



DEPARTMENT OF THE AIR FORCE
316TH OPERATIONAL MEDICAL READINESS SQ (AFDW)

23 November 2020

MEMORANDUM FOR 316 CES/CEOIU

FROM: 316 OMRS/SGXB

SUBJECT: Bacteriological Water Sampling Results for November 2020

References: (a) AFI 48 – 144, *Drinking Water Surveillance Program*.

(b) Environmental Protection Agency (EPA), Safe Water Drinking Act 1974 (Amended 1984 and 1996).

(c) 40 CFR 141, National Primary Drinking Water Standards.

(d) 40 CFR 143.3, National Secondary Drinking Water Standards.

1. INTRODUCTION: During the month of November 2020, SrA Sarah Vantilburg and SrA Jesse Reed from the Bioenvironmental Engineering (BE) Flight collected routine water samples from Joint Base Andrews facilities for bacteriological, chlorine, and pH analysis.

2. BACKGROUND: Sampling locations and frequency were determined by the Joint Base Andrews Environmental Sampling Plan. Bacteriological sampling was conducted using IDEXX Colilert sampling media and the samples were then incubated at 35°C for 24 hours. The chlorine and pH were analyzed with the HACH water test kit model DR-900 (SN: 152290001001) Sampling is performed on a monthly basis IAW above references (a) through (d).

3. RESULTS:

Bldg. #	Location	pH ¹	Free-Available Chlorine ^{2, 4, 5}	Total Coliform ³	E. coli	Date Sampled
1225	213 AS Water Point	7.3	0.33	Negative	Negative	3 Nov 20
1225	213th Water Cart #2 (SN: 34870)	N/A	N/A	N/A	N/A	3 Nov 20
1225	213th Water Cart #1 (SN: 17413)	N/A	N/A	N/A	N/A	3 Nov 20
4575	CDC #1	7.9	0.15	Negative	Negative	3 Nov 20
4783	CDC #2	8.2	0.13	Negative	Negative	3 Nov 20
3725	CDC #3	7.6	0.76	Negative	Negative	3 Nov 20
4700	Youth Center	7.7	0.10	Negative	Negative	3 Nov 20
5016	PAG Water Point (right hose)	8.6	0.04	Negative	Negative	3 Nov 20
5016	PAG Water Point left hose	+++	0.02	Negative	Negative	3 Nov 20
3423	BEE Equipment Laboratory Sink	7.6	1.02	Negative	Negative	3 Nov 20
1900	89 APS Truck 03L00046	+++	7.9	Negative	Negative	17 Nov 20
1900	89 APS Truck 03L00096	7.6	0.75	Negative	Negative	17 Nov 20
1900	89 APS Cart	7.8	0.96	Negative	Negative	17 Nov 20
1900	89 APS Water Point	7.6	1.06	Negative	Negative	17 Nov 20
3635	459th Maintenance Squadron	7.7	0.05	Negative	Negative	17 Nov 20
3056	Emergency Management	7.6	0.6	Negative	Negative	17 Nov 20
1060	MDG Room 1B39	7.5	0.36	Negative	Negative	17 Nov 20
N/A	Davidsonville	7.9	0.38	Negative	Negative	23 Oct 20

1)

2)

3)

4)

5)

Acceptable pH range is 6.5-8.5 IAW 40 CFR 143.3 National Secondary Drinking Water Standards

EPA chlorine residual limit is <4.0 IAW 40 CFR 141 National Primary Drinking Water Standards

Absent coliform is acceptable IAW 40 CFR 141 National Primary Drinking Water Standard

BE internal standard for chlorine residual for CDCs and Youth Center is 0.01 -- 4.0 ppm

BE internal standard for chlorine residual not to include CDCs and Youth Center is 0.02 -- 4.0 ppm

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4. FINDINGS:

a. The pH for the left hose at the PAG aircraft watering point and for the 89 APS Truck #03L00046 were greater than 8.5. The HACH water test kit model DR-900 utilized for analysis is unable to quantify above this range. Both water samples were negative for total and fecal coliform. This has been identified as a trend for the PAG aircraft watering point.

b. The Child Development Center (CDC) #1 is currently not operational due to COVID-19 restrictions. Samples were taken as a precautionary measure and readings were within required limits.

c. The 213th AS Water Trucks/cart (SN: 34870 & 17413) were not in use during this sampling period and a bacteriological sample was not taken for the month of November for these trucks/cart.

5. RECOMMENDATIONS:

a. BE has recommended that Terrapin flush the water lines around building 5016 (PAG) on a weekly basis in an attempt to adjust the pH within normal levels. Flushing of all other water lines around JBA is recommended on a bi-monthly basis to alleviate stagnancy within the water lines on Joint Base Andrews.

b. BE recommends that the 89th APS #03L00046 truck be drained and flushed out prior to use, due to the elevated pH levels at the time of bacteriological sampling.

c. The CDC #1 Director should contact BE to conduct bacteriological, chlorine, and pH analysis prior to the reopening of CDC #1.

d. The 213 AS Water Trucks/Carts will need to be sampled prior to use. Contact BE prior to using the water trucks/cart to accomplish bacteriological testing. The shop supervisor should coordinate sampling with BE at least 48 hours prior to use.

6. If you have any questions or concerns please contact BE at DSN 857-3380 or by email at usaf.jbanafw.11-mdg.mesg.bioenvironmental-eng@mail.mil.

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