



Fact Sheet, August 3, 2018

NAWS Environmental Advisory Update

INTRODUCTION

Naval Air Weapons Station China Lake (NAWSCL) has prepared this fact sheet to provide updated information about the discovery of detectable levels of asbestos within the surface soil of a vacant lot located on the Installation.

BACKGROUND AND HISTORY

A vacant lot located North of Blandy Avenue (See Figure 1) was found to contain detectable levels of asbestos in the surface soil after inspections were conducted in late April 2018. These inspections were initiated by a request to support a potential helicopter landing and heavy equipment staging on the lot, which used to contain base housing. Use of the lot was denied as a helicopter landing zone and staging area for heavy equipment. Additionally, the NAWS Commanding Officer, in consultation with local base, Naval Facilities Engineering Command (NAVFAC) Southwest Division Environmental, and Navy and Marine Corps Public Health Center asbestos experts has restricted access to the lot until further analysis and safety actions are completed.

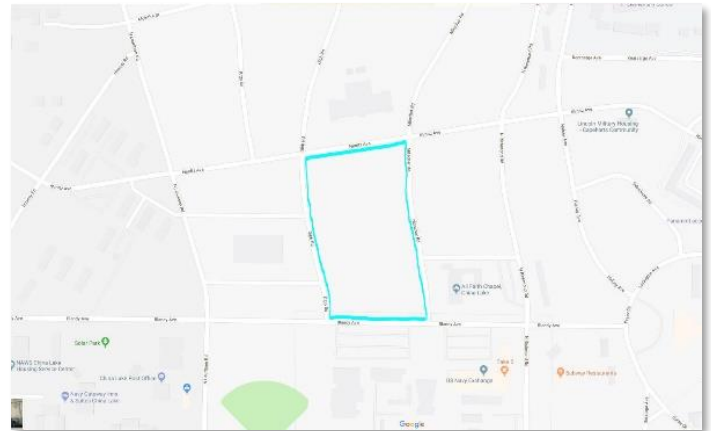


FIGURE 1

NAWS China Lake is located in the southeastern California desert, about 150 miles northeast of Los Angeles. It is composed of two major areas, the China Lake Complex, and the Randsburg Wash/Mojave B Complex (see Figure 2).

The original Naval Ordnance Test Station at China Lake was established in 1943 and has expanded through the years in support of air warfare systems research, development, test, acquisition and evaluation for the U.S. Department of Defense and the Navy.

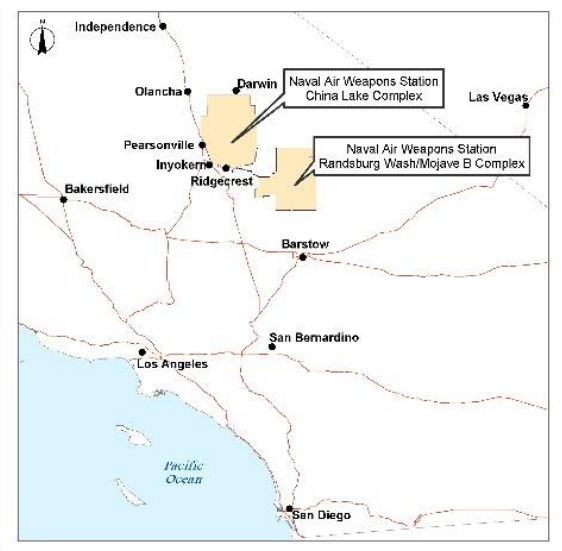


FIGURE 2

COMPLETED ACTIONS

- Air quality testing was conducted at the NAWS China Lake Child Development Center (CDC) on July 19, 2018. A total of 14 samples were collected and the results of 12 of the 14 samples showed no asbestos detected. The remaining two samples, both from locations on the NAWSCL CDC playground were not able to be analyzed. The samples were collected near misters and the combination of dirt and water overloaded them. The official report is being released as Appendix A of this fact sheet.

