



Cardinal
ENVIRONMENTAL
CONSULTANTS INC.

Hazardous Materials Inspection Report

Site:

Oswalt Elementary School
19501 Shadow Oak Drive
Walnut, CA 91789

Prepared for:

Rowland Unified School District
1830 Nogales Street
Rowland Heights, CA 91748

Date: January 8th, 2019



Cardinal Environmental Consultants, Inc.

2691 Dow Avenue, Suite C-2

Tustin, CA 92780

Phone: (714) 730-5931

Fax: (714) 730-1697

Date of Report: January 8th, 2019

Owner/Client: Rowland Unified School District
1830 Nogales Street
Rowland Heights, CA 91748

Site Information: Oswalt Elementary School
19501 Shadow Oak Drive
Walnut, CA 91789

The survey is specific to Oswalt Elementary School. The structures located at this site are mainly constructed of wooden exterior with texture coating on raised platform foundations. The structures associated with the site are more commonly referred to as portable style classrooms.

The interior of each classroom is primarily constructed of carpet on plywood subfloors with tack-board on drywall walls. The interior ceilings maintain 2x4 suspended grid ceilings with fiberglass insulation in the plenum of each classroom. Heating and cooling of the rooms are generally provided by BARD units attached to the rear of each classroom.

All suspect materials at the site have been tested in accordance with Federal, State and Local enforcement policies. The results of all testing are recorded in subsequent pages of this report.

Regulatory Compliance

On December 20th, 2017 Cardinal Environmental Consultants Inc., conducted an asbestos survey of the portables at Oswalt. The survey was completed in compliance with the federal AHERA (Asbestos Hazard Emergency Response Act) 40 CFR Part 763 subpart E. The Act indicates procedures for sampling and reporting of asbestos information (about the school) to students, staff, and contractors working on schools where students K through 12 are present. David G Johnson (CSST # 17-5918) conducted this survey.

Adherence to NESHAP (National Emission Standard for Hazardous Air Pollutants) has been achieved with compliance to South Coast Air Quality Management District's Rule 1403. SCAQMD is the local air quality district that regulates and monitors asbestos abatement activity in the region of the school district.

Sampling Methodology- Asbestos

Cardinal Environmental Consultants Inc. used several procedures from visual assessments to tactile assessments and a modified random sampling protocol to collect the samples of the suspect asbestos containing material. Cardinal's sampling procedures incorporate the use of plastic Ziploc bags, labeled with black permanent markers per a unique numbering sequence. One label with the suspect samples collected for this report was given a unique sample identification number. A second description was placed on the bulk sample log. Information about the sample, including the sample type and location was noted on the sheet as each sample was collected.

Asbestos: Any building material which contains asbestos in an amount greater than 1% by weight, area.

<1% Asbestos: Federal regulations and SCAQMD (South Coast Air Quality Management District) do not regulate asbestos at this percentage. Notifications to these agencies do not apply. However, OSHA regulations do apply. These are specific to "worker protection" issues. A contractor who is "DOSH certified" is required if removing more than a 100 square feet. Federal and State regulations do not regulate the disposal of this type of construction debris with this level of asbestos. However, your local landfill may have a "zero tolerance" for any asbestos containing debris.

Suspect Asbestos-Containing Materials

Samples of suspect Asbestos-containing materials were taken throughout the interior and exterior of the buildings. We were able to collect representative samples of all the building materials.

The following materials were tested:

- 12X12 Vinyl Floor Tile & Mastic
- 2X4 Suspended Ceiling Tile
- Drywall/ Joint Compound
- Interior Plaster
- Base Cove & Mastic
- 1x1 Ceiling Tiles & Glue Spots
- Floor Float Material
- Penetration Mastic
- Composition Roofing

Results

All samples were packaged and shipped to Patriot Laboratories an NVLAP accredited (#200358- 0) laboratory. The analysis procedure used to determine the presence of asbestos is outlined in the Code of Federal Regulations 40 CFR part 763, Section 1, Appendix A, Polarized Light Microscopy.

The following tables depict the asbestos at the school. The investigator has reviewed the results and construction of the buildings and made adjustments to the locations and the quantities based on “homogeneous areas”. AHERA can require that like areas in type, construction, and use (that test positive for asbestos) be combined with other similar areas. Therefore, some areas may not be specifically tested for asbestos but be included in an area of asbestos. Likewise, an area that has tested negative for asbestos could be included in the asbestos table because of the definition of “homogeneous area”.

Subsequent tables in this document depict what was sampled and the outcome of each. Those subsequent tables should be used for clarification and not for quantification of asbestos.

Asbestos:

Admin/ MPR/ Cafeteria		Qty
Linoleum & Mastic (Orange)	Nurse's Office Restroom Floor	200 sf
Linoleum & Mastic (Orange)	Water Heater Closet Flooring (Exterior Near Lunch Shelter)	50 sf

The above estimated quantities may or may not be the removal quantities in a specification or contract. The bidder should verify with the contract documents.

Further Discussion

The following section discusses the results of the inspection at Oswalt Elementary School.

Summary

Linoleum and mastic located in the Nurse's office restroom and exterior water heater close on the Administration, Multipurpose and Cafeteria building has been found to contain asbestos. This material requires a DOSH certified contractor to remove the flooring prior to any demolition activities impacting these areas.

This site has been previously modernized, and most of the asbestos containing materials have been removed prior to this survey. In addition to prior modernization work, a newly constructed building is located to the rear of the site. The building is mainly comprised of CMU concrete walls. No suspect materials were located during our inspection of this building.

Contractors are obligated to review the scope of work when determining the asbestos removal quantities. The table lists all of the asbestos in the building not the removal quantities. The contractor should review the plans to determine the exact removals.

Although we aggressively searched for asbestos, the contractor should be made aware of the potential of uncovering asbestos during demolition. A supervisor trained in identifying asbestos should be present at the beginning of demolition.

