



EnvironMETeo Services, Inc.
Environmental / Industrial Health & Safety

Asbestos, Lead, Arsenic and Waste Characterization Survey Report

For:

**Anbe, Aruga & Ishizu Architects, Inc.
1441 Kapiolani Blvd., Suite 206
Honolulu, Hawaii 96814**

Facility Surveyed:

**Saddle Road Maintenance Baseyard
Vicinity of Mauna Kea State Park
District of Hamakua, Island of Hawaii
TMK: 4-4-016:003**

Project:

**Saddle Road Maintenance Baseyard
New Maintenance Facility**

Conducted by:

**EnvironMETeo Services, Inc. (EMET)
94-520 Ukee Street, Suite A
Waipahu, Hawaii 96797**

Date of Report: June 27, 2013

EMET ID: 1006304



Saddle Road Maintenance Baseyard Relocation & Demolition for New Maintenance Facility 1

Certification of Report

We certify that this report is based on a physical survey of EMET scope of work areas at Saddle Road Maintenance Baseyard, located in the vicinity of Mauna Kea State Park, on the Island of Hawaii for asbestos-containing materials, lead-painted surfaces/building components, arsenic in canec-based materials, and waste characterization of expected demolition debris

The survey was conducted by EnvironMETeo Services, Inc. (EMET) on May 15, 2013 and was limited to the following scope of work:

Hazardous Materials Investigation

1. Inspection, evaluation, and sample collection of suspect asbestos-containing materials by EPA-accredited and State of Hawaii certified inspector(s) in accordance with H.A.R. 11-501 from the following:

Cabin, Storage Sheds, Pens, and Troughs

- interior
 - exterior (including the roofs)
2. Lead paint inspection by EPA-accredited inspector(s) of the locations indicated in item 1.
 3. Determination of arsenic content in canec-based material.
 4. Perform a waste characterization of expected demolition debris composited from the cabin, storage sheds, pens, and troughs.

The survey results are based on analyses of samples of suspect materials collected from visually- and physically-accessible areas/materials.

Bulk samples of suspect asbestos-containing materials taken during the survey were analyzed for asbestos content by a National Institute of Standards and Technology (NIST)-accredited laboratory under the National Voluntary Laboratory Accreditation Program (NVLAP) for asbestos fiber analysis. Laboratory analyses performed by Polarized Light Microscopy (PLM) for asbestos identification are in accordance with U.S. Environmental Protection Agency (EPA) Test Method 600/R-93/116.

Painted surfaces were tested for lead concentrations and canec-based materials were tested for arsenic using an X-Ray Fluorescence (XRF) spectrum analyzer, a testing methodology approved by the EPA and the U.S. Department of Housing and Urban Development (HUD).

Bulk samples of typical demolition debris was collected and analyzed via Toxicity Characteristic Leaching Procedure (TCLP) of 8 RCRA metals by method EPA 1311/6020 at ESN Northwest laboratory in Olympia, Washington.

EMET makes no warranty and assumes no liability for the inappropriate use or misuse of this document.



Jacqueline Furukawa

Asbestos Building Inspector

Hawaii State Certification # HIASB-3641

Summary

EnvironMETeo Services, Inc. (EMET) conducted a survey for asbestos-containing materials, lead-painted surfaces/building components, arsenic in canec-based materials, and waste characterization of expected demolition debris at EMET scope of work areas at Saddle Road Maintenance Baseyard, located in the vicinity of Mauna Kea State Park, on the island of Hawaii, on May 15, 2013. The survey was conducted by Joseph Iopa, Jacqueline Furukawa, and Jennifer Hamson of EMET in accordance with Hawaii Administrative Rules (HAR) 11-501 and EMET's scope of work.

The survey was requested and authorized by Mr. Clarence Izuo of Anbe, Aruga and Ishizu Architects, Inc., and performed in preparation for planned renovations and demolition.

The following materials in boldface were identified as ACM during this survey:

ACM

Material Description	Quantity	Material Location	Condition; Friable/Non Friable
12" x 12" brown w/ white streaks vinyl floor tile and black adhesive	± 60 sf	throughout the kitchen of the cabin	no damage; non-friable
12" x 12" beige w/ white and gray specks sheet vinyl flooring and black adhesive	± 70 sf	throughout the bathroom of the cabin	no damage; non-friable

Lead-based paint was found at the painted metal wall of the larger shed northeast of the cabin. Lead-containing paint was found on the remaining items tested.

Arsenic was detected in the canec wall panels in the cabin.

Waste characterization of expected demolition debris composited from the buildings on site indicated leachable concentrations of lead below regulatory limits for hazardous waste. The demolition debris from the site may be disposed of as non-hazardous waste.

Asbestos-Containing Material

The State of Hawaii and the EPA define ACM as any material containing more than one percent (>1%) asbestos by area. This definition can be found in the following regulations:

- HAR, Title 11, Department of Health, Chapter 501 (11-501), Asbestos Requirements
- HAR, Title 12, Department of Labor and Industrial Relations, Subtitle 8, Hawaii Occupational Safety and Health Division (HIOSH), Part 3, Construction Standards, Chapter 145.1 (12-145.1), Asbestos
- EPA 40 CFR Part 61, Subpart M - National Emission Standards for Hazardous Air Pollutants (NESHAP), revised July 1, 1990, Asbestos NESHAP Revision Final Rule

Asbestos Bulk Sampling

Thirty (30) samples of suspect ACM were collected and analyzed. The samples were placed in plastic containers with a unique identification number assigned to

each sample and entered on a field data sheet. The sample locations were indicated on field drawings and shown in Appendix B.

Samples were collected of the following observed suspect asbestos-containing material:

Cabin Suspect Material

12" x 12" brown w/white streaks vinyl floor tile	black adhesive (beneath 12" 12" brown w/white streaks vinyl floor tile)
black sink insulation	brown canec wall panel
12" x 12" beige w/white and gray specks vinyl floor tile	black adhesive (beneath 12" x 12" beige w/white and gray specks vinyl floor tile)
white caulking	off-white silicone caulking at plumbing fixture*

* observed but not sampled because silicone is not considered suspect for asbestos

Cabin Roof Suspect Material

black felt paper

Pen 1 (Northernmost Pen) Roof Suspect Material

green mineral capsheet roof material

Trough 2 (East Trough) Suspect Material

gray skim coat

No suspect material was observed in the crawl space under the cabin, at Pen 2 (largest pen), Pen 3 (easternmost pen), both sheds, Trough 1 (west trough), and along the fence line.

Asbestos Analyses

The samples were analyzed for asbestos using Polarized Light Microscopy (PLM) for the identification of asbestos, in accordance with EPA Test Method 600/R-93/116. Laboratory analytical data sheets are provided in Appendix A.

The following building materials were found to be ACM:

ACM

Material Description	Quantity	Material Location	Condition; Friable/Non Friable
12" x 12" brown w/ white streaks vinyl floor tile and black adhesive	± 60 sf	throughout the kitchen of the cabin	no damage; non-friable
12" x 12" beige w/ white and gray specks sheet vinyl flooring and black adhesive	± 70 sf	throughout the bathroom of the cabin	no damage; non-friable

Lead Paint

HUD regulations, 24 CFR Parts 35, 200, 881, and 886, guidelines for the evaluation and control of lead-based paint (LBP) hazards in housing, revised April 1, 1999, define LBP as paint with a lead content of 1.0 mg/cm² or greater by XRF analyzer, or 0.5% wt. or 5000 ppm by Atomic Absorption (AA) analysis. The EPA regulations 40 CFR Part 745, revised July 1, 1999, similarly defined LBP as stated in HUD regulations.

However, the Occupational Safety and Health Administration (OSHA) and HIOSH regulate any activity disturbing paint that contains lead (referred to as lead-

containing paint or LCP), even if the lead content is below the EPA/HUD standard for lead-based paint.

XRF test results of painted surfaces equal to or greater than 1.0 mg/cm^2 are defined as LBP in accordance with EPA and HUD regulations.

Lead Paint Sampling and Analyses

Painted surfaces were analyzed for lead using an XRF analyzer. A total of 25 analyses of painted surfaces/building components and calibrations were performed. A unique identification number was assigned to each test location and entered on a field data sheet and a field drawing. The ID number, location, description, and lead concentration of each sample are indicated in the XRF Analyzer Test Results, which are provided in Appendix C.

The test results indicate that a lead content equal to or greater than 1.0 mg/cm^2 was detected at the following:

Saddle Road Maintenance Lead-based Paint

XRF No. and Location	Testing Combination Component / Substrate	Condition	Color
765, Larger Shed	interior wall / metal	poor	cream

The remaining samples registered a lead content of less than 1.0 mg/cm^2 and they are considered to contain lead-containing paint (LCP). Painted surfaces may vary in paint type, color and condition, and any damaged painted surfaces may vary significantly from area to area in terms of the condition and degree of damage. The results provide the lead content of all paint layers in a tested surface, as there may be more than one layer of paint on the tested surface.

Arsenic in Canec Based Materials

A field portable XRF instrument was used to determine concentrations of arsenic in canec-based building components. Canec was observed at wall panels in the cabin.

Arsenic concentrations are summarized in the table below.

Arsenic in Bulk

Sample Description	Arsenic Concentration (ppm)
canec wall panel, cabin	1697

The arsenic in bulk laboratory report is provided in Appendix D.

Waste Characterization of Expected Demolition Debris

A composite sample of expected disposal/demolition debris was taken from the cabin, pens, sheds, and troughs for waste characterization purposes. A TCLP (Toxicity Characteristic Leaching Procedure) analysis for lead was performed on the sample.

Based on the laboratory analysis, the amount of leachable lead regulated under the Resource Conservation and Recovery Act (RCRA) does not exceed the regulatory limit of 5 milligrams per liter (mg/L). Therefore, the waste is not considered "hazardous waste" as defined by the U.S. Environmental Protection Agency and the State of Hawaii and may be disposed of as non-regulated construction debris in a municipal landfill. The findings are summarized in the following table.

Waste Characterization

Sample ID	Location	Leachable Lead Concentration (mg/L)
304-SRMB-TCLP1	composite of bulk samples from cabin, pens, sheds, and troughs	nd *

* nd = None detected at method detection level of 0.20 mg/L.

The waste characterization laboratory report is attached in Appendix E.

Limitations

This hazardous materials survey was performed to identify suspect materials in areas scheduled for planned renovations. Original building plans and specifications and those for past renovations, if any, were not available for review. Therefore, because of these limitations, the highly variable nature of building construction, and the limits to the survey as defined by EMET's scope of work, the potential remains for undiscovered hazardous materials. Hidden materials encountered during renovation or demolition not characterized in this survey or previous surveys should be assumed to be hazardous until analyzed and proven otherwise.

This report is not a specification for the removal of ACM, lead, or arsenic and should not be used as such.

Appendix A

Asbestos Survey Report

Building/Area/Space Surveyed Information Sheet

EMET ID	ID	Name
1006304	CABIN	Cabin
Inspection Date	Location	ACM PRESENT? YES YES = PRESENT NO = NOT PRESENT
5/15/2013	Saddle Road Maintenance Baseyard Infantry Road District of Hamakua, HI	
Client Name Anbe, Aruga & Ishizu, Architects, Inc.		

Building/Space Uses	% Floor Space	No. of Floors/Levels in Area Surveyed	No. of Roof Levels (if applicable)
cabin	100	1	1
		Specific Areas of Building Surveyed interior and exterior including roof	

Inspector #1 Identification

Name: Joseph Iopa III
State of HI Certification No.: HIASB-0585
State of HI Certification Expiration Date: 4/25/2014
Building Inspector Certification Exp. Date: 3/1/2014

Inspector #2 Identification

Name: Jennifer Hamson
State of HI Certification No.: HIASB-3642
State of HI Certification Expiration Date: 2/28/2014
Building Inspector Certification Exp. Date: 2/21/2014

Inspector #3 Identification

Name: Jacqueline Furukawa
State of HI Certification No.: HIASB-3641
State of HI Certification Expiration Date: 2/28/2014
Building Inspector Certification Exp. Date: 2/21/2014

Inspector Comments

EMET's scope of work was limited to the areas listed above in Specific Areas Surveyed. This report is not a specification for the removal of asbestos-containing material and should not be used as such. Results of the presence or absence of asbestos are based on the survey and on analyses of the suspect materials encountered. Original building plans and specifications were not available for review. Therefore, because of these limitations and the highly variable nature of building construction, the potential remains for undiscovered ACM. EMET makes no warranty and assumes no liability for the inappropriate use or misuse of this document.

Unified Homogeneous/Sample Area ACM - Space and Salient Cross Reference

EMET ID

1006304

Building ID and Name

CABIN Cabin

Document Number

Saddle Road Maintenance Baseyard

Infantry Road

District of Hamakua, HI

For the ACM - Space Identified as:

304-CABIN-1

Unified Sample Area or Salient ID	Homogeneous Sample Area/ Lot or Salient Description	Comments	ACBM Present			Material Type*			Recommended Response Action	Estimated Costs (Approx.)	
			Suspected	Confirmed	Friable	T	DC	PD		Removal	Replacement
304-CABIN-1A	12" x 12" brown w/ white streaks vinyl floor tile		Yes	ACM	No	M	ND	PSD	8		
304-CABIN-1B	black adhesive beneath 12" x 12" brown w/ white streaks vinyl floor tile		Yes	ACM	No	M	ND	PD	8		
304-CABIN-1C	black sink insulation		Yes	No ACM							
304-CABIN-1D	12" x 12" beige w/ white and gray specks vinyl floor tile		Yes	ACM	No	M	ND	PSD	8		
304-CABIN-1E	black adhesive beneath 12" x 12" beige w/ white and gray specks vinyl floor tile		Yes	ACM	No	M	ND	PD	8		
304-CABIN-1F	brown canec wall panel		Yes	No ACM							

* Refers to Material Type and Damage Conditions

T = Material Type:
S = Surfacing
M = Miscellaneous
T = Thermal Systems

DC = Damage Condition:
ND = No Damage
D = Damaged
SD = Significant Damage

PD = Potential Damage Condition:
NPD = No Potential Damage
PD = ACBM w/ Potential Damage
PSD = Potential Significant Damage

** Recommended Response Actions

1. Isolate area and restrict access. Remove or repair ASAP.
2. Continue Operations and Maintenance (O&M) program.
- 3-5. Remove or repair ASAP, or reduce potential for disturbance. Repair, continue O&M. Lower number indicates higher priority if all repair cannot be done immediately.
- 6-7. Continue O&M. Take preventive measures to reduce disturbance. Number indicates priority for removal.
8. Continue O&M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.

Note: An O&M program may include enclosure and encapsulation.