- Fencing was placed around the lot to restrict pedestrian and motor vehicle access on July 6, 2018.
- An environmental advisory was sent to the local media on Jun, 25, 2018. On July 3, 2018, the statement was posted to the NAWS China Lake Facebook page.
- Other areas where base housing was demolished have been added to the Installation Restoration (IR) program for analysis and action, as required. Follow up actions are currently being planned and will be communicated as further work is implemented.
- Additional testing of the lot to determine the presence of asbestos in the soil was accomplished in May of 2018.
- A visual inspection of the lot was performed in April of 2018 in response to a request to support a potential helicopter landing and heavy equipment staging in the area.

FUTURE ACTIONS

- Air quality testing to be performed during follow-on actions to the lot.
- Future testing of soil on other areas identified as demolished former base housing by the IR program.

FREQUENTLY ASKED QUESTIONS

What is asbestos and is it hazardous?

Asbestos refers to a family of fibrous minerals found all over world and in the serpentine rock that occurs throughout California. When the fibers break off and become airborne, they can create a health risk if inhaled. Asbestos exposure is associated with certain types of lung cancer. In the past, asbestos was used in many products and building materials because of its heat-resistant and structural properties. As a result, building remodeling and demolition projects produce much of the asbestos waste seen today.

According to the Environmental Protection Agency, asbestos that is in good condition and left undisturbed is unlikely to present a health risk. The risks from asbestos occur when it is damaged or disturbed where asbestos fibers become airborne and can be inhaled. Managing asbestos in place and maintaining it in good repair is often the best approach. Most people exposed to small amounts of asbestos, as we all are in our daily lives, do not develop health problems. More information on asbestos can be found at <https://www.epa.gov/asbestos>.

How is asbestos regulated?

According to the California Department of Public Health, the U.S. EPA and the Occupational Safety and Health Administration (OSHA) are responsible for regulating environmental exposure and protecting workers from asbestos exposure.

The EPA is responsible for developing and enforcing regulations necessary to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health, according to the National Emission Standard for Asbestos (NESHAP) rules. People who plan to renovate a structure or another activity that will result in disturbing a certain amount of asbestos, or who plan to demolish any building, are required to notify the appropriate federal, state, and local agencies, and to follow all federal, state, and local requirements for removal and disposal of regulated asbestos-containing material (RACM). In most cases, the agency responsible for investigating EPA NESHAP-related incidents is your local Air District, but the California Air Resources Board (CARB) is responsible for some locations in the State.

OSHA is responsible for the health and safety of workers who may be exposed to asbestos in the work place or in connection with their jobs. The EPA's Worker Protection Rule (40 CFR Part 763, Subpart G) extends

the OSHA standards to state and local employees who perform asbestos work and who are not covered by the OSHA Asbestos Standards, or by a state OSHA plan. The Rule parallels OSHA requirements and covers medical examinations, air monitoring and reporting, protective equipment, work practices, and record keeping. In addition, many California state and local agencies have more stringent standards than those required by the Federal government.

What is NAWS China Lake doing to address this?

Since the initial visual inspection revealed potential asbestos contamination, NAWS China Lake personnel, in collaboration with consultation with local base, Naval Facilities Engineering Command Southwest Division Environmental, and Navy and Marine Corps Public Health Center asbestos experts, have followed all Federal and State regulations regarding asbestos. Access to the lot has been restricted until further analysis and safety actions are completed to avoid further disturbance of the materials in the lot. As a precaution, air monitoring was performed at the CDC and the official results have shown that there is no asbestos detected within the air in or around the facility. Additionally, the lot will be sprayed with a soil stabilizer to help reduce migration of the soil from the area. In response to this occurrence other areas where base housing was demolished have been added to the IR program, which is a national program managed by NAVFAC to address contaminants that have been potentially released into various environmental elements such as soil and groundwater. NAWS China Lake personnel remain committed to maintaining a safe environment for those who live and work aboard the Installation.

Who do I contact for more information?

The established and ongoing NAWS China Lake IR program addresses past releases of hazardous substances on the Installation. The local community can be involved in this process by attending public Restoration Advisory Board (RAB) meetings that will be announced in the local papers and on the NAWS China Lake website: https://www.cnrc.navy.mil/regions/cnrcsw/installations/naws_china_lake.html.

For questions or concerns contact the NAWS Occupational Health Nurse Practitioner at 760-939-8000 or the NAWS Public Affairs Officer at 760-939-1683.

