NREAD/DDS/jc
6230/1
2 Mar 1984

From: Commanding General
To: Commanding Officer, Naval Hospital

Subj: Water Quality Monitoring and Related Environmental Health Considerations

Ref: (a) CG MCB CLWC ltr NREAD/DDS/th 11330/2 of 19 May 1983

Encl: (1) Weekly Chemical Analysis of Drinking Water
(2) Weekly Bacteriological Analysis of Drinking Water
(3) Weekly NRMC Ice Samples Bacteriological Analysis
(4) Miscellaneous Bacteriological Analysis of Water

1. In accordance with the reference, enclosures (1) through (4) are forwarded for information.

2. Questions regarding this matter should be forwarded to Mr. Danny Sharpe, Supervisory Ecologist, extensions 2083, 5003 or 1690.

J. I. WOOTEN
By direction

Blind copy to:
SupvChem

CLW
0000004088

Fire

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 3-62)

DATE COLLECTED 1/17/84

PARAMETER	HADNOT POINT	MONTFORD POINT	TARAWA TERRACE	ONSLOW BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER	
PH	1.0	1.2	7.7	7.2	8.4	8.4	8.3	7.6	
PENOLTHALEIN ALKALINITY	2	0	0	0	4	4	4	10	
METHYL ORANGE ALKALINITY	44	180	120	110	110	114	64	0	
CARBONATES AS $CaCO_3$	4	0	0	0	8	8	8	0	
BICARBONATES AS $CaCO_3$	40	180	120	100	162	136	56	200	
CHLORIDES AS Cl	10	30	10	20	20	4	14	170	
HARDNESS AS $CaCO_3$	50	80	136	60	56	54	70	54	
IRON AS Fe	<0.04	(0.57)	0.08	0.22	<0.04	<0.04	<0.04	0.14	
FLUORIDE	~~.31~~ .13		~~.21~~ .16				~~1.2~~ 1.1	1.31	
CHLORINE RESIDUAL	1.0	1.0	1.0	1.5	1.5	1.0	1.0	1.3	
TURBIDITY	0.14	0.16	~~0.16~~ 0.18	0.14	0.14	0.15	~~0.10~~ 0.10	0.20	
TOTAL PHOSPHATE		1.13			1.21				
ORTHO PHOSPHATE		1.00			1.02				
META PHOSPHATE		0.13			0.19				
STABILITY	+0.3	-0.5	-0.3	-0.6	0.0	0.0	+0.2	+0.1	

REMARKS

CLW

0000004089

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. Turner

DATE OF ANALYSIS 1/17/84

1

MCBCL 11330/8 (REV. 3-82)

PARAMETER	HADNOT POINT	MONTFORD POINT	TARAWA TERRACE	ONSLOW BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER
PH	8.5	7.4	8.7	7.5	8.4	8.1	8.7	8.7
PENOLTHALEIN ALKALINITY	8	0	8	0	2	0	10	14
METHYL ORANGE ALKALINITY	70	186	54	154	174	176	76	250
CARBONATES AS $CaCO_3$	16	0	16	0	4	0	20	28
BICARBONATES AS $CaCO_3$	54	186	38	154	170	176	56	222
CHLORIDES AS C1	10	24	4	14	24	14	14	110
HARDNESS AS $CaCO_3$	54	96	80	66	70	66	72	54
IRON AS Fe	<0.04	(0.57)	<0.04	0.19	<0.04	<0.04	<0.04	0.15
FLUORIDE AM / PM	0.89 / 0.90	0.17	0.80 / 0.75	0.19	0.10	0.10	0.88 / 0.90	/ 1.21
CHLORINE RESIDUAL	1.0	1.2	1.0	1.3	1.2	1.0	1.0	1.3
TURBIDITY AM / PM	0.14	0.18	0.15 / 0.18	0.15	0.16	0.16	0.15 / 0.101	0.46
TOTAL PHOSPHATE		2.75			1.60			
[redacted]O PHOSPHATE		1.10			0.22			
META PHOSPHATE		1.65			1.38			
STABILITY	+0.1	-0.4	+0.2	-0.6	+0.2	-0.1	+0.3	+0.3