Unified Homogeneous/Sample Area ACM - Space and Salient Cross Reference

EMET ID

1006304

Building ID and Name

CABIN Cabin

Document Number

Building Location

Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

For the ACM - Space Identified as:

304-CABIN-1

Unified Sample Area or Salient ID	Homogeneous Sample Area/ Lot or Salient Description	Comments	ACBM Present			Material Type*				Recommended Response Action	Estimated Costs (Approx.)	
			Suspected	Confirmed	Friable	T	DC	PD			Removal	Replacement
304-CABIN-1G	white caulking at door frame		Yes	No ACM								
304-CABIN-1H	off-white silicone at plumbing fixture		No									

* Refers to Material Type and Damage Conditions

T = Material Type:
S = Surfacing
M = Miscellaneous
T = Thermal Systems

DC = Damage Condition:
ND = No Damage
D = Damaged
SD = Significant Damage

PD = Potential Damage Condition:
NPD = No Potential Damage
PD = ACBM w/ Potential Damage
PSD = Potential Significant Damage

** Recommended Response Actions

1. Isolate area and restrict access. Remove or repair ASAP.
 2. Continue Operations and Maintenance (O&M) program.
 - 3-5. Remove or repair ASAP, or reduce potential for disturbance.
 - 3-5. Repair, continue O&M. Lower number indicates higher priority if all repair cannot be done immediately.
 - 6-7. Continue O&M. Take preventive measures to reduce disturbance.
 - 6-7. Number indicates priority for removal.
 8. Continue O&M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.
- Note: An O&M program may include enclosure and encapsulation.

Sample Area Report -- Area Master

EMET ID	Building Number and Name		Inspection Date
1006304	CABIN	Cabin	05/15/2013
Document Number	Sample Area/Lot Number and Name		Unified Sample Area Number
	304-CABIN-1A	12" x 12" brown w/ white streaks vinyl floor tile	
	Drawing/Sketch Number and Name		304-CABIN-1A
	304-CABIN-1	304-CABIN-1	

A Sample Area should contain material of one, and only one, composition or matrix. An exception can be made in the case of layered applications of materials, such as occurs with a Three Coat Plaster system, that generally matches the same physical locations. Special care must be taken while collecting samples of layered materials, to enable the analysis to discern the several matrices present. Such conditions should be described in detail on the Sample Notes form for the analyst.

Location of Confirmed, Assumed, or New ACM within Building

Unified Sample Area/Homogeneous Material

12" x 12" brown w/ white streaks vinyl floor tile	See Sketch 304-CABIN-1 throughout kitchen
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SAMPLING STRATEGY DATA

Ceiling Height #1		#2	
Square Feet of Ceiling Materials			
Square Feet of Wall Materials			
Square Feet of Floor Surface	±60		
Linear Feet of TSI			
Square Feet of Structural Steel Coatings (including over-spray)			
Square Feet of Other ACM			
Linear Feet of Other ACM			
Total square and/or linear feet of ACM:	±60		

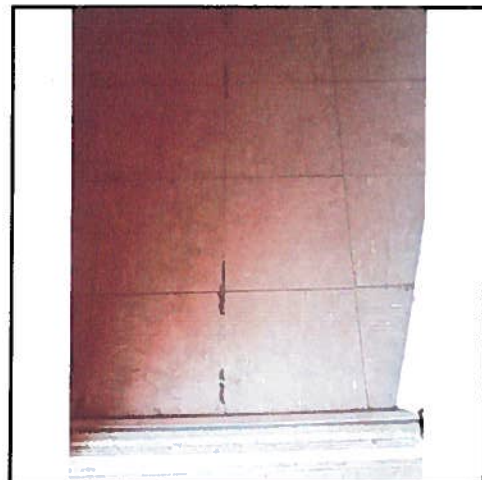
RISK ASSESSMENT DETERMINATION

Material Type	Damage Condition	Potential Damage
Miscellaneous	None	Significant
Visible	Reachable	Water Damage
More than 10%	Within reach	None
Barriers	Ventilation	If Yes
None	No	No
		Friable Category I
Air Movement	Proximity to Repair Items	Activity
Low	Less than 1 ft.	Low

SAMPLE ANALYSIS SUMMARY SECTION

Total number of samples collected	3
Total number of samples analyzed	3
IS ASBESTOS-CONTAINING MATERIAL PRESENT?	YES
Samples Collected by	EMET
Sample Numbers	304-CABIN-1a1, 304-CABIN-1a2, 304-CABIN-1a3
Samples Analyzed by	EMET
Number of Sallent Designations	

PHOTOGRAPH



Sample Log and Notes

Building Number and Name

CABIN	Cabin
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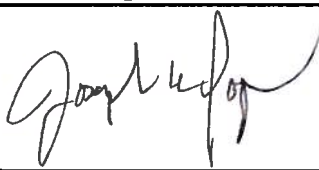
EMET ID

1006304

Sample Area/Lot Number and Name

304-CABIN-1A	12" x 12" brown w/ white streaks vinyl floor tile
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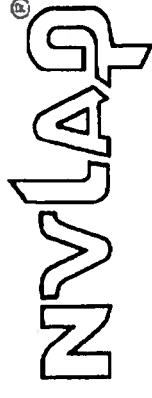
Sample Number	% Asbestos	Description of Sampled Material	Sample Location
304-CABIN-1a1	2	12" x 12" brown w/ white streaks vinyl floor tile	near south corner of kitchen
304-CABIN-1a2	2	12" x 12" brown w/ white streaks vinyl floor tile	near east corner of kitchen
304-CABIN-1a3	2	12" x 12" brown w/ white streaks vinyl floor tile	at south corner of kitchen

Inspector's Name	Signature	Date Samples Collected
		
Joseph Iopa III		05/15/2013

EMET Services, Inc. 94-520 Uke`e Street, Suite A Waipahu, HI 96797
Phone (808) 671-8383 Fax (808) 671-7979

LABORATORY REPORT

Asbestos Bulk Sample Analysis by Polarized Light Microscopy
in accordance with Test Methods EPA 600/M4-82-020 and EPA 600/9-93/116



Client: Anbe, Aruga & Ishizu, Architects, Inc. Building: Cabin
Address: 1441 Kapiolani Blvd., Suite 206
Honolulu, HI 96814
Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

NVLAP LAB CODE 101807-0

Approved Signatory: 

Sample/Homogeneous Area: 304-CABIN-1A Analysis Date: 5/21/2013 Report Date: 5/21/2013

Lab ID	Sample ID	Color	homogeneity	Asbestos Present	Asbestos (Type) Area %	Fibrous Components Area %	Non-fibrous Components Area %	comments
304-001	304-CABIN-1a1	brown w/white streaks	Yes	Yes	chrysotile 2	-	misc. part. 98	
304-002	304-CABIN-1a2	brown w/white streaks	Yes	Yes	chrysotile 2	-	misc. part. 98	
304-003	304-CABIN-1a3	brown w/white streaks	Yes	Yes	chrysotile 2	-	misc. part. 98	

***Accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for the scope specific under Lab Code 101807-0.**

*Laboratory test report may not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government.

*Laboratory test report relates only to items tested.

*Samples analyzed as received by the laboratory, interpretation is responsibility of the client.

*Asbestos fiber percentage approximate - performed by visual observation only.

*This method is not reliable for analysis of tile or other materials when fiber size is less than 10 microns and/or below detection limit (appr. 1%) of current PLM techniques

Note: EPA, OSHA, and HIOSH define "asbestos-containing material" as any material or product which contains more than one percent asbestos.

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EMET Services, Inc. 94-520 Uke'e Street, Suite A, Walpahu, Hawaii 96797 Phone: (808) 671-8383 FAX: (808) 671-7979

EMET ID 1006304

Sample Area Report -- Area Master

EMET ID	Building Number and Name		Inspection Date
1006304	CABIN	Cabin	05/15/2013
Document Number	Sample Area/Lot Number and Name		Unified Sample Area Number
	304-CABIN-1B	black adhesive beneath 12" x 12" brown w/ white streaks vinyl floor tile	
	Drawing/Sketch Number and Name		304-CABIN-1B
	304-CABIN-1	304-CABIN-1	

A Sample Area should contain material of one, and only one, composition or matrix. An exception can be made in the case of layered applications of materials, such as occurs with a Three Coat Plaster system, that generally matches the same physical locations. Special care must be taken while collecting samples of layered materials, to enable the analysis to discern the several matrices present. Such conditions should be described in detail on the Sample Notes form for the analyst.

Location of Confirmed, Assumed, or New ACM within Building

Unified Sample Area/Homogeneous Material

black adhesive beneath 12" x 12" brown w/ white streaks vinyl floor tile

See Sketch 304-CABIN-1

throughout kitchen

SAMPLING STRATEGY DATA

Ceiling Height #1		#2	
Square Feet of Ceiling Materials			
Square Feet of Wall Materials			
Square Feet of Floor Surface	±60		
Linear Feet of TSI			
Square Feet of Structural Steel Coatings (including over-spray)			
Square Feet of Other ACM			
Linear Feet of Other ACM			
Total square and/or linear feet of ACM:	±60		

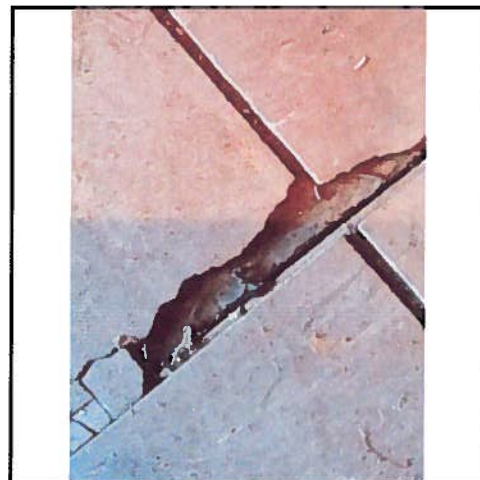
RISK ASSESSMENT DETERMINATION

Material Type	Damage Condition	Potential Damage
Miscellaneous	None	Moderate
Visible	Reachable	Water Damage
None visible	Within reach	None
Barriers	Ventilation	If Yes
Enclosed	No	No
		Category I
Air Movement	Proximity to Repair Items	Activity
Low	Less than 1 ft.	Low

SAMPLE ANALYSIS SUMMARY SECTION

Total number of samples collected	3
Total number of samples analyzed	3
IS ASBESTOS-CONTAINING MATERIAL PRESENT?	YES
Samples Collected by	EMET
Sample Numbers	304-CABIN-1b1, 304-CABIN-1b2, 304-CABIN-1b3
Samples Analyzed by	EMET
Number of Sallent Designations	

PHOTOGRAPH



Sample Log and Notes

Building Number and Name

CABIN	Cabin
-------	-------

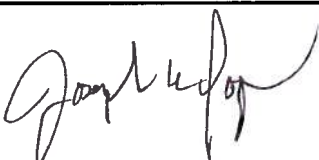
EMET ID

1006304

Sample Area/Lot Number and Name

304-CABIN-1B	black adhesive beneath 12" x 12" brown w/ white streaks vinyl floor tile
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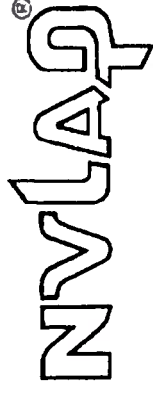
Sample Number	% Asbestos	Description of Sampled Material	Sample Location
304-CABIN-1b1	2	black adhesive beneath 12" x 12" brown w/ white streaks vinyl floor tile	near south corner of kitchen
304-CABIN-1b2	3	black adhesive beneath 12" x 12" brown w/ white streaks vinyl floor tile	near east corner of kitchen
304-CABIN-1b3	2	black adhesive beneath 12" x 12" brown w/ white streaks vinyl floor tile	at south corner of kitchen

Inspector's Name	Signature	Date Samples Collected
		
Joseph Iopa III		05/15/2013

EMET Services, Inc. 94-520 Uke`e Street, Suite A Waipahu, HI 96797
Phone (808) 671-8383 Fax (808) 671-7979

LABORATORY REPORT

Asbestos Bulk Sample Analysis by Polarized Light Microscopy
in accordance with Test Methods EPA 600/M4-82-020 and EPA 600/9-93/116



Client: Anbe, Aruga & Ishizu, Architects, Inc.

Building: Cabin

Address: 1441 Kapiolani Blvd., Suite 206
Honolulu, HI 96814

Address: Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

NVLAP LAB CODE 101807-0

Approved Signatory: 

Sample/Homogeneous Area: 304-CABIN-1B Analysis Date: 5/21/2013 Report Date: 5/21/2013

Lab ID	Sample ID	Color	homogeneity	Asbestos Present	Asbestos (Type) Area %	Fibrous Components Area %	Non-fibrous Components Area %	comments
304-004	304-CABIN-1b1	black	Yes	Yes	chrysotile 2	-	misc. part. 98	
304-005	304-CABIN-1b2	black	Yes	Yes	chrysotile 3	-	misc. part. 97	
304-006	304-CABIN-1b3	black	Yes	Yes	chrysotile 2	-	misc. part. 98	

***Accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for the scope specific under Lab Code 101807-0.**

*Laboratory test report may not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government.

*Laboratory test report relates only to items tested.

*Samples analyzed as received by the laboratory, interpretation is responsibility of the client.

*Asbestos fiber percentage approximate - performed by visual observation only.

*This method is not reliable for analysis of tile or other materials when fiber size is less than 10 microns and/or below detection limit (appr. 1%) of current PLM techniques

Note: EPA, OSHA, and HIOSH define "asbestos-containing material" as any material or product which contains more than one percent asbestos.

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EMET ID 1006304

Sample Area Report -- Area Master

EMET ID	Building Number and Name	Inspection Date
1006304	CABIN Cabin	05/15/2013
Document Number	Sample Area/Lot Number and Name	Unified Sample Area Number
	304-CABIN-1C black sink insulation	
	Drawing/Sketch Number and Name	
		304-CABIN-1C

A Sample Area should contain material of one, and only one, composition or matrix. An exception can be made in the case of layered applications of materials, such as occurs with a Three Coat Plaster system, that generally matches the same physical locations. Special care must be taken while collecting samples of layered materials, to enable the analysis to discern the several matrices present. Such conditions should be described in detail on the Sample Notes form for the analyst.