APPENDIX A



APTIM
1230 Columbia Street, Suite 1200 San Diego, CA 92101
Tel: +1 619 239 1690
Fax: +1 619 239 1238 richard.wong@aptim.com

July 27, 2018

Naval Facilities Engineering Command Southwest
1220 Pacific Highway
San Diego, California 92132-5190

Subject: TRIP REPORT: ASBESTOS SAMPLING AND TESTING, BUILDING 02688 (CHILD DEVELOPMENT CENTER), NAVAL AIR WEAPONS STATION CHINA LAKE, CA (N62473-17-D-0013 N62473-18-F-4819)

This report describes the activities performed in support of ambient air monitoring by APTIM at the Child Development Center (CDC) at NAWS China Lake, California on July 19, 2018. The ambient air samples were collected in order to provide baseline levels of airborne asbestos prior to the start of a project to encapsulate a field to the south of the CDC. The soil in the field south of the CDC is known to contain building materials with asbestos; results of bulk samples of soil indicate the presence of <1% chrysotile asbestos.

A total of 14 air samples were collected throughout the interior and exterior of the CDC. Seven were collected from inside classrooms and work rooms, three were collected from the courtyard playgrounds, and four were collected from the outside perimeter. See attached Sample Location Map.

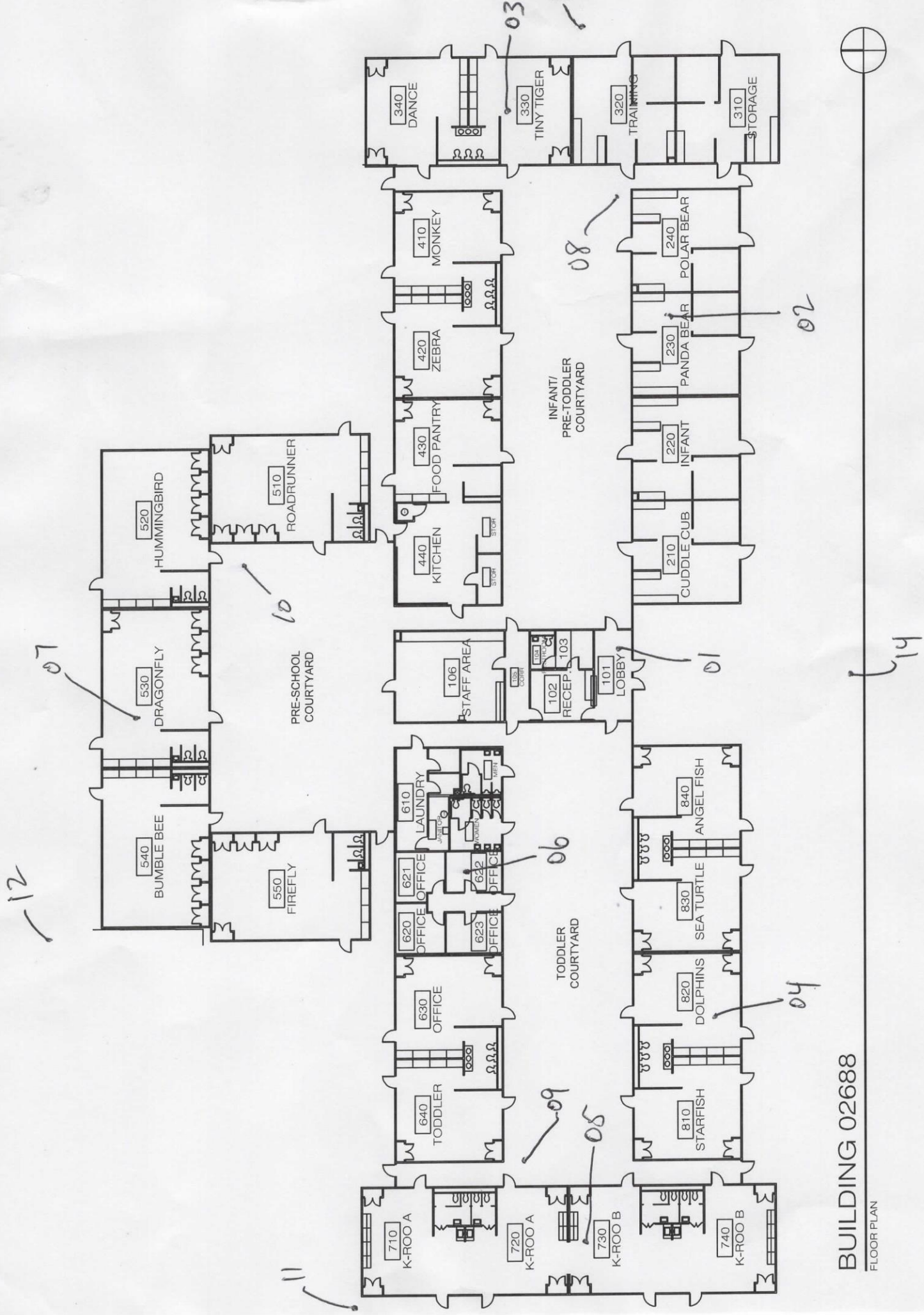
The air samples were collected onto 0.45 micron mixed cellulose ester (MCE) filters housed in 25 mm plastic cowed cassettes.

