



5

Appendix

APPENDIX A - Meeting Minutes

APPENDIX B - Traffic Report Study

APPENDIX C - Rail Car Hazardous Material Inspection Reports

APPENDIX D - Conceptual Estimates



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

November 29, 2022

Thomas Cobb
City of Cheyenne, Wyoming
2101 O'Neil Avenue
Cheyenne, WY 82001

**RE: Cheyenne, Wyoming 15 UPRR Railcars
Hazardous Material Inspection Summary Letter Report
Earth Services & Abatement Project Number: DENP000352**

Mr. Cobb:

Enclosed is Earth Services & Abatement's (ESA) Hazardous Hazardous Material Summary Letter Report for the 15 Union Pacific railcars that are slated to be donated to the City of Cheyenne, Wyoming.

ESA appreciates this opportunity to provide these consulting services to The City of Cheyenne, Wyoming. We have enjoyed working with you on this project and look forward to meeting your needs in the future. Should any questions arise concerning this report, please contact us at (402)578-6858.

A handwritten signature in blue ink, appearing to read "Joseph Kulm".

Joseph Kulm
AHERA Certified Asbestos Inspector #C6LEMQA0R3U

A handwritten signature in blue ink, appearing to read "Amanda Wozab".

Amanda Wozab
Director of Consulting Services
Earth Services & Abatement, LLC.

ATTACHMENTS:

- I – Hazardous Materials Summary Table
- II – AHERA Asbestos Inspector Certification



HAZARDOUS MATERIAL INSPECTION SUMMARY LETTER REPORT

15 UPRR RAILCARS CHEYENNE, WYOMING

November 29, 2022

I. INTRODUCTION

Earth Services & Abatement, LLC (ESA) inspected 15 railcars located in Cheyenne, Wyoming for Union Pacific Railroad (UPRR) for asbestos-containing materials (ACM), lead-containing paint, and polychlorinated biphenyl- (PCB) containing caulking between July 13, and August 20, 2021. Asbestos Hazard Emergency Response Act (AHERA) certified Asbestos Inspector Joseph Kulm (certification #C6LEMQA0R3U) conducted these inspections.

The purpose of the inspections was to determine locations and quantities of asbestos-containing products in these rail cars. These inspections were limited, as the inspector only had hand tools available to him to conduct the inspections. There maybe additional suspect material present in areas that were inaccessible that may be hazardous.

These inspection reports were the sole source of information used for developing estimated pricing and recommendations included herein. Material conditions may have changed since the time of these inspections. It is recommended that a site visit take place for determining final pricing and hazard analysis based on current material conditions.

II. BACKGROUND

A. Laboratory Methods & Hazard Definitions

Any product containing more than 1% fibrous asbestos, when analyzed by polarized light microscopy (PLM), is considered a potential hazard by the Environmental Protection Agency (EPA). PLM is the EPA-recognized method for determining fibrous bulk asbestos content.

Paints containing more than 0.5% lead content, when analyzed by Method SW846 7420/3050B Flame AA analysis, are considered a potential hazard by the EPA. Method SW846 7420/3050B Flame AA analysis is the EPA-recognized method for determining lead content in paint.



The majority of samples collected were analyzed by J3 Laboratory, a National Voluntary Laboratory Accreditation Program (NVLAP)-accredited laboratory in Houston, Texas. Duplicate quality control samples were collected for every twenty samples collected. The duplicate samples were analyzed by EMSL Laboratory, a NVLAP-accredited laboratory in Denver, Colorado.

No suspect PCB containing caulking was identified during the 2021 inspection efforts, therefore no samples were collected or analyzed.

B. Health Hazard Considerations

Friability is the characteristic of a substance describing its ability to be crumbled, pulverized, or reduced to powder by hand pressure. When applied to asbestos-containing substances, friability describes the substance's fiber release potential. Because asbestos becomes a health hazard when inhaled or ingested, the more likely an asbestos-containing substance is to crumble when disturbed the greater its hazard potential.