Location of Confirmed, Assumed, or New ACM within Building

Unified Sample Area/Homogeneous Material

black sink insulation	Not Applicable
-----------------------	----------------

SAMPLING STRATEGY DATA

Ceiling Height #1		#2	
Square Feet of Ceiling Materials			
Square Feet of Wall Materials			
Square Feet of Floor Surface			
Linear Feet of TSI			
Square Feet of Structural Steel Coatings (including over-spray)			
Square Feet of Other ACM			
Linear Feet of Other ACM			
Total square and/or linear feet of ACM:			

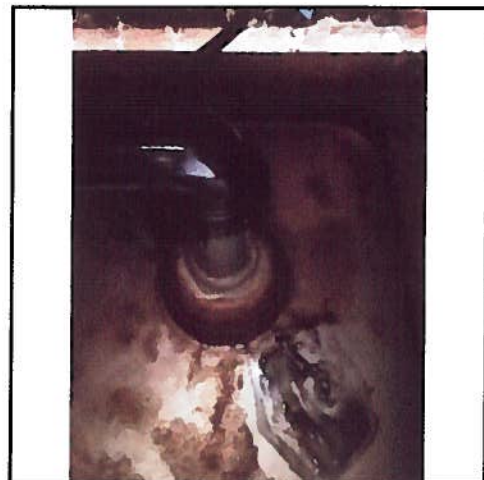
RISK ASSESSMENT DETERMINATION

Material Type	Damage Condition	Potential Damage
--	--	--
Visible	Reachable	Water Damage
--	--	--
Barriers	Ventilation	If Yes
--	--	--
		Friable
		--
Air Movement	Proximity to Repair Items	Activity
--	--	--

SAMPLE ANALYSIS SUMMARY SECTION

Total number of samples collected	3
Total number of samples analyzed	3
IS ASBESTOS-CONTAINING MATERIAL PRESENT?	NO
Samples Collected by	EMET
Sample Numbers	304-CABIN-1c1, 304-CABIN-1c2, 304-CABIN-1c3
Samples Analyzed by	EMET
Number of Sallent Designations	

PHOTOGRAPH



Sample Log and Notes

Building Number and Name

CABIN	Cabin
-------	-------

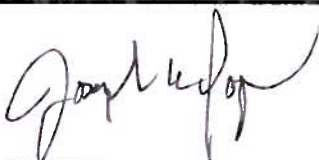
EMET ID

1006304

Sample Area/Lot Number and Name

304-CABIN-1C	black sink insulation
--------------	-----------------------

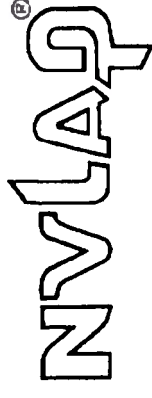
Sample Number	% Asbestos	Description of Sampled Material	Sample Location
304-CABIN-1c1	0	black sink insulation	at sink in kitchen
304-CABIN-1c2	0	black sink insulation	at sink in kitchen
304-CABIN-1c3	0	black sink insulation	at sink in kitchen

Inspector's Name	Signature	Date Samples Collected
		
Joseph Iopa III		05/15/2013

EMET Services, Inc. 94-520 Uke`e Street, Suite A Waipahu, HI 96797
Phone (808) 671-8383 Fax (808) 671-7979

LABORATORY REPORT

Asbestos Bulk Sample Analysis by Polarized Light Microscopy
in accordance with Test Methods EPA 600/M4-82-020 and EPA 600/9-93/116



Client: Anbe, Aruga & Ishizu, Architects, Inc.

Building: Cabin

NVLAP LAB CODE 101807-0

Address: 1441 Kapiolani Blvd., Suite 206
Honolulu, HI 96814

Address: Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

Approved Signatory: 

Sample/Homogeneous Area: 304-CABIN-1C Analysis Date: 5/21/2013 Report Date: 5/21/2013

Lab ID	Sample ID	Color	homogeneity	Asbestos Present	Asbestos (Type) Area %	Fibrous Components Area %	Non-fibrous Components Area %	comments
304-007	304-CABIN-1c1	black	Yes	No	-	-	misc. part.	
					<1	-	100	
304-008	304-CABIN-1c2	black	Yes	No	-	-	misc. part.	
					<1	-	100	
304-009	304-CABIN-1c3	black	Yes	No	-	-	misc. part.	
					<1	-	100	

***Accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for the scope specific under Lab Code 101807-0.**

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*Laboratory test report relates only to items tested.

*Samples analyzed as received by the laboratory, interpretation is responsibility of the client.

*Asbestos fiber percentage approximate - performed by visual observation only.

*This method is not reliable for analysis of tile or other materials when fiber size is less than 10 microns and/or below detection limit (appr. 1%) of current PLM techniques

Note: EPA, OSHA, and HIOSH define "asbestos-containing material" as any material or product which contains more than one percent asbestos.

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EMET Services, Inc. 94-520 Uke'e Street, Suite A, Waipahu, Hawaii 96797 Phone: (808) 671-8383 FAX: (808) 671-7979

EMET ID 1006304

Sample Area Report -- Area Master

EMET ID	Building Number and Name		Inspection Date
1006304	CABIN	Cabin	05/15/2013
Document Number	Sample Area/Lot Number and Name		Unified Sample Area Number
	304-CABIN-1D	12" x 12" beige w/ white and gray specks vinyl floor tile	
	Drawing/Sketch Number and Name		304-CABIN-1D
	304-CABIN-1	304-CABIN-1	

A Sample Area should contain material of one, and only one, composition or matrix. An exception can be made in the case of layered applications of materials, such as occurs with a Three Coat Plaster system, that generally matches the same physical locations. Special care must be taken while collecting samples of layered materials, to enable the analysis to discern the several matrices present. Such conditions should be described in detail on the Sample Notes form for the analyst.

Location of Confirmed, Assumed, or New ACM within Building

Unified Sample Area/Homogeneous Material

12" x 12" beige w/ white and gray specks vinyl floor tile

See Sketch 304-CABIN-1

throughout bathroom

SAMPLING STRATEGY DATA

Ceiling Height #1		#2	
Square Feet of Ceiling Materials			
Square Feet of Wall Materials			
Square Feet of Floor Surface	70		
Linear Feet of TSI			
Square Feet of Structural Steel Coatings (including over-spray)			
Square Feet of Other ACM			
Linear Feet of Other ACM			
Total square and/or linear feet of ACM:	±70		

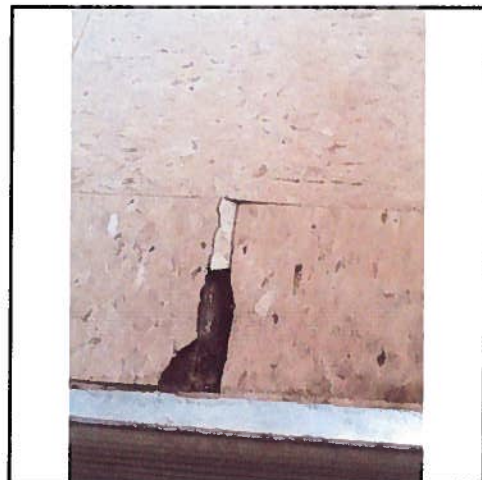
RISK ASSESSMENT DETERMINATION

Material Type	Damage Condition	Potential Damage
Miscellaneous	None	Significant
Visible	Reachable	Water Damage
More than 10%	Within reach	None
Barriers	Ventilation	If Yes
None	No	
		Friable
		No Category I
Air Movement	Proximity to Repair Items	Activity
Low	Less than 1 ft.	Low

SAMPLE ANALYSIS SUMMARY SECTION

Total number of samples collected	3
Total number of samples analyzed	3
IS ASBESTOS-CONTAINING MATERIAL PRESENT?	YES
Samples Collected by	EMET
Sample Numbers	304-CABIN-1d1, 304-CABIN-1d2, 304-CABIN-1d3
Samples Analyzed by	EMET
Number of Sallent Designations	

PHOTOGRAPH



Sample Log and Notes

Building Number and Name

CABIN	Cabin
-------	-------

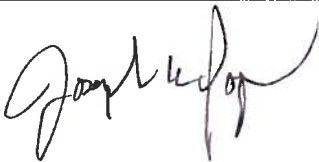
EMET ID

1006304

Sample Area/Lot Number and Name

304-CABIN-1D	12" x 12" beige w/ white and gray specks vinyl floor tile
--------------	---

Sample Number	% Asbestos	Description of Sampled Material	Sample Location
304-CABIN-1d1	2	12" x 12" beige w/ white and gray specks vinyl floor tile	at east corner of bathroom
304-CABIN-1d2	3	12" x 12" beige w/ white and gray specks vinyl floor tile	at east corner of bathroom
304-CABIN-1d3	2	12" x 12" beige w/ white and gray specks vinyl floor tile	in front of shower along the northeastern wall

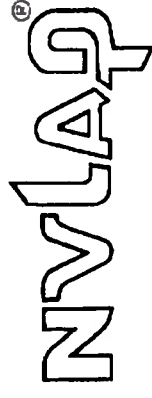
Inspector's Name	Signature	Date Samples Collected
Joseph Iopa III		05/15/2013

EMET Services, Inc. 94-520 Uke`e Street, Suite A Waipahu, HI 96797

Phone (808) 671-8383 Fax (808) 671-7979

LABORATORY REPORT

Asbestos Bulk Sample Analysis by Polarized Light Microscopy
in accordance with Test Methods EPA 600/M4-82-020 and EPA 600/9-93/116



Client: Anbe, Aruga & Ishizu, Architects, Inc. Building: Cabin
Address: 1441 Kapiolani Blvd., Suite 206
Honolulu, HI 96814
Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

NVLAP LAB CODE 101807-0

Approved Signatory: 

Sample/Homogeneous Area: 304-CABIN-1D Analysis Date: 5/21/2013 Report Date: 5/21/2013

Lab ID	Sample ID	Color	homogeneity	Asbestos Present	Asbestos (Type) Area %	Fibrous Components Area %	Non-fibrous Components Area %	comments
304-010	304-CABIN-1d1	beige/white/gray	Yes	Yes	chrysotile 2	-	misc. part. 98	
304-011	304-CABIN-1d2	beige/white/gray	Yes	Yes	chrysotile 3	-	misc. part. 97	
304-012	304-CABIN-1d3	beige/white/gray	Yes	Yes	chrysotile 2	-	misc. part. 98	

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*Laboratory test report relates only to items tested.

*Samples analyzed as received by the laboratory, interpretation is responsibility of the client.

*Asbestos fiber percentage approximate - performed by visual observation only.

*This method is not reliable for analysis of tile or other materials when fiber size is less than 10 microns and/or below detection limit (appr. 1%) of current PLM techniques

Note: EPA, OSHA, and HIOSH define "asbestos-containing material" as any material or product which contains more than one percent asbestos.

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EMET ID 1006304

Sample Area Report -- Area Master

EMET ID	Building Number and Name		Inspection Date
1006304	CABIN	Cabin	05/15/2013
Document Number	Sample Area/Lot Number and Name		Unified Sample Area Number
	304-CABIN-1E	black adhesive beneath 12" x 12" beige w/ white and gray specks vinyl floor tile	
	Drawing/Sketch Number and Name		304-CABIN-1E
	304-CABIN-1	304-CABIN-1	

A Sample Area should contain material of one, and only one, composition or matrix. An exception can be made in the case of layered applications of materials, such as occurs with a Three Coat Plaster system, that generally matches the same physical locations. Special care must be taken while collecting samples of layered materials, to enable the analysis to discern the several matrices present. Such conditions should be described in detail on the Sample Notes form for the analyst.

Location of Confirmed, Assumed, or New ACM within Building

Unified Sample Area/Homogeneous Material

black adhesive beneath 12" x 12" beige w/ white and gray specks vinyl floor tile

See Sketch 304-CABIN-1

throughout bathroom

SAMPLING STRATEGY DATA

Ceiling Height #1		#2	
Square Feet of Ceiling Materials			
Square Feet of Wall Materials			
Square Feet of Floor Surface	70		
Linear Feet of TSI			
Square Feet of Structural Steel Coatings (including over-spray)			
Square Feet of Other ACM			
Linear Feet of Other ACM			
Total square and/or linear feet of ACM:	±70		

RISK ASSESSMENT DETERMINATION

Material Type	Damage Condition	Potential Damage
Miscellaneous	None	Moderate
Visible	Reachable	Water Damage
None visible	Within reach	None
Barriers	Ventilation	If Yes
Enclosed	No	
		Friable
		No Category I
Air Movement	Proximity to Repair Items	Activity
Low	Less than 1 ft.	Low

SAMPLE ANALYSIS SUMMARY SECTION

Total number of samples collected	3
Total number of samples analyzed	3
IS ASBESTOS-CONTAINING MATERIAL PRESENT?	YES
Samples Collected by	EMET
Sample Numbers	304-CABIN-1e1, 304-CABIN-1e2, 304-CABIN-1e3
Samples Analyzed by	EMET
Number of Sallent Designations	

PHOTOGRAPH



Sample Log and Notes

Building Number and Name

CABIN	Cabin
-------	-------

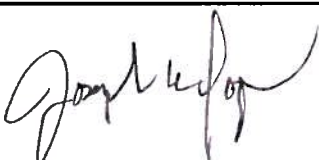
EMET ID

1006304

Sample Area/Lot Number and Name

304-CABIN-1E	black adhesive beneath 12" x 12" beige w/ white and gray specks vinyl floor tile
--------------	--

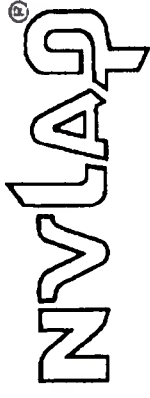
Sample Number	% Asbestos	Description of Sampled Material	Sample Location
304-CABIN-1e1	3	black adhesive beneath 12" x 12" beige w/ white and gray specks vinyl floor tile	at east corner of bathroom
304-CABIN-1e2	3	black adhesive beneath 12" x 12" beige w/ white and gray specks vinyl floor tile	at east corner of bathroom
304-CABIN-1e3	3	black adhesive beneath 12" x 12" beige w/ white and gray specks vinyl floor tile	in front of shower along the northeastern wall

Inspector's Name	Signature	Date Samples Collected
		
Joseph Iopa III		05/15/2013

EMET Services, Inc. 94-520 Uke`e Street, Suite A Waipahu, HI 96797
Phone (808) 671-8383 Fax (808) 671-7979

LABORATORY REPORT

Asbestos Bulk Sample Analysis by Polarized Light Microscopy
in accordance with Test Methods EPA 600/M4-82-020 and EPA 600/9-93/116



Client: Anbe, Aruga & Ishizu, Architects, Inc. Building: Cabin

NVLAP LAB CODE 101807-0

Address: 1441 Kapiolani Blvd., Suite 206
Honolulu, HI 96814

Address: Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

Approved Signatory: 

Sample/Homogeneous Area: 304-CABIN-1E Analysis Date: 5/21/2013 Report Date: 5/21/2013

Lab ID	Sample ID	Color	homogeneity	Asbestos Present	Asbestos (Type) Area %	Fibrous Components Area %	Non-fibrous Components Area %	comments
304-013	304-CABIN-1e1	black	Yes	Yes	chrysotile 3	cellulose 1	misc. part. 96	
304-014	304-CABIN-1e2	black	Yes	Yes	chrysotile 3	-	misc. part. 97	
304-015	304-CABIN-1e3	black	Yes	Yes	chrysotile 3	-	misc. part. 97	

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*Laboratory test report relates only to items tested.

*Samples analyzed as received by the laboratory, interpretation is responsibility of the client.

*Asbestos fiber percentage approximate - performed by visual observation only.