At the beginning of the sampling period on July 19, 2018 all air sampling was performed with Low-Volume personal air sampling pumps. However, throughout the day, every pump had failed because of the heavy demand required to pull air through filters with 0.45 micron pores. High-Volume area air sampling pumps were exchanged and the ambient air sampling was completed.

Two air samples (01 and 14), Lobby and South Exterior, were collected with the Low-Volume personal pumps and the total volume was calculated based on the last time the pumps were observed operating. The other twelve air samples were collected with the High-Volume area air sample pumps.

All air samples were submitted to Forensic Analytical Laboratories, Inc. of Hayward, California for asbestos analysis by transmission electron microscopy (TEM) by the AHERA method, which includes counting all asbestos structures greater than 0.5 microns in length with an aspect ratio of greater than 3:1. See attached Analytical Report.

Results of twelve of the air samples indicated "**No Asbestos Detected**". However, two of the air samples (08 and 10), East and North Playground Courtyards, were found to be overloaded and not analyzed. These two air samples were the only two to be located near misters during the sampling period.



BUILDING 02688
 FLOOR PLAN

ANALYTICAL REPORT

Transmission Electron Microscopy

AHERA Airborne Asbestos Analysis Summary

Method: 40 CFR Part 763

 APTIM
 Dwayne Ishida / Seyed Miri
 420 Exchange Road Suite 150
 Irvine, CA 92602

 Client Number: L1852
 Report Number: T030246
 Date Received: 7/21/18
 Date Reported: 7/24/18
 Analyst(s): MAB/MF/MZ

 Job ID/PO: 500996.00440100
 Site: CDC NAWS China Lake

| Sample Number | Lab Number | Date Collected | Air Volume, liters s/cc | Analytical Sensitivity, | Asbestos Concentration, | | Asbestos type(s)* detected |
|---|------------|----------------|-------------------------|-------------------------|-------------------------|-------|----------------------------|
| | | | | | s/cc | s/mm2 | |
| 0719-01 | 20120278 | 7/20/18 | 1392.0 | 0.0046 | <0.0046 | <16.7 | ND |
| 0719-02 | 20120279 | 7/20/18 | 1219.2 | 0.0044 | <0.0044 | <13.9 | ND |
| 0719-03 | 20120280 | 7/20/18 | 1257.6 | 0.0043 | <0.0043 | <13.9 | ND |
| 0719-04 | 20120281 | 7/20/18 | 1267.2 | 0.0042 | <0.0042 | <13.9 | ND |
| 0719-05 | 20120282 | 7/20/18 | 1449.6 | 0.0044 | <0.0044 | <16.7 | ND |
| 0719-06 | 20120283 | 7/20/18 | 1267.2 | 0.0042 | <0.0042 | <13.9 | ND |
| 0719-07 | 20120284 | 7/20/18 | 1209.6 | 0.0044 | <0.0044 | <13.9 | ND |
| 0719-08 | 20120285 | 7/20/18 | 1528.8 | | | | OV |
| This sample was prepared but not analyzed due to overloading. | | | | | | | |
| 0719-09 | 20120286 | 7/20/18 | 1680.0 | 0.0048 | <0.0048 | <20.8 | ND |
| 0719-10 | 20120287 | 7/20/18 | 1519.7 | | | | OV |
| This sample was prepared but not analyzed due to overloading. | | | | | | | |
| 0719-11 | 20120288 | 7/20/18 | 1567.8 | 0.0041 | <0.0041 | <16.7 | ND |
| 0719-12 | 20120289 | 7/20/18 | 1544.4 | 0.0042 | <0.0042 | <16.7 | ND |
| 0719-13 | 20120290 | 7/20/18 | 1552.2 | 0.0041 | <0.0041 | <16.7 | ND |
| 0719-14 | 20120291 | 7/20/18 | 1212.4 | 0.0044 | <0.0044 | <13.9 | ND |