Similarly, because lead becomes a health hazard when inhaled or ingested, therefore the worse the condition of the lead-based paint, the greater its hazard potential.

III. SUMMARY OF FINDINGS & RECOMMENDATIONS

A. Recommendations based on Proposed Tourism Use

The Hazardous Materials Summary Table in Attachment 1 lists the hazardous materials, materials that exceed the regulatory thresholds, as identified in the 2021 inspection reports. This table includes the laboratory results, our ranking of the potential hazard that the materials pose, and an estimated cost for abatement of each material. These recommendations are based on the assumption that these cars will be walked through by the general public. Based on this use, our recommendations for abatement are ranked as follows:

1. First priority for removal, immediate risk to health and the environment.
2. Second priority for removal, very likely to pose health risk to those who enter or work on or around these materials.
3. Third priority for removal, does not currently pose a health risk to those who enter or work around these materials but will likely degrade and need removal in the future, as long as material is not disturbed in the meantime.
4. Fourth priority for removal, does not currently pose a health risk to those who enter or work around these materials and will not likely degrade and need removal in the foreseeable future, as long as material is not disturbed.

These rankings were chosen based on the location of the material, condition of the material, and laboratory results. Materials that were identified as damaged and/or friable and people entering the railcars or working in or around the cars would likely encounter were ranked a higher priority for abatement.

Below is a summary by railcar of materials that were identified as rankings 1 and 2 (priority) for removal:

- 906208 – Abatement Estimate \$10,170
 - Beige floor tile, 2.41% asbestos, 760 SF, Rank 1, \$7,980
 - Red vinyl flooring, 2.45% asbestos, 40 SF, Rank 1, \$580
 - White pipe wrap, 70% asbestos, 8 LF, Rank 2, \$360
 - Old pipe insulation, 40% asbestos, 16 SF, Rank 2, \$400
 - Beige Paint, 1.70% lead, Interior of car – assuming 10% damaged, Rank 2, \$850
- 906200 - Abatement Estimate \$19,295
 - Gray floor tile, 2.32% asbestos, 460 SF, Rank 1, \$4,830
 - Gray insulation, 70% asbestos, 81 SF, Rank 2, \$1,215
 - White fiberboard 30% asbestos, 10 SF, Rank 2, \$250
 - Red cementitious flooring, 1.75% asbestos, 810 SF, Rank 2, \$12,150
 - Beige Paint, 2.40% lead, Interior of car – assuming 10% damaged, Rank 2, \$850
- UP 928 – Abatement Estimate \$16,360
 - White pipe wrap, 90% asbestos, 222 LF, Rank 2, \$9,990
 - Gray transite, 20% asbestos, 3 SF, Rank 2, \$75
 - Black gasket, 30% asbestos, 1 SF, Rank 2, \$45
 - Yellow paint, 11% lead, Exterior of car – assuming 50% damaged, Rank 2, \$6,250
- CNW11111 – Abatement Estimate \$12,625
 - Black Bakelite, 6% asbestos, 0.5 SF, Rank 2, \$125
 - Gray paint, 0.51% lead, interior of car – assuming 50% damaged, Rank 2, \$12,500
- D&RGW01489 – Abatement Estimate \$2,900
 - White Fiberboard, 60% asbestos, 16 SF, Rank 1, \$400
 - Green paint, 7% lead, interior of car – assuming 10% damaged, Rank 2, \$2,500
- D&RGW01524 – Abatement Estimate \$3,400
 - White coating, 6.4% asbestos, 12 SF, Rank 2 \$900
 - White coating, 4.7% asbestos, 50 SF, Rank 2 \$1,250
 - Yellow paint, 12% lead, exterior sides and interior handrails – assuming 5% damaged, Rank 2, \$1,250
- FTSX 812– Abatement Estimate \$6,250
 - Yellow paint, 6.8% lead, exterior of car – assuming 10% damaged, rank 2 \$2,500