*This method is not reliable for analysis of tile or other materials when fiber size is less than 10 microns and/or below detection limit (appr. 1%) of current PLM techniques

Note: EPA, OSHA, and HIOSH define "asbestos-containing material" as any material or product which contains more than one percent asbestos.

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EMET Services, Inc. 94-520 Uke'e Street, Suite A, Waipahu, Hawaii 96797 Phone: (808) 671-8383 FAX: (808) 671-7979

EMET ID 1006304

Sample Area Report -- Area Master

EMET ID	Building Number and Name	Inspection Date
1006304	CABIN Cabin	05/15/2013
Document Number	Sample Area/Lot Number and Name	Unified Sample Area Number
	304-CABIN-1F brown canec wall panel	
	Drawing/Sketch Number and Name	
		304-CABIN-1F

A Sample Area should contain material of one, and only one, composition or matrix. An exception can be made in the case of layered applications of materials, such as occurs with a Three Coat Plaster system, that generally matches the same physical locations. Special care must be taken while collecting samples of layered materials, to enable the analysis to discern the several matrices present. Such conditions should be described in detail on the Sample Notes form for the analyst.

Location of Confirmed, Assumed, or New ACM within Building

Unified Sample Area/Homogeneous Material

brown canec wall panel	Not Applicable
------------------------	----------------

SAMPLING STRATEGY DATA

Ceiling Height #1		#2	
Square Feet of Ceiling Materials			
Square Feet of Wall Materials			
Square Feet of Floor Surface			
Linear Feet of TSI			
Square Feet of Structural Steel Coatings (including over-spray)			
Square Feet of Other ACM			
Linear Feet of Other ACM			
Total square and/or linear feet of ACM:			

RISK ASSESSMENT DETERMINATION

Material Type	Damage Condition	Potential Damage
--	--	--
Visible	Reachable	Water Damage
--	--	--
Barriers	Ventilation	If Yes
--	--	--
Air Movement	Proximity to Repair Items	Activity
--	--	--

SAMPLE ANALYSIS SUMMARY SECTION

Total number of samples collected	3
Total number of samples analyzed	3
IS ASBESTOS-CONTAINING MATERIAL PRESENT?	NO
Samples Collected by	EMET
Sample Numbers	304-CABIN-1f1, 304-CABIN-1f2, 304-CABIN-1f3
Samples Analyzed by	EMET
Number of Sallent Designations	

PHOTOGRAPH



Sample Log and Notes

Building Number and Name

CABIN	Cabin
-------	-------

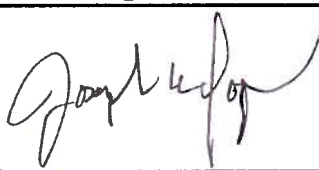
EMET ID

1006304

Sample Area/Lot Number and Name

304-CABIN-1F	brown canec wall panel
--------------	------------------------

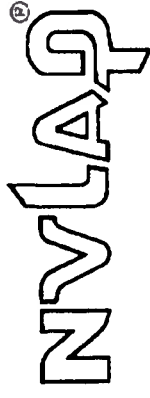
Sample Number	% Asbestos	Description of Sampled Material	Sample Location
304-CABIN-1f1	0	brown canec wall panel	at middle of northwestern wall
304-CABIN-1f2	0	brown canec wall panel	at middle of northwestern wall
304-CABIN-1f3	0	brown canec wall panel	at middle of northwestern wall

Inspector's Name	Signature	Date Samples Collected
		
Joseph Iopa III		05/15/2013

EMET Services, Inc. 94-520 Uke'e Street, Suite A Waipahu, HI 96797
Phone (808) 671-8383 Fax (808) 671-7979

LABORATORY REPORT

Asbestos Bulk Sample Analysis by Polarized Light Microscopy
in accordance with Test Methods EPA 600/M4-82-020 and EPA 600/9-93/116



Client: Anbe, Aruga & Ishizu, Architects, Inc. Building: Cabin
Address: 1441 Kapiolani Blvd., Suite 206 Saddle Road Maintenance Baseyard
Honolulu, HI 96814 Infantry Road
District of Hamakua, HI

NVLAP LAB CODE 101807-0

Approved Signatory: 

Sample/Homogeneous Area: 304-CABIN-1F Analysis Date: 5/21/2013 Report Date: 5/21/2013

Lab ID	Sample ID	Color	homogeneity	Asbestos Present	Asbestos (Type) Area %	Fibrous Components Area %	Non-fibrous Components Area %	comments
304-016	304-CABIN-1f1	brown	Yes	No	-	cellulose	-	
					<1	100	-	
304-017	304-CABIN-1f2	brown	Yes	No	-	cellulose	-	
					<1	100	-	
304-018	304-CABIN-1f3	brown	Yes	No	-	cellulose	-	
					<1	100	-	

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*Samples analyzed as received by the laboratory, interpretation is responsibility of the client.

*Asbestos fiber percentage approximate - performed by visual observation only.

*This method is not reliable for analysis of tile or other materials when fiber size is less than 10 microns and/or below detection limit (appr. 1%) of current PLM techniques

Note: EPA, OSHA, and HIOSH define "asbestos-containing material" as any material or product which contains more than one percent asbestos.

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EMET ID 1006304

Sample Area Report -- Area Master

EMET ID	Building Number and Name		Inspection Date
1006304	CABIN	Cabin	05/15/2013
Document Number	Sample Area/Lot Number and Name		Unified Sample Area Number
	304-CABIN-1G	white caulking at door frame	
	Drawing/Sketch Number and Name		304-CABIN-1G

A Sample Area should contain material of one, and only one, composition or matrix. An exception can be made in the case of layered applications of materials, such as occurs with a Three Coat Plaster system, that generally matches the same physical locations. Special care must be taken while collecting samples of layered materials, to enable the analysis to discern the several matrices present. Such conditions should be described in detail on the Sample Notes form for the analyst.

Location of Confirmed, Assumed, or New ACM within Building

Unified Sample Area/Homogeneous Material

white caulking at door frame

Not Applicable

SAMPLING STRATEGY DATA

Ceiling Height #1		#2	
Square Feet of Ceiling Materials			
Square Feet of Wall Materials			
Square Feet of Floor Surface			
Linear Feet of TSI			
Square Feet of Structural Steel Coatings (including over-spray)			
Square Feet of Other ACM			
Linear Feet of Other ACM			
Total square and/or linear feet of ACM:			

RISK ASSESSMENT DETERMINATION

Material Type	Damage Condition	Potential Damage
--	--	--
Visible	Reachable	Water Damage
--	--	--
Barriers	Ventilation	If Yes
--	--	--
Air Movement	Proximity to Repair Items	Activity
--	--	--

SAMPLE ANALYSIS SUMMARY SECTION

Total number of samples collected	3
Total number of samples analyzed	3
IS ASBESTOS-CONTAINING MATERIAL PRESENT?	NO
Samples Collected by	EMET
Sample Numbers	304-CABIN-1g1, 304-CABIN-1g2, 304-CABIN-1g3
Samples Analyzed by	EMET
Number of Sallent Designations	

PHOTOGRAPH



Sample Log and Notes

Building Number and Name

CABIN	Cabin
-------	-------

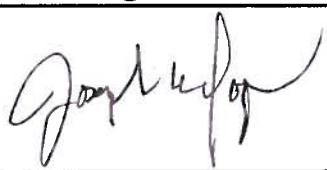
EMET ID

1006304

Sample Area/Lot Number and Name

304-CABIN-1G	white caulking at door frame
--------------	------------------------------

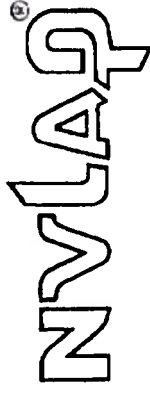
Sample Number	% Asbestos	Description of Sampled Material	Sample Location
304-CABIN-1g1	0	white caulking at door frame	at door frame of eastern kitchen door
304-CABIN-1g2	0	white caulking at door frame	at door frame of eastern kitchen door
304-CABIN-1g3	0	white caulking at door frame	at door frame of eastern kitchen door

Inspector's Name	Signature	Date Samples Collected
Joseph Iopa III		05/15/2013

EMET Services, Inc. 94-520 Uke`e Street, Suite A Waipahu, HI 96797
Phone (808) 671-8383 Fax (808) 671-7979

LABORATORY REPORT

Asbestos Bulk Sample Analysis by Polarized Light Microscopy
in accordance with Test Methods EPA 600/M4-82-020 and EPA 600/9-93/116



Client: Anbe, Aruga & Ishizu, Architects, Inc. Building: Cabin

Address: 1441 Kapiolani Blvd., Suite 206
Honolulu, HI 96814

Address: Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

NVLAP LAB CODE 101807-0

Approved Signatory: 

Sample/Homogeneous Area: 304-CABIN-1G Analysis Date: 5/21/2013 Report Date: 5/21/2013

Lab ID	Sample ID	Color	homogeneity	Asbestos Present	Asbestos (Type) Area %	Fibrous Components Area %	Non-fibrous Components Area %	comments
304-019	304-CABIN-1g1	white	Yes	No	-	-	misc. part.	
					<1	-	100	
304-020	304-CABIN-1g2	white	Yes	No	-	-	misc. part.	
					<1	-	100	
304-021	304-CABIN-1g3	white	Yes	No	-	-	misc. part.	
					<1	-	100	

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*Asbestos fiber percentage approximate - performed by visual observation only.

*This method is not reliable for analysis of tile or other materials when fiber size is less than 10 microns and/or below detection limit (appr. 1%) of current PLM techniques

Note: EPA, OSHA, and HIOSH define "asbestos-containing material" as any material or product which contains more than one percent asbestos.

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EMET ID 1006304

Sample Area Report -- Area Master

EMET ID	Building Number and Name	Inspection Date
1006304	CABIN Cabin	05/15/2013
Document Number	Sample Area/Lot Number and Name	Unified Sample Area Number
	304-CABIN-1H off-white silicone at plumbing fixture	
	Drawing/Sketch Number and Name	304-CABIN-1H

A Sample Area should contain material of one, and only one, composition or matrix. An exception can be made in the case of layered applications of materials, such as occurs with a Three Coat Plaster system, that generally matches the same physical locations. Special care must be taken while collecting samples of layered materials, to enable the analysis to discern the several matrices present. Such conditions should be described in detail on the Sample Notes form for the analyst.

Location of Confirmed, Assumed, or New ACM within Building

Unified Sample Area/Homogeneous Material

off-white silicone at plumbing fixture Not suspect	
--	--

SAMPLING STRATEGY DATA

Ceiling Height #1		#2		
Square Feet of Ceiling Materials				
Square Feet of Wall Materials				
Square Feet of Floor Surface				
Linear Feet of TSI				
Square Feet of Structural Steel Coatings (including over-spray)				
Square Feet of Other ACM				
Linear Feet of Other ACM				
Total square and/or linear feet of ACM:				

RISK ASSESSMENT DETERMINATION

Material Type	Damage Condition	Potential Damage
Visible	Reachable	Water Damage
Barriers	Ventilation	If Yes
Air Movement	Proximity to Repair Items	Activity

SAMPLE ANALYSIS SUMMARY SECTION

Total number of samples collected	
Total number of samples analyzed	
IS ASBESTOS-CONTAINING MATERIAL PRESENT?	
Samples Collected by	
Sample Numbers	
Samples Analyzed by	
Number of Sallent Designations	

PHOTOGRAPH

No Photo

Unified Homogeneous/Sample Area ACM - Space and Salient Cross Reference

EMET ID

1006304

Building ID and Name

CABIN Cabin

Document Number

Saddle Road Maintenance Baseyard

Infantry Road

District of Hamakua, HI

For the ACM - Space Identified as:

304-CABIN-R

Unified Sample Area or Salient ID	Homogeneous Sample Area/ Lot or Salient Description	Comments	ACBM Present			Material Type*			Recommended Response Action	Estimated Costs (Approx.)	
			Suspected	Confirmed	Friable	T	DC	PD		Removal	Replacement
304-CABIN-RA	black felt paper beneath metal roof panels		Yes	No ACM							

* Refers to Material Type and Damage Conditions

T = Material Type:
S = Surfacing
M = Miscellaneous
T = Thermal Systems

DC = Damage Condition:
ND = No Damage
D = Damaged
SD = Significant Damage

PD = Potential Damage Condition:
NPD = No Potential Damage
PD = ACBM w/ Potential Damage
PSD = Potential Significant Damage

** Recommended Response Actions

1. Isolate area and restrict access. Remove or repair ASAP.
 2. Continue Operations and Maintenance (O&M) program.
 - 3-5. Remove or repair ASAP, or reduce potential for disturbance.
 - 3-5. Repair, continue O&M. Lower number indicates higher priority if all repair cannot be done immediately.
 - 6-7. Continue O&M. Take preventive measures to reduce disturbance. Number indicates priority for removal.
 8. Continue O&M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.
- Note: An O&M program may include enclosure and encapsulation.

Sample Area Report -- Area Master

EMET ID	Building Number and Name		Inspection Date
1006304	CABIN	Cabin	05/15/2013
Document Number	Sample Area/Lot Number and Name		Unified Sample Area Number
	304-CABIN-RA	black felt paper beneath metal roof panels	
	Drawing/Sketch Number and Name		304-CABIN-RA

A Sample Area should contain material of one, and only one, composition or matrix. An exception can be made in the case of layered applications of materials, such as occurs with a Three Coat Plaster system, that generally matches the same physical locations. Special care must be taken while collecting samples of layered materials, to enable the analysis to discern the several matrices present. Such conditions should be described in detail on the Sample Notes form for the analyst.