Date: 01/08/18

Sincerely yours,

**CARDINAL ENVIRONMENTAL CONSULTANTS INC.,
A California Corporation**



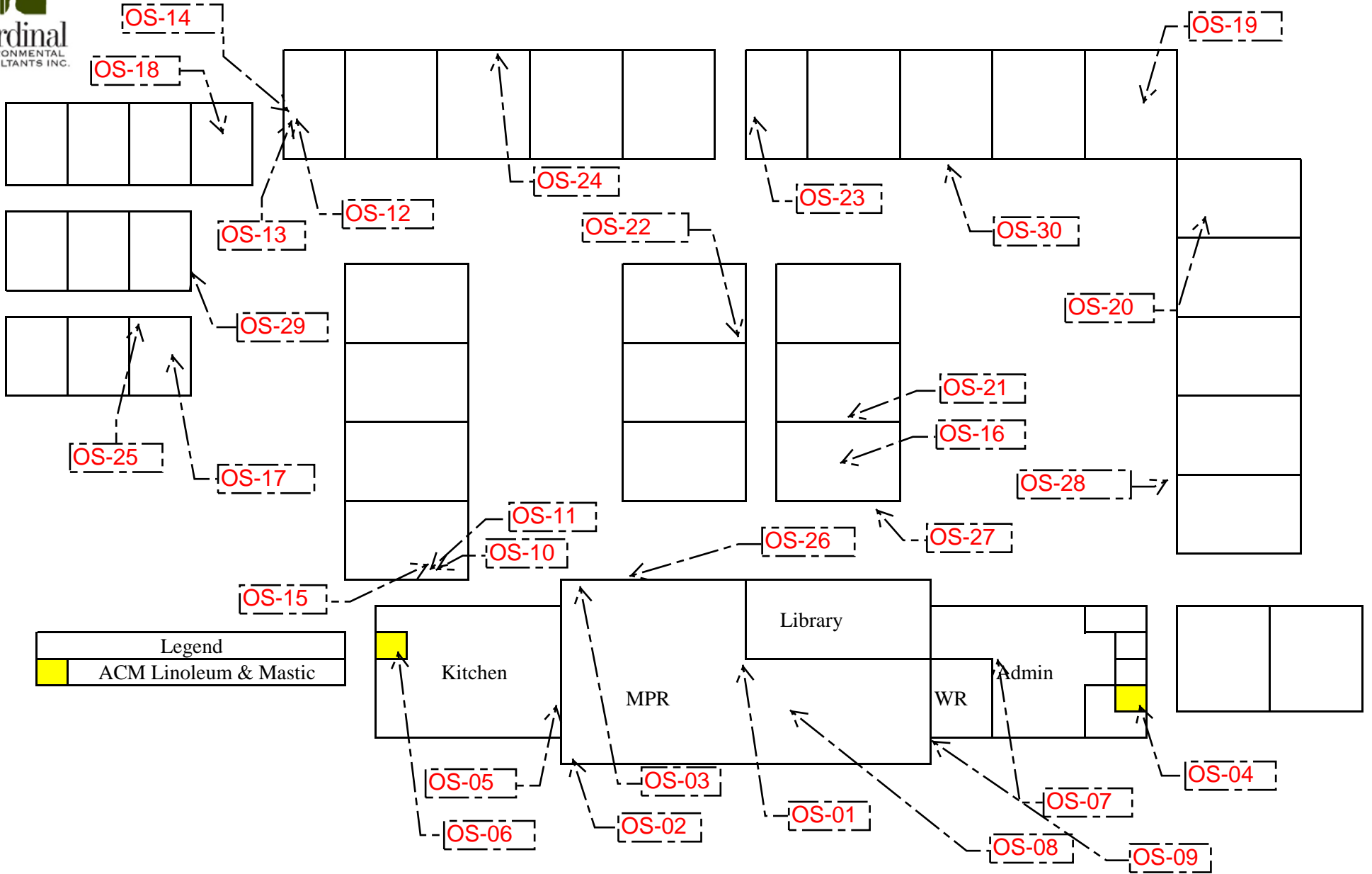
By:

Ronald R. McDaniel
California Certified Asbestos Consultant #01-2865
CDPH Certified Lead Inspector/Assessor and Project Monitor/Designer #3599

CONFIDENTIAL

Diagram(s)

New Construction



Sampling Table

Bulk Sample Data
Table
(Asbestos)

Date: 1/8/2019
Client: Rowland USD
Location: Oswalt Elementary School

Technician: David Johnson

Analysis Polarized Light Microscopy
Type: Code of Federal Regulations 40 CFR part
763, Section 1, Appendix A

Building #	Material	Sample #	Results	Condition	Hazard Rating	F/NF	Sample Location
Admin/ MPR	12x12 Vinyl Floor Tile & Mastic	OS-01	ND	Good	High	NF	MPR Flooring
Admin/ MPR	12x12 Vinyl Floor Tile & Mastic	OS-02	ND	Good	High	NF	MPR Flooring
Admin/ MPR	12x12 Vinyl Floor Tile & Mastic	OS-03	ND	Good	High	NF	MPR Flooring
Admin/ MPR	Linoleum & Mastic	OS-04	25% Chrysotile	Good	High	NF	Orange Linoleum in Nurse's Office Restroom
Admin/ MPR	Linoleum & Mastic	OS-05	ND	Good	High	NF	Blue Linoleum in Kitchen
Admin/ MPR	Linoleum & Mastic	OS-06	25% Chrysotile	Good	Low	NF	Orange Linoleum in Water Heater Closet
Admin/ MPR	Drywall/ Joint Compound	OS-07	ND	Good	Low	NF	Interior Walls
Admin/ MPR	2x4 Suspended Ceiling Tile	OS-08	ND	Good	Low	NF	Interior Ceiling
Admin/ MPR	Exterior Texture Coat	OS-09	ND	Good	Low	NF	Exterior Stucco Siding
Classroom Buildings	Linoleum & Mastic	OS-10	ND	Good	Low	NF	Blue Linoleum in Custodial Closets
Classroom Buildings	Linoleum & Mastic	OS-11	ND	Good	Low	NF	Blue Linoleum in Custodial Closets
Classroom Buildings	Linoleum & Mastic	OS-12	ND	Good	Low	NF	Blue Linoleum in Custodial Closets
Classroom Buildings	Linoleum & Mastic	OS-13	ND	Good	Low	NF	Blue Linoleum in Custodial Closets

