



Ronald H. Levine, M.D., M.P.H.  
STATE HEALTH DIRECTOR

DIVISION OF HEALTH SERVICES  
P.O. Box 2091  
Raleigh, N.C. 27602-2091

June 21, 1983

Colonel J. T. Marshall  
Assistant Chief of Staff, Facilities  
United State Marine Corps  
Camp Lejeune, North Carolina 28542

Re: Compliance Monitoring  
Camp Lejeune  
Onslow County

Dear Colonel Marshall:

Enclosed are the monitoring reports for trihalomethane, inorganic chemical, sodium and corrosivity. We appreciate the summary format in which you submitted the data; however, such a format does not contain all of necessary information required by this office.

According to the information you supplied, Grainger Laboratory conducted almost all the analyses. Please submit to this office the forms on which Grainger Laboratory submitted the analytical results to you. Grainger Laboratory should have submitted the results of these tests on a form which is similar to the enclosed blank forms.

If you have any questions about the enclosed forms, please do not hesitate to contact me at telephone (919) 733-2321.

Sincerely,

Wm. Larry Elmore  
Environmental Engineer  
Water Supply Branch  
Environmental Health Section

WLE:spm

Enclosures

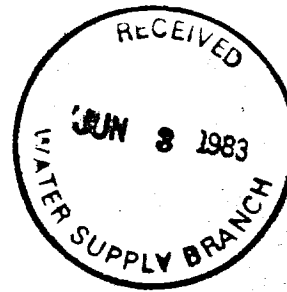
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**0000006352**



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

NREAD/JIW/th  
11330



Mr. Charles E. Rundgren  
Water Supply Branch  
Division of Health Services  
Post Office Box 2091  
Raleigh, North Carolina 27602-2091

Dear Mr. Rundgren:

Enclosed is a table of results of Trihalomethane analysis conducted for the past year for all eight water treatment systems aboard Marine Corps Base, Camp Lejeune.

The sampling was done by personnel in the Quality Control Laboratory, state identification number 37807, located in the Natural Resources and Environmental Affairs Division, under the Assistant Chief of Staff, Facilities. The laboratory analysis, method code 215, was performed by Grainger Laboratories Incorporated, state identification number 37709, located in Raleigh, North Carolina.

Five sample points per system were collected each day. Four were the required distribution points and one was taken at the beginning of the distribution system. During your 5 May 1983 conversation with Ms. Elizabeth Betz, of this command, you stated that samples from the beginning of the distribution systems were to be calculated in the averages. In compliance with that conversation, the fifth sample point result has been added with the other results for averaging.

For further information of Trihalomethanes at Camp Lejeune, the point of contact is Ms. Elizabeth Betz, Supervisory Chemist, Quality Control Laboratory, telephone (919) 451-5977.

Sincerely,

J. T. MARSHALL  
Colonel, U. S. Marine Corps  
Assistant Chief of Staff, Facilities  
By direction of the Commanding General

Encl:

(1) Total Trihalomethane Analysis Results

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TOTAL TRIHALOMETHANE ANALYSIS RESULTS

System	ID#	Quarterly Average units=ppb				Annual Average
		1982 Apr-Jun	1982 Jul-Sep	1982 Oct-Dec	1983 Jan-Mar	
Hadnot Point <sup>1</sup>	04-67-041	29.7	43.4	48.4	44.8	41.57
MCAS-New River <sup>1</sup>	04-67-042	85.9	105.2	107.4	98.2	99.17
Holcomb Blvd <sup>2</sup>	04-67-043	31.1	24.0	31.4	31.8	29.57
Tarawa Terrace <sup>2</sup>	04-67-044	14.0	19.0	13.0	19.0	16.0
Camp Johnson <sup>2</sup>	04-67-045	7.2	5.8	8.6	6.3 <sup>3</sup>	6.97
Rifle Range <sup>2</sup>	04-67-046	51.4	48.3	52.1	51.2	50.7
Courthouse Bay <sup>2</sup>	04-67-047	45.0	42.6	45.4	40.4	43.35
Onslow Beach <sup>2</sup>	04-67-048	51.0	38.0	37.0	44.0 <sup>4</sup>	42.0

Notes

1. Hadnot Point and Marine Corps Air Station-New River systems serve populations between 10,000-74,999.
2. These systems serve populations less than 10,000.
3. In February 1983, one of the distribution sample points at Camp Johnson was secured, so only four points were averaged instead of the usual five.
4. In February, the Onslow Beach distribution points were secured. Therefore, the only point collected was at the beginning of the distribution system.

<u>Sample Dates</u>	<u>Systems</u>
19 April 1982	Tarawa Terrace, Camp Johnson
20 April 1982	MCAS-New River, Holcomb Blvd
21 April 1982	Rifle Range, Courthouse Bay, Onslow Beach
22 April 1982	Hadnot Point
28 May 1982	Tarawa Terrace, Camp Johnson, MCAS-New River, Rifle Range, Courthouse Bay
27 May 1982	Holcomb Blvd, Onslow Beach, Hadnot Point
24 June 1982	Tarawa Terrace, Camp Johnson
25 June 1982	MCAS-New River, Holcomb Blvd, Rifle Range, Courthouse Bay, Onslow Beach, Hadnot Point
28 July 1982	Tarawa Terrace, Hadnot Point
29 July 1982	Camp Johnson, MCAS-New River, Holcomb Blvd, Rifle Range, Courthouse Bay, Onslow Beach
17 August 1982	MCAS-New River, Rifle Range
21 September 1982	MCAS-New River, Rifle Range
26 November 1982	Holcomb Blvd, Hadnot Point
29 November 1982	Tarawa Terrace, Camp Johnson, MCAS-New River, Rifle Range, Courthouse Bay, Onslow Beach
29 December 1982	MCAS-New River, Rifle Range
26 January 1983	MCAS-New River, Rifle Range
24 February 1983	Tarawa Terrace, Camp Johnson
25 February 1983	MCAS-New River, Holcomb Blvd, Rifle Range, Courthouse Bay, Onslow Beach, Hadnot Point

