



DEPARTMENT OF THE NAVY

COMMANDER FLEET ACTIVITIES
SASEBO, JAPAN
PSC 476 BOX 1
FPO AP 96322-0001

5090
Ser 00/0274
26 May 20

From: Commander, Fleet Activities Sasebo
To: Parents and Staff

Subj: HARIO CHILD DEVELOPMENT CENTER (BUILDING 5140) DRINKING WATER

Enc1: (1) Overview of Testing Results for Lead in Drinking Water and Corrective Actions for CFAS Hario CDC (Building 5140)
(2) Hario CDC LIPA Results Summary Table-May 2020
(3) CFAS 5140 CDC Exceedances Floor Plan

I want to make you aware of the latest developments regarding our efforts to address elevated lead levels in drinking water that were reported on 17 October 2019 at the CFAS Hario Child Development Center (CDC).

Recall, that on 18 October 2019, I informed you of the results of recent water testing of 40 outlets at the Hario CDC. Of these, two outlets tested higher than 15 parts per billion (ppb) screening level for lead. This is the Navy's designated level for action with additional testing and corrective measures.

We recently completed all corrective measures and additional testing showed that the levels at the Hario CDC are all below the screening level of 15 ppb.

Specifically, after the initial findings, we took the following corrective actions:

- We replaced the two faucets with new faucets: one Infant Room 110 sink faucet and one outdoor hose faucet outside of Room 110. We conducted additional water sampling following these corrective measures, and results confirm that the water from these fountains is now below the screening level of 15 ppb for lead.

I've attached the complete set of test results, which include the list of sampling locations and the purpose of the water outlet. As described above, for those locations that exceeded the recommended screening level on the first test, we conducted a follow-on resampling. The attachment provides details on which outlets required corrective action and the actions taken. For outlets where corrective actions were implemented, the attachment also shows the results of follow-on sampling to confirm lead levels below 15 ppb. I've also enclosed a floor plan which delineates locations where initial water sampling results exceeded 15 ppb. All outlets at the Hario CDC are now below the screening level.

For your information, I am also including links to additional drinking water quality resources:

Subj: HARIO CHILD DEVELOPMENT CENTER (BUILDING 5140) DRINKING WATER

Environmental Protection Agency (EPA) (lead in drinking water in schools and day care centers):

<https://www.epa.gov/dwreginfo/lead-drinking-water-schools-and-child-care-facilities>

Annual water quality report for the installation:

https://www.cnmc.navy.mil/regions/cnrj/installations/cfa_sasebo/om/public_works/.html

Please be assured that my team and I will continue to monitor and test water quality at the Hario CDC to ensure our drinking water complies with EPA regulations. If you have any concerns at all, please contact my Environmental Team, Ms. Elizabeth Barris (DSN 315-252-3369, elizabeth.barris@fe.navy.mil) and Mr. Frederick S. Pianalto (DSN 315-252-3263, frederick.pianalto@fe.navy.mil).

If you have any health related questions or concerns about lead exposure, you are encouraged to contact your health care provide or, if you are a TRICARE beneficiary, use the Region Appointment Center to schedule an appointment with your primary care provider at 1-877-678-1208 (+65-6339-2676 Japan).

Sincerely,



B. L. STALLINGS

Copy to:
CNIC N45
NAVFAC N45
BHC Sasebo

Overview of Testing Results for Lead in Drinking Water and Corrective Actions for CFAS Hario CDC (Building 5140)

The Navy is committed to maintaining safe drinking water on its installations. Sasebo 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 added to drinking water due to its presence in pipes, fittings, solder, and fixtures inside a building, the Navy policy requires that we test the lead content of drinking water in priority areas such as schools, youth centers (YCs), child development group homes (CDGHs), and child development centers (CDCs) every five years.

Navy environmental personnel conducted lead testing at the Hario CDC in accordance with Navy and EPA guidelines. Samples from various locations in the CDC were sent to a Navy-approved certified laboratory for analysis.

At the Hario CDC, outlets used for drinking, cooking, and washing were tested. Out of 40 samples collected, six water outlets initially tested above the Navy screening level of 15 parts per billion (ppb) for lead in drinking water in schools and CDCs.

Four of the six faucets that exceeded 15 ppb were two outdoor bubblers outside of room 110 (20 ppb and 26 ppb), an outdoor hose faucet outside of room 126 (55 ppb), and an outdoor playground faucet outside of room 129 (17 ppb). Follow-up sampling at these outlets was conducted after removing and cleaning the faucets, faucet aerators and hose bibb vacuum breakers. For example, 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, provides more uniform flow, and reduces splashing. However, the aerator and screen can trap debris which can accumulate lead. A hose bibb vacuum breaker is attached to hose faucets to prevent backflow or back-siphonage into the water system.



