month JULY — RIFLE RANGE — WATER TREATMENT PLANT AT Camp Lejeune — Method Code: 303

Year 1985 — REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES — Contaminant Code: 3000

Serial # 04-67-046 — N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: #3L ON 7/31 COLIFORMS per 100 ml.	REPEAT SAMPLES: #3L ON 8/1	REPEAT SAMPLES: #3L ON 8/2 COLIFORMS per 100 ml.	REPEAT SAMPLES: #3L ON 8/3	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
1																												
2	72															0	3	0 | 0	0								35
3																												
4																												
5																												
6																												
7																												
8																												
9	79															0	3	0 | 0	0								35
10																												
11																												
12																												
13																												
14																												
15																												
16	716															0	3	0 | 0	0								35
17																												
18																												
19																												
20																												
21																												
22																0	3	0 | 0	0								35
23	723																											
24																												
25																												
26																												
27																												
28																												
29																												
30	780															10.3	3	0 | 0		31			0 | N C	0 | 0	1		35
31																												
MF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN										2.07	DIST. SYSTEM	TOTAL NO. SAMPLES									15
TPC MEDIA						GEO. MEAN										1.26		SAMPLES EXCEEDING 3/50. 4/100 7/200. 13/500ml									1

Laboratory Cert. #37807 — Signed Elizabeth A Betz — Cert. Grade B-Well — No. 4087-W

Month JULY | COURTHOUSE BAY | WATER TREATMENT PLANT AT Camp Lejeune | Method Code: 303

Year 1985 | REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES | Contaminant Code: 3000

Serial # 04-67-047 | N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES *1 R: COLIFORMS per 100 ml.	REPEAT SAMPLES *4 R: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
1																												
2	72															0	4	0	0	0							35	
3																												
4																												
5																												
6																												
7																												
8																												
9	79															0	4	0	0	0	1						35	
10																												
11																												
12																												
13																												
14																												
15																												
16	76															0	4	0	0	1	0	1	0				35	
17																												
18																												
19																												
20																												
21																												
22																												
23	23															0	4	0	0	1	0		0				35	
24																												
25																												
26																												
27																												
28																												
29																												
30	30															4.0	4	0	1	2			1	4	0	1	0	35	
31																												

MF MEDIA	BBL mEndo	BACTERIAL DENSITY	ARITH. MEAN		0.8	DIST. SYSTEM	TOTAL NO. SAMPLES		20
TPC MEDIA			GEO. MEAN		1.21		SAMPLES EXCEEDING 3/50. 4/100, 7/200. 13/500ml		1

Laboratory Cert. #37807 | Signed Elizabeth A Betz | Cert. Grade B-Well | No. 4087-W

Month NOV
Year 1985

ONSLOW BEACH WATER TREATMENT PLANT AT Camp Lejeune

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

Method Code: 303
Contaminant Code: 3000

Serial # 04-67-048

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
1																										
2	>72															0	2	00								35
3																										
4																										
5																										
6																										
7																										
8																										
9	>9															0	2	01	01							35
10																										
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14																										
15																										
16	>16															0	2	01	10							35
17																										
18																										
19																										
20																										
21																										
22																										
23	>23															0	2	01	01							35
24																										
25																										
26																										
27																										
28																										
29																										
30	>30															0	2	01	01							35
31																										
MF MEDIA		BBL mEndo			BACTERIAL DENSITY		ARITH. MEAN									0	DIST. SYSTEM	TOTAL NO. SAMPLES								10
TPC MEDIA							GEO. MEAN									1		SAMPLES EXCEEDING 3/50. 4/100 7/200. 13/500ml.								0

Laboratory Cert. #37807

Signed Elizabeth C Bell Cert. Grade B-Well No. 4087-W

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS
MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED: 7-2-85
DATE OF ANALYSIS: 7-2-85

PARAMETER (Serial #04-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (in Lab not Plant)	8.8	7.7	8.7	7.5	8.5	8.2	8.8	8.8		
PHENOLTHALEIN ALKALINITY	4	0	4	0	6	0	4	10		
METHYL ORANGE ALKALINITY	62	196	60	166	144	180	64	190		
CARBONATES AS $CaCO_3$	8	0	8	0	12	0	8	20		
BICARBONATES AS $CaCO_3$	54	196	52	166	132	180	56	170		
CHLORIDES AS C1	8	42	18	18	26	48	20	180		
HARDNESS AS $CaCO_3$	70	74	68	56	50	56	70	56		
IRON AS Fe	<0.04	0.59	<0.04	0.12	<0.04	<0.04	<0.04	<0.04		
FLUORIDE AM	0.99		1.08				0.97			
FLUORIDE PM	0.88	0.18	0.94	0.19	0.12	0.11	0.90	0.82		
CHLORINE RESIDUAL	1.1	1.3	1.0	1.5	1.4	1.0	0.9	0.8		
TURBIDITY AM	0.2		0.4				0.3			
TURBIDITY PM	0.3	0.6	0.4	0.2	0.6	0.3	1.6	0.2		
TOTAL PHOSPHATE		1.87			1.98					
ORTHO PHOSPHATE		1.25			0.31					
META PHOSPHATE		0.62			1.67					
STABILITY	+0.3	-0.8	+0.1	-1.0	-0.2	-0.4	+0.2	+0.1		

REMARKS

pH OB Pond 9.0

COPY TO:

☐ UTIL DIR ☐ _____

☐ WATER TREATMENT

☐ PMU ☐ MCAS PMU

☐ NREAD ☐ FILE

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

TOM BARBEE

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS
MCBCL 11330/3 (REV 6-84)

DATE COLLECTED 7-9-85 | DATE OF ANALYSIS 7-9-85

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLOW BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER		
Serial #04 -67	-041	-045	-044	-048	-047	-046	-043	-042		
PH (in lab not Plant)	8.6	7.3	8.4	7.5	8.3	8.2	8.9	8.6		
PHENOLTHALEIN ALKALINITY	6	0	2	0	2	0	8	20		
METHYL ORANGE ALKALINITY	64	186	70	160	164	180	50	200		
CARBONATES AS $CaCO_3$	12	0	4	0	4	0	16	40		
BICARBONATES AS $CaCO_3$	52	186	66	160	160	180	34	160		
CHLORIDES AS C1	10	34	14	48	10	50	10	170		
HARDNESS AS $CaCO_3$	66	80	80	44	70	60	56	60		
IRON AS Fe	<0.04	0.84	0.05	0.06	<0.04	<0.04	<0.04	<0.04		
FLUORIDE AM	0.96		0.98				0.91			
FLUORIDE PM	0.96	0.16	0.86	0.19	0.12	0.09	0.85	0.89		
CHLORINE RESIDUAL	1.1	1.3	1.0	1.5	1.5	1.0	0.8	1.2		
TURBIDITY AM	0.1		0.2				0.2			
TURBIDITY PM	0.2	0.5	0.4	0.3	0.6	0.3	0.2	0.3		
TOTAL PHOSPHATE		1.80			1.40					
ORTHO PHOSPHATE		1.29			0.27					
META PHOSPHATE		0.51			1.13					
STABILITY	+0.2	-0.7	+0.2	-0.7	+0.1	0.0	+0.3	+0.1		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