ND- none detect for asbestos
NF- non-friable

F- friable

Bulk Sample Data
Table
(Asbestos)

Date: 1/8/2019
Client: Rowland USD
Location: Oswalt Elementary School

Technician: David Johnson

Analysis Polarized Light Microscopy
Type: Code of Federal Regulations 40 CFR part
763, Section 1, Appendix A

Building #	Material	Sample #	Results	Condition	Hazard Rating	F/NF	Sample Location
Classroom Buildings	Linoleum & Mastic	OS-14	ND	Good	Low	NF	Blue Linoleum in Custodial Closets
Classroom Buildings	Linoleum & Mastic	OS-15	ND	Good	Low	NF	Blue Linoleum in Custodial Closets
Classroom Buildings	2x4 Suspended Ceiling Tile	OS-16	ND	Good	Low	NF	Interior Ceilings of Classrooms
Classroom Buildings	2x4 Suspended Ceiling Tile	OS-17	ND	Good	Low	NF	Interior Ceilings of Classrooms
Classroom Buildings	2x4 Suspended Ceiling Tile	OS-18	ND	Good	Low	NF	Interior Ceilings of Classrooms
Classroom Buildings	2x4 Suspended Ceiling Tile	OS-19	ND	Good	Low	NF	Interior Ceilings of Classrooms
Classroom Buildings	2x4 Suspended Ceiling Tile	OS-20	ND	Good	Low	NF	Interior Ceilings of Classrooms
Classroom Buildings	Drywall/ Joint Compound	OS-21	ND	Good	Low	NF	Interior Walls of Classrooms (Behind Tackboard)
Classroom Buildings	Drywall/ Joint Compound	OS-22	ND	Good	Low	NF	Interior Walls of Classrooms (Behind Tackboard)
Classroom Buildings	Drywall/ Joint Compound	OS-23	ND	Good	Low	NF	Interior Walls of Classrooms (Behind Tackboard)
Classroom Buildings	Drywall/ Joint Compound	OS-24	ND	Good	Low	NF	Interior Walls of Classrooms (Behind Tackboard)
Classroom Buildings	Drywall/ Joint Compound	OS-25	ND	Good	Low	NF	Interior Walls of Classrooms (Behind Tackboard)
Classroom Buildings	Exterior Texture Coat	OS-26	ND	Good	Low	NF	Exterior Stucco Siding

ND- none detect for asbestos
NF- non-friable

F- friable

Bulk Sample Data
Table
(Asbestos)

Date: 1/8/2019
Client: Rowland USD
Location: Oswalt Elementary School

Technician: David Johnson

Analysis Polarized Light Microscopy
Type: Code of Federal Regulations 40 CFR part
763, Section 1, Appendix A

Building #	Material	Sample #	Results	Condition	Hazard Rating	F/NF	Sample Location
Classroom Buildings	Exterior Texture Coat	OS-27	ND	Good	Low	NF	Exterior Stucco Siding
Classroom Buildings	Exterior Texture Coat	OS-28	ND	Good	Low	NF	Exterior Stucco Siding
Classroom Buildings	Exterior Texture Coat	OS-29	ND	Good	Low	NF	Exterior Stucco Siding
Classroom Buildings	Exterior Texture Coat	OS-30	ND	Good	Low	NF	Exterior Stucco Siding
Classroom Buildings	Composition Roofing	OS-31	ND	Good	Low	NF	Roof of Structure(s)
Classroom Buildings	Composition Roofing	OS-32	ND	Good	Low	NF	Roof of Structure(s)
Classroom Buildings	Composition Roofing	OS-33	ND	Good	Low	NF	Roof of Structure(s)
Classroom Buildings	Composition Roofing	OS-34	ND	Good	Low	NF	Roof of Structure(s)
Classroom Buildings	Composition Roofing	OS-35	ND	Good	Low	NF	Roof of Structure(s)
Classroom Buildings	Penetration Mastic	OS-36	ND	Good	Low	NF	Roof of Structure(s)
Classroom Buildings	Penetration Mastic	OS-37	ND	Good	Low	NF	Roof of Structure(s)
Classroom Buildings	Penetration Mastic	OS-38	ND	Good	Low	NF	Roof of Structure(s)
Classroom Buildings	Penetration Mastic	OS-39	ND	Good	Low	NF	Roof of Structure(s)

ND- none detect for asbestos
NF- non-friable

F- friable

Bulk Sample Data
Table
(Asbestos)

Cardinal Environmental
Consultants, Inc.
2691 Dow Avenue, Ste. C2
Tustin, CA 92780

Date: 1/8/2019
Client: Rowland USD
Location: Oswalt Elementary School

Technician: David Johnson

Analysis Polarized Light Microscopy
Type: Code of Federal Regulations 40 CFR part
763, Section 1, Appendix A

Building #	Material	Sample #	Results	Condition	Hazard Rating	F/NF	Sample Location
Classroom Buildings	Penetration Mastic	OS-40	ND	Good	Low	NF	Roof of Structure(s)

ND- none detect for asbestos
NF- non-friable

F- friable

Laboratory Results

Certificate of Analysis
PLM Asbestos Identification

tel - 714-899-8900
 free - 888-743-0998
 fax - 714-899-1188
 PatriotLab.com
 1041 S. Placentia Avenue, Fullerton, CA 92831



Cardinal Environmental Consultants Inc.
 2691 Dow Ave. Ste. C2
 Tustin, CA 92780

Report Number: 746265
 Project Number:
 Project Name: Oswalt Academy
 Project Location:

Date Collected:
 Date Received: 1/3/2019
 Date Analyzed: 1/5/2019
 Date Reported: 1/7/2019