After removing and cleaning the faucets, aerators and hose bibb vacuum breakers, retesting showed that these faucets were below the screening level. The installation is implementing a periodic aerator maintenance plan to sustain this corrective action.

The remaining two of the six outlets that initially exceeded the screening level of 15 ppb were a sink faucet in the Infant Room 110 and an outdoor hose faucet outside of Room 110, which tested at 46 ppb and 27 ppb, respectively. Since follow-up resampling indicated that the elevated

levels of lead appeared to be caused by the components of the fixtures, these faucets were shut down from use. New faucets have been installed. Testing conducted after implementation of these corrective measures shows that these faucets are now below the screening level of 15 ppb.

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, and washing).
- Table 2 **Summary Statistics** summarizes all the data.

A floor plan of the Hario CDC has also been included to show the locations for the fixtures that exceeded 15 ppb.

Table 1 provides a description of each sampling location using three columns; *Category*, *Sampling ID*, 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 *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 screening level of 15 ppb the follow-up *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 building opened and before any water was used. The *Initial Sampling Results* also indicate whether resampling is required and the date that fixtures greater than 15 ppb were secured. Outlets that exceeded 15 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 and cleaned before retesting:

- If the lead concentration of the 30 second flush sample resulted in lower than 15 ppb lead, the aerators or other faucet attachments were the source of lead and the outlet can be used for drinking if the aerators or attachments are cleaned on a regular basis. The two outdoor bubblers outside of room 110, an outdoor hose faucet outside of room 126, and an outdoor playground faucet outside of room 129 fit in this category.
- If the lead concentration of the resampled first draw (but not the follow up 30 second flush) was greater than 15 ppb, the fixture was the source of lead. A water faucet in the Infant Room 110 and an outdoor hose faucet outside of Room 110 fit in this category. The faucets for these fixtures have been replaced, and post-remediation testing shows that the results are less than 15 ppb.

- If the lead concentration of the sample following the 30 second flush was greater than 15 ppb and greater than the lead concentration of the first draw resample, the source of lead is the plumbing upstream of the outlet. None of the six faucets that were resampled after initial exceedance fit this category.

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. a water faucet in the Infant Room #110 and an outdoor hose faucet outside of Room #110), there are columns for sampling data that confirms that the corrective actions were successful in reducing lead below 15 ppb.

To learn more about lead in drinking water in schools and day care centers visit the following EPA website: <https://www.epa.gov/dwreginfo/lead-drinking-water-schools-and-child-care-facilities>.

To learn more about the installation's public water supply, see our annual water quality report: https://www.cnmc.navy.mil/regions/cnrj/installations/cfa_sasebo/om/public_works/.html

To answer any questions you may have on the sampling program, contact my Environmental Team, Ms. Elizabeth Barris (DSN 315-252-3369, elizabeth.barris@fe.navy.mil) and Mr. Frederick S. Pianalto (DSN 315-252-3263, frederick.pianalto@fe.navy.mil).

If you have any health questions or concerns, you are encouraged to contact your health care provider or, if you are a TRICARE beneficiary, use the Region Appointment Center to schedule an appointment with your primary care provider at 1-877-678-1208 (+65-6339-2676 Japan).

