

**Overview of Testing Results for Lead in Drinking Water
and Corrective Actions for
Joint Expeditionary Base Little Creek Child Development Center Annex (Building 3364)**

The Navy is committed to maintaining safe drinking water on its installations. City water supplied to the Navy and the Navy's water distribution system is regularly tested and in compliance with the Safe Drinking Water Act. Because lead exposure is a particular concern for children, and lead may be introduced to drinking water through the pipes, fittings, solder, and fixtures inside a building, the EPA recommends, but does not mandate, that we test the lead content of drinking water in priority areas such as youth centers (YC), child development centers (CDC), and child development group homes (CDGH). The Navy has adopted the recommendation as policy.

Navy environmental personnel conducted lead testing on 20 SEP 2016 at the JEB Little Creek CDC Annex in accordance with Navy and EPA guidelines. Samples from various locations in the CDC were sent to a state-certified laboratory for analysis.

At the JEB Little Creek CDC Annex, outlets used for drinking, cooking, and washing were tested. Out of 29 samples collected, 2 water outlets initially tested above EPA's recommended level for lead in drinking water in schools and childcare centers of 20 parts per billion (ppb).

The two outlets that exceeded 20 ppb were hand washing sinks and are not used for drinking or cooking. These sinks were located in rooms 9 and 100. Follow-up sampling at these outlets was conducted after removing the faucet aerators. A **faucet aerator** (or tap aerator) is often found at the tip of modern indoor water faucets. Without an aerator, water usually flows out of a faucet as one big stream. An aerator spreads this stream into many little droplets, which helps save water and reduce splashing. However, the aerator and screen can trap debris which can accumulate lead.



After removing the faucet aerators, retesting showed that the sink in room 100 was below the EPA-recommended level, but the sink in room 9 was not. Further corrective measures (replacement of supply valves and supply piping) were implemented at the sink in room 9 and follow-up sampling indicates that this sink is also below the EPA-recommended level.

A copy of all test results is enclosed for your information. The test results are presented in two tables:

- Table 1 **Summary of Results** summarizes the data by category of use (e.g., drinking, cooking, washing).
- Table 2 **Summary Statistics** summarizes all the data.

A floor plan of the JEB Little Creek CDC Annex has also been included to show the locations for the fixtures that initially exceeded 20 ppb.

Table 1 provides a description of each sampling location using three columns; *Category*, *Sample ID*, *Sample ID No.*, and *Outlet Description*. The *Category* column gives information about whether the outlet is used for drinking water (water fountain), cooking (food preparation), or washing (primarily hand-washing or brushing teeth). The *Sample ID* column is the identification used to label each sample bottle. The *Sample ID No.* column is the number used to identify each outlet location and corresponds to the outlet number on the floor plan. The *Outlet Description* column contains additional information to describe the outlet sampled under each category.

The next set of columns in **Table 1** provide *Initial Sampling Results*, and for those locations that exceeded the recommended level of 20 ppb the *Re-sampling Results*.

EPA sampling protocol requires water to not be used for between 8 and 18 hours prior to first draw sampling. Therefore, *Initial Sampling Results* were from first draw samples collected early in the morning before the CDC opened and before any water was used. The *Initial Sampling Results* also indicate whether resampling is required and the date that fixtures greater than 20 ppb were secured. Outlets that exceeded 20 ppb are highlighted in yellow.

The *Re-sampling Results* includes columns for *First Draw* and flushing samples which help determine the source of lead. For cooking and washing outlets, aerators were removed before retesting:

- If the lead concentration of 30 second flush sample resulted in lower than 20 ppb lead, the aerators were the source of lead and the outlet can be used for drinking if the aerators are cleaned or replaced. The hand washing sink in room 100 fits in this category.
- If the lead concentration of the resampled first draw (but not the follow up 30 second flush) was greater than 20 ppb, the fixture was the source of lead. These fixtures can be used if water is flushed for 30 seconds before first use of the day or if the fixtures are replaced and retesting confirms that the new fixtures do not leach lead. The bathroom sink in room 9, the men's restroom, fits in this category. The faucet, supply piping, and supply valve for this sink have been replaced, and follow-on testing shows that the results are less than 20 ppb.

The *Corrective Actions* column describes actions that were taken to remediate the source of lead. In the event that fixtures or upstream piping are replaced (e.g., bathroom sinks in rooms 9 and 100), there are columns for sampling data that confirms that the corrective actions were successful in reducing lead below 20 ppb.

To learn more about lead in drinking water schools and day care centers visit this EPA website at: http://water.epa.gov/drink/info/lead/schools_index.cfm.

To learn more about your home's public water supplier, see their annual water quality report: Virginia Beach: <http://www.vbgov.com/government/departments/public-utilities/water-quality/Pages/default.aspx>

Navy Water Quality Reports:

http://www.cnmc.navy.mil/regions/cnrma/om/environmental_support/water_quality_information.html

To answer any questions you may have on the sampling program contact the JEB Little Creek-Fort Story Public Affairs Officer at 757-462-8425. If you have any health questions or concerns, we encourage you to call your health care provider or, if you are a TRICARE beneficiary, contact the Regional Nurse Advice Line (1-800-TRICARE, press option 1) or use the Regional Appointment Center at 1-866-645-4584 to schedule an appointment with your primary care provider.