Collected By:
 Claim Number:
 PO Number:
 Number of Samples: 40

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
746265-001 OS-01	NA	NA	White	100% Non-Fibrous Material
Total Asbestos	None Detected			
746265-002 OS-02	NA	NA	White	100% Non-Fibrous Material
Total Asbestos	None Detected			
746265-003 OS-03	NA	NA	White	100% Non-Fibrous Material
Total Asbestos	None Detected			
746265-004 OS-04	NA	NA	Orange	70% Non-Fibrous Material 5% Cellulose
Chrysotile	25 %			
Total Asbestos	25 %			
746265-005 OS-05	NA	NA	Blue	100% Non-Fibrous Material
Total Asbestos	None Detected			

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Collected By:
 Claim Number:
 PO Number:
 Number of Samples: 40

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
746265-006 OS-06	NA	NA	Orange	70% Non-Fibrous Material 5% Cellulose
Chrysotile	25 %			
Total Asbestos	25 %			
746265-007 OS-07	NA	NA	White	20% Mineral Wool 65% Cellulose 12% Perlite 3% Paint
Total Asbestos	None Detected			
746265-008 OS-08	NA	NA	White	78% Sulfate 13% Carbonate 7% Cellulose 2% Glass Fibers
Total Asbestos	None Detected			
746265-009 OS-09	NA	NA	White	66% Carbonate 30% Minerals 4% Paint
Total Asbestos	None Detected			
746265-010 OS-10	NA	NA	Blue	100% Non-Fibrous Material
Total Asbestos	None Detected			

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Collected By:
 Claim Number:
 PO Number:
 Number of Samples: 40

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
746265-011 OS-11	NA	NA	Grey	98% Non-Fibrous Material 2% Cellulose
Total Asbestos	None Detected			
746265-012 OS-12	NA	NA	Blue	100% Non-Fibrous Material
Total Asbestos	None Detected			
746265-013 OS-13	NA	NA	Grey	98% Non-Fibrous Material 2% Cellulose
Total Asbestos	None Detected			
746265-014 OS-14	NA	NA	Grey	98% Non-Fibrous Material 2% Cellulose
Total Asbestos	None Detected			
746265-015 OS-15	NA	NA	Blue	100% Non-Fibrous Material
Total Asbestos	None Detected			

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 Claim Number:
 PO Number:
 Number of Samples: 40

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
746265-016 OS-16	NA	NA	White	20% Mineral Wool 65% Cellulose 12% Perlite 3% Paint
Total Asbestos	None Detected			
746265-017 OS-17	NA	NA	White	20% Mineral Wool 65% Cellulose 12% Perlite 3% Paint
Total Asbestos	None Detected			
746265-018 OS-18	NA	NA	White	20% Mineral Wool 65% Cellulose 12% Perlite 3% Paint
Total Asbestos	None Detected			
746265-019 OS-19	NA	NA	White	20% Mineral Wool 65% Cellulose 12% Perlite 3% Paint
Total Asbestos	None Detected			

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 Claim Number:
 PO Number:
 Number of Samples: 40

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
746265-020 OS-20	NA	NA	White	20% Mineral Wool 65% Cellulose 12% Perlite 3% Paint
Total Asbestos	None Detected			
746265-021 OS-21	NA	NA	Brown	98% Non-Fibrous Material 2% Glass Fibers
Total Asbestos	None Detected			
746265-022 OS-22	NA	NA	Brown	98% Non-Fibrous Material 2% Glass Fibers
Total Asbestos	None Detected			
746265-023 OS-23	NA	NA	Brown	98% Non-Fibrous Material 2% Glass Fibers
Total Asbestos	None Detected			
746265-024 OS-24	NA	NA	Brown	98% Non-Fibrous Material 2% Glass Fibers
Total Asbestos	None Detected			

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 Date Received: 1/3/2019
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Collected By:
 Claim Number:
 PO Number:
 Number of Samples: 40

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
746265-025 OS-25	NA	NA	Brown	98% Non-Fibrous Material 2% Glass Fibers
Total Asbestos	None Detected			
746265-026 OS-26	NA	NA	White	100% Non-Fibrous Material
Total Asbestos	None Detected			
746265-027 OS-27	NA	NA	White	100% Non-Fibrous Material
Total Asbestos	None Detected			
746265-028 OS-28	NA	NA	White	100% Non-Fibrous Material
Total Asbestos	None Detected			
746265-029 OS-29	NA	NA	White	100% Non-Fibrous Material
Total Asbestos	None Detected			
746265-030 OS-30	NA	NA	White	100% Non-Fibrous Material
Total Asbestos	None Detected			

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 Claim Number:
 PO Number:
 Number of Samples: 40

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
746265-031 OS-31	NA	NA	Black	75% Tar 20% Glass Fibers 5% Minerals
Total Asbestos	None Detected			
746265-032 OS-32	NA	NA	Black	75% Tar 20% Glass Fibers 5% Minerals
Total Asbestos	None Detected			
746265-033 OS-33	NA	NA	White	65% Tar 15% Glass Fibers 20% Minerals
Total Asbestos	None Detected			
746265-034 OS-34	NA	NA	Black	75% Tar 20% Glass Fibers 5% Minerals
Total Asbestos	None Detected			
746265-035 OS-35	NA	NA	White	65% Tar 15% Glass Fibers 20% Minerals
Total Asbestos	None Detected			

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 Date Reported: 1/7/2019

Collected By:
 Claim Number:
 PO Number:
 Number of Samples: 40

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
746265-036 OS-36	NA	NA	Black	62% Tar 15% Glass Fibers 20% Minerals 3% Cellulose
Total Asbestos	None Detected			
746265-037 OS-37	NA	NA	Black	62% Tar 15% Glass Fibers 20% Minerals 3% Cellulose
Total Asbestos	None Detected			
746265-038 OS-38	NA	NA	Black	62% Tar 15% Glass Fibers 20% Minerals 3% Cellulose
Total Asbestos	None Detected			
746265-039 OS-39	NA	NA	Black	62% Tar 15% Glass Fibers 20% Minerals 3% Cellulose
Total Asbestos	None Detected			

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 PO Number:
 Number of Samples: 40

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
746265-040 OS-40	NA	NA	Black	62% Tar 15% Glass Fibers 20% Minerals 3% Cellulose

