



ASBESTOS TEM LABORATORIES, INC.

EPA Interim Method Polarized Light Microscopy Analytical Report

Laboratory Job # 360738

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ASBESTOS TEM LABORATORIES, INC

CA DPH ELAP
Lab No. 1866



NVLAP Lab Code: 101891-0
Berkeley, CA

Oct-05-18

Justin Alvarez
Hoopa Tribal Fisheries
PO Box 417
Hoopa, CA 95546

RE: LABORATORY JOB # 360738
Polarized light microscopy analytical results for 4 bulk sample(s).
Job Site: Supply Creek
Job No.:

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with EPA Method 600/R-93/116 or 600/M4-82-020 for the determination of asbestos in bulk building materials by polarized light microscopy (PLM). Please note that while PLM analysis is commonly performed on non-friable and fine grained materials such as floor tiles and dust, the EPA method recognizes that PLM is subject to limitations. In these situations, accurate results may only be obtainable through the use of more sophisticated and accurate techniques such as transmission electron microscopy (TEM) or X-ray diffraction (XRD).

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Each sample is opened in a class 100 HEPA negative air hood. A representative sampling of the material is selected and placed onto a glass microscope slide containing a drop of refractive index oil. The glass slide is placed under a polarizing light microscope where standard mineralogical techniques are used to analyze and quantify the various materials present, including asbestos. The data is then compiled into a standard report format and reviewed by the authorized signatory before being released to the client.

Sincerely Yours,

Lab Manager
ASBESTOS TEM LABORATORIES, INC.

--- These results relate only to the samples tested and must not be reproduced, except in full, with the approval of the laboratory. This report must not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government. ---

Note: Test samples will be stored for three months after data of receipt, after which they will be properly disposed unless client makes other arrangements with the laboratory.

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Page: 1 of

Contact: Justin Alvarez Address: Hoopa Tribal Fisheries PO Box 417 Hoopa, CA 95546		Samples Indicated: 4 Reg. Samples Analyzed: 4 Split Layers Analyzed: 0 Job Site / No. Supply Creek		Report No. 360738 Date Submitted: Oct-04-18 Date Reported: Oct-05-18	
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SAMPLE ID	%	ASBESTOS TYPE	OTHER DATA	DESCRIPTION
			1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	FIELD <hr/> LAB
HVT 1 E	20-30%	Chrysotile	1) None Detected 2) 70-80% Calc, Qtz, Opq	Tile
Lab ID # 96-02688-001			3) 4) Oct-05-18	Transite-Grey
HVT 2 E	10-20%	Chrysotile	1) None Detected 2) 80-90% Opq, Tar	Roofing
Lab ID # 96-02688-002			3) 4) Oct-05-18	Roofing Felt/Tar-Black
HVT 3 W	20-30%	Chrysotile	1) None Detected 2) 70-80% Qtz, Calc, Opq	Tile
Lab ID # 96-02688-003			3) 4) Oct-05-18	Transite-Grey
HVT 4 W	10-20%	Chrysotile	1) None Detected 2) 80-90% Opq, Tar	Roofing
Lab ID # 96-02688-004			3) 4) Oct-05-18	Roofing Felt/Tar-Black
			1) 2)	
Lab ID #			3) 4)	
			1) 2)	
Lab ID #			3) 4)	
			1) 2)	
Lab ID #			3) 4)	
			1) 2)	
Lab ID #			3) 4)	
			1) 2)	
Lab ID #			3) 4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst

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You may also email this chain of custody to coc@asbestostemplabs.com

* denotes required field

Company: Hoopa Tribal Fisheries	Contact: * Justin Alvarez	Phone: * 530 784 7883	Email: * JALVAREZ@HOOPA-NSN.GOV
Address: * PO Box 417	City: * Hoopa	State: * CA Zip: 95546	Email: * PETROS@HOOPA-NSN.GOV
Job Site: * Supply Creek	Job #:	PO #:	Email:

Reporting *	<input checked="" type="checkbox"/> Email	<input type="checkbox"/> Phone	<input type="checkbox"/> Fax	<input type="checkbox"/> Mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Pickup	Billing	<input type="checkbox"/> Fax	<input type="checkbox"/> Email	<input type="checkbox"/> Mail	<input type="checkbox"/> Pre-Paid	<input checked="" type="checkbox"/> On Receipt:	<input type="checkbox"/> 3 rd Party
Results Due: *	<input type="checkbox"/> 2 HR	<input type="checkbox"/> 4 HR	<input type="checkbox"/> 6 HR	<input type="checkbox"/> 8 HR	<input checked="" type="checkbox"/> 24 HR	<input type="checkbox"/> 48 HR	<input type="checkbox"/> 3 DAY	<input type="checkbox"/> 4 DAY	<input type="checkbox"/> 5 DAY	<input type="checkbox"/> 10 DAY	<input type="checkbox"/> Hold Samples	<input type="checkbox"/> After Hours: ** <u>see below</u>	
Asbestos Air	<input type="checkbox"/> PCM (NIOSH 7400A)		<input type="checkbox"/> TEM AHERA		<input type="checkbox"/> TEM CARB Mod. AHERA		<input type="checkbox"/> TEM EPA Yamate Level II		<input type="checkbox"/> TEM NIOSH 7402		<input type="checkbox"/> ISO 10312		<input type="checkbox"/> ISO 13794
Asbestos Bulk	<input checked="" type="checkbox"/> PLM Standard (EPA 600/R-93-1)		<input type="checkbox"/> PLM 400 PC		<input type="checkbox"/> PLM 1000 PC		<input type="checkbox"/> PLM 400 PC Grav. Red.		<input type="checkbox"/> PLM 1000 PC Grav. Red.		<input type="checkbox"/> TEM EPA Qualitative		<input type="checkbox"/> TEM EPA Quantitative
	<input type="checkbox"/> TEM Chatfield (Semi-Quant)		<input type="checkbox"/> PREP ONLY		<input type="checkbox"/> Custom Analysis: **								
Asbestos Soils	<input type="checkbox"/> CARB 435 Prep Only		<input type="checkbox"/> CARB 435 PLM 400 PC		<input type="checkbox"/> CARB 435 PLM 1000 PC		<input type="checkbox"/> EPA Soil Screening Qualitative		<input type="checkbox"/> TEM EPA/CARB Quantitative				
Asbestos Dust	<input type="checkbox"/> ASTM D-5755 Fiber Count		<input type="checkbox"/> ASTM D-5756 Wt. %		<input type="checkbox"/> ASTM D-5756 Mass		<input type="checkbox"/> ASTM D-6480-99 Dust Wipe		<input type="checkbox"/> Total Particulates (Grav.)				
Asbestos Water	<input type="checkbox"/> 100.2 Potable Drinking Water		<input type="checkbox"/> 100.1 Non Potable Water		<input type="checkbox"/> REPORT TO STATE: EDT # _____								
Lead/Silica	<input type="checkbox"/> Lead Paint Chips		<input type="checkbox"/> Lead Dust Wipe		<input type="checkbox"/> Lead Air Cassette		<input type="checkbox"/> Lead Soil		<input type="checkbox"/> Silica Dust Airborne by NIOSH 7500		<input type="checkbox"/> Crystalline Silica (Single Species)		<input type="checkbox"/> Silica Dust Bulk by NIOSH 7500
													<input type="checkbox"/> Crystalline Silica in Bulk (Single Species)
Sample Storage	<input type="checkbox"/> No Test, Hold Until: _____		<input type="checkbox"/> Test AND Hold Until: _____ All samples will be held for 3 months from the date of receipt at ATEM. Additional sample storage time may be obtained through ATEM Customer Service.										
Custom Order	<input type="checkbox"/> Sensitivity: _____ <input type="checkbox"/> Composite <input type="checkbox"/> 8 Hour TWA <input type="checkbox"/> Special Instructions: _____												
REANALYSIS	Original Login/Lot # _____ / _____ New Analysis Type: _____ TAT: _____ Special Instructions: _____												

Sample # *	Sample Type	Date Collected	Time On	Time Off	Total Time (min)	Flow Rate (lpm)			Volume or Area Sampled	Hold Sample	Description *
						On	Off	Average			
HVT 1 E										<input type="checkbox"/>	Tile
HVT 2 E										<input type="checkbox"/>	Roofing
HVT 3 W										<input type="checkbox"/>	Tile
HVT 4 W										<input type="checkbox"/>	Roofing
										<input type="checkbox"/>	
										<input type="checkbox"/>	
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										<input type="checkbox"/>	

Submitted By * Justin Alvarez	Received By
Date/Time Submitted * Oct 2, 2018 12:45	Date/Time Received
Submitted By	Received By ATEM
Date/Time Submitted	Date/Time Received

** Any special instructions, RUSH results or Custom Analysis, you must clarify these specifications AND, of more importance, contact us here at ATEM ahead of time to manage scheduling. As most requests, drop off and expression of samples after hours cannot be accommodated without express notification from you, and confirmation by ATEM staff.