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

IN REPLY REFER TO  
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11330  
1 JUN 1983



Mr. Charles E. Rundgren  
Water Supply Branch  
Division of Health Services  
Post Office Box 2091  
Raleigh, North Carolina 27602-2091

Dear Mr. Rundgren:

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For further information of Trihalomethanes at Camp Lejeune, the point of contact is Ms. Elizabeth Betz, Supervisory Chemist, Quality Control Laboratory, telephone (919) 451-5977.

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Assistant Chief of Staff, Facilities  
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Encl:  
(1) Total Trihalomethane Analysis Results

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CAMP LEJEUNE, NORTH CAROLINA 28542

NREAD/DDS/th  
11300

Mr. Charles E. Rundgren, Head  
Water Supply Branch  
Division of Health Services  
Post Office Box 2091  
Raleigh, North Carolina 27602-2091

Dear Mr. Rundgren:

Enclosed are results of Inorganic Chemical and Corrosivity Analyses conducted during 1982 for all eight water treatment plants aboard Marine Corps Base, Camp Lejeune, as required by the Safe Drinking Water Act. Also enclosed is a table showing the construction materials used in each distribution system.

The laboratory analysis was run by Grainger Laboratories, Incorporated, Raleigh, North Carolina. The field analyses (temperature and pH) were run by personnel of the Quality Control Laboratory located in the Natural Resources and Environmental Affairs Division, Assistant Chief of Staff, Facilities. Ms. Elizabeth Betz, Quality Control Laboratory, telephone (919) 451-5977, is the point of contact in this matter.

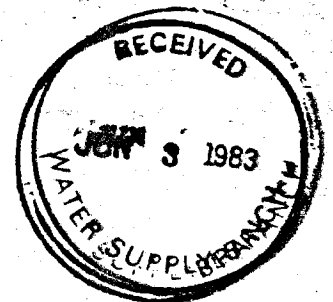
Sincerely,

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

Encl:

- (1) Inorganic Chemical Results
- (2) Corrosivity Results
- (3) Construction Materials System

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INORGANIC CHEMICAL RESULTS (mg/l) FOR SERIAL NO. 04-67-041 thru 048

Parameter	Method	Containment Code	041 - 048											
			041	042	043	044	045	046	047	048				
Arsenic	123	1005	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Barium	101	1010	0.01	0.04	0.03	0.01	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01
Cadmium	101	1015	0.0011	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0011	0.0011	0.0005	0.0005
Chromium	101	1020	0.003	0.003	0.003	0.003	0.017	0.017	0.004	0.003	0.003	0.003	0.003	0.003
Fluoride	107	1025	0.994	0.24	0.856	1.00	0.139	0.126	0.109	0.146	0.146	0.146	0.146	0.146
Lead	101	1030	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Mercury	103	1035	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Nitrate (N)	109	1040	0.17	0.05	0.11	0.05	0.05	0.05	0.05	0.11	0.11	0.11	0.05	0.05
Selenium	123	1045	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Silver	101	1050	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Iron	101	1028	0.045	0.338	0.037	0.020	0.673	0.544	0.536	0.556	0.556	0.556	0.556	0.556
Manganese	101	1032	0.002	0.004	0.002	0.006	0.015	0.030	0.011	0.025	0.025	0.025	0.025	0.025
Sodium	101	1052	20.7	79.8	24.4	19.8	81.9	88.7	81.5	66.4	66.4	66.4	66.4	66.4

All Samples Collected (Except Sodium): 29 September 1982  
 Sodium Samples Collected: 3 September 1982

All Results Run by Grainger Laboratories (ID# 37709)



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0000006357

CORROSIIVITY RESULTS FOR SERIAL NO. 04-67-041 thru 048

<u>PARAMETER</u>	<u>METHOD</u>	<u>CONTAMINANT CODE</u>	<u>041</u>	<u>042</u>	<u>043</u>	<u>044</u>	<u>045</u>	<u>046</u>	<u>047</u>	<u>048</u>
pH	135	1925	8.8	7:6	8.2	8.2	7.1	8.0	7.9	7.1
Temperature °C	130	1996	20.0	20.0	19.0	20.0	20.0	23.0	21.0	21.0
Total Alkalinity As CaCO <sub>3</sub> mg/l	142	1927	51.9	136	82.3	76.4	166	151	164	155
Total Filterable Residue mg/l	139	1930	106	320	10	152	126	230	246	140
Calcium As CaCO <sub>3</sub> mg/l	101	1919	40.9	48.0	56.1	101	41.9	44.3	50.0	111
Stability Index (Langellier)	140	1910	0.25	-0.59	0.03	0.19	-0.95	0.06	-0.12	-0.54

All samples collected: 3 September 1982

pH & temperature run by Quality Control Laboratory (ID #37807)

The rest of the results run by Grainger Lab (ID #37709)

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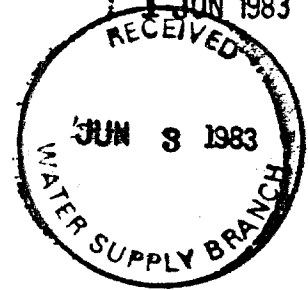
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