Table 1. Summary of Results

Hario CDC

SAMPLING LOCATION DESCRIPTION				INITIAL SAMPLING RESULTS			RE-SAMPLING RESULTS			CORRECTIVE ACTIONS	POST REMEDIATION SAMPLING RESULTS	
CATEGORY Water Intended For:	SAMPLE ID	Room Number - Outlet Description	Comments	Recommended Level = 15 parts per billion (ppb)							Recommended Level = 15 ppb	
				First Draw (ppb)	Retest required?	Date Fixture Secured? (See Note 1)	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)	Description	First Draw (ppb) (See note 2)	Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)
SAMPLING DATE				6/19/2019				9/14/2019	9/14/2019		4/1/2020	
RESULTS DATE				8/28/2019				10/17/2019	10/17/2019		5/1/2020	
WASHING	5140-F-1-19	103 2 YEARS OLD RM	FAUCET	0.77	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-2-19	104 KIDS TOILET	FAUCET	0.59	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-3-19	104 KIDS TOILET	FAUCET	1.7	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-4-19	104 KIDS TOILET	FAUCET	3.6	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-5-19	104 KIDS TOILET	FAUCET	2.7	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-6-19	105 PRE-TODDLER RM	FAUCET	4.1	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRINKING	5140-C-7-19	N/A HALLWAY NEXT TO RM 106	COOLER	2.5	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-8-19	106 STORAGE	FAUCET	N.D.	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-9-19	106 STORAGE	FAUCET	6.2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-10-19	107 TOILET (UNISEX)	FAUCET	2.5	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-11-19	108 TOILET (WOMEN)	FAUCET	2.2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-12-19	109 STAFF RM	FAUCET	1.5	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-13-19	109 STAFF RM	FAUCET	8.4	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-14-19	110 INFANT RM	FAUCET	8.4	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-15-19	110 INFANT RM	FAUCET	46	YES	9/4/2019	N/A	20	1.6	REPLACE FAUCET	2.2	N/A
COOKING	5140-F-16-19	112 KITCHEN	FAUCET	2.8	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
COOKING	5140-F-17-19	112 KITCHEN	FAUCET	1.5	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-18-19	116 KITCHEN STORAGE	FAUCET	1.7	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-20-19	121 ISOLATION RM	FAUCET	2.1	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRINKING	5140-C-22-19	N/A HALLWAY NEXT TO RM 126	COOLER	2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-23-19	126 KIDS TOILET IN RM 126	FAUCET	11	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-24-19	126 KIDS TOILET IN RM 126	FAUCET	5.2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-25-19	127 4 - 5 YEARS OLD ROOM	FAUCET	3.3	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-26-19	127 4 - 5 YEARS OLD ROOM	FAUCET	4.4	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-27-19	128 KIDS TOILET IN RM 129	FAUCET	0.92	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-28-19	128 KIDS TOILET IN RM 129	FAUCET	1.2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-29-19	129 3 YEARS OLD RM	FAUCET	1.7	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-30-19	129 3 YEARS OLD RM	FAUCET	4.9	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-31-19	N/A OUTSIDE FAUCET BY RM 110	FAUCET	27	YES	9/4/2019	N/A	33	1.7	REPLACE FAUCET	3	N/A
DRINKING	5140-B-32-19	N/A OUTSIDE BUBBLER BY RM 110	BUBBLER	20	YES	9/4/2019	N/A	8.2	2.3	AERATOR MAINTENANCE	N/A	N/A
WASHING	5140-F-33-19	N/A OUTSIDE FAUCET BY RM 109	FAUCET	8.4	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-34-19	N/A OUTSIDE FAUCET BY RM 106	FAUCET	9.4	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRINKING	5140-C-35-19	N/A OUTSIDE COOLER BY RM 106	COOLER	1.2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-36-19	N/A OUTSIDE FAUCET BY RM 129	FAUCET	1.8	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-37-19	N/A OUTSIDE FAUCET BY RM 129	FAUCET	17	YES	9/4/2019	N/A	14	0.7	AERATOR MAINTENANCE	N/A	N/A
DRINKING	5140-B-38-19	N/A OUTSIDE BUBBLER BY RM 129	BUBBLER	3.6	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRINKING	5140-B-38A-19	N/A OUTSIDE BUBBLER BY RM 129	BUBBLER	2.2	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WASHING	5140-F-39-19	N/A OUTSIDE FAUCET BY RM 126	FAUCET	55	YES	9/4/2019	N/A	N.D.	1.4	AERATOR MAINTENANCE	N/A	N/A
WASHING	5140-F-40-19	N/A OUTSIDE FAUCET BY	FAUCET	2.3	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRINKING	5140-B-41-19	N/A OUTSIDE BUBBLER BY RM 110	BUBBLER	26	YES	9/4/2019	N/A	6.8	2.1	AERATOR MAINTENANCE	N/A	N/A