Total Asbestos **None Detected**



Lyn Terry - Analyst



Kwin Legaspi - Approved By

Bulk sample(s) submitted was (were) analyzed in accordance with the procedure outlined in the US Federal Register 40 CFR 763, Subpart F, Appendix A; EPA-600/R-93/116 (Method for Determination of Asbestos in Building Materials), and EPA-600/M4-82-020 (US EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples). Samples were analyzed using Calibrated Visual Estimations (CVES); therefore, results may not be reliable for samples low asbestos concentration levels. Samples of wall systems containing discrete and separable layers are analyzed separately and reported as composite unless specifically requested by the customer to report analytical results for individual layers. This report applies only to the items tested. Results are representative of the samples submitted and may not represent the entire material from which the samples were collected. "None Detected" means that no asbestos was observed in the sample. "<1%" (less than one percent) means that asbestos was observed in the sample but the concentration is below the quantifiable level of 1%. This report was issued by a NIST/NVLAP (Lab Code 200358-0) and CADOHS- ELAP (Cert. No. 2540) accredited laboratory and may not be reproduced, except in full without the expressed written consent of Patriot Environmental Laboratory Services, Inc. This report may not be used to claim product certification, approval or endorsement by NIST, NVLAP, ELAP or any government agency.

746265



SAMPLE SUBMITTAL/CHAIN OF CUSTODY FORM

LAB NAME: Patriot PROJECT NAME: Oswalt Academy
 DATE SHIPPED: 1/2/2019 TOTAL # SAMPLES: 40
 CARRIER: SELF

1/5 @ 6:39 pm

TYPE:
 BULK
 WATER
 AIR
 OTHER:
 OTHER:

ANALYSIS:
 PLM
 TEM AHERA
 PCM
 OTHER:

TURNAROUND:
 RUSH
 24 HOURS
 48 HOURS
 72 HOURS
 FIVE DAY

RESULTS REQUESTED:

David Cell: (714) 862-7541

X E Mail: Dane@cardinalenvironmental.org
 X E Mail: Ron@cardinalenvironmental.org
 X E Mail: David@cardinalenvironmental.org

OTHER

SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID
OS-01	OS-09	OS-17	OS-18	OS-26	OS-34	
OS-02	OS-10	OS-18	OS-19	OS-27	OS-35	
OS-03	OS-11	OS-19	OS-20	OS-28	OS-36	
OS-04	OS-12	OS-20	OS-21	OS-29	OS-37	
OS-05	OS-13	OS-21	OS-22	OS-30	OS-38	
OS-06	OS-14	OS-22	OS-23	OS-31	OS-39	
OS-07	OS-15	OS-23	OS-24	OS-32	OS-40	
OS-08	OS-16	OS-24	OS-25	OS-33		

INSTRUCTIONS:

SAMPLES DELIVERED BY: David Johnson signature: _____ DATE/TIME: 1/2/2019

SAMPLES RECEIVED BY: MENESSA signature: _____ DATE/TIME: 1/3/19

1/3/19
 1:39 am

C:\DATA\DOCS\ADMIN\CHACUS.FRM

Lead Survey Report



Cardinal Environmental Consultants, Inc.

2691 Dow Avenue, Suite C-2

Tustin, CA 92780

Phone: (714) 730-5931

Fax: (714) 730-1697

Date of report: January 8th, 2019

Owner/Client: Rowland Unified School District
1830 Nogales Street
Rowland Heights, CA 91748

Site Information: Oswalt Elementary School
19501 Shadow Oak Drive
Walnut, CA 91789

SUBJECT: LEAD PAINT SURVEY

The survey is specific to Oswalt Elementary School. This survey is required in preparation of the scheduled renovation/ modernization work.

Regulatory Compliance

The EPA and the Department of Housing and Urban Development (HUD) have established quantitative standards for lead concentration in painted surfaces. The standard for public housing, above which abatement or removal is required, is 1.0 mg/cm² or 0.5% lead by weight. No official standard exists for school buildings. Los Angeles County and L.A. Unified School District are understood to have set a standard of 0.7 mg/cm² - above which abatement is required. Currently most of the regulations relate specifically to abatement activities.

Generally, HUD (Department of Housing and Urban Development) initiated lead regulations which were then adopted by the state CDPH (California Department of Public Health).

Renovation, Repair and Painting Rule (RRP)

The new regulation outlines procedures for identifying lead paint and completing abatement of lead paint. Additional requirements for certification and clearances are also addressed. Abatement activity triggers the regulation when paint systems with 1.0mg/C² or .5% are disturbed.

The new EPA lead regulation, 40CFR 745, *Renovation, Repair and Painting Rule (RRP)*, which became effective April 22, 2010, requires construction professionals to become “Certified Renovators” and firms to become “Certified Firms”. The regulation applies to all contractors, property managers and other building professionals who disturb painted surfaces while conducting plumbing, electrical, painting, drywall, flooring, window replacement, landscaping, construction, renovation, remodeling and demolition work.

The new rule is instigated when more than six square feet of interior painted surfaces and twenty square feet of exterior surfaces are disturbed. As with HUD and the state adoption of HUD, the rule applies to lead paint systems above (1.0 mg/cm² as indicated by an XRF device or .5% by weight).

The following is a table that outlines the regulations and requirements for each.

	Lead Levels Instigated	Training and certifications requirements	Disturbance level	Firm Licensing
Federal HUD State CDPH	1.0mg/C2 or .5%	Worker training and certificate/special state certificate for supervisor	When conducting abatement to remove a lead hazard for a period of twenty years or more	CSLB license is required to conduct contract work
Federal Lead Renovation Rule	1.0mg/C2 or .5%	Supervisor renovator certificate/ at least "in house" training certificates for additional workers	6 sf interior and 20 sf of exterior	Contracting Firm must be Certified
OSHA 1532.1	600 ppm Or .06%	no certificates required	Initiated by "trigger task" to include manual demolition and sanding	No special license

OSHA Compliance

OSHA (Occupational Safety and Health Administration) through the regulation 1532.1 further delineates requirements for lead activities. 1532.1 defines "trigger tasks" (e.g. manual demolition, etc.) that disturb lead paint and the contractor responsibilities to its employees. The regulation specifically addresses PEL's (permissible exposure limits) to staff disturbing lead paint. This regulation is initiated when "trigger task" work is implemented on paint systems with .06% or 600 ppm (parts per million). It should be noted that this level (.06%) is virtually any amount of lead paint. As of January 2002, OSHA now requires all contractors to notify the department when disturbing lead paint above 1.0mg/cm². This level is the same threshold for abatement by HUD.