REMARKS

CLW

0000004090

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 [signature]

[signature]

DATE OF ANALYSIS 14 F. 1,84

2

1

Fire

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 3-82)

DATE COLLECTED: 2/21/84

PARAMETER	HADNOT POINT	MONTFORD POINT	TARAWA TERRACE	ONSLOW BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER
PH	8.4	7.4	8.4	7.6	8.4	8.1	8.4	8.4
PENOLTHALEIN ALKALINITY	6	0	2	0	4	0	4	8
METHYL ORANGE ALKALINITY	40	170	60	100	140	156	84	140
CARBONATES AS $CaCO_3$	12	0	4	0	8	0	8	16
BICARBONATES AS $CaCO_3$	28	170	56	100	132	156	76	144
CHLORIDES AS Cl	8	30	10	14	16	20	10	10
HARDNESS AS $CaCO_3$	56	(64)	88	58	96	64	84	80
IRON AS Fe	<0.04	0.65	<0.04	0.26	<0.04	0.07	<0.04	0.14
FLUORIDE A.M. / P.M.	0.14 / 0.13	0.15	0.83 / 0.77	0.17	0.10	0.09	0.33 / 0.26	0.64
CHLORINE RESIDUAL	1.0	1.4	1.0	1.0	1.2	1.0	0.7	1.4
TURBIDITY A.M. / P.M.	<1.0	<3.0	<1.0 / <1.0	1.0	<1.0	1.0	<1.0 / <1.0	<3.0
TOTAL PHOSPHATE		3.65			1.62			
ORTHO PHOSPHATE		1.24			0.22			
META PHOSPHATE		2.41			1.40			
STABILITY	+0.3	-0.4	+0.1	-0.4	+0.2	-0.1	+0.2	0

REMARKS

CLW

0000004091

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

DATE OF ANALYSIS: 2/21/84

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MOBCL 11330/3 (REV. 3-82)

DATE COLLECTED

PARAMETER	HADNOT POINT	MONTFORD POINT	TARAWA TERRACE	ONSLOW BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER	
PH	5.7	7.1	7.6	7.6	7.3	7.4	7.6	7.6	
PENOLTHALEIN ALKALINITY	6	0	0	0	0	6	4	6	
METHYL ORANGE ALKALINITY	10	180	106	140	120	140	106	140	
CARBONATES AS $CaCO_3$	12	0	0	0	0	4	8	12	
BICARBONATES AS $CaCO_3$	48	180	106	140	120	156	58	94	
CHLORIDES AS Cl	10	30	8	20	18	24	18	14	
HARDNESS AS $CaCO_3$	64	74	140	60	64	82	78	60	
IRON AS Fe	<0.04	0.48	<0.04	0.25	<0.04	0.08	<0.04	0.20	
FLUORIDE	0.17	0.14	0.18	0.11	0.11	0.1	0.17	0.16	
CHLORINE RESIDUAL	0.8	1.3	1.0	1.3	1.5	1.1	1	1.4	
TURBIDITY	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
TOTAL PHOSPHATE		1.45			0.35				
ORTHO PHOSPHATE		1.26			0.10				
META PHOSPHATE		2.19			0.25				
STABILITY	+0.3	-0.5	-0.3	-0.4	-0.3	0.0	+0.2	+0.1	

REMARKS

CLW

0000004092

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

DATE OF ANALYSIS

7 FEB 84

BACTERIOLOGICAL ANALYSIS OF WATER — NON-REPORTABLE

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97		∅	1.0		0900
FC-19			1.2		1014
SH-8			0.5		1000
[redacted]					
M.P. POOL		∅	0.5	7.6	1030
#2 POOL			0.6	7.4	0900
#5 POOL			1.5	7.6	0915
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS [redacted]ABY POOL					
[redacted]		∅			1053

REMARKS

MCBCL 11330/4 (A)

14 FEB 84

BACTERIOLOGICAL ANALYSIS OF WATER — NON-REPORTABLE

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97		∅	0.8		0850
FC-19		∅	1.5		1025
SH-8		∅	TRACE		1010
M.P. POOL		∅	0.3	7.4	1100
#2 POOL		∅	0.5	7.4	0915
#5 POOL		∅	0.8	7.6	0930
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS BABY POOL					
ICE - BLDG. 1300		(NO ICE)			

