

11330/1
NREAD
4 Dec 1984

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 November 1984. 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

Writer: E. Betz, NREAD, 5977
Typist: J. Cross, 4Dec84

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0000004261

SERIAL # 04 67-041

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.
	A		B		C							1	2	3	4	5	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES														
1																				
2																				
3																				
4																				
5																				
6	36										0	9	0	0	0	0	0	0		
7																		35.2		
8																				
9																				
10																				
11																				
12																				
13	313										0	9	0	0	0	0	0	0		
14																		35.5		
15																				
16																				
17																				
18																				
19																				
20	320										0	9	0	0	0	0	0	0		
21																		35.0		
22																				
23																				
24																				
25																				
26																				
27	327										0	9	0	0	0	0	0	0		
28																		35.0		
29																				
30																				

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MF MEDIA BBL M-ENDO BACTERIAL ARITH. MEAN 0 DIST. TOTAL NO. SAMPLES 36
 TPC MEDIA BACTERIAL DENSITY GEO. MEAN 1.0 SYSTEM SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml 0

SERIAL # 04 67-042

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.		
	A		B		C								1	2	3	4	5	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES																	
1																							
2																							
3																							
4																							
5																							
6																							
7	36											0	7	0	0	0	0	0	0			35.2	
8																							
9																							
10																							
11																							
12																							
13	513											0	7	0	0	0	0	0	0			35.5	
14																							
15																							
16																							
17																							
18																							
19																							
20	320											0	7	0	0	0	0	0		0	0	35.0	
21																							
22																							
23																							
24																							
25																							
26																							
27	327											0	7	0	0	0	0	0		0		35.0	
28																							
29																							
30																							
31																							
												TOTAL NO. SAMPLES								28			
MFP MEDIA												BBL M-ENDO					BACTERIAL DENSITY			ARITH. MEAN			
TPC MEDIA																				GEO. MEAN			

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Month: _____
 Year: 1984

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

CONTAMINANT CODE: 3000

SERIAL # 04 67-047

DATE	RAW WATER COLIFORMS (HFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	HFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	HFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					INCUBATOR TEMP.			
	A		B		C								COLIFORMS (HFP)						REPEAT SAMPLES		
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES							1	2	3	4	5		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.
1																					
2																					
3																					
4																					
5																					
6										0	4	0	0	0					35.2		
7																					
8																					
9																					
10																					
11																					
12																					
13										0	4	0	0	0	0				35.5		
14																					
15																					
16																					
17																					
18																					
19																					
20										0	4	0	0			0	0		35.0		
21																					
22																					
23																					
24																					
25																					
26																					
27										0	4	0	0				0	0	35.0		
28																					
29																					
30																					
31																					

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MF MEDIA	BBL m-Endo	BACTERIAL DENSITY	ARITH. MEAN	0	DIST. SYSTEM	TOTAL NO. SAMPLES	16
TPC MEDIA		GEO. MEAN	10			SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml	0

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

DATE COLLECTED

11/6/84

DATE OF ANALYSIS

11/6/84

PARAMETER	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	7.3	8.6	7.4	8.4	8.3	8.6	8.7		
PHENOLTHALEIN ALKALINITY	4	0	4	0	2	2	4	12		
METHYL ORANGE ALKALINITY	54	200	56	150	150	140	60	210		
CARBONATES AS CaCO ₃	8	0	8	0	4	4	8	24		
BICARBONATES AS CaCO ₃	46	200	48	150	146	136	52	186		
CHLORIDES AS Cl	10	40	10	18	14	14	10	84		
HARDNESS AS CaCO ₃	64	80	84	52	58	56	64	46		
IRON AS Fe	<0.04	0.75	0.07	1.0	<0.04	<0.04	<0.04	<0.04		*
FLUORIDE	AM 1.01 PM 1.07	0.17	1.05 1.08	0.17	0.12	0.10	1.23 1.23	0.97		
CHLORINE RESIDUAL	0.9	1.2	1.0	1.5	1.4	1.0	0.9	1.3		
TURBIDITY	AM 0.27 PM 0.27	1.43	2.6 4.36	0.24	0.27	0.30	0.20 0.25	0.74		
TOTAL PHOSPHATE		3.45			1.00					
ORTHO PHOSPHATE		1.24			0.25					
META PHOSPHATE		2.21			0.75					
STABILITY	+0.4	-0.8	+0.3	-0.7	+0.2	0.0	+0.3	+0.1		

REMARKS CLW

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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
 ENCLOSURE (2)
 BURNS + LACHAPPELLE