OSHA requires that the employer is required to protect their employees to the level stipulated in the Standard, or to do an exposure assessment. An exposure assessment is the air monitoring of an employee during lead work to determine his exposure and ultimately to determine the level of protection required. This assessment is applicable to paint systems above .06% or 600 ppm.

Methodology

The data was developed using an X Ray Diffraction device, which reports lead content in milligrams per square centimeter of surface area (mg/cm²). The reading represents the quantity of lead between the surface and the substrate under the square centimeter of surface area contacted by the test device. If the substrate contains lead, the test result will be affected. (Galvanized metal is an example of this.) A positive reading by the XRF definitely means that lead was detected.

The test locations are described according to the following convention: Each building is considered to have an “A” side, which is closest to the main street adjacent to the school. The B-side is the first side clockwise while facing the A side, followed by the C side and the D side. This convention is followed inside and outside of the building.

Results

The survey of Oswalt Elementary School included 36 XRF readings, covering representative building components, substrates, and paint colors on or in the building. The lead levels in all paint systems are low.

The following table lists the higher lead containing components that could likely require demolition and/or removal. These items would certainly require “abatement procedures” be implemented.

Subsequent tables illustrate all of the paint systems at the school site. Regulations may apply to other components with lower levels of lead. The contractor is required to review and verify the scope of work for the project and determine the impact of activities on lead painted surfaces (at any level).

The following table lists the components that are above the HUD regulated level of 1.0 mg/cm².

Building	Component	Location	Quantity
No Lead at this level located at this site			

The following table lists the components that are above the Los Angeles County and LAUSD standard of 0.7 mg/cm²

Building	Component	Location	Quantity
No Lead at this level located at this site			

OSHA regulated levels of paint were found during our investigation. They are listed in the table as anything above 600 ppm.

Summary/Recommendations

Depending on the scope of work for the project; contractors should determine the level of contractor licensing for the abatement and/or work disturbing lead paint systems.

We recommend “lead certified” painting contractors for the painting of buildings coated with lead paint. Preparation of these surfaces falls under the “trigger task” category of OSHA 1532.1. Preparation of painted surfaces and the ultimate “guarantee” of the final painted product is better completed by a “single” contractor.

RRP certified firms should be considered for incidental work that disturbs small amounts of lead paint. These categories of work may include concrete coring (through lead paint) and structure welding (door hinges etc.).

Abatement companies with CDPH (California Department of Public Health) lead certified staff will be required for all abatement work. The companies selected will have to insure that a certified lead supervisor be present during abatement preparation and be within two hours (response time) during abatement activities.

Painting contractors will be required to collect all paint chips from the preparation activities. The contractor will sample and categorize the waste for disposal. Proof of sampling and waste disposal will be required.

Metal components (coated with lead paint) will likely be recycled. A letter (stating acceptance of material) will be required from the contractor's recycling facility.

All other waste produced from abatement activities will be separated and staged in a safe storage area at the project site during the sampling process. The characterization of the waste can take up to two weeks and an area will need to be allocated for this purpose. The contractor will be required to conduct and pay all costs associated with the characterization of the waste. Copies (proof) of all characterization of waste will be demanded on completion and before waste transport.

Final Comments

Other contractors at the site should be made aware of the lead paint issues and use "lead safe" work practices. Sand blasting, dry sanding, and torching should be restricted in these areas or, if that is not feasible, use CDPH certified employees for these processes.

Lead XRF Readings

LEAD SURVEY

**Rowland Unified School District
Oswalt Elementary**

Inspection Date: 10/29/03

Bldg.	Location	Component	Substrate	Color	Lead Mg/cm2	Comments
Bldg. A	Interior, A	Door	Wood	Blue	0.08	Administration
Bldg. A	Exterior, A	Door	Wood	Blue	-0.49	
Bldg. A	Interior, A	Door Panel	Plastic	Blue	0.35	
Bldg. A	Interior, A	Wall	Drywall	Gold	0.25	
Bldg. A	Interior, D	Door	Wood	Blue	0.05	
Bldg. A	Interior, D	Wall	Hardboard	Yellow	-0.05	
Bldg. A	Exterior, D	Door	Wood	Brown	0.05	
Bldg. A	Exterior, D	Door frame	Metal	Brown	0.12	
Bldg. A	Exterior, B	Door	Wood	Blue	-0.14	
Bldg. A	Exterior, B	Door frame	Metal	Blue	-0.38	
Bldg. A	Exterior, B	Wall	Wood	White	-0.06	
Bldg. B	Exterior, B	Door	Wood	Blue	-0.10	Kindergarten
Bldg. B	Exterior, B	Door frame	Metal	Blue	-0.10	
Bldg. B	Interior, B	Wall	Drywall	White	-0.11	
Bldg. B	Interior, B	Door	Wood	Brown	-0.14	
Bldg. B	Interior, B	Door frame	Metal	Brown	-0.40	
Bldg. B	Interior, B	Wall	Drywall	Yellow	-0.23	
Bldg. B	Interior, A	Door	Wood	Blue	0.32	
Bldg. B	Interior, A	Door frame	Metal	Blue	0.32	
Bldg. C	Interior, B	Door	Wood	Blue	-0.16	Rooms 1-4
Bldg. C	Exterior, B	Door frame	Metal	Blue	0.27	
Bldg. C	Interior, B	Wall	Drywall	White	0.03	
Bldg. C	Exterior, B	Wall	Stucco	White	-0.15	
Bldg. F	Exterior, A	Door	Wood	Blue	0.12	Rooms 16-18
Bldg. F	Exterior, A	Door frame	Metal	Blue	-0.01	
Bldg. F	Exterior, A	Wall	Stucco	White	-0.36	
Bldg. F	Interior, D	Door	Wood	Blue	0.11	
Bldg. F	Interior, D	Door frame	Metal	Blue	0.42	
Bldg. F	Exterior, D	Wall	Stucco	White	-0.06	
Bldg. F	Exterior, A	Door	Wood	Blue	-0.06	
Bldg. F	Exterior, A	Door frame	Metal	Blue	-0.32	
Bldg. H	Exterior, B	Door	Wood	Blue	0.01	Rooms 5-7
Bldg. H	Exterior, B	Door frame	Wood	Blue	0.35	
Bldg. H	Exterior, A	Door	Wood	Blue	-0.15	
Bldg. H	Interior, A	Wall	Drywall	White	-0.25	
Bldg. H	Exterior, A	Wall	Stucco	White	-0.59	