Mark Floyd, Analytical Microscopy Supervisor

* Asbestos types: CH=chrysotile; AM=amosite; CR=crocidolite; TR=tremolite; AC=actinolite; AN=anthophyllite; ND=none detected; NA=Not Analyzed; n/a=not applicable (i.e., divide by 0); OV=overloaded; BL=blank sample; PF=prepped not analyzed.

Analytical results and reports are generated by Forensic Analytical at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by Forensic Analytical to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full with approval from Forensic Analytical. The client is solely responsible for the use and interpretation of test results and reports requested from Forensic Analytical. This report must not be used by the client to claim product endorsement by NVLAP or any U.S. government agency. Forensic Analytical is unable to assess the degree of hazard resulting from materials analyzed. Forensic Analytical reserves the right to dispose of all samples after a period of 30 days, according to all state and federal guidelines, unless otherwise specified.



CHAIN OF CUSTODY

Company Name: GB&I

Address: 18100 Von Karman Ave, Suite 450

City / State / Zip: Irvine, CA 92612

Manager:

Phone/Fax Number:

Send Report To:

Phone/Fax Number:

Address: 18100 Von Karman Ave, Suite 450

City: Irvine, CA 92612

Project Contact: WILLIAM ESPARZA

Sample Number

Sample Identification

19161434-5999

Project Number: 500996.06440100
 Project Name: CDC
 Project Location: NAWS CHINA LAKE
 Purchase Order #: FORENSIC ANALYSIS
 Lab Destination: FORENSIC ANALYSIS
 Lab Contact: DANIEL SIV
 Lab Phone #:

Turn Around Time

| | |
|-----------------|-------------------------------------|
| < 4 hours | |
| 8 hours | |
| 24 hours | <input checked="" type="checkbox"/> |
| 48 hours | |
| 72 hours | |
| Other (Specify) | |

Requesting Testing Program

PLM EPA-600/R-93/116

NIOSH Method 7082 by AA

Method 6010C by ICP

TEM (7402) AMECA

Other (Specify)

| Sample Number | Sample Identification | Matrix | # of Containers | Time Start | Time Stop | Average Flow Rate | Requesting Testing Program |
|-----------------|---------------------------|--------|-----------------|------------|-----------|-------------------|----------------------------|
| 0719-01 | LEBBY | A | | | | | X |
| 0719-02 | SE WIND | A | | | | | X |
| 0719-03 | E WIND | A | | | | | X |
| 0719-04 | SU WIND | A | | | | | X |
| 0719-05 | W WIND | A | | | | | X |
| 0719-06 | CENTER WIND | A | | | | | X |
| 0719-07 | N WIND | A | | | | | X |
| 0719-08 | EAST COURTYARD PLAYGROUND | A | | | | | X |
| 0719-09 | WEST COURTYARD PLAYGROUND | A | | | | | X |
| 0719-10 | WEST COURTYARD PLAYGROUND | A | | | | | X |
| 0719-11 | EXTENSION WEST | A | | | | | X |
| 0719-12 | EXTENSION NORTH | A | | | | | X |
| 0719-13 | EXTENSION EAST | A | | | | | X |
| 0719-14 | EXTENSION SOUTH | A | | | | | X |
| 0719-15, 16, 17 | 3 BANKS | A | | | | | X |

Special Instructions: email reports to: seved.mir@ch2m.com

Relinquished By:

Date: 7/20/18 Time: 16:20

Received By:

Date: _____ Time: _____

Relinquished By:

Date: _____ Time: _____

Received By:

Date: _____ Time: _____



Method Codes
 C = Composite
 LF - Low Flow
 Matrix Codes
 A = Air Cassette
 B = Bulk
 P = Paint chip (Lead)

Air Monitoring Entry Form

Client: US Navy, NAVFAC

Date: 7/19/18

Site Address: Bldg. 02688, Nimitz Ave, NAWS China Lake, CA

Project Number: 500996.00440100

Work Area: Child Development Center (CDC)

Inspector: William Esparza

| Sample Id. Number | Type of Sample | Sample Location | Time Start | Time End | Flow Rate (1) | Flow Rate (2) | Mean Flow Rate | Time Sampled (min.) | Volume (Liter) | Fibers Per Field | Detect. Limit (f/cc) | Fiber Con. (f/cc) |
|-------------------|--------------------|---------------------------|------------|----------|---------------|---------------|----------------|---------------------|----------------|------------------|----------------------|-------------------|
| 0719-01 | Inside Ambient Air | Front Lobby | 0546 | 1330 | 3.0 | 3.0 | 3.0 | 464 | 1392.0 | | | |
| 0719-02 | Inside Ambient Air | SE Wing, Pandas | 1653 | 1900 | 9.6 | 9.6 | 9.6 | 127 | 1219.2 | | | |
| 0719-03 | Inside Ambient Air | East Wing, Tigers | 1657 | 1908 | 9.6 | 9.6 | 9.6 | 131 | 1257.6 | | | |
| 0719-04 | Inside Ambient Air | SW Wing, Sea Turtles | 1636 | 1848 | 9.6 | 9.6 | 9.6 | 132 | 1267.2 | | | |
| 0719-05 | Inside Ambient Air | West Wing, K-Rooz | 0853 | 1124 | 9.6 | 9.6 | 9.6 | 151 | 1449.6 | | | |
| 0719-06 | Inside Ambient Air | Center Wing, Admin Office | 1640 | 1852 | 9.6 | 9.6 | 9.6 | 132 | 1267.2 | | | |
| 0719-07 | Inside Ambient Air | North Wing, Dragonflies | 1438 | 1644 | 9.6 | 9.6 | 9.6 | 126 | 1209.6 | | | |



Air Monitoring Entry Form

Client: US Navy, NAVFAC

Date: 7/19/18

Site Address: Bldg. 02688, Nimitz Ave, NAW'S China Lake, CA

Project Number: 500996.00440100

Work Area: Child Development Center (CDC)

Inspector: William Esparza

| Sample Id. Number | Type of Sample | Sample Location | Time Start | Time End | Flow Rate (1) | Flow Rate (2) | Mean Flow Rate | Time Sampled (min.) | Volume (Liter) | Fibers Per Field | Detect. Limit (f/cc) | Fiber Con. (f/cc) |
|-------------------|---------------------|----------------------------|------------|----------|---------------|---------------|----------------|---------------------|----------------|------------------|----------------------|-------------------|
| 0719-08 | Outside Ambient Air | East Courtyard Playground | 0917 | 1205 | 9.6 | 8.6 | 9.1 | 168 | 1528.8 | | | |
| 0719-09 | Outside Ambient Air | West Courtyard Playground | 1150 | 1445 | 9.6 | 9.6 | 9.6 | 175 | 1680.0 | | | |
| 0719-10 | Outside Ambient Air | North Courtyard Playground | 0911 | 1158 | 9.6 | 8.6 | 9.1 | 167 | 1519.7 | | | |
| 0719-11 | Outside Ambient Air | Exterior, West | 0820 | 1502 | 3.9 | 3.9 | 3.9 | 402 | 1567.8 | | | |
| 0719-12 | Outside Ambient Air | Exterior, North | 0832 | 1508 | 3.9 | 3.9 | 3.9 | 396 | 1544.4 | | | |
| 0719-13 | Outside Ambient Air | Exterior, East | 0843 | 1521 | 3.9 | 3.9 | 3.9 | 398 | 1552.2 | | | |
| 0719-14 | Outside Ambient Air | Exterior, South | 0647 | 1400 | 2.8 | 2.8 | 2.8 | 433 | 1212.4 | | | |