Location of Confirmed, Assumed, or New ACM within Building

Unified Sample Area/Homogeneous Material

black felt paper beneath metal roof panels	Not Applicable
--	----------------

SAMPLING STRATEGY DATA

Ceiling Height #1		#2	
Square Feet of Ceiling Materials			
Square Feet of Wall Materials			
Square Feet of Floor Surface			
Linear Feet of TSI			
Square Feet of Structural Steel			
Coatings (including over-spray)			
Square Feet of Other ACM			
Linear Feet of Other ACM			
Total square and/or linear feet of ACM:			

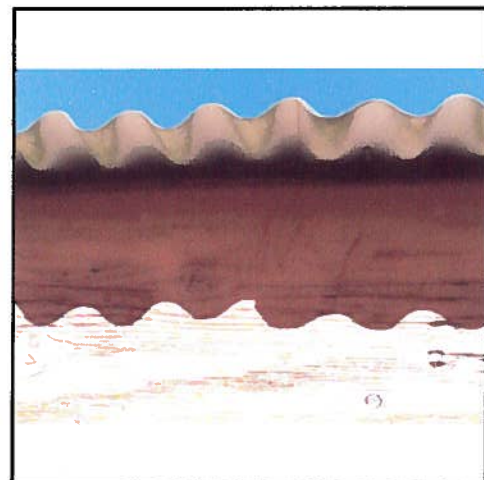
RISK ASSESSMENT DETERMINATION

Material Type	Damage Condition	Potential Damage
--	--	--
Visible	Reachable	Water Damage
--	--	--
Barriers	Ventilation	If Yes
--	--	--
Air Movement	Proximity to Repair Items	Activity
--	--	--

SAMPLE ANALYSIS SUMMARY SECTION

Total number of samples collected	3
Total number of samples analyzed	3
IS ASBESTOS-CONTAINING MATERIAL PRESENT?	NO
Samples Collected by	EMET
Sample Numbers	304-CABIN-Ra1, 304-CABIN-Ra2, 304-CABIN-Ra3
Samples Analyzed by	EMET
Number of Sallent Designations	

PHOTOGRAPH



Sample Log and Notes

Building Number and Name

CABIN	Cabin
-------	-------

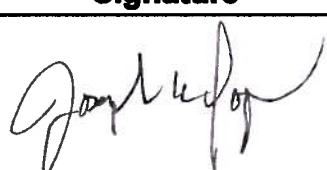
EMET ID

1006304

Sample Area/Lot Number and Name

304-CABIN-RA	black felt paper beneath metal roof panels
--------------	--

Sample Number	% Asbestos	Description of Sampled Material	Sample Location
304-CABIN-Ra1	0	black felt paper beneath metal roof panels	at northwestern corner of roof
304-CABIN-Ra2	0	black felt paper beneath metal roof panels	at middle of northeastern edge of roof
304-CABIN-Ra3	0	black felt paper beneath metal roof panels	at middle of northeastern edge of roof

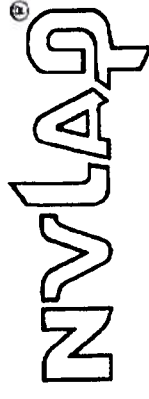
Inspector's Name	Signature	Date Samples Collected
		
Joseph Iopa III		05/15/2013

EMET Services, Inc. 94-520 Uke`e Street, Suite A Waipahu, HI 96797

Phone (808) 671-8383 Fax (808) 671-7979

LABORATORY REPORT

Asbestos Bulk Sample Analysis by Polarized Light Microscopy
in accordance with Test Methods EPA 600/M4-82-020 and EPA 600/9-93/116



Client: Anbe, Aruga & Ishizu, Architects, Inc.

Building: Cabin

NVLAP LAB CODE 101807-0

Address: 1441 Kapiolani Blvd., Suite 206
Honolulu, HI 96814

Address: Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

Approved Signatory: 

Sample/Homogeneous Area: 304-CABIN-RA Analysis Date: 5/21/2013 Report Date: 5/21/2013

Lab ID	Sample ID	Color	homogeneity	Asbestos Present	Asbestos (Type) Area %	Fibrous Components Area %	Non-fibrous Components Area %	comments
304-022	304-CABIN-Ra1	black	Yes	No	-	cellulose	misc. part.	
					<1	30	70	
304-023	304-CABIN-Ra2	black	Yes	No	-	cellulose	misc. part.	
					<1	30	70	
304-024	304-CABIN-Ra3	black	Yes	No	-	cellulose	misc. part.	
					<1	30	70	

***Accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for the scope specific under Lab Code 101807-0.**

*Laboratory test report may not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government.

*Laboratory test report relates only to items tested.

*Samples analyzed as received by the laboratory, interpretation is responsibility of the client.

*Asbestos fiber percentage approximate - performed by visual observation only.

*This method is not reliable for analysis of tile or other materials when fiber size is less than 10 microns and/or below detection limit (appr. 1%) of current PLM techniques

Note: EPA, OSHA, and HIOSH define "asbestos-containing material" as any material or product which contains more than one percent asbestos.

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EMET ID 1006304

Building/Area/Space Surveyed Information Sheet

EMET ID	ID	Name
1006304	PEN1	Pen #1
Inspection Date	Location	
5/15/2013	Saddle Road Maintenance Baseyard Infantry Road District of Hamakua, HI	
Client Name		ACM PRESENT?
Anbe, Aruga & Ishizu, Architects, Inc.		NO
		YES = PRESENT NO = NOT PRESENT

Building/Space Uses	% Floor Space	No. of Floors/Levels in Area Surveyed	No. of Roof Levels (if applicable)
pens	100	1	1
		Specific Areas of Building Surveyed	
		entire pen area (Pen #1 = northernmost pen)	

Inspector #1 Identification

Name: Joseph Iopa III	
State of HI Certification No.: HIASB-0585	
State of HI Certification Expiration Date:	4/25/2014
Building Inspector Certification Exp. Date:	3/1/2014

Inspector #2 Identification

Name: Jennifer Hamson	
State of HI Certification No.: HIASB-3642	
State of HI Certification Expiration Date:	2/28/2014
Building Inspector Certification Exp. Date:	2/21/2014

Inspector #3 Identification

Name: Jacqueline Furukawa	
State of HI Certification No.: HIASB-3641	
State of HI Certification Expiration Date:	2/28/2014
Building Inspector Certification Exp. Date:	2/21/2014

Inspector Comments

EMET's scope of work was limited to the areas listed above in Specific Areas Surveyed. This report is not a specification for the removal of asbestos-containing material and should not be used as such. Results of the presence or absence of asbestos are based on the survey and on analyses of the suspect materials encountered. Original building plans and specifications were not available for review. Therefore, because of these limitations and the highly variable nature of building construction, the potential remains for undiscovered ACM. EMET makes no warranty and assumes no liability for the inappropriate use or misuse of this document.

Unified Homogeneous/Sample Area ACM - Space and Salient Cross Reference

EMET ID

1006304

Building ID and Name

PEN1 Pen #1

Document Number

Building Location
Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

For the ACM - Space Identified as:

304-PEN1-R

Unified Sample Area or Salient ID	Homogeneous Sample Area/ Lot or Salient Description	Comments	ACBM Present			Material Type*			Recommended Response Action	Estimated Costs (Approx.)	
			Suspected	Confirmed	Friable	T	DC	PD		Removal	Replacement
304-PEN1-RA	green mineral capsheet roof material		Yes	No ACM							

* Refers to Material Type and Damage Conditions

T = Material Type:
S = Surfacing
M = Miscellaneous
T = Thermal Systems

DC = Damage Condition:
ND = No Damage
D = Damaged
SD = Significant Damage

PD = Potential Damage Condition:
NPD = No Potential Damage
PD = ACBM w/ Potential Damage
PSD = Potential Significant Damage

** Recommended Response Actions

1. Isolate area and restrict access. Remove or repair ASAP.
 2. Continue Operations and Maintenance (O&M) program.
 - 3-5. Remove or repair ASAP, or reduce potential for disturbance. Repair, continue O&M. Lower number indicates higher priority if all repair cannot be done immediately.
 - 6-7. Continue O&M. Take preventive measures to reduce disturbance. Number indicates priority for removal.
 8. Continue O&M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.
- Note: An O&M program may include enclosure and encapsulation.

Sample Area Report -- Area Master

EMET ID	Building Number and Name		Inspection Date
1006304	PEN1	Pen #1	05/15/2013
Document Number	Sample Area/Lot Number and Name		Unified Sample Area Number
	304-PEN1-RA	green mineral capsheet roof material	
	Drawing/Sketch Number and Name		304-PEN1-RA

A Sample Area should contain material of one, and only one, composition or matrix. An exception can be made in the case of layered applications of materials, such as occurs with a Three Coat Plaster system, that generally matches the same physical locations. Special care must be taken while collecting samples of layered materials, to enable the analysis to discern the several matrices present. Such conditions should be described in detail on the Sample Notes form for the analyst.

Location of Confirmed, Assumed, or New ACM within Building

Unified Sample Area/Homogeneous Material

green mineral capsheet roof material

Not Applicable

SAMPLING STRATEGY DATA

Ceiling Height #1		#2	
Square Feet of Ceiling Materials			
Square Feet of Wall Materials			
Square Feet of Floor Surface			
Linear Feet of TSI			
Square Feet of Structural Steel Coatings (including over-spray)			
Square Feet of Other ACM			
Linear Feet of Other ACM			
Total square and/or linear feet of ACM:			

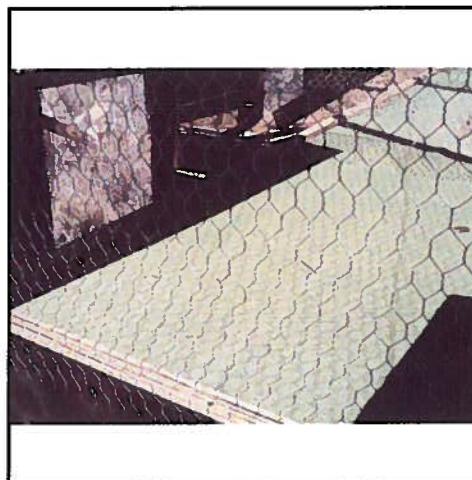
RISK ASSESSMENT DETERMINATION

Material Type	Damage Condition	Potential Damage
--	--	--
Visible	Reachable	Water Damage
--	--	--
Barriers	Ventilation	If Yes
--	--	--
Air Movement	Proximity to Repair Items	Activity
--	--	--

SAMPLE ANALYSIS SUMMARY SECTION

Total number of samples collected	3
Total number of samples analyzed	3
IS ASBESTOS-CONTAINING MATERIAL PRESENT?	NO
Samples Collected by	EMET
Sample Numbers	304-PEN1-Ra1, 304-PEN1-Ra2, 304-PEN1-Ra3
Samples Analyzed by	EMET
Number of Sallent Designations	

PHOTOGRAPH



Sample Log and Notes

Building Number and Name

PEN1	Pen #1
------	--------

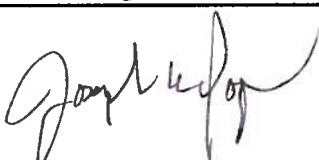
EMET ID

1006304

Sample Area/Lot Number and Name

304-PEN1-RA	green mineral capsheet roof material
-------------	--------------------------------------

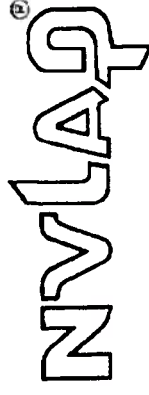
Sample Number	% Asbestos	Description of Sampled Material	Sample Location
304-PEN1-Ra1	0	green mineral capsheet roof material	near the middle of Pen 1
304-PEN1-Ra2	0	green mineral capsheet roof material	near the middle of Pen 1
304-PEN1-Ra3	0	green mineral capsheet roof material	near the middle of Pen 1

Inspector's Name	Signature	Date Samples Collected
		
Joseph Iopa III		05/15/2013

EMET Services, Inc. 94-520 Uke`e Street, Suite A Waipahu, HI 96797
Phone (808) 671-8383 Fax (808) 671-7979

LABORATORY REPORT

Asbestos Bulk Sample Analysis by Polarized Light Microscopy
in accordance with Test Methods EPA 600/M4-82-020 and EPA 600/9-93/116



Client: Anbe, Aruga & Ishizu, Architects, Inc. Building: Pen #1

Address: 1441 Kapiolani Blvd., Suite 206
Honolulu, HI 96814
Address: Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

NVLAP LAB CODE 101807-0

Approved Signatory: 

Sample/Homogeneous Area: 304-PEN1-RA Analysis Date: 5/21/2013 Report Date: 5/21/2013

Lab ID	Sample ID	Color	homogeneity	Yes	No	Asbestos Present	Asbestos (Type) Area %	Fibrous Components Area %	Non-fibrous Components Area %	comments
304-025	304-PEN1-Ra1	green				No	-	cellulose	misc. part.	
							<1	20	80	
304-026	304-PEN1-Ra2	green				No	-	cellulose	misc. part.	
							<1	20	80	
304-027	304-PEN1-Ra3	green				No	-	cellulose	misc. part.	
							<1	20	80	

***Accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for the scope specific under Lab Code 101807-0.**

*Laboratory test report may not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government.

*Laboratory test report relates only to items tested.

*Samples analyzed as received by the laboratory, interpretation is responsibility of the client.

*Asbestos fiber percentage approximate - performed by visual observation only.

*This method is not reliable for analysis of tile or other materials when fiber size is less than 10 microns and/or below detection limit (appr. 1%) of current PLM techniques

Note: EPA, OSHA, and HIOSH define "asbestos-containing material" as any material or product which contains more than one percent asbestos.

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EMET ID 1006304

Building/Area/Space Surveyed Information Sheet

EMET ID	ID	Name
1006304	TROUGH1	Trough #1
Inspection Date	Location	
5/15/2013	Saddle Road Maintenance Baseyard Infantry Road District of Hamakua, HI	
Client Name		
Anbe, Aruga & Ishizu, Architects, Inc.		
ACM PRESENT?		
NO		
YES = PRESENT NO = NOT PRESENT		

Building/Space Uses	% Floor Space	No. of Floors/Levels in Area Surveyed	No. of Roof Levels (if applicable)
water receptacle	100	1	0
		Specific Areas of Building Surveyed	
		Trough #1 = eastern trough on west end of Pen #1	

Inspector #1 Identification

Name: Joseph Iopa III	
State of HI Certification No.: HIASB-0585	
State of HI Certification Expiration Date:	4/25/2014
Building Inspector Certification Exp. Date:	3/1/2014

Inspector #2 Identification

Name: Jennifer Hamson	
State of HI Certification No.: HIASB-3642	
State of HI Certification Expiration Date:	2/28/2014
Building Inspector Certification Exp. Date:	2/21/2014

Inspector #3 Identification

Name: Jacqueline Furukawa	
State of HI Certification No.: HIASB-3641	
State of HI Certification Expiration Date:	2/28/2014
Building Inspector Certification Exp. Date:	2/21/2014

Inspector Comments

EMET's scope of work was limited to the areas listed above in Specific Areas Surveyed. This report is not a specification for the removal of asbestos-containing material and should not be used as such. Results of the presence or absence of asbestos are based on the survey and on analyses of the suspect materials encountered. Original building plans and specifications were not available for review. Therefore, because of these limitations and the highly variable nature of building construction, the potential remains for undiscovered ACM. EMET makes no warranty and assumes no liability for the inappropriate use or misuse of this document.