T. BARBEE & H. BURNS

COPY TO:

- ☐ UTIL DIR ☐ _____
- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330 3 (REV 6-84)

	DATE COLLECTED	DATE OF ANALYSIS
	7-16-85	7-16-85

PARAMETER (SERIAL # 04-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.8	7.5	8.4	7.6	8.5	83	8.6	8.8		
PHENOLTHALEIN ALKALINITY	6	0	6	0	10	2	4	12		
METHYL ORANGE ALKALINITY	60	198	78	156	144	166	64	142		
CARBONATES AS $CaCO_3$	12	0	12	0	20	4	8	24		
BICARBONATES AS $CaCO_3$	48	198	66	156	124	162	56	118		
CHLORIDES AS C1	10	80	20	20	18	46	16	120		
HARDNESS AS $CaCO_3$	60	102	80	52	64	56	62	42		
IRON AS Fe	<0.04	0.55	<0.04	0.11	<0.04	0.06	<0.04	<0.04		
FLUORIDE AM	0.97		0.85				0.95			
FLUORIDE PM	1.07	.17	.99	.24	.14	.13	1.04	.92		
CHLORINE RESIDUAL	1.1	1.2	1.0	0.5	1.4	1.0	0.9			
TURBIDITY AM	0.1		0.4				0.4			
TURBIDITY PM	0.3	0.4	0.4	0.2	0.4	0.3	0.2			
TOTAL PHOSPHATE		1.66			0.69					
ORTHO PHOSPHATE		1.00			0.18					
META PHOSPHATE		0.66			0.51					
STABILITY	+0.5	-0.3	+0.1	-0.5	+0.4	+0.2	+0.3	+0.1		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

H. J. BURNS

COPY TO:

- ☐ UTIL DIR ☐ _____
- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330 3 (REV 6-84)

DATE COLLECTED 7-23-85

DATE OF ANALYSIS 7-23-85

PARAMETER Sheet #04-47	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.8	7.4	8.5	7.4	8.4	8.3	8.7	8.6		
PHENOLTHALEIN ALKALINITY	6	0	6	0	6	6	2	6		
METHYL ORANGE ALKALINITY	60	138	86	180	148	170	68	134		
CARBONATES AS $CaCO_3$	12	0	12	0	12	12	4	12		
BICARBONATES AS $CaCO_3$	48	138	74	180	136	158	64	122		
CHLORIDES AS Cl	6	66	10	12	12	16	8	42		
HARDNESS AS $CaCO_3$	70	102	84	64	48	44	64	48		
IRON AS Fe	<0.04	0.81	<0.04	0.12	<0.04	<0.04	<0.04	<0.04		
FLUORIDE AM	1.04		0.88				1.07			
FLUORIDE PM	1.08	0.18	0.92	0.20	0.13	0.13	1.00	0.57		
CHLORINE RESIDUAL	1.0	1.2	1.0	1.4	1.1	1.0	0.9	0.7		
TURBIDITY AM	0.2		1.0				0.3			
TURBIDITY PM	0.3	0.6	1.2	0.2	0.7	0.2	0.4	0.5		
TOTAL PHOSPHATE		1.74			1.11					
ORTHO PHOSPHATE		1.11			0.22					
META PHOSPHATE		0.63			0.89					
STABILITY	+0.4	-0.5	+0.2	-0.8	0.0	-0.1	+0.2	0.0		

REMARKS

OB Pond = 7.9

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

H. J. BURNS

COPY TO:

- ☐ UTIL DIR ☐ _____
- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330.3 (REV 6-84)

DATE COLLECTED 7-30-85 | DATE OF ANALYSIS 7-30-85

PARAMETER (Serial #04-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.7	7.4	9.1	7.5	8.6	8.4	7.9	8.8		
PHENOLTHALEIN ALKALINITY	12	0	4	0	4	2	0	8		
METHYL ORANGE ALKALINITY	64	172	48	244	144	152	104	158		
CARBONATES AS $CaCO_3$	24	0	8	0	8	4	0	16		
BICARBONATES AS $CaCO_3$	40	172	40	244	136	148	104	142		
CHLORIDES AS C1	10	32	18	40	12	18	10	60		
HARDNESS AS $CaCO_3$	70	80	70	60	70	60	106	48		
IRON AS Fe	<0.04	0.65	<0.04	0.14	<0.04	<0.04	<0.04	0.09		
FLUORIDE AM / PM	0.94 / 0.92	0.20	0.98 / 0.91	0.22	0.12	0.10	1.05 / 0.93	0.66		
CHLORINE RESIDUAL	1.1	1.2	1.0	1.5	1.5	1.0	1.1	0.8		
TURBIDITY AM / PM	0.2 / 0.3	0.5	0.6 / 3.5	0.3	0.5	0.2	0.3 / 0.4	1.5		
TOTAL PHOSPHATE		1.41			1.30					
ORTHO PHOSPHATE		1.14			0.32					
META PHOSPHATE		0.27			0.98					
STABILITY	+0.4	-0.6	+0.5	-0.6	+0.3	+0.1	-0.2	+0.1		

REMARKS

OB Pond pH = 8.6

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

H. J. BURNS

COPY TO:

- ☐ UTIL DIR ☐ _____
- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

GSJ
WRP

UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:

11330/1
NREAD
8 July 1985

Mr. John McFadyen
Water Supply Branch
Division of Health Services
North Carolina Department of
Human Resources
Post Office Box 2091
Raleigh, North Carolina 27602

Dear Mr. McFadyen:

Enclosed are the completed Department of Health Forms (DHS 1942 2/74) for all water treatment plants aboard Marine Corps Base, Camp Lejeune for the period 1-30 June 1985. Also enclosed are the weekly Chemical Analysis Forms (MCBCL 11330/3 Rev 3-82) for the same period, as requested in the 25 October 1982 letter from Mr. Charles Rundgren of your office.

One sample of the 4 June 1985 collection from the Rifle Range Water Treatment Plant was positive. On the membrane filter, 23 colonies/100 ml were counted. Five colonies were picked off and run through Laurl Tryptose Broth Tubes and Brilliant Green Bile Broth Tubes. All five were confirmed to be coliform. Check samples were collected on 5 and 6 June 1985 and were negative. Although only two samples are required of the Rifle Range System, 12 were collected in June 1985. Our determination of the enclosed data is that the contaminated sample was not a representative sample. It is requested that one of the 10 extra samples be substituted for the contaminated sample in computing the coliform density. This request is based on rules and regulations of the Safe Drinking Water Act published in the Federal Register, Volume 45, Number 168, dated 27 August 1980.