REMARKS

CLW

0000004093

MCBCL 11330/4 (A)

21 Feb 84

BACTERIOLOGICAL ANALYSIS OF WATER — NON-REPORTABLE

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97		∅	[illegible]		[illegible]
FC-19			[illegible]		[illegible]
SH-8			1		[illegible]
[redacted]					
M.P. POOL		∅	1.0	[illegible]	1115
#2 POOL			[illegible]	[illegible]	[illegible]
#5 POOL			1.0	[illegible]	[illegible]
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS BABY POOL					
[illegible]		∅			1110

REMARKS

MCBCL 11330/4 (A)

File 28 FEB 84

BACTERIOLOGICAL ANALYSIS OF WATER — NON-REPORTABLE

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97		∅	1.3		1015
FC-19		∅	1.5		0949
SH-8		∅	0.4		0940
M.P. POOL		∅	0.9	7.4	1115
#2 POOL		∅	0.6	7.4	1051
#5 POOL		∅	0.8	7.6	1015
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS BABY POOL					
FCC Sample Bkl 1300		∅			0850

REMARKS

CLW

0000004054

MCBCL 11330/4 (A)

BACTERIOLOGICAL ANALYSIS OF WATER

MCBCL 11330/4 (REV. 7-83)

DATE COLLECTED

REPORTABLE POINTS FOR SDWA

WATER SAMPLES	MARKED	COLIFORM MF/100 ML	RESIDUAL CHLORINE	TIME
RR - 9	1			
RR - 15	2			
RR -	3			
	4			
A-1	5			
BB - 7	6			
BB - 49	7			
BB -	8			
	9			
BA - 103	10			
BA -	11			
	12			
TT - 38	13			
TT - 43	14			
T	15			
	16			
CK -	17			
M - 139	18			
M -	19			
	20			
CG - 1	21			
TC - 830	22			
TC -	23			

WATER SAMPLES	MARKED	COLIFORM MF/100 ML	RESIDUAL CHLORINE	TIME
MCAS - 3502	24			
MCAS - 2002	25			
MCAS -	26			
MCAS -	27			
	28			
NRMC -	29			
PP - 2615	30			
PP -	31			
BM - 5400	32			
BM -	33			
LCH - 4022	34			
LCH -	35			
	36			
H - 1	37			
H -	38			
FC - 303	39			
FC - 420	40			
FC -	41			
HP - 236	42			
HP - 540	43			
HP - 1300	44			
HP -	45			
	46			

CLW

LABORATORY DATA	
TIME RECEIVED	
DATE RECEIVED	
ACCEPTED BY	
DATE ANALYZED	
ANALYSIS STARTED	
ANALYSIS FINISHED	
INCUBATOR TEMP	
PROCESSED BY	

CUSTODY DATA	
DATE	
TIME	
SIGNATURE	
DATE	
TIME	
SIGNATURE	

COPY TO:

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

REMARKS

0000004095

SIGNATURE

BACTERIOLOGICAL ANALYSIS OF WATER
MCBCL 11330/4 (REV. 7-83)