Unified Homogeneous/Sample Area ACM - Space and Salient Cross Reference

EMET ID

1006304

Building ID and Name

TROUGH1

Trough #1

Document Number

Building Location

Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

For the ACM - Space Identified as:

304-TROUGH1-1

Unified Sample Area or Salient ID	Homogeneous Sample Area/ Lot or Salient Description	Comments	ACBM Present			Material Type*			Recommended Response Action	Estimated Costs (Approx.)	
			Suspected	Confirmed	Friable	T	DC	PD		Removal	Replacement
304-TROUGH1-1A	gray skim coat		Yes	No ACM							

* Refers to Material Type and Damage Conditions

T = Material Type:
S = Surfacing
M = Miscellaneous
T = Thermal Systems

DC = Damage Condition.
ND = No Damage
D = Damaged
SD = Significant Damage

PD = Potential Damage Condition.
NPD = No Potential Damage
PD = ACBM w/ Potential Damage
PSD = Potential Significant Damage

** Recommended Response Actions

1. Isolate area and restrict access. Remove or repair ASAP.
 2. Continue Operations and Maintenance (O&M) program.
 - 3-5. Remove or repair ASAP, or reduce potential for disturbance.
 - 3-5. Repair, continue O&M. Lower number indicates higher priority if all repair cannot be done immediately.
 - 6-7. Continue O&M. Take preventive measures to reduce disturbance.
 - 6-7. Number indicates priority for removal.
 8. Continue O&M until major renovation or demolition requires removal under NESHAPS, or until hazard assessment factors change.
- Note: An O&M program may include enclosure and encapsulation.

Sample Area Report -- Area Master

EMET ID	Building Number and Name		Inspection Date
1006304	TROUGH1	Trough #1	05/15/2013
Document Number	Sample Area/Lot Number and Name		Unified Sample Area Number
	304-TROUGH1 -1A	gray skim coat	
	Drawing/Sketch Number and Name		304-TROUGH1-1A

A Sample Area should contain material of one, and only one, composition or matrix. An exception can be made in the case of layered applications of materials, such as occurs with a Three Coat Plaster system, that generally matches the same physical locations. Special care must be taken while collecting samples of layered materials, to enable the analysis to discern the several matrices present. Such conditions should be described in detail on the Sample Notes form for the analyst.

Location of Confirmed, Assumed, or New ACM within Building

Unified Sample Area/Homogeneous Material

gray skim coat	Not Applicable
----------------	----------------

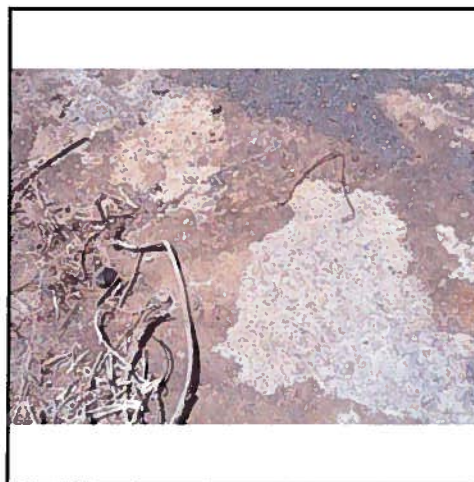
SAMPLING STRATEGY DATA

Ceiling Height #1		#2	
Square Feet of Ceiling Materials			
Square Feet of Wall Materials			
Square Feet of Floor Surface			
Linear Feet of TSI			
Square Feet of Structural Steel			
Coatings (including over-spray)			
Square Feet of Other ACM			
Linear Feet of Other ACM			
Total square and/or linear feet of ACM:			

RISK ASSESSMENT DETERMINATION

Material Type	Damage Condition	Potential Damage
--	--	--
Visible	Reachable	Water Damage
--	--	--
Barriers	Ventilation	If Yes
--	--	--
Air Movement	Proximity to Repair Items	Activity
--	--	--

PHOTOGRAPH



SAMPLE ANALYSIS SUMMARY SECTION

Total number of samples collected	3
Total number of samples analyzed	3
IS ASBESTOS-CONTAINING MATERIAL PRESENT?	NO
Samples Collected by	EMET
Sample Numbers	304-TROUGH1-1a1, 304-TROUGH1-1a2, 304-TROUGH1-1a3
Samples Analyzed by	EMET
Number of Sallent Designations	

Sample Log and Notes

Building Number and Name

TROUGH1	Trough #1
---------	-----------

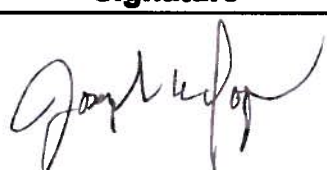
EMET ID

1006304

Sample Area/Lot Number and Name

304-TROUGH1-1A	gray skim coat
----------------	----------------

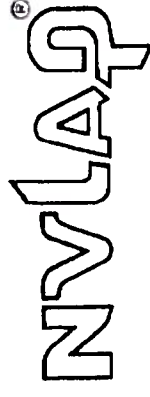
Sample Number	% Asbestos	Description of Sampled Material	Sample Location
304-TROUGH1-1a1	0	gray skim coat	near middle of trough
304-TROUGH1-1a2	0	gray skim coat	near middle of trough
304-TROUGH1-1a3	0	gray skim coat	near middle of trough

Inspector's Name	Signature	Date Samples Collected
		
Joseph Iopa III		05/15/2013

EMET Services, Inc. 94-520 Uke`e Street, Suite A Waipahu, HI 96797
Phone (808) 671-8383 Fax (808) 671-7979

LABORATORY REPORT

Asbestos Bulk Sample Analysis by Polarized Light Microscopy
in accordance with Test Methods EPA 600/M4-82-020 and EPA 600/9-93/116



Client: Anbe, Aruga & Ishizu, Architects, Inc. Building: Trough #1
Address: 1441 Kapiolani Blvd., Suite 206
Honolulu, HI 96814
Saddle Road Maintenance Baseyard
Infantry Road
District of Hamakua, HI

NVLAP LAB CODE 101807-0

Approved Signatory: 

Sample/Homogeneous Area: 304-TROUGH1-1A Analysis Date: 5/21/2013 Report Date: 5/21/2013

Lab ID	Sample ID	Color	homogeneity	Asbestos Present	Asbestos (Type) Area %	Fibrous Components Area %	Non-fibrous Components Area %	comments
304-028	304-TROUGH1-1a1	gray	Yes	No	-	-	misc. part.	
					<1	-	100	
304-029	304-TROUGH1-1a2	gray	Yes	No	-	-	misc. part.	
					<1	-	100	
304-030	304-TROUGH1-1a3	gray	Yes	No	-	-	misc. part.	
					<1	-	100	

***Accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for the scope specific under Lab Code 101807-0.**

*Laboratory test report may not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government.

*Laboratory test report relates only to items tested.

*Samples analyzed as received by the laboratory, interpretation is responsibility of the client.

*Asbestos fiber percentage approximate - performed by visual observation only.

*This method is not reliable for analysis of file or other materials when fiber size is less than 10 microns and/or below detection limit (appr. 1%) of current PLM techniques

Note: EPA, OSHA, and HIOSH define "asbestos-containing material" as any material or product which contains more than one percent asbestos.

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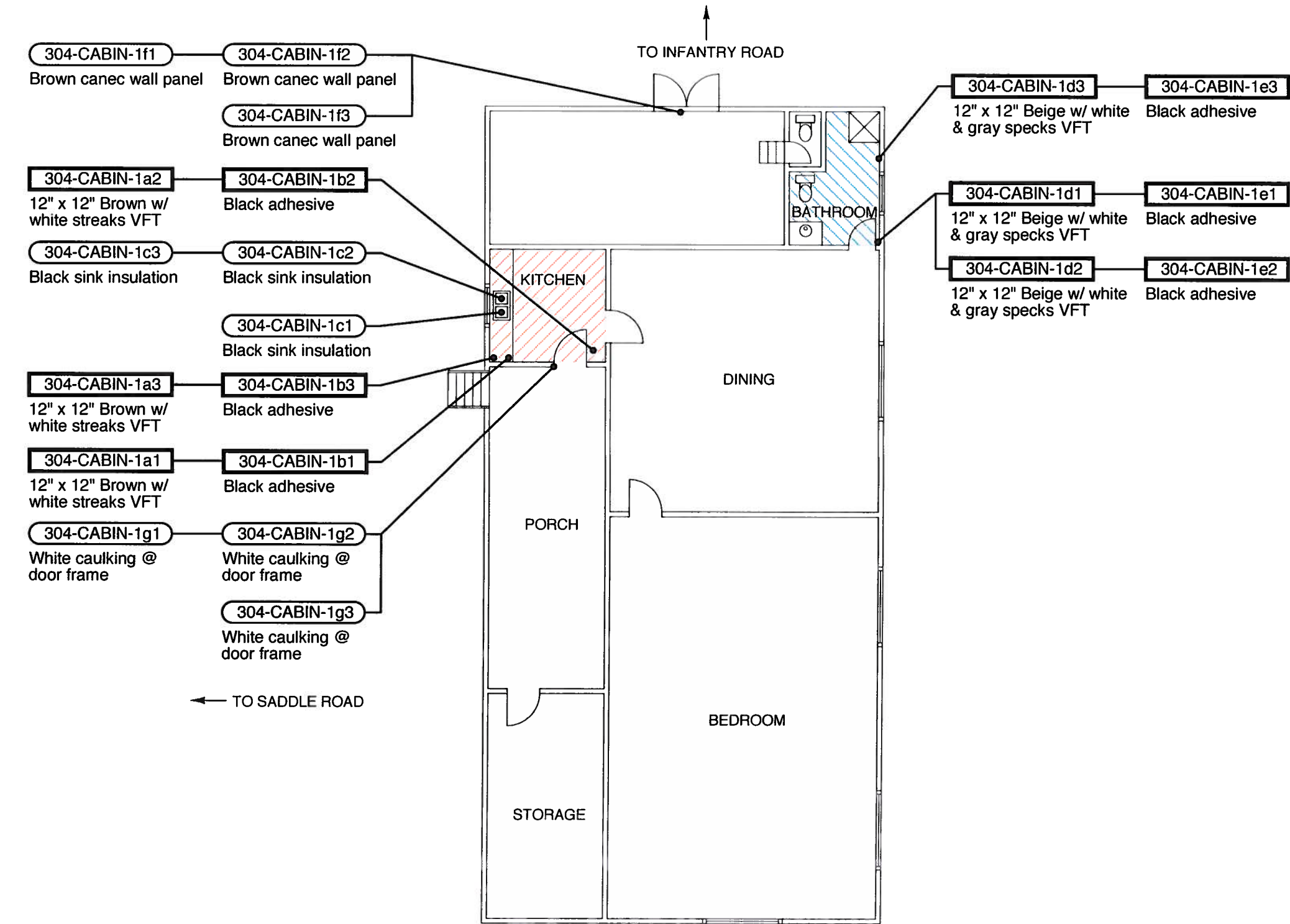
EMET ID 1006304

Appendix B

Asbestos Survey Sample Locations Sketch

ASBESTOS SAMPLE LOCATION PLAN

BLDG#	NAME OF BUILDING	ADDRESS	SKETCH #
CABIN	SADDLE ROAD MAINTENANCE BASEYARD CABIN	INFANTRY ROAD WAIMEA, HI 96743	304-CABIN-1 1 OF 1



SADDLE ROAD MAINTENANCE BASE YARD
CABIN - FLOOR PLAN
NOT TO SCALE

LEGEND

ACM: SAMPLE #

NON-ACM: SAMPLE #

NORTH

ASBESTOS-CONTAINING MATERIALS (ACM)* :

*ACM are described in this Legend in **boldface** text; Non-ACM (listed here only if layered with ACM) are described in plain text.

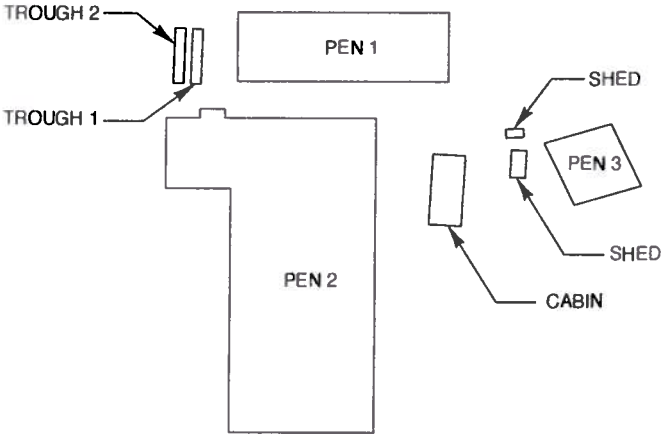
SAMPLE AREA 304-CABIN-1A, -1B:
12" x 12" BROWN W/ WHITE STREAKS VFT W/ BLACK ADHESIVE **

SAMPLE AREA 304-CABIN-1D, -1E:
12" x 12" BEIGE W/ WHITE & GRAY SPECKS VFT W/ BLACK ADHESIVE **

ASBESTOS-CONTAINING MATERIAL (ACM) IS DEFINED AS ANY MATERIAL CONTAINING > 1 % ASBESTOS.

* THIS SURVEY WAS LIMITED IN SCOPE TO SPECIFIC AREAS AFFECTED BY PLANNED RENOVATION ACTIVITIES ONLY; THEREFORE, THIS REPORT MAKES NO WARRANTY FOR AREAS OF THE BUILDING WHICH WERE NOT INCLUDED IN THE SCOPE OF THE SURVEY.

** DUE TO SMALL SIZES OF SOME MATERIAL OCCURENCES, LOCATIONS OF ACM SHOWN GRAPHICALLY OR LISTED VERBALLY HERE MAY NOT BE EXHAUSTIVE. CONTRACTOR SHOULD SITE-VERIFY ACM LOCATIONS AND EXTENT PRIOR TO BIDDING AND ABATEMENT.