Inspector: _____



Universal Waste Inspection Report

Site:

Oswalt Elementary School
19501 Shadow Oak Drive
Walnut, CA 91789

Prepared for:

Rowland Unified School District
1830 Nogales Street
Rowland Heights, CA 91748

Date: January 16th, 2019



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Date of report: January 16th, 2019

Owner/Client: Rowland Unified School District
1830 Nogales Street
Rowland Heights, CA 91748

Site Information: Oswalt Elementary School
19501 Shadow Oak Drive
Walnut, CA 91789

SUBJECT: Universal Waste Inspection Report

This survey is specific to the Oswalt Elementary School modernization package. This report outlines all known universal waste items located at the site.

Polychlorinated Biphenyl's (PCBs)

Polychlorinated biphenyls (PCBs) are toxic, persistent manmade chemicals that were widely used as an oil additive in electrical equipment and as a plasticizer in caulk and expansion joint material starting in the 1950s. Congress banned the manufacture and use of PCBs in 1978. PCBs are subject to regulations and pose a long-term liability to the UW. PCB wastes containing 50 ppm or greater are considered regulated waste.

The Environmental Protection Agency (EPA) regulates PCB wastes of 50 ppm and greater. Both agencies have requirements for management and disposal of PCB wastes. The UW also restricts the transporters and disposal facilities used for those wastes.

PCBs are a class of organic compounds with one to ten chlorine atoms attached to a biphenyl, which is a molecule composed of two benzene rings. The chemical formula for PCB is $C_{12}H_{10-x}Cl_x$. Theoretically, 209 different PCB congeners are possible, although only about 130 congeners are found in commercial PCB mixtures.

Chemical structure of PCBs is mainly formed by chlorination of biphenyl with chlorine gas in the presence of a catalyst and they are either oily liquids or solids and are colorless to light yellow. PCB has low water solubility and low vapor pressures at room temperature, but they have high solubility in most organic solvents, oils, and fats. PCB are excellent insulating oils and heat transfer agents because they have high dielectric constants, thermal conductivity, flash points (from 170 °C to 380 °C) and are chemically inert, being extremely resistant to oxidation, reduction, addition, elimination, and electrophonic substitution.

Identification of PCB Ballasts

The following criteria are provided to help identify Fluorescent Light Ballasts that may contain PCBs:

- Fluorescent Light Ballasts manufactured before July 1, 1979, may contain PCBs
- Fluorescent Light Ballasts manufactured between July 1, 1979, and July 1, 1998, that do not contain PCBs must be labeled "No PCBs"
- If a Fluorescent Light Ballast is not labeled "No PCBs," it is best to assume it contains PCBs unless it is known to be manufactured after 1979
- Fluorescent Light Ballasts manufactured after 1998 are not required to be labeled

If the ballast contains PCBs, they are located inside the small capacitor within the ballast or in the potting material (a black, tar-like substance that encapsulates the internal electrical components). There would be approximately one to one half ounces of PCBs in the capacitor and lower amounts in the potting material. If a ballast fails or over heats, the capacitor may break open resulting in release of its oils and potting materials.

PCBs may be present as a yellow, oily liquid or in the tar-like potting material that leaks from the ballast. The capacitor does not always leak when the ballast fails, and a leaking capacitor does always cause ballast failure. A leaking or rupturing ballast may increase PCB levels in the air. Therefore, measures should be taken to limit or avoid personal exposure.

PCB Inspection Results

The following table illustrates the PCB containing materials discovered at the site:

Material	Location	Quantity
<i>No Polychlorinated Biphenyl's (PCBs) located at Oswalt Elementary School</i>		

Polychlorinated Biphenyl Summary

During the inspection of Oswalt Elementary School, Cardinal Environmental inspectors opened fluorescent light packages and examined the ballast. Upon our inspection we discovered no PCB containing light ballasts.

In the event that PCB light ballasts are discovered the contractor must remove the ballast without damage, wrap in 6 mil polyethylene sheeting and segregate from non-PCB ballasts. Once all ballasts have been collected waste characterization must be conducted to determine the level of PCBs within the ballast.

Chlorofluorocarbons (CFCs)

The United States Environmental Protection Agency (EPA) regulates the criteria of the 1990 Clean Air Act (CAA), which includes Section 608, Refrigerant Recycling and Emissions Reduction Regulations. The purpose of the CAA is to limit how much of a pollutant can be in the air anywhere in the US. Section 608 of the CAA focuses on capturing and ultimately eliminating the use of chlorofluorocarbons. In particular, the CAA calls for the following to limit chlorofluorocarbons damage to the atmosphere:

- Phase-out: Set dates to phase out CFCs and HCFCs.
- The phase out date to produce and import HCFC R-22 is January 1st, 2020.
- Prohibit venting: Prohibit venting of CFC and HCFC refrigerants and their substitutes.
- Disposal requirements: Set standards for recovery of refrigerants prior to appliance disposal.

Chlorofluorocarbon Requirements

While the CAA is a federal law, the states do most of the work to carry out the program and create their own laws to comply with CAA. State laws must comply with the CAA and, in some cases, are even stricter than the CAA laws.