Enclosures:

1. Complete Test Results
2. Floor Plan of the JEB Little Creek CDC Annex (Building 3364)

Overview of Results and Corrective Actions (September 2016)

Priority Areas Lead Testing

JEB Little Creek, CDC, Annex Building 3364

Table 1. Summary of Results

SAMPLING LOCATION DESCRIPTION				INITIAL SAMPLING RESULTS			RE-SAMPLING RESULTS			CORRECTIVE ACTIONS	POST REMEDIATION SAMPLING RESULTS		CORRECTIVE ACTIONS
CATEGORY Water Intended For:	SAMPLE ID	SAMPLE ID NO.	Outlet Description	Recommended Level = 20ppb			Recommended Level = 20ppb			Description	Recommended Level = 20ppb		Description
				First Draw (ppb)	Retest required?	Date Fixture Secured?	Water Fountain 15 min. Follow up Flush Sample - Collected day before First Draw Sampling (ppb)	First Draw (ppb)	Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)		First Draw (ppb) (See note 2)	Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)	
SAMPLING DATE				9/20/2016			N/A	N/A	N/A		N/A		
RESULTS DATE				9/29/2016			N/A	N/A	N/A		N/A		
DRINKING	LC-3364-RM121-HHW-FD	24	FAUCET BEHIND FRONT DESK	11	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRINKING	LC-3364-RM8-HHW-FD	27	KITCHENETTE FAUCET	3	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRINKING	LC-3364-K8-K-FD	29	KITCHEN FAUCET	6	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TEETH BRUSHING/HAND WASHING	LC-3364-RM119-(TB-LHW-A)-FD	2	PRESHOOLERS BATHROOM FAUCET	3	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TEETH BRUSHING/HAND WASHING	LC-3364-RM119-(TB-LHW-B)-FD	3	PRESHOOLERS BATHROOM FAUCET	4	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TEETH BRUSHING/HAND WASHING	LC-3364-RM100-(TB-HHW)-FD	8	TODDLERS CHANGING TABLE FAUCET	3	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TEETH BRUSHING/HAND WASHING	LC-3364-RM101-(TB-HHW)-FD	9	TODDLERS CHANGING TABLE FAUCET	2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TEETH BRUSHING/HAND WASHING	LC-3364-RM143-(TB-HHW)-FD	20	TODDLERS CHANGING TABLE FAUCET	4	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TEETH BRUSHING/HAND WASHING	LC-3364-RM144-(TB-HHW)-FD	21	TODDLERS CHANGING TABLE FAUCET	10	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM119-HHW-FD	1	PRESHOOLERS CHANGING TABLE FAUCET	2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM122-HHW-FD	4	STAFF LOUNGE FAUCET	4	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM21-HHW-FD	5	STAFF LOUNGE BATHROOM FAUCET	3	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM100-LHW(A)-FD	6	TODDLERS BATHROOM FAUCET	23	YES	9/29/2016	N/A	8	6	Affected bathroom sink was taken out of service until completion of corrective action (aerator removal) and resampling results are at or below 20 ppb.	N/A	N/A	N/A
HAND WASHING	LC-3364-RM100-LHW(B)-FD	7	TODDLERS BATHROOM FAUCET	3	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM101-LHW(A)-FD	10	TODDLERS BATHROOM FAUCET	2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM101-LHW(B)-FD	11	TODDLERS BATHROOM FAUCET	2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM102-LHW(A)-FD	12	INFANTS BATHROOM FAUCET	9	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM102-LHW(B)-FD	13	INFANTS BATHROOM FAUCET	14	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM102-HHW-FD	14	INFANTS CHANGING TABLE FAUCET	3	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM103-HHW-FD	15	INFANTS CHANGING TABLE FAUCET	2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM103-LHW(A)-FD	16	INFANTS BATHROOM FAUCET	8	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM103-LHW(B)-FD	17	INFANTS BATHROOM FAUCET	9	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM143-LHW(A)-FD	18	TODDLERS BATHROOM FAUCET	1	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM143-LHW(B)-FD	19	TODDLERS BATHROOM FAUCET	2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM144-LHW(A)-FD	22	TODDLERS BATHROOM FAUCET	7	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM144-LHW(B)-FD	23	TODDLERS BATHROOM FAUCET	2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM10-HHW-FD	25	WOMEN'S BATHROOM FAUCET	8	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HAND WASHING	LC-3364-RM9-HHW-FD	26	MEN'S BATHROOM	564	YES	9/29/2016	N/A	3300	88	Affected bathroom sink will remain disconnected until completion of corrective action (faucet and supply valve replacement) with resampling results are at or below 20 ppb	20	5	Affected faucet, supply lines and supply valves were replaced and resampled with results below EPA recommended action levels
HAND WASHING	LC-3364-K8-HHW-FD	28	KITCHEN FAUCET	15	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 2. Summary Statistics

CATEGORY	INITIAL SAMPLING RESULTS		RE-SAMPLING RESULTS		POST REMEDIATION RESULTS
	First Draw	Water Fountain Follow up Flush Sample - Collected day before First Draw Sampling	First Draw (ppb)	Follow up Flush - Collected 30 seconds after First Draw Sampling	First Draw
Total Drinking	3	0	0	0	0
Total Drinking > 20 ppb	0	0	0	0	0
Total Hand Washing/ Teeth Brushing	26	0	2	2	1
Total Hand Washing > 20 ppb	2	0	1	1	0
Total Samples	29	0	2	2	1
Total Samples > 20 ppb	2	0	1	1	0



JEBLC CHILD DEVELOPMENT CENTER - BUILDING 3364

FIRST FLOOR PLAN



Legend:

- Screening < 20 ppb
- Screening > 20 ppb, Resample ≤ 20 ppb
- Testing not required

VERIFIED FLOOR PLAN - FOR OFFICIAL USE ONLY

Enclosure (2)