The analysis is run by the Quality Control Laboratory located in the Natural Resources and Environmental Affairs Division,

Assistant Chief of Staff, Facilities. Ms. Elizabeth Betz, Supervisory Chemist, Quality Control Laboratory, telephone (919) 451-5977 is the point of contact in this matter.

Sincerely,

J. I. WOOTEN
Director

Encl:
(1) Dept of Health Forms
(2) Chemical Analysis Forms

Copy to:
NAVFACENGCOM (Code 114)

Blind copy to:
BMO (Attn: Util DR)

Year 1985 HADNOT POINT CENTER CONTINUANT CODE: 5000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

SERIAL # 04-67-041

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA			BBL m-ENDO			DACTERIAL DENSITY		ARITH. MEAN								0	DIST. SYSTEM	TOTAL NO. SAMPLES								30
TPC MEDIA								GEO. MEAN								1.0		SAMPLES EXCEEDING 3/50, (4/100) 7/200, 13/500ml								0

Laboratory Cert. ~~450~~ # 37807 Signed Elizabeth A. Bell Cert. Grade B-WELL No. 4037-W

METHOD CODE 303

MARINE CORPS AIR STATION AT CAMP LEJEUNE

JUNE 1985

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

Contaminant Code: 3000

Serial # 04-67-042

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
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MF MEDIA	BBL mEndo	BACTERIAL DENSITY	ARITH. MEAN				0	DIST. SYSTEM	TOTAL NO. SAMPLES 27
TPC MEDIA			GEO. MEAN				1		SAMPLES EXCEEDING 3/50. 4/100. 7/200. 13/500ml 0

Laboratory Cert. #37807

Signed Elizabeth Batt Cert. Grade B-Well No. 4087-W

Month JUNE — HORSESHOE BEND — WATER TREATMENT PLANT AT SARAH HEIGHTS — ME IN DIS CODE 503

Year 1985

3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

SERIAL # 04-67-043

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	2 COLIFORMS per 100 ml.	3 COLIFORMS per 100 ml.	4 COLIFORMS per 100 ml.	5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA: BBL m ENDO — TPC MEDIA — BACTERIAL DENSITY — ARITH. MEAN — GEO. MEAN — DIST. SYSTEM: 0 — TOTAL NO. SAMPLES: 28 — SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml: 0

Laboratory Cert. # 37807

Signed Elizabeth A Betz — Cert. Grade B-Well — No. 4087-W

Year 1985 TARAWA TERRACE REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES CAMP LEJUNE

SERIAL # 04-67-044 N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA: BBL m-ENDO — BACTERIAL DENSITY — ARITH. MEAN — GEO. MEAN

TPC MEDIA

DIST. SYSTEM: 0 / 1

TOTAL NO. SAMPLES 12

SAMPLES EXCEEDING 3/50. (4)/100 7/200. 13/500ml 0

Laboratory Cert. #50 37807

Signed Elizabeth D. Beaty Cert. Grade B-WELL No. 4087-W

Year 1985 CAMP JOHNSON REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES CAMP LEJEUNE
SERIAL # 04-67-045 N. C. DEPARTMENT OF HUMAN RESOURCES CONTAINMENT CODE: 3550

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA: BBL m-ENDO
TPC MEDIA:
BACTERIAL DENSITY
ARITH. MEAN
GEO. MEAN
DIST. SYSTEM: 0 / 1
TOTAL NO. SAMPLES: 12
SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml: 0

Laboratory Cert. ~~450~~ 37807
Signed Elizabeth O Bf Cert. Grade B-WELL No. 4037-W

Year 1985 RIFLE RANGE REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES CAMP LEJEUNE

N. C. DEPARTMENT OF HUMAN RESOURCES

SERIAL # 04-67-046

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES 6/5/85 COLIFORMS per 100 ml.	REPEAT SAMPLES 6/6/85 COLIFORMS per 100 ml.	REPEAT SAMPLES COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA	BBL m-ENDO	BACTERIAL DENSITY	ARITH. MEAN			1.9	DIST. SYSTEM	TOTAL NO. SAMPLES 12
TPC MEDIA			GEO. MEAN			1.3		SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml 1

Laboratory Cert. ~~4200~~ 37807 Signed Elizabeth A Betz Cert. Grade B-WELL No. 4037-W

JUNE

Year 1985

COURTHOUSE BAY WATER PLANT AT CAMP LEJEUNE

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-047

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA			BBL mEndo			DACTERIAL DENSITY		ARITH. MEAN								0	DIST. SYSTEM	TOTAL NO. SAMPLES								16
TPC MEDIA								GEO. MEAN								1		SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml								0

Laboratory Cert. #37807

Signed Elizabeth O Bat Cert. Grade B-Well No. 4087-W

Year 1985 ONSLOW BEACH REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES CAMP LEJEUNE
N. C. DEPARTMENT OF HUMAN RESOURCES
SERIAL # 04-67-048

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA	BBL m-ENDO	BACTERIAL DENSITY	ARITH. MEAN			0	DIST. SYSTEM	TOTAL NO. SAMPLES	8
TPC MEDIA			GEO. MEAN			1		SAMPLES EXCEEDING 3/50. 4/100 7/200. 13/500ml	0

Laboratory Cert. ~~400~~ 37807 Signed Elizabeth C. [illegible] Cert. Grade B-WELL No. 4037-W

MCBCL 11330.3 (REV 6-84)

WATER TREATMENT PLANTS

DATE COLLECTED: 4 JUN 85

DATE OF ANALYSIS: 4 JUN 85

PARAMETER Serial # 04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	9.0	7.4	8.5	7.7	8.7	8.5	9.0	8.7		
PHENOLTHALEIN ALKALINITY	4	0	2	0	8	4	4	20		
METHYL ORANGE ALKALINITY	30	190	56	150	156	150	56	200		
CARBONATES AS $CaCO_3$	8	0	4	0	16	8	8	40		
BICARBONATES AS $CaCO_3$	22	190	52	150	140	142	48	160		
CHLORIDES AS Cl	10	60	12	16	12	40	10	120		
HARDNESS AS $CaCO_3$	64	120	96	60	76	68	60	56		
IRON AS Fe	<0.04	0.64	<0.04	0.18	0.15	0.08	0.04	<0.04		
FLUORIDE AM	1.12		1.16				0.63			
FLUORIDE PM	1.09	0.13	1.11	0.18	0.10	0.09	0.33	0.80		
CHLORINE RESIDUAL	1.0	1.2	1.0	1.0	1.4	1.0	1.0	1.1		
TURBIDITY AM	0.2		0.4				1.3			
TURBIDITY PM	0.3	0.6	5.1	0.2	1.2	0.5	0.5	0.6		
TOTAL PHOSPHATE		2.35			1.21					
ORTHO PHOSPHATE		1.22			0.27					
META PHOSPHATE		1.13			0.94					
STABILITY	+0.3	-0.6	-0.1	-0.6	+0.2	0.0	+0.3	0.0		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