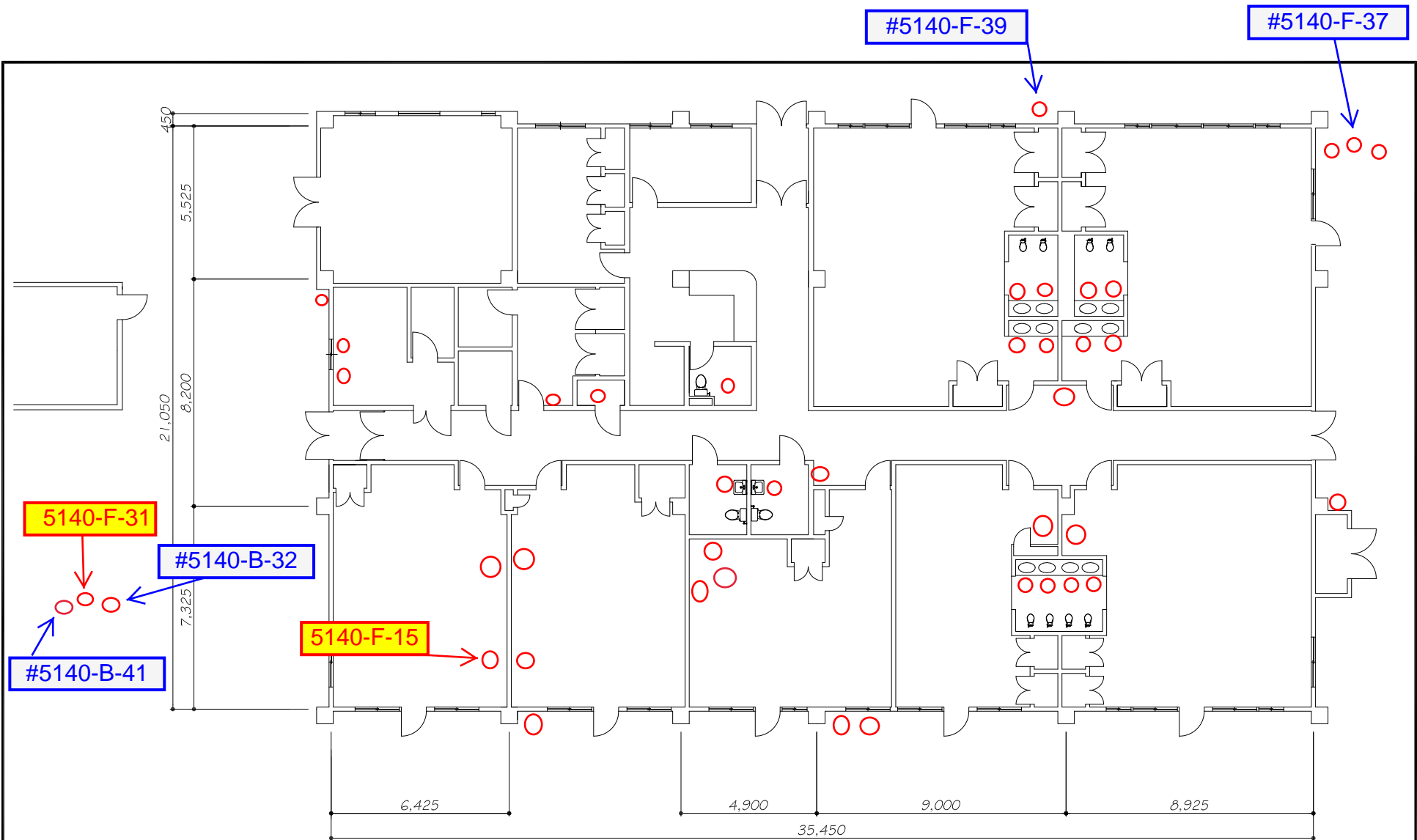
Notes: N.D. is Not-Detected above laboratory reporting limit.

¹ Affected outlets were immediately secured after receiving verbal communication from the lab on results exceeding the recommended level of 15 ppb.

² Faucet replacements were implemented. Post-remediation sampling was conducted on 4/1/2020 and final results below recommended level of 15 ppb as shown on the table.

Table 2. Summary Statistics

CATEGORY	INITIAL SAMPLING RESULTS		RE-SAMPLING RESULTS			POST REMEDIATION RESULTS
	First Draw (ppb)		Recommended Level = 15 parts per billion (ppb)			
			First Draw (ppb)	Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)		First Draw (ppb)
Total Drinking	7		2	2		0
Total Drinking > 15 ppb	2		0	0		0
Total Cook/Brush	2		0	0		0
Total Cook/Brush > 15 ppb	0		0	0		0
Total Washing	31		4	4		2
Total Washing > 15 ppb	4		2	0		0
Total Samples	40		6	6		2
Total Samples > 15 ppb	6		2	0		0



FLOOR PLAN : BLDG.#5140, CDC



Red circles indicate initial sampling locations



Yellow boxes (shaded) indicate location and ID number of fixtures requiring faucet replacement



Blue boxes (with # sign) indicate location and ID number of fixtures requiring aerator maintenance

TITLE		PUBLIC WORKS DEPT. U.S. FLEACT SASEBO JAPAN	
SATISFACTORY	SKETCHED BY	SUPV	
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APPROVED	CONTRACT NO. N62836-	SHT. NO.	PWD DWG NO.