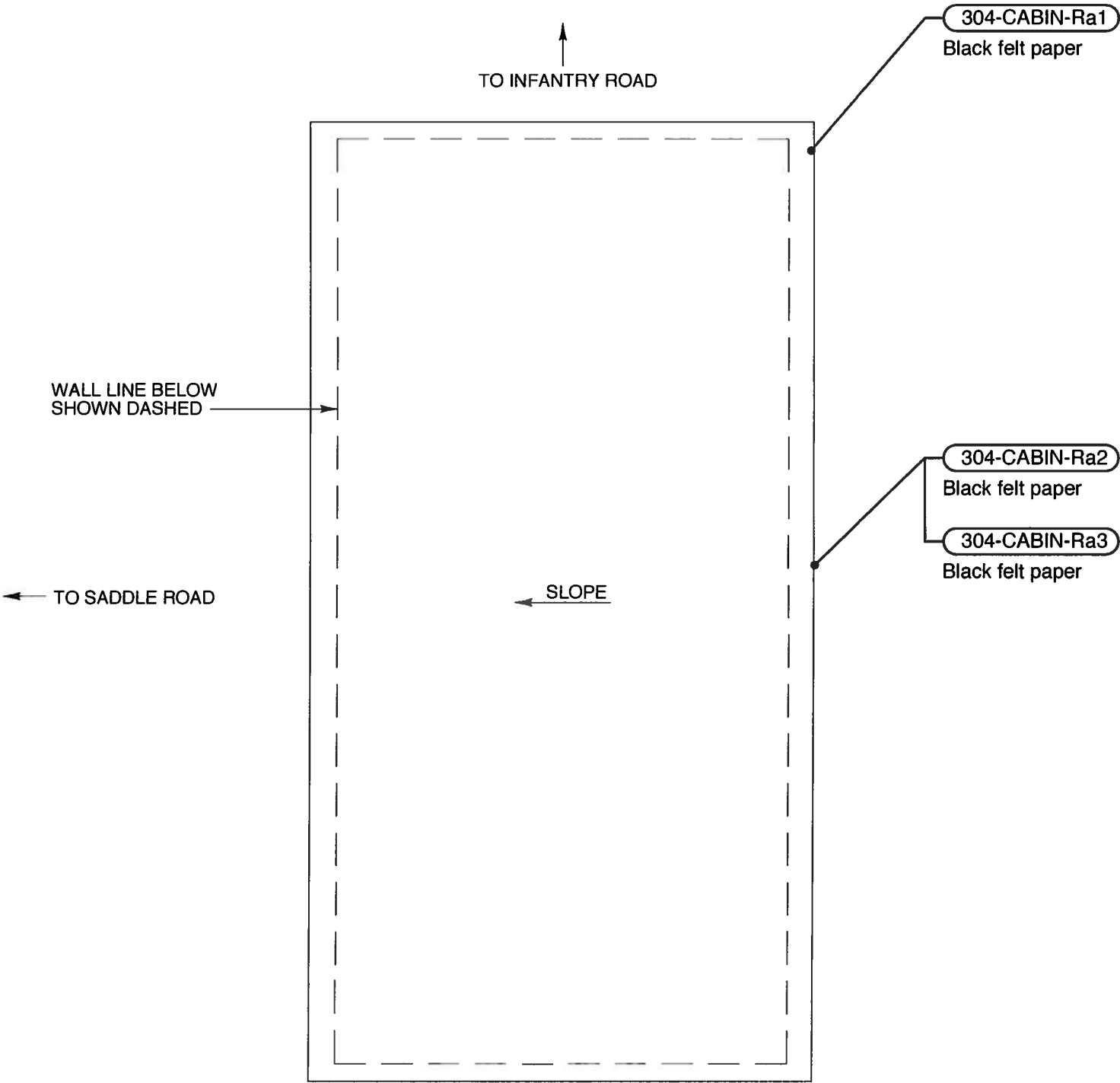


KEY PLAN: SADDLE ROAD MAINTENANCE BASEYARD

EMET I.D. #1006304

ASBESTOS SAMPLE LOCATION PLAN

BLDG#	NAME OF BUILDING	ADDRESS	SKETCH #
CABIN	SADDLE ROAD MAINTENANCE BASEYARD CABIN	INFANTRY ROAD WAIMEA, HI 96743	304-CABIN-R 1 OF 1



LEGEND

ACM: SAMPLE #

NON-ACM: SAMPLE #

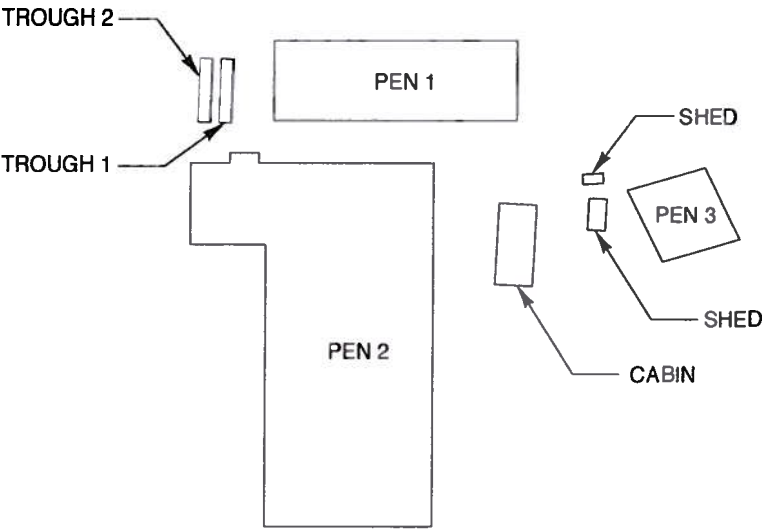
NORTH

ASBESTOS-CONTAINING MATERIALS (ACM)* :

NO ACM DETECTED IN AREAS SAMPLED

*ASBESTOS-CONTAINING MATERIAL (ACM) IS DEFINED AS ANY MATERIAL CONTAINING > 1 % ASBESTOS.

THIS SURVEY WAS LIMITED IN SCOPE TO SPECIFIC AREAS AFFECTED BY PLANNED RENOVATION ACTIVITIES ONLY; THEREFORE, THIS REPORT MAKES NO WARRANTY FOR AREAS OF THE BUILDING WHICH WERE NOT INCLUDED IN THE SCOPE OF THE SURVEY.



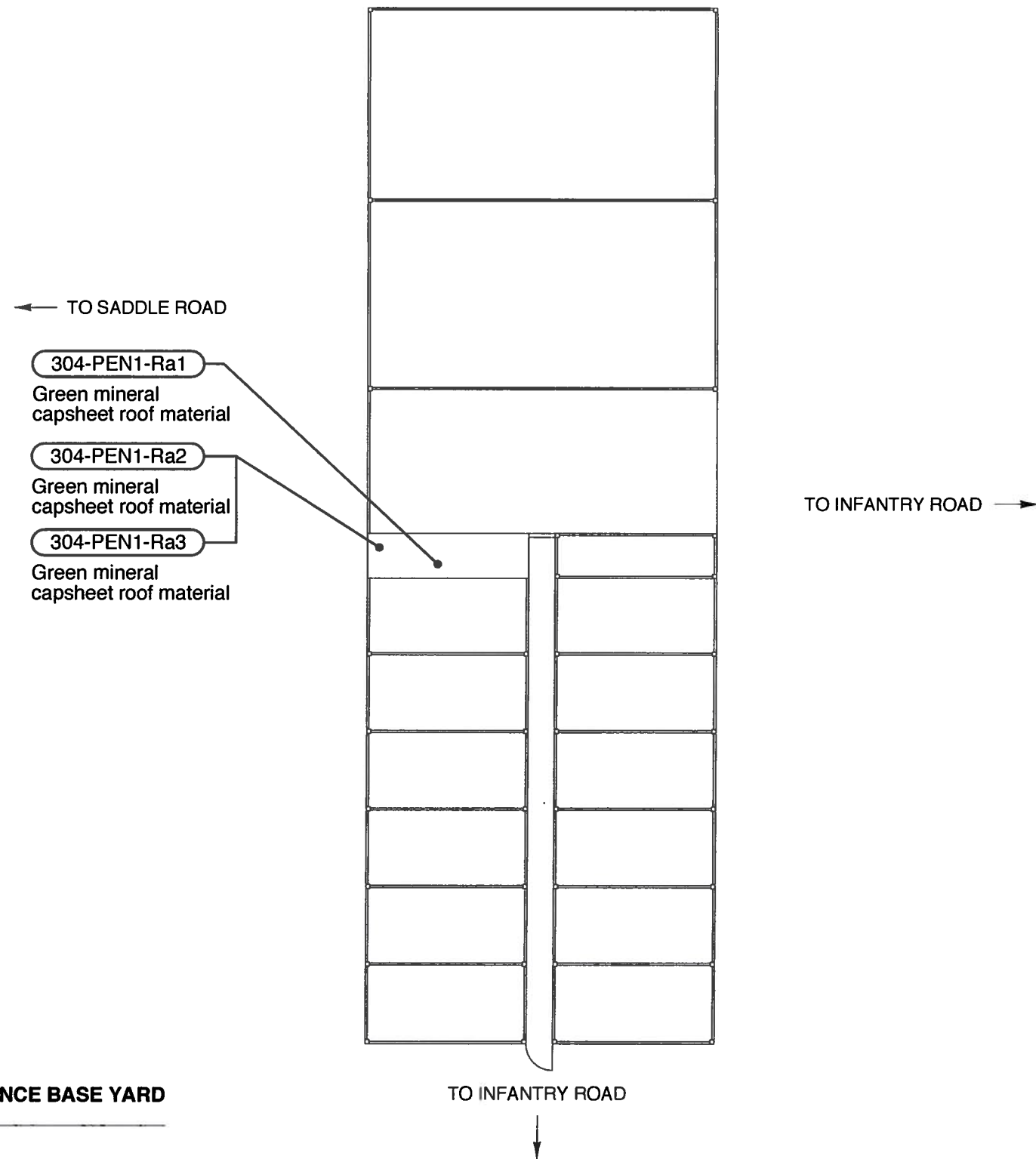
SADDLE ROAD MAINTENANCE BASE YARD
CABIN - ROOF PLAN
NOT TO SCALE

KEY PLAN: SADDLE ROAD MAINTENANCE BASEYARD

EMET I.D. #1006304

ASBESTOS SAMPLE LOCATION PLAN

BLDG#	NAME OF BUILDING	ADDRESS	SKETCH #
PEN1	SADDLE ROAD MAINTENANCE BASEYARD PEN #1	INFANTRY ROAD WAIMEA, HI 96743	304-PEN1-R 1 OF 1



SADDLE ROAD MAINTENANCE BASE YARD
PEN 1 - ROOF PLAN
NOT TO SCALE

LEGEND

ACM: SAMPLE #

NON-ACM: SAMPLE #

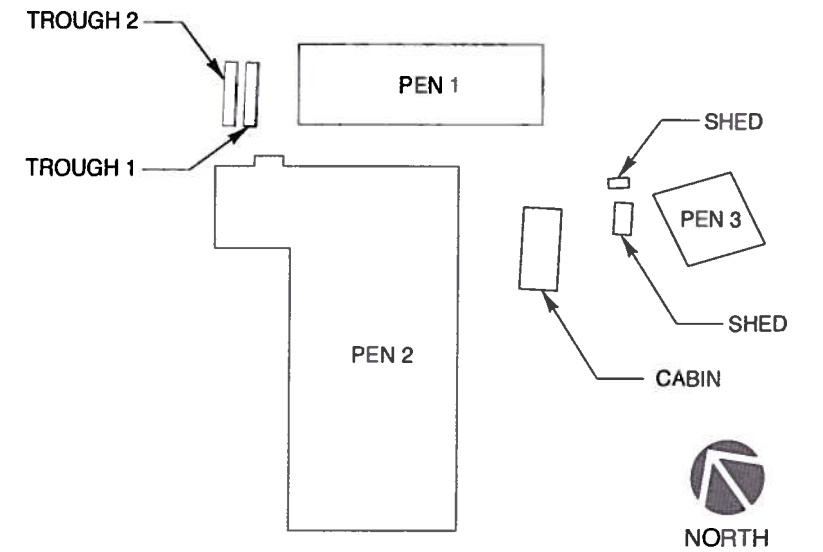
NORTH

ASBESTOS-CONTAINING MATERIALS (ACM)* :

NO ACM DETECTED IN AREAS SAMPLED

*ASBESTOS-CONTAINING MATERIAL (ACM) IS DEFINED AS ANY MATERIAL CONTAINING > 1 % ASBESTOS.

THIS SURVEY WAS LIMITED IN SCOPE TO SPECIFIC AREAS AFFECTED BY PLANNED RENOVATION ACTIVITIES ONLY; THEREFORE, THIS REPORT MAKES NO WARRANTY FOR AREAS OF THE BUILDING WHICH WERE NOT INCLUDED IN THE SCOPE OF THE SURVEY.

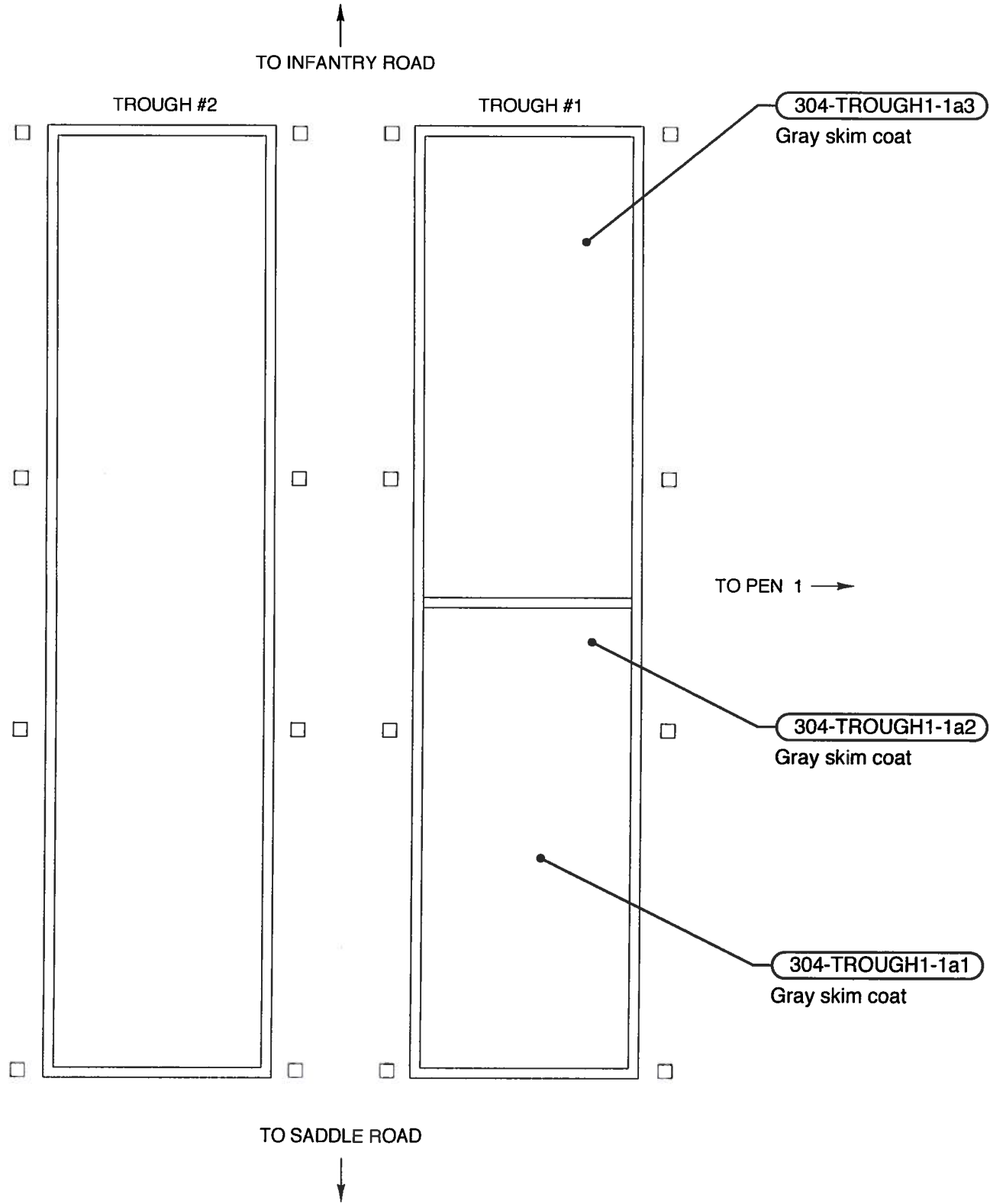


KEY PLAN: SADDLE ROAD MAINTENANCE BASEYARD

EMET I.D. #1006304

ASBESTOS SAMPLE LOCATION PLAN

BLDG#	NAME OF BUILDING	ADDRESS	SKETCH #
TROUGH1	SADDLE ROAD MAINTENANCE BASEYARD TROUGHS	INFANTRY ROAD WAIMEA, HI 96743	304-TROUGH1-1 1 OF 1