GAINES HUNEYCUTT

COPY TO:

- ☐ UTIL DIR ☐ _____
- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

NCBCL 11330/3 (REV 6-84) ...TREATMENT PLANTS

DATE COLLECTED: 11 JUN 85

DATE OF ANALYSIS: 11 JUN 85

PARAMETER (SERIAL # 04-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	9.6	7.5	8.9	7.5	8.6	8.3	9.0	8.7		
PHENOLTHALEIN ALKALINITY	6	0	4	0	4	2	4	20		
METHYL ORANGE ALKALINITY	44	190	50	156	164	160	50	210		
CARBONATES AS $CaCO_3$	12	0	8	0	8	4	8	40		
BICARBONATES AS $CaCO_3$	32	190	42	156	156	156	42	170		
CHLORIDES AS Cl	10	60	10	16	14	46	10	120		
HARDNESS AS $CaCO_3$	56	90	80	70	68	56	60	70		
IRON AS Fe	<0.04	0.66	<0.04	0.10	0.05	0.06	<0.04	<0.04		
FLUORIDE AM	1.00		1.04				1.04			
FLUORIDE PM	1.05	0.18	0.94	0.20	0.13	0.11	1.03	0.95		
CHLORINE RESIDUAL	0.9	1.4	1.0	1.5	1.1	1.0	0.9	1.2		
TURBIDITY AM	0.2		0.3				0.2			
TURBIDITY PM	1.0	1.0	0.5	0.2	0.6	0.4	0.6	0.3		
TOTAL PHOSPHATE		3.23			0.98					
ORTHO PHOSPHATE		1.38			0.22					
META PHOSPHATE		1.85			0.76					
STABILITY	+0.5	-0.5	+0.2	-0.7	+1.2	-0.1	+0.3	0.0		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

HOY J. BURNS

COPY TO:

- ☐ UTIL DIR ☐ _____
- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

MCBCL 11330/5 (REV 6-84)

WATER TREATMENT PLANTS

DATE COLLECTED: 18 JUN 85

DATE OF ANALYSIS: 18 JUN 85

PARAMETER (Serial # 04-47)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.7	7.7	8.8	7.9	8.5	8.4	8.9	8.4		
PHENOLTHALEIN ALKALINITY	4	0	4	0	8	6	6	6		
METHYL ORANGE ALKALINITY	70	200	62	170	168	178	60	252		
CARBONATES AS $CaCO_3$	8	0	8	0	16	12	12	12		
BICARBONATES AS $CaCO_3$	62	200	54	170	152	166	48	240		
CHLORIDES AS C1	22	62	18	22	16	46	12	112		
HARDNESS AS $CaCO_3$	70	86	66	60	98	54	62	100		
IRON AS Fe	<0.04	0.86	<0.04	0.15	<0.04	0.06	<0.04	0.08		
FLUORIDE AM	0.79		0.97				1.03			
FLUORIDE PM	0.79	0.15	0.98	0.17	0.12	0.11	1.07	0.93		
CHLORINE RESIDUAL	1.0	1.3	1.0	1.6	1.3	1.0	1.3	1.3		
TURBIDITY AM	3.4		0.1				0.1			
TURBIDITY PM	0.2	0.6	0.2	0.1	0.2	0.3	0.2	0.4		
TOTAL PHOSPHATE		2.34			0.67					
ORTHO PHOSPHATE		1.41			0.19					
META PHOSPHATE		0.93			0.48					
STABILITY	+0.3	-0.8	+0.2	-0.7	0	-0.2	+0.4	-0.1		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

TOM BARBEE

COPY TO:

- ☐ UTIL DIR ☐ _____
- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

MCBCL 11330/3 (REV 6-84) WATER TREATMENT PLANTS

DATE COLLECTED: 25 JUN 85 | DATE OF ANALYSIS: 25 JUN 85

PARAMETER SERIAL # 04-47	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -013	NEW RIVER -042		
PH (IN LAB NOT PLANT)	9.0	7.7	8.6	7.5	8.6	8.2	9.0	8.7		
PHENOLTHALEIN ALKALINITY	6	0	4	0	10	6	6	4		
METHYL ORANGE ALKALINITY	58	196	74	166	164	166	56	176		
CARBONATES AS $CaCO_3$	12	0	8	0	20	12	12	8		
BICARBONATES AS $CaCO_3$	46	196	66	166	144	154	44	168		
CHLORIDES AS C1	8	30	10	20	14	54	14	94		
HARDNESS AS $CaCO_3$	66	76	86	58	58	54	68	52		
IRON AS Fe	<0.04	0.65	<0.04	0.09	<0.04	0.08	<0.04	<0.04		
FLUORIDE AM	0.18		1.00				1.02			
FLUORIDE PM	0.20	0.15	0.95	0.18	0.10	0.09	0.95	0.79		
CHLORINE RESIDUAL	1.0	1.0	1.0	1.3	1.4	1.0	0.8	1.2		
TURBIDITY AM	0.2		0.2				0.5			
TURBIDITY PM	0.2	0.6	0.3	0.2	0.3	0.5	0.5	0.4		
TOTAL PHOSPHATE		2.13			1.45					
ORTHO PHOSPHATE		1.16			0.24					
META PHOSPHATE		0.97			1.21					
STABILITY	+0.6	-0.7	+0.2	-1.0	+0.1	-0.3	+0.5	0.0		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

R.J. LACHAPELLE

COPY TO:

- ☐ UTIL DIR ☐ _____
- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

11330/1
NREAD
5 June 1985

Mr. John McFadyen
Water Supply Branch
Division of Health Services
North Carolina Department of
Human Resources
Post Office Box 2091
Raleigh, North Carolina 27602

Dear Mr. McFadyen:

Enclosed are the completed Department of Health Forms (DHS 1942 2/74) for all water treatment plants aboard Marine Corps Base, Camp Lejeune for the period 1-31 May 1985. Also enclosed are the weekly Chemical Analysis Forms (MCBCL 11330/3 Rev 3-82) for the same period, as requested in the 25 October 1982 letter from Mr. Charles Rundgren of your office.