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED

20 NOV 84

DATE OF ANALYSIS

20 NOV 84

PARAMETER <i>SERIAL # 01-67</i>	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	7.5	9.3	7.5	8.5	8.4	8.6	8.5		
PHENOLTHALEIN ALKALINITY	8	0	10	0	6	2	6	2		
METHYL ORANGE ALKALINITY	68	202	40	168	178	182	66	244		
CARBONATES AS CaCO ₃	16	0	20	0	12	4	12	4		
BICARBONATES AS CaCO ₃	52	202	20	168	166	178	54	240		
CHLORIDES AS Cl	10	44	12	18	18	28	10	80		
HARDNESS AS CaCO ₃	72	68	58	50	60	58	74	60		
IRON AS Fe	<0.04	0.91	<0.04	0.15	<0.04	<0.04	<0.04	<0.04		
FLUORIDE	AM 1.04 PM 1.03	0.14	1.07 0.87	0.15	0.10	0.08	1.00 0.98	0.92		
CHLORINE RESIDUAL	1.0	1.4	0.9	1.6	1.3	1.0	1.0	1.2		
TURBIDITY	AM 1.4 PM 1.7	1.5	0.3 0.6	0.3	0.4	0.3	0.3 1.0	0.4		
TOTAL PHOSPHATE		5.00			0.88					
ORTHO PHOSPHATE		1.68			0.19					
META PHOSPHATE		3.32			0.69					
STABILITY	+0.4	-0.7	+0.7	-0.8	+0.1	0.0	+0.3	-0.0		

REMARKS

CLW

0000004271

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

HUNRYCUTT + BARBEE

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED

13 NOV 84

DATE OF ANALYSIS

13 NOV 84

PARAMETER	HADNOT POINT -041	CAMP JOHNSON -042	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	7.2	9.1	7.5	8.5	8.2	8.5	8.8		
PHENOLTHALEIN ALKALINITY	6	0	10	0	4	0	4	20		
METHYL ORANGE ALKALINITY	60.	190	40	150	160	170	60	230		
CARBONATES AS CaCO ₃	12	0	20	0	8	0	8	40		
NON-CARBONATES AS CaCO ₃	48	190	20	150	152	170	52	190		
CHLORIDES AS Cl	10	54	10	16	12	20	10	94		
HARDNESS AS CaCO ₃	60	86	66	56	58	62	68	44		
IRON AS Fe	<0.04	0.61	<0.04	0.15	<0.04	<0.04	<0.04	<0.04		
FLUORIDE	AM 0.74 PM 0.80	0.12	AM 0.91 PM 0.84	0.12	0.08	0.07	AM 1.00 PM 0.87	0.92		
CHLORINE RESIDUAL	1.0	1.4	1.0	1.1	1.4	0.8	1.1	1.6		
TURBIDITY	AM 0.34 PM 0.59	1.00	AM 0.25 PM 0.52	0.45	0.31	0.27	AM 0.20 PM 0.27	0.33		
TOTAL PHOSPHATE		2.05			1.04					
ORTHO PHOSPHATE		0.84			0.22					
META PHOSPHATE		1.21			0.82					
STABILITY	+0.4	-0.8	+0.8	-0.7	+0.2	0.0	+0.2	+0.2		

REMARKS

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0000004272

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

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

DATE COLLECTED

11/27/84

DATE OF ANALYSIS

11/27/84

PARAMETER SERIAL # 01-67	HADNOT POINT -041	CAMP JOHNSON -043	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	7.6	8.4	7.4	8.3	8.2	8.6	7.8		
PHENOLTHALEIN ALKALINITY	4	0	2	0	0	0	2	0		
METHYL ORANGE ALKALINITY	40	180	56	160	150	140	60	240		
CARBONATES AS CaCO ₃	8	0	4	0	0	0	4	0		
BICARBONATES AS CaCO ₃	32	180	52	160	150	140	56	240		
CHLORIDES AS Cl	10	50	10	14	10	26	10	88		
HARDNESS AS CaCO ₃	60	76	80	64	64	50	62	142		
IRON AS Fe	<0.04	0.57	<0.04	0.15	<0.04	<0.04	0.07	0.18		
FLUORIDE	AM 0.76 PM 0.75	0.13	0.76 0.95	0.13	0.08	0.07	1.00 0.93	0.80		
CHLORINE RESIDUAL	1.0	1.4	1.1	1.5	1.4	1.0	0.9	1.4		
TURBIDITY	AM 0.30 PM 0.39	0.80	0.30 0.30	0.30	0.50	0.30	0.17 0.58	5.8		
TOTAL PHOSPHATE		2.70			0.96					
ORTHO PHOSPHATE		1.17			0.22					
META PHOSPHATE		1.53			0.74					
STABILITY	+0.4	-0.6	+0.2	-0.9	0.0	-0.1	+0.4	-0.3		

REMARKS

CLW

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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

H. J. Burns