DATE COLLECTED 2/11/84

REPORTABLE POINTS FOR SDWA

WATER SAMPLES	MARKED	COLIFORM MF/100 ML	RESIDUAL CHLORINE	TIME	WATER SAMPLES	MARKED	COLIFORM MF/100 ML	RESIDUAL CHLORINE	TIME
RR - 3	1	0	1.0	1100	MCAS - 3502	24	0	0.4	0717
RR - 15	2		0.7	1159	MCAS - 2002	25		0.6	1138
RR - 13	3		1.0	1105	MCAS - 2018	26		0.7	0727
	4				MCAS - 4157	27		0.7	0727
A-1	5		1.2	0758		28			
BB - 7	6		1.2	1015	NRMC - Food Service	29		0.6	1045
BB - 49	7		1.2	0830	PP - 2615	30		0.5	1120
BB - 45	8		1.2	0810	PP - 2600	31		0.4	1130
	9				BM - 5400	32		0.5	1055
BA - 103	10		1.2	1105	BM - 1185	33		0.4	1110
BA - 101	11		1.2	1110	LCH - 4022	34		0.5	1250
	12				LCH - 4002	35		0.6	1300
TT - 38	13		1.0	0715		36			
TT - 43	14		0.7	0725	H - 1	37		0.5	1140
TT - 57	15		1.0	1145	H - 16	38		0.6	1210
	16				FC - 303	39		1.0	1110
CK - 1103	17		0.8	1115	FC - 420	40		0.8	0750
M - 139	18		1.1	1100	FC - 210	41		0.7	1100
M - 503	19		0.7	1130	HP - 236	42		0.6	0715
	20				HP - 540	43		0.6	0730
CG - 1	21		0.4	0750	HP - 1300	44		0.5	1100
TC - 830	22		1.3	0744	HP - 20	45		0.8	1210
TC - 701	23	0	0.5	0801		46	CLW		

LABORATORY DATA

TIME RECEIVED
DATE RECEIVED 2/14/84
ACCEPTED BY
DATE ANALYZED 2/14/84
ANALYSIS STARTED 1230
ANALYSIS FINISHED
INCUBATOR TEMP 35°
PROCESSED BY

CUSTODY DATA

DATE
TIME
SIGNATURE
DATE
TIME
SIGNATURE

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

REMARKS

( ) = 000000409

SIGNATURE

H. D. Burns
2/15/84

2

QUALITY CONTROL LABORATORY REPORT
MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER
MCBCL 11330/8 (REV. 4/78)

Infection control Naval Hospital

WATER TYPE	SAMPLE COLLECTED BY	DATE COLLECTED
ICE	Am 2 Burt	28 Feb 84

LOCATION	MARKED	COLIFORM TOTAL	COLIFORM FECAL
4A	0915	∅	
4W		∅	
3W		∅	
3E		∅	
CCU	out of order		
ICU		∅	
2E		∅	
2W		∅	
L & D		∅	
NSY		∅	
R.R.	0935	∅	
ER	0915	∅	

REMARKS
Fed. - Lab 1010 2/28/84
Set up 2/28/84

CLW
0000004097

SIGNATURE H. J. Burt DATE 29 Feb 84

COPY TO

- ☐ NREAD
- ☐ UTILITIES DIRECTOR
- ☐ WATER TREATMENT PLANT (GENERAL FOREMAN)
- ☐ BASE PREVENTIVE MEDICINE
- ☐ MCAS PREVENTIVE MEDICINE
- ☐ _____

Enclosure (3)

QUALITY CONTROL LABORATORY REPORT

MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER

MCBCL 11330/8 (REV. 4/78)

WATER TYPE	SAMPLE COLLECTED BY	DATE COLLECTED
[illegible]	[illegible]	[illegible]

LOCATION	MARKED	COLIFORM	
		TOTAL	FECAL
[illegible]	[illegible]	4	

REMARKS

CLW

0000004098

SIGNATURE	DATE
[illegible]	[illegible]

COPY TO

- ☐ NREAD
- ☐ UTILITIES DIRECTOR
- ☐ WATER TREATMENT PLANT (GENERAL FOREMAN)
- ☐ BASE PREVENTIVE MEDICINE
- ☐ MCAS PREVENTIVE MEDICINE
- ☐ _____

FILE

QUALITY CONTROL LABORATORY REPORT
MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER

MCBCL 11330/8 (REV. 4/78)

WATER TYPE	SAMPLE COLLECTED BY	DATE COLLECTED
		6 FEB 84

LOCATION	MARKED	COLIFORM	
		TOTAL	FECAL
[illegible]		/	

REMARKS

[illegible]

CLW
0000004099

SIGNATURE	DATE
[signature]	7 FEB 84

COPY TO

- ☐ NREAD
- ☐ UTILITIES DIRECTOR
- ☐ WATER TREATMENT PLANT (GENERAL FOREMAN)
- ☐ BASE PREVENTIVE MEDICINE
- ☐ MCAS PREVENTIVE MEDICINE
- ☐ _____