The analysis is run by the Quality Control Laboratory located in the Natural Resources and Environmental Affairs Division, Assistant Chief of Staff, Facilities. Ms. Elizabeth Betz, Supervisory Chemist, Quality Control Laboratory, telephone (919) 451-5977 is the point of contact in this matter.

Sincerely,

J. I. WOOTEN
Director

Encl:
(1) Dept of Health Forms
(2) Chemical Analysis Forms

Copy to:
LANTDIV (Code 114)

Blind copy to:
BMO (Attn: UtilDir)
SupvChem, NREAD

MONTH: MAY 1985

HADNOT POINT WATER TREATMENT PLANT AT CAMP LEJEUNE

METHOD CODE: 303

REPORT OF BACTERIOLOGICAL ANALYSIS — DIVISION OF HEALTH SERVICES — CONTAMINANT CODE: 3000

Serial # 04-67-041

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP) 1: COLIFORMS per 100 ml.	COLIFORMS (MFP) 2: COLIFORMS per 100 ml.	COLIFORMS (MFP) 3: COLIFORMS per 100 ml.	COLIFORMS (MFP) 4: COLIFORMS per 100 ml.	COLIFORMS (MFP) 5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA: BBL. mEndo

TPC MEDIA

BACTERIAL DENSITY

ARITH. MEAN

GEO. MEAN

0

DIST. SYSTEM

TOTAL NO. SAMPLES: 35

SAMPLES EXCEEDING 3/50 ML/100 ML STAND...

MAY
1985

MARINE CORPS AIR STATION WATER TREATMENT PLANT
AT CAMP LEJUNE

METHOD CODE 303

REPORT OF BACTERIOLOGICAL ANALYSIS — DIVISION OF HEALTH SERVICES — Contaminant Code: 3000

Serial # 04-67-042

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA: BBL mEndo — BACTERIAL — ARITH. MEAN — DIST. — TOTAL NO. SAMPLES

MAY 1985

HOLCOMB BLVD. WATER TREATMENT PLANT AT CAMP LEJEUNE

METHOD CODE 30

3000

REPORT OF BACTERIOLOGICAL ANALYSIS — N. C. DIVISION OF HEALTH SERVICES — SOURCE IDENTIFICATION CODE:

Serial # 04-67-043

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA / TPC MEDIA			BBL mEndo			BACTERIAL DENSITY		ARITH. MEAN / GEO. MEAN								0	DIST. SYSTEM	TOTAL NO. SAMPLES								29

Serial # 04-67-044

N. C. DEPARTMENT OF HUMAN RESOURCES

Contaminant Code: 3000

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	2 COLIFORMS per 100 ml.	3 COLIFORMS per 100 ml.	4 COLIFORMS per 100 ml.	5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA: BBL mEndo

TPC MEDIA

BACTERIAL DENSITY

ARITH. MEAN: 0

GEO. MEAN: 1.0

DIST. SYSTEM

TOTAL NO. SAMPLES: 8

SAMPLES EXCEEDING 3/50. (4/100.) 7/200. 13/500ml: 0

Laboratory Cert. #37807

Signed Elizabeth O'Bell Cert. Grade B-Well No. 4087-W

MAY 1985

CAMP JOHNSON WATER TREATMENT PLANT

METHOD CODE 303

H.T.A. CAMP LEJEUNE U.S. DIVISION OF HEALTH SERVICES Contaminant Code: 3000

Serial # 04-67-045 N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA BBL mEndo BACTERIAL ARITH. MEAN DIST. TOTAL NO. SAMPLES 12

MAY 1985

RIFLE RANGE WATER TREATMENT PLANT AT CAMP LEJEUNE

METHOD CODE 303

Contaminant Code: 3000

Serial # 04-67-046

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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MF MEDIA BBL mFendo BACTERIAL ARITH. MEAN TOTAL NO. SAMPLES

MAY 1985

COURTHOUSE BAY WATER TREATMENT PLANT

H.T. CAMP LEJEUNE

METHOD CODE 303

Contaminant Code: 3000

Serial # 04-67-047

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
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ME MEDIA RRL mFC BACTERIAL ARITH. MEAN

MAY 1985

METHOD CODE 303

ONSLOW BEACH WATER TREATMENT PLANT

REPORT AT CAMP LEJEUNE — DIVISION OF HEALTH SERVICES — COLLECTING CODE 3000

Serial # 04-67-048

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
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ME MEDIA — PBT — mEndo — BACTERIAL — ARITH. MEAN — TOTAL NO. SAMPLES

MCBCL 11330/3 (REV 6-84)

DATE COLLECTED: 7 MAY 85

DATE OF ANALYSIS: 7 MAY 85

PARAMETER (SERIAL # 04-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.8	7.8	8.8	7.8	8.9	8.6	8.9	8.8		
PHENOLTHALEIN ALKALINITY	6	0	4	0	.12	4	2	8		
METHYL ORANGE ALKALINITY	60	196	52	178	162	158	68	174		
CARBONATES AS $CaCO_3$	12	0	8	0	24	8	4	16		
BICARBONATES AS $CaCO_3$	48	196	44	178	138	150	64	158		
CHLORIDES AS C1	10	38	10	18	16	20	12	66		
HARDNESS AS $CaCO_3$	76	98	80	64	70	52	72	68		
IRON AS Fe	<0.04	0.65	<0.04	0.18	0.09	0.05	<0.04	0.08		
FLUORIDE AM	0.96		1.15				0.97			
FLUORIDE PM	0.90	0.16	0.99	0.16	0.11	0.09	0.90	0.71		
CHLORINE RESIDUAL	1.0	1.4	1.0	1.3	1.4	1.0	1.0	1.3		
TURBIDITY AM	0.10		0.20				0.40			
TURBIDITY PM	0.16	1.57	0.36	0.17	0.72	0.32	0.20	0.21		
TOTAL PHOSPHATE		3.16			1.47					
ORTHO PHOSPHATE		1.44			0.44					
META PHOSPHATE		1.72			0.98					
STABILITY	+0.3	−0.6	+0.2	−0.7	+0.3	−0.1	+0.3	0.0		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram

LABORATORY ANALYSIS BY

COPY TO:

☐ UTIL DIR ☐ _____

☐ WATER TREATMENT

☐ PMU ☐ MCAS PMU

MCBCL 11330 / REV 6-84)