Under EPA regulation 40 CFR Part 82, Subpart F, Section 608, only EPA-certified technicians can purchase Ozone-Depleting Substances (ODS) used as refrigerants. As of January 1, 2018, this includes any substitutes for ODSs, including HFCs (examples include R-12, R-22, R-32, R134a, R-1234yf, but NOT R-290, R-600a, R-718, or R-744).

Distributors of HCFC and HFC refrigerants must verify that their customers, specifically the individuals doing the purchasing and/or handling, are up to date with their EPA 608 certification. If the technician loses their 608 certification card, he or she must request a replacement from their certifying organization. It is required under the CAA to maintain records.

The technician must:

- Record the type refrigerant that was transferred or recovered
- Record the quantity of refrigerant that was transferred or recovered
- Keep a copy of their proof of certification at their place of business.

Chlorofluorocarbon Recovery

All refrigerant recovery and/or recycling equipment now manufactured must be certified and labeled by an EPA-approved equipment testing organization to meet EPA standards

There are two basic types of recovery devices. System dependent devices capture refrigerant with the assistance of the compressor and/or the pressure of the refrigerant in the appliance from which refrigerant is being recovered. Self-contained devices have independent means to draw the refrigerant out of the appliance.

The EPA requires a service aperture or process stub on all appliances that use a Class I or Class II refrigerant in order to make it easier to recover refrigerant. Schrader valves (which look like bicycle tire air valves) are common on both refrigerant systems and recovery equipment. When using Schrader valves, it is critical to:

- Check the valve core for bends and breakage
- Replace damaged Schrader valves to prevent leakage
- Cap the Schrader ports to prevent accidental depression of the valve

When recovering refrigerants, only put one type of refrigerant in a tank and do not mix different refrigerant types into one tank. Mixed refrigerants in the same tank may be impossible to reclaim. When servicing a system that already has a mix of two or more refrigerants, the mixed refrigerants must be recovered into a separate tank.

Chlorofluorocarbon Inspection Results

The following table illustrates the CFC containing materials discovered at the site:

Package	Location	Quantity
Bard Units	Classroom Buildings	55 ea
Roof Mounted HVAC	Multi-Purpose Building	1 ea

Chlorofluorocarbon Summary

HVAC systems at the site will require certified recovery agents to conduct the removal of any refrigerant located in the systems in place. Per the regulations noted above, these procedures must be complete prior to the removal of any HVAC packages located at the site. It is the responsibility of the contractor to verify the quantity of recovery required for the contract work.

Other Universal Waste

A person, who generates a waste, as defined in section 66261.2, shall determine if that waste is a hazardous waste using the following method:

(a) The generator shall first determine if the waste is excluded from regulation under section 66261.4 or section 25143.2 of the Health and Safety Code;

(b) The generator shall then determine if the waste is listed as a hazardous waste in article 4 of chapter 11 or in Appendix X of chapter 11 of this division. If the waste is listed in Appendix X and is not listed in article 4 of chapter 11, the generator may determine that the waste from his particular facility or operation is not a hazardous waste by either:

- (1) testing the waste according to the methods set forth in article 3 of chapter 11 of this division, or according to an equivalent method approved by the Department pursuant to section 66260.21; or

(2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used and the characteristics set forth in article 3 of chapter 11 of this division.

(c) For purposes of compliance with chapter 18 of this division (commencing with section 66268.1), or if the waste is not listed as a hazardous waste in article 4 (commencing with section 66261.30) or in Appendix X of chapter 11 of this division, the generator shall determine whether the waste exhibits any of the characteristics set forth in article 3 of chapter 11 of this division by either:

(1) Testing the waste according to the methods set forth in article 3 (commencing with section 66261.20) of chapter 11 of this division, or according to an equivalent method approved by the Department under section 66260.21; or

(2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(d) If the waste is determined to be hazardous, the generator shall refer to chapters 14, 15, 18, and 23 of this division for possible exclusions or restrictions pertaining to management of the specific waste.

Other Universal Waste Labeling Requirements

A small quantity handler of universal waste shall label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries (i.e., each battery), or a container in which the batteries are contained, shall be labeled or marked clearly with any one of the following phrases: “Universal Waste--Battery(ies),” or “Waste Battery(ies),” or “Used Battery(ies);”

(b) Universal waste thermostats (i.e., each thermostat), or a container in which the thermostats are contained, shall be labeled or marked clearly with any one of the following phrases: “Universal Waste--Mercury Thermostat(s),” or “Waste Mercury Thermostat(s),” or “Used Mercury Thermostat(s)”.

(c) Each lamp or a container or package in which such lamps are contained shall be labeled or marked clearly with one of the following phrases: “Universal Waste--Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s).”

Other Universal Waste Shipping Requirements

(a) A large quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a large quantity handler of universal waste self-transportes universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and shall comply with the transporter requirements of article 4 of this chapter while transporting the universal waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR parts 171 through 180, a large quantity handler of universal waste shall package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR parts 172 through 180;

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler shall ensure that the receiving handler agrees to receive the shipment.

(e) If a large quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler shall either:

(1) Receive the waste back when notified that the shipment has been rejected, or

(2) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A large quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he shall contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler shall:

(1) Send the shipment back to the originating handler, or

(2) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a large quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler shall immediately notify the Department of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The Department will provide instructions for managing the hazardous waste.

(h) If a large quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

The table below illustrates an estimated number of light tubes requiring recycling procedures listed above:

Materials	Locations	Quantity
Fluorescent Light Tubes	Ceiling Mounted Light Fixtures	1500 ea

The above listed quantities are an estimation merely intended to inform the contractor of materials present at the site. It is the sole responsibility of the contractor to verify the materials required for removal in the scope of work.

Other Universal Waste Summary

All fluorescent light tubes will be required to be carefully removed as to not damage the materials prior to recycling. The light tubes must be recycled and classified by the regulations presented above.

Date: 01/16/19

Sincerely yours,
**CARDINAL ENVIRONMENTAL CONSULTANTS INC.,
A California Corporation**



By:

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California Certified Asbestos Consultant #01-2865
CDPH Certified Lead Inspector/Assessor and Project Monitor/Designer #3599

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