LEGEND

ACM: SAMPLE #

NON-ACM: SAMPLE #

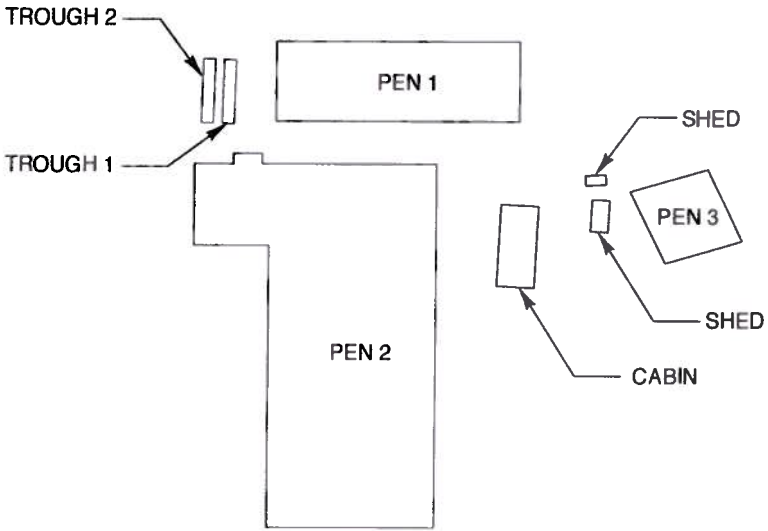
NORTH

ASBESTOS-CONTAINING MATERIALS (ACM)* :

NO ACM DETECTED IN AREAS SAMPLED

*ASBESTOS-CONTAINING MATERIAL (ACM) IS DEFINED AS ANY MATERIAL CONTAINING > 1 % ASBESTOS.

THIS SURVEY WAS LIMITED IN SCOPE TO SPECIFIC AREAS AFFECTED BY PLANNED RENOVATION ACTIVITIES ONLY; THEREFORE, THIS REPORT MAKES NO WARRANTY FOR AREAS OF THE BUILDING WHICH WERE NOT INCLUDED IN THE SCOPE OF THE SURVEY.



SADDLE ROAD MAINTENANCE BASE YARD
TROUGH 1 & 2 - FLOOR PLAN
NOT TO SCALE

KEY PLAN: SADDLE ROAD MAINTENANCE BASEYARD

EMET I.D. #1006304

Appendix C

Lead Survey Report



Laboratory Report

Painted Surfaces Total Elemental Lead Analyses by X-Ray Fluorescence

EMET ID: 1006304

Test Date: May 15, 2013

Saddle Road Maintenance Baseyard New Maintenance Facility

XRF#	Location	Component	Substrate	Condition	Color	PbC (mg/cm ²)	Lead-based Paint?	Lead- containing Paint?
747	Calibration					1.00 ± 0.10		
748	Calibration					1.00 ± 0.10		
749	Calibration					1.00 ± 0.10		
750	NULL							
751	Cabin (exterior)		wood	peeling	brown	0.02 ± 0.04	no	yes
752	Cabin (exterior)	window frame		intact	brown	0.02 ± 0.04	no	yes
753	Cabin (exterior)	door frame	wood	intact	brown	0.00 ± 0.02	no	yes
754	Cabin (exterior)	door	wood	intact	brown	0.02 ± 0.05	no	yes
755	Cabin (exterior)	beam	wood	intact	brown	0.03 ± 0.09	no	yes
756	Cabin (exterior)	ceiling	wood	intact	brown	0.01 ± 0.04	no	yes
757	Cabin (exterior)	fascia	wood	fair	brown	0.04 ± 0.09	no	yes
758	Cabin (interior)	wall	wood	intact	brown	0.00 ± 0.02	no	yes
759	Cabin (interior)	door	wood	intact	white	0.21 ± 0.41	no	yes
760	Cabin (interior)	floor	wood	fair	brown	0.00 ± 0.03	no	yes
761	Cabin (exterior)	conduit pipe	metal	intact	brown	0.01 ± 0.04	no	yes
762	Cabin (exterior)	roof	metal	fair	green	0.18 ± 0.67	no	yes
763	Larger Shed (exterior)	wall	pressed wood	poor	white	0.03 ± 0.10	no	yes
764	Cabin (interior)	door	wood	intact	green	0.01 ± 0.04	no	yes
765	Larger Shed (exterior)	wall	metal	poor	cream	2.10 ± 1.10	yes	yes
766	Trough 1	floor	concrete	poor	faded red	0.00 ± 0.02	no	yes
767	Pen 2	post	wood	intact	white	0.00 ± 0.02	no	yes
768	Calibration					1.00 ± 0.10		
769	NULL							
770	Calibration					1.00 ± 0.10		
771	Calibration					1.00 ± 0.10		

Determination of paint as lead-based paint by the U. S. Department of Housing and Urban Development (HUD) is based on the values in the "PbC" column reported in mg/cm² (milligrams per square centimeter). HUD regulations; 24 CFR Parts 35, 200, 881, and 886; and Guidelines for the Evaluation and Control of Lead-based Paint (LBP) Hazards in Housing, dated June 1995, define LBP as paint with a lead content of 1.0 mg/cm² or greater.

However, OSHA and HIOSH regulate activities disturbing paint that contains lead (lead-containing paint), even if the content is below the HUD standard.

Appendix D

Arsenic Bulk Laboratory Report



EnvironMETeo Services, Inc.
Environmental / Industrial Health & Safety

LABORATORY REPORT

Arsenic in Bulk Analyses by X-Ray Fluorescence
EPA Method 6200

Client: Harold Inouye
Anbe, Aruga & Ishizu, Architects, Inc.
1441 Kapiolani Blvd., Suite 206
Honolulu, HI 96814

Sampling Date: 5/15/2013
Analysis Date: 5/15/2013
Report Date: 5/15/2013

Reference: Saddle Road Maintenance Baseyard - Arsenic in Canec-based Material

Sample Number	Sample Description	Arsenic (ppm)
304-CABIN-1As	canec wall panel, cabin toilet room	1697

< LOD = Below limit of detection of 5 ppm.

Serial # 7798, XRF Model XLp 703AW
Source Cd-109, 2/1/11

Approved Signature:

Laboratory test report relates to only item(s) tested.
This report may not be reproduced except in full and with permission of EMET.

EMET ID: 1006304

Page 1 of 1

Appendix E

Waste Characterization Laboratory Report

**Saddle Road Maintenance Baseyard
Relocation & Demolition for New Maintenance Facility**

**Asbestos & Lead Survey
EMET: 1006304**



Environmental Services Network

May 21, 2013

Stephen Kaneshiro
EMET Services, Inc
94-520 Ukee St. #A
Waipahu, HI 96797

SUBJECT: DATA REPORT – 1006304, Saddle Road Maintenance Baseyard

ESN Project # D1305160231

Mr. Kaneshiro:

Please find enclosed a data report for the samples analyzed from the above referenced project for EMET Services, Inc. The samples were received intact. Applicable detection limits, QA/QC data, and any issues encountered during analysis are included in the report.

The following tests were conducted:

- Analyses for TCLP Pb by EPA 1311/7000.

ESN appreciates the opportunity to have provided analytical services to EMET Services, Inc on this project. If you have any further questions relating to the data or report, please do not hesitate to contact us.

Sincerely,

A handwritten signature in dark ink that reads "Karen Carvallo". The signature is written in a cursive, flowing style.

Karen Carvallo
Operations Manager

ESN Pacific
2020-B Kahai Street
Honolulu, HI 96819

Ph: (808) 847-0067
esn@esnpacific.com



Environmental Services Network

EMET Environmental Services PROJECT #1006304
Saddle Road Maintenance Baseyard

ESN Project #D1305160231

METAL ANALYSES BY TOXICITY CHARACTERISTIC LEACHING PROCEDURE AND ATOMIC ABSORPTION

SAMPLE NUMBER	DATE SAMPLED	DATE ROTATED	DATE DIGESTED	DATE ANALYZED	Lead (Pb) EPA 7420 (mg/L)	FLAGS
Method Blank	-	5/16/2013	5/17/2013	5/17/2013	nd	
304-SRMB-TCLP1	5/15/2013	5/16/2013	5/17/2013	5/17/2013	nd	
304-SRMB-TCLP1 Dup	5/15/2013	5/16/2013	5/17/2013	5/17/2013	nd	
PQL					0.50	
MDL					0.25	
TCLP REGULATORY LEVEL					5.00	

QA/QC DATA - LABORATORY CONTROL SPIKE ANALYSES

Spike Added	5.0
Measured Conc.	4.2
% Recovery	84.8%

QA/QC DATA - MATRIX SPIKE ANALYSES

Sample Name: 304-SRMB-TCLP1

Spike Added	5.0
Measured Conc.	4.8
% Recovery	95.4%

Spike Added	5.0
Measured Conc.	5.1
% Recovery	102.4%

RPD	7.1%
-----	------

% Recovery LIMITS: 65% TO 135%

RPD LIMIT: 35%

ANALYSES PERFORMED AND REVIEWED BY : K. Carvallo

ESN PACIFIC'S CHAIN-OF-CUSTODY RECORD

CLIENT: EMET ADDRESS: 94-520 Uke'e St. Suite A Waipahu HI 96797 PHONE: 808 671 8383 FAX: 808 671 7979 EMAIL: stephen.kaneshiro@emet-services.com CLIENT PROJECT #: 1006304 Project Manager:		TAT (circle one): 24-hr. 48-hr. 5-day or Other: _____ DATE: 5/16/13 PAGE 1 OF 1 ESN PROJECT #: D1305160231 LOCATION/PROJECT NAME: Saddle Road Maintenance Baseyard COLLECTOR: EMET DATE COLLECTED: 5/15/13																
Sample ID#	Depth	Time	Sample Type	Container Type	HVOC 8021b or 8260	VOC 8021b or 8260	MTBE 8021b or 8260	8015 Fuel Scan only	8015 TPH-Diesel	8015 TPH-Gas ext 5035	8081 Chlor. Pesticides	8082 PCB	PAH (DOH 4) 8100 or 8270	PAH (EPA 16) 8100 or 8270	RCRA 8 Metals	Total: Pb Cd Cr As Hg or TCLP Pb	Comments	# of Containers
1 304-SRMB-TAP	-	-	BULK	8082														1
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		

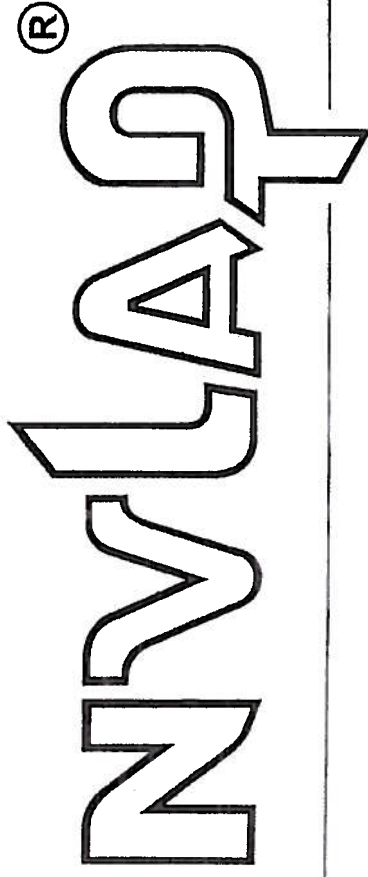
RELINQUISHED BY: (Signature) <i>Steph C</i> DATE/TIME 5/16/13, 9:20pm	RECEIVED BY (Signature) <i>21 Ky</i> DATE/TIME 5/16/13 9:00	SAMPLE RECEIPT: TOTAL # OF CONTAINERS: 1 COC SEALS Y / N / NA SEALS INTACT Y / N / NA RECEIVED TEMP: _____	LABORATORY NOTES:
RELINQUISHED BY: (Signature) _____ DATE/TIME _____	RECEIVED BY (Signature) _____ DATE/TIME _____		

SAMPLE DISPOSAL INSTRUCTIONS: ESN @ \$4.00/sample or Return to Client

Appendix F

Certifications

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101807-0

EnvironMETeo Services Inc.
Waipahu, HI

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).

2012-07-01 through 2013-06-30

Effective dates



A handwritten signature in black ink, appearing to read "W. D. M. L. D.", is written over the official stamp.

For the National Institute of Standards and Technology



Lead-Based Paint Activities Firm Certification

THIS IS TO CERTIFY THAT

EnvironMETeo Services, Inc.

has fulfilled the requirements of Chapter 11-41 Hawaii Administrative Rules and the Toxic Substance Control Act (TSCA) Section 402(a)(2), and has received certification as a firm pursuant to §11-41-4, HAR to conduct lead-based paint activities in Hawaii.

This certification is valid from the date of issuance and expires on JUNE 19, 2015.

Date of Issue: FEBRUARY 21, 2012
Certification # PBF-0024

NON-TRANSFERABLE

A handwritten signature in black ink, appearing to read "L. L. L.", is written over a horizontal line.

FOR DIRECTOR OF HEALTH

REVOCABLE FOR CAUSE



State of Hawai'i Asbestos Certification

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	03/01/14	PM	01/04/14

Iopa

Joseph K. III

EnvironMETeo Services, Inc.

HIASB-0585

State Exp. Date 04/25/2014

W= Worker
CS= Cont./Sup
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor



Hamson
Jennifer N.
EnvironMETeo Services, Inc.
HIASB-3642
State Exp. Date 02/28/2014

State of Hawai'i Asbestos Certification

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	02/21/14	PM	n/a

W= Worker
CS= Conf./Sup
INS= Inspector
PD= Project Designer
MP= Mgmt Planner
PM= Project Monitor



Furukawa
Jacqueline P.
EnvironMETeo Services, Inc.
HIASB-3641
State Exp. Date 02/28/2014

State of Hawai'i Asbestos Certification

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	02/21/14	PM	n/a

W= Worker
CS= Cont./Sup.
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates:

Inspector- n/a
Supervisor- 07/24/2016
Risk Assessor- 07/24/2013
Project Designer- 01/23/2014
Worker- n/a

How
Clifford

Certification # PB-0149



End of Report

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