DATE COLLECTED 14 MAY 85

DATE OF ANALYSIS 14 MAY 85

PARAMETER Serial # 04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.6	7.5	8.5	7.7	8.6	8.5	8.9	8.7		
PHENOLTHALEIN ALKALINITY	4	0	4	0	4	4	6	16		
METHYL ORANGE ALKALINITY	60	190	60	150	160	156	58	210		
CARBONATES AS $CaCO_3$	8	0	8	0	8	8	12	32		
BICARBONATES AS $CaCO_3$	52	190	52	150	152	148	46	178		
CHLORIDES AS C1	10	30	10	24	12	26	10	90		
HARDNESS AS $CaCO_3$	68	74	80	74	80	50	64	50		
IRON AS Fe	<0.04	0.50	<0.04	0.22	0.12	<0.04	<0.04	0.07		
FLUORIDE Am	1.10		1.28				1.05			
FLUORIDE Pm	1.10	0.19	1.24	0.20	0.14	0.12	0.99	1.05		
CHLORINE RESIDUAL	1.0	1.4	1.0	1.2	1.2	1.0	1.0	1.5		
TURBIDITY Am	0.2		0.2				0.10			
TURBIDITY Pm	0.3	0.7	0.5	0.2	0.9	0.3	0.30	0.6		
TOTAL PHOSPHATE		2.71			1.51					
ORTHO PHOSPHATE		1.26			0.26					
META PHOSPHATE		1.45			1.25					
STABILITY	0.0	−0.5	+0.1	−0.5	+0.2	0.0	+0.1	0.0		

REMARKS

COPY TO:

☐ UTIL DIR ☐ _____

☐ WATER TREATMENT

☐ PMU ☐ MCAS PMU

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

MCBCL 11330 (REV 6-84)

DATE COLLECTED: 21 MAY 85 | DATE OF ANALYSIS: 21 MAY 85

PARAMETER (SERIAL # 01-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.9	7.5	9.0	7.4	8.6	8.3	8.9	8.6		
PHENOLTHALEIN ALKALINITY	8	0	6	0	10	8	8	10		
METHYL ORANGE ALKALINITY	66	192	42	164	162	166	64	206		
CARBONATES AS $CaCO_3$	16	0	12	0	20	16	16	20		
BICARBONATES AS $CaCO_3$	50	192	30	164	142	150	48	186		
CHLORIDES AS C1	10	36	12	18	16	36	14	74		
HARDNESS AS $CaCO_3$	68	78	70	60	56	96	66	68		
IRON AS Fe	0.10	0.53	<0.04	0.14	<0.04	0.05	<0.04	0.05		
FLUORIDE AM	0.88		0.96				0.94			
FLUORIDE PM	0.88	0.17	0.86	0.16	0.12	0.11	0.91	0.82		
CHLORINE RESIDUAL	1.0	1.3	1.0	1.5	1.5	1.4	0.9	1.3		
TURBIDITY AM	1.8		1.4				0.3			
TURBIDITY PM	1.4	0.4	3.7	0.2	0.3	0.3	0.5	0.5		
TOTAL PHOSPHATE		2.87			1.15					
ORTHO PHOSPHATE		1.25			0.24					
META PHOSPHATE		1.62			0.91					
STABILITY	+0.3	-0.8	+0.2	-1.0	+0.1	-0.1	+0.4	+0.1		

REMARKS

COPY TO:

☐ UTIL DIR ☐ _____

☐ WATER TREATMENT

☐ PMU ☐ MCAS PMU

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

MCBCL 11330 3 (REV 6-84)

DATE COLLECTED: 28 MAY 85

DATE OF ANALYSIS: 28 MAY 85

PARAMETER (SERIAL # 04-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	9.0	7.5	8.3	7.5	8.6	8.3	8.9	8.8		
PHENOLTHALEIN ALKALINITY	6	0	6	0	.8	6	6	12		
METHYL ORANGE ALKALINITY	62	200	90	164	160	168	64	212		
CARBONATES AS $CaCO_3$	12	0	12	0	16	12	12	24		
BICARBONATES AS $CaCO_3$	50	200	78	164	144	156	52	188		
CHLORIDES AS Cl	12	36	20	20	16	42	18	130		
HARDNESS AS $CaCO_3$	66	76	120	58	56	64	70	68		
IRON AS Fe	<0.04	0.74	<0.04	0.19	<0.04	<0.04	<0.04	<0.04		
FLUORIDE AM	0.99		0.76				0.94			
FLUORIDE PM	0.88	0.18	0.85	0.20	0.12	0.10	0.90	0.89		
CHLORINE RESIDUAL	1.0	1.4	1.0	1.3	1.3	0.5	1.1	1.4		
TURBIDITY AM	0.57		0.33				0.27			
TURBIDITY PM	0.78	0.72	0.63	0.35	0.49	0.40	0.30	0.18		
TOTAL PHOSPHATE		3.50			1.56					
ORTHO PHOSPHATE		1.60			0.22					
META PHOSPHATE		1.90			1.34					
STABILITY	+0.2	−1.0	−0.2	−1.1	−0.2	−0.3	+0.1	0.0		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

COPY TO:

☐ UTIL DIR ☐ _____

☐ WATER TREATMENT

☐ PMU ☐ MCAS PMU

11330/1
NREAD
8 May 85

Mr. John Mc Padyen
Water Supply Branch
Division of Health Services
North Carolina Department of
Human Resources
Post Office Box 2091
Raleigh, North Carolina 27602

Dear Mr. McPadyen:

Enclosed are the completed Department of Health Forms (DHS 1942 2/74) for all water treatment plants aboard Marine Corps Base, Camp Lejeune for the period 1-30 April 1985. Also enclosed are the weekly Chemical Analysis Forms (MCBCL 11330/3 Rev 3-82) for the same period, as requested in the 25 October 1982 letter from Mr. Charles Rundgren of your office.

The analysis is run by the Quality Control Laboratory located in the Natural Resources and Environmental Affairs Division, Assistant Chief of Staff, Facilities. Ms. Elizabeth Betz, Supervisory Chemist, Quality Control Laboratory, telephone (919) 451-5977 is the point of contact in this matter.

Sincerely,

J. I. HOOTEN
Director

Encl:
(1) Dept of Health Forms
(2) Chemical Analysis Forms

Copy to:
NAVFACENGCOM (Code 114)

Blind copy to:
BMO (Attn: Util Dir)
Supvy Chem, NREAD

Writer: E. Betz, NREAD, 5977
Typist: M. Hardigan 8 May 85

Month April — HADNOT POINT — WATER TREATMENT PLANT AT Camp LeJeune — Method Code: 303

Year 1985 — REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES — Contaminant Code: 3000

Serial # 04-67-041 — N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
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MF MEDIA	BBL mEndo	BACTERIAL DENSITY	ARITH. MEAN				0	DIST. SYSTEM	TOTAL NO. SAMPLES		42
TPC MEDIA			GEO. MEAN				1.0		SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml		0

Laboratory Cert. #37807 — Signed Elizabeth A Bell — Cert. Grade B-Well — No. 4087-W

Month APRIL
Year 1985

MARINE CORPS AIR STATION WATER TREATMENT PLANT AT CAMP LEJEUNE

Method Code: 303
Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-042

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
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MF MEDIA	BBL mEndo	BACTERIAL DENSITY	ARITH. MEAN			0	DIST. SYSTEM	TOTAL NO. SAMPLES	35
TPC MEDIA			GEO. MEAN			1.0		SAMPLES EXCEEDING 3/50. 4/100. 7/200. 13/500ml	0

Laboratory Cert. #37807

Signed Elizabeth Batt Cert. Grade B-Well No. 4087-W

Month April
Year 1985

HOLCOMB BLVD — WATER TREATMENT PLANT AT SWAMP DOGSKIN

Method Code: 303
Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-043

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
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MF MEDIA		BBL mEndo		BACTERIAL DENSITY	ARITH. MEAN											0	DIST. SYSTEM	TOTAL NO. SAMPLES								35	
TPC MEDIA					GEO. MEAN											1.0		SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml								0	

Laboratory Cert. #37807

Signed Elizabeth A. Best Cert. Grade B-Well No. 4087-W

Month APRIL — TARAWA TERRACE — WATER TREATMENT PLANT AT Camp LEJEUNE — Method Code: 303

Year 1985 — REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES — Contaminant Code: 3000

N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-044

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
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MF MEDIA			BBL mEndo		BACTERIAL DENSITY	ARITH. MEAN										0	DIST. SYSTEM	TOTAL NO. SAMPLES									15	
TPC MEDIA						GEO. MEAN										1.0		SAMPLES EXCEEDING 3/50. (4/100.) 7/200. 13/500ml									0	

Laboratory Cert. #37807 — Signed Elizabeth A Bell — Cert. Grade B-Well — No. 4087-W

Month April — Camp Johnson — WATER TREATMENT PLANT AT Camp LeJeune — Method Code: 303

Year 1985 — REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES — Contaminant Code: 3000

N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-045

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
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MF MEDIA	BBL mEndo	BACTERIAL DENSITY	ARITH. MEAN				0	DIST. SYSTEM	TOTAL NO. SAMPLES	15
TPC MEDIA			GEO. MEAN				1.0		SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500ml	0

Laboratory Cert. #37807 — Signed Elizabeth Bell — Cert. Grade B-Well — No. 4087-W

Month April

Year 1985

Rifle Range WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-046

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
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MF MEDIA: BBL mEndo — BACTERIAL DENSITY — ARITH. MEAN — GEO. MEAN

TPC MEDIA

0 — 1.0 — DIST. SYSTEM

TOTAL NO. SAMPLES 15

SAMPLES EXCEEDING 3/50, (4/100), 7/200, 13/500ml 0

Laboratory Cert. #37807

Signed Elizabeth C Bell

Cert. Grade B-Well No. 4087-W

Month April
Year 1985

COURTHOUSE BAY WATER TREATMENT PLANT AT Camp LeJeune

Method Code: 303
Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-047

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON
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MF MEDIA: BBL mEndo
TPC MEDIA:
BACTERIAL DENSITY
ARITH. MEAN: 0
GEO. MEAN: 1.0
DIST. SYSTEM
TOTAL NO. SAMPLES: 20
SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500ml: 0

Laboratory Cert. #37807

Signed [signature]

Cert. Grade B-Well No. 4087-W

Month April
Year 1985

ONSLOW BEACH WATER TREATMENT PLANT AT CAMP LEJEUNE

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

Method Code 323
Contaminant Code: 3000

Serial # 04-67-048

Date	RAW WATER COLIFORMS (MFP) A: Volume Filtered ml.	A: Total Colonies	A: Coliform Colonies	B: Volume Filtered ml.	B: Total Colonies	B: Coliform Colonies	C: Volume Filtered ml.	C: Total Colonies	C: Coliform Colonies	No. of Coliforms per 100 ml.	FILTERED: Total Plate Count	FILTERED: MFP Coliforms per 100 ml.	FINISHED: Total Plate Count	FINISHED: MFP Coliforms per 100 ml.	DISTRIBUTION SYSTEM: Total Plate Count	Coliforms (MFP): Ave. Coliforms per 100 ml.	Coliforms (MFP): No. of Samples Examined	Coliforms (MFP): 1 Coliforms per 100 ml.	Coliforms (MFP): 2 Coliforms per 100 ml.	Coliforms (MFP): 3 Coliforms per 100 ml.	Coliforms (MFP): 4 Coliforms per 100 ml.	Coliforms (MFP): 5 Coliforms per 100 ml.	Repeat Samples: Coliforms per 100 ml.	Repeat Samples: Coliforms per 100 ml.	Repeat Samples: Coliforms per 100 ml.	Incubator Temp.	Plankton
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MF MEDIA: BBL mEndo
TPC MEDIA:
BACTERIAL DENSITY
ARITH. MEAN
GEO. MEAN
0
1.0
DIST. SYSTEM
TOTAL NO. SAMPLES 10
SAMPLES EXCEEDING 3/50. (4/100.) 7/200. 13/500ml 0

Laboratory Cert. #37807

Signed Elizabeth C. Cox

Cert. Grade B-Well No. 4087-W

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED: 2APR85

DATE OF ANALYSIS: 2APR85

PARAMETER (SERIAL# 04-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	9.0	7.7	9.1	7.7	8.6	8.4	8.8	8.6		
PHENOLTHALEIN ALKALINITY	6	0	6	0	6	2	4	6		
METHYL ORANGE ALKALINITY	50	196	42	164	162	158	58	180		
CARBONATES AS $CaCO_3$	12	0	12	0	12	4	8	12		
BICARBONATES AS $CaCO_3$	38	196	30	164	150	154	50	168		
CHLORIDES AS C1	6	32	10	20	16	14	64	140		
HARDNESS AS $CaCO_3$	60	126	60	68	62	54	<0.04	60		
IRON AS Fe	<0.04	0.56	<0.04	0.11	0.05	<0.04	0.67 0.69	<0.04		
FLUORIDE Am	0.75		0.96							
FLUORIDE Pm	0.80	0.17	0.77	0.17	0.12	0.09	0.9	0.80		
CHLORINE RESIDUAL	1.2	1.3	1.0	1.5	1.4	1.0	0.20 0.20	1.2		
TURBIDITY Am	0.20		1.20							
TURBIDITY Pm	0.21	0.64	0.70	0.21	0.60	0.55		0.27		
TOTAL PHOSPHATE		2.00			1.38					
ORTHO PHOSPHATE		1.04			0.22					
META PHOSPHATE		0.96			1.16					
STABILITY	+0.4	-0.5	+0.3	-0.7	+0.1	-0.1	+0.3	0		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY: BABBEE + BURNS EOB

COPY TO:

- ☐ UTIL DIR ☐ _____
- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS
MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED: 9 APR 85
DATE OF ANALYSIS: 9 APR 85

PARAMETER (SERIAL # 04-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	9.0	7.4	8.7	7.4	8.6	8.2	8.7	8.2		
PHENOLTHALEIN ALKALINITY	6	0	4	0	6	2	6	2		
METHYL ORANGE ALKALINITY	52	190	58	158	162	170	66	170		
CARBONATES AS $CaCO_3$	12	0	8	0	12	4	12	4		
BICARBONATES AS $CaCO_3$	40	190	50	158	150	166	54	166		
CHLORIDES AS C1	10	38	16	26	22	36	16	58		
HARDNESS AS $CaCO_3$	58	78	76	60	74	68	64	54		
IRON AS Fe	<0.04	0.75	0.05	0.15	<0.04	<0.04	<0.04	<0.04		
FLUORIDE AM	0.97		0.74				1.00			
FLUORIDE PM	0.87	0.20	0.63	0.20	0.12	0.10	0.97	0.68		
CHLORINE RESIDUAL	1.0	1.3	1.0	1.8	1.0	1.0	1.2	1.3		
TURBIDITY AM	0.34		0.28				0.27			
TURBIDITY PM	0.18	0.70	10.67	0.19	0.38	0.33	0.31	0.39		
TOTAL PHOSPHATE		2.60			1.09					
ORTHO PHOSPHATE		1.13			0.16					
META PHOSPHATE		1.47			0.93					
STABILITY	+0.6	-0.8	+0.3	-0.9	+0.3	-0.1	+0.4	-0.2		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY
HUNEYCUTT
~~BARBEE~~ + ~~BURNS~~ EB

COPY TO:
- ☐ UTIL DIR ☐ _____
- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS
MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED: 15 APR 85
DATE OF ANALYSIS: 15 APR 85

PARAMETER (SERIAL # 04-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.9	7.5	8.8	7.6	8.7	8.8	8.3	8.6		
PHENOLTHALEIN ALKALINITY	18	0	6	0	18	12	2	18		
METHYL ORANGE ALKALINITY	74	194	50	164	176	76	196	202		
CARBONATES AS $CaCO_3$	36	0	12	0	36	24	4	36		
BICARBONATES AS $CaCO_3$	38	194	38	164	140	52	192	166		
CHLORIDES AS C1	10	30	12	12	12	14	32	62		
HARDNESS AS $CaCO_3$	70	92	86	62	84	64	98	48		
IRON AS Fe	<0.04	0.50	<0.04	0.13	<0.08	<0.04	0.07	0.05		
FLUORIDE AM	0.97		0.80				0.83			
FLUORIDE PM	0.96	0.15	0.98	0.19	0.11	0.12	0.88	0.71		
CHLORINE RESIDUAL	1.1	1.4	1.0	1.5	1.2	1.2	1.2	1.4		
TURBIDITY AM	0.7		0.2				0.3			
TURBIDITY PM	0.2	0.6	0.6	0.2	0.8	0.3	0.4	0.4		
TOTAL PHOSPHATE		2.60			1.84					
ORTHO PHOSPHATE		1.04			0.25					
META PHOSPHATE		1.56			1.59					
STABILITY	+0.3	-0.5	+0.1	-0.7	+0.3	+0.2	0.0	-0.1		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY
EOA
HUNEYCUTT

COPY TO:
- ☐ UTIL DIR ☐ _____
- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS
MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED: 23 APR 85
DATE OF ANALYSIS: 23 APR 85

PARAMETER (SERIAL # 04-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.9	7.7	8.8	7.5	8.7	8.4	8.9	8.8		
PHENOLTHALEIN ALKALINITY	8	0	12	0	12	4	10	28		
METHYL ORANGE ALKALINITY	18	240	54	166	176	180	74	190		
CARBONATES AS $CaCO_3$	16	0	24	0	24	8	20	56		
BICARBONATES AS $CaCO_3$	2	240	30	166	152	172	54	134		
CHLORIDES AS Cl	8	82	10	12	16	24	16	56		
HARDNESS AS $CaCO_3$	70	164	84	70	68	68	64	50		
IRON AS Fe	<0.05	1.15	<0.04	0.35	<0.04	<0.04	<0.04	<0.04		
FLUORIDE AM	0.79		0.13				0.95			
FLUORIDE PM	0.82	0.20	0.15	0.15	0.07	0.06	0.95	0.71		
CHLORINE RESIDUAL	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.2		
TURBIDITY AM	0.3		0.4				0.4			
TURBIDITY PM	0.2	1.0	0.3	0.3	0.4	0.3	0.3	0.2		
TOTAL PHOSPHATE		1.68			1.08					
ORTHO PHOSPHATE		1.09			0.28					
META PHOSPHATE		0.59			0.80					
STABILITY	+0.3	-0.2	+0.1	-0.7	+0.3	0.0	+0.2	0.0		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY: HONEYCUTT BB

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- ☐ WATER TREATMENT
- ☐ PMU ☐ MCAS PMU
- ☐ NREAD ☐ FILE

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV 6-84)

DATE COLLECTED: 30 APR 85

DATE OF ANALYSIS: 30 APR 85

PARAMETER (SERIAL # 04-67)	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.8	7.5	8.5	7.7	8.7	8.5	9.0	8.9		
PHENOLTHALEIN ALKALINITY	4	0	2	0	6	2	6	10		
METHYL ORANGE ALKALINITY	40	250	68	164	168	162	58	214		
CARBONATES AS $CaCO_3$	8	0	4	0	12	4	12	20		
BICARBONATES AS $CaCO_3$	32	250	64	164	156	158	46	194		
CHLORIDES AS Cl	12	78	10	20	16	20	12	114		
HARDNESS AS $CaCO_3$	64	98	92	62	80	54	62	54		
IRON AS Fe	0.06	0.98	0.05	0.10	<0.04	0.04	0.05	0.05		
FLUORIDE AM	1.02		1.03				1.15			
FLUORIDE PM	0.94	0.35	1.06	0.18	0.13	0.11	1.07	0.96		
CHLORINE RESIDUAL	1.1	0.7	1.0	1.3	1.3	1.0	0.9	0.9		
TURBIDITY AM	0.14		0.35				0.13			
TURBIDITY PM	0.17	0.67	0.58	0.16	0.60	0.26	0.25	0.33		
TOTAL PHOSPHATE		2.70			1.13					
ORTHO PHOSPHATE		1.28			0.27					
META PHOSPHATE		1.42			0.86					
STABILITY	0	-1.0	0	-0.8	+0.2	-0.2	+0.3	0		

REMARKS

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

BARBEE + LACHAPELLE 803

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