- Green/Red/Black paint, 0.63% lead, handrails, Rank 2, \$3,750
- MP 13835 – Abatement Estimate \$6,300
 - White coating, 10% asbestos, 102 SF, Rank 2, \$2,550
 - White paint, 2.90% lead, Exterior handrails and roof, Rank 2, \$3,750
- RI 17017 – Abatement Estimate \$7,330
 - White window glazing, 1.75% asbestos, 24 LF, Rank 2, \$1,080
 - Yellow paint, 15% lead, exterior ends, Rank 2, \$6,250
- SP 4641 – Abatement Estimate \$1,515
 - White window caulk, 10% asbestos, 32 LF, Rank 2, \$1,440
 - Gray oil tank sealant, 10% asbestos, 1 LF, Rank 1, \$75
- SP 7077 – Abatement Estimate \$33,965
 - Gray Insulation, 40% asbestos, 162 SF, Rank 1, \$2,430
 - White pipe wrap, 30% asbestos, 41 LF, Rank 2, \$1,845
 - Red vinyl flooring, 2.41% asbestos, 40 SF, Rank 1, \$580
 - Black/gray subflooring, 1.75% asbestos, 40 SF, Rank 1, \$580
 - White insulation, 65% asbestos, 64 SF, Rank 1, \$2,880
 - White exhaust pipe wrap, 30% asbestos, 15 SF, Rank 1, \$675
 - Gray heater block, 10% asbestos, 8 SF, Rank 1, \$600
 - Beige paint, 1.70% lead, interior walls and ceiling, Rank 1, \$15,625
 - Red paint, 0.59% lead, interior floors, Rank 1, \$8,750
- SP 7078 – Abatement Estimate \$27,480
 - White/Brown paper insulation, 15% asbestos, 390 SF, Rank 1, \$5,850
 - Gray 9"x9" floor tile and gray leveling compound, 6% asbestos, 100 SF, Rank 1, \$725
 - Red Cementous flooring, 1.75% asbestos, 810 SF, Rank 2, \$10,935
 - Black fiberboard, 6% asbestos, 6 SF, Rank 1, \$270
 - Black bakelite, 15% asbestos, 2 SF, Rank 1, \$150
 - Beige pipe wrap, 55% asbestos, 10 LF, Rank 1, \$450
 - Red/black vinyl flooring, 1.92% asbestos, 100 SF, Rank 1, \$725
 - Red paint, 0.70% lead, 35 SF, Rank 1, \$875
 - White paint, 0.73% lead, 300 SF, Rank 1, \$7,500

The total estimated costs for rank 1 and 2 abatement costs for these railcars is \$146,323.

Please note for cost saving measures, hazardous materials that are located behind walls and in mechanical systems were priced only to abate the exposed materials and enclose the current openings to these areas. Based on this approach, it is recommended that these mechanical systems (air handling systems) not be used unless full abatement of these materials is conducted. These prices are estimates for budgetary purposes only. For abatement pricing, we recommend that a site visit is conducted to confirm material conditions, locations, and other factors that cannot be accurately assessed through the review of previous inspection reports, regardless of quality.

The pricing listed above includes pre-cleaning of the rail cars, a discount of scale, assuming recommended rank 1 and 2 items will be completed in the same mobilization. These estimates do not include mobilization costs, which would likely be approximately \$1,500.

It is recommended that the above-listed materials are abated prior to the use/occupation of these railcars. For the materials that are ranked as 3 and 4, we recommend an annual visual inspection of these materials by an AHERA certified inspector for material condition changes and hazard analysis. It is estimated that these annual visual inspections will range from \$500 to \$1,000 per rail car annually. If hazardous material conditions degrade over time, additional abatement is likely to be recommended.

B. Recommendations for Change of Use or Future Construction

If ACM are to be removed or disturbed as part of renovation/demolition activities the ACM should be removed under abatement conditions before renovation begins. According to regulations, Wyoming must be notified for all demolitions of all facilities and all asbestos abatement projects that exceed the trigger levels. Whatever is the lesser quantity. The notification requirements apply to both friable and non-friable asbestos materials. Notifications must be postmarked or delivered at least 10 working days before initiating abatement activities.

Friable ACM that is in good condition and is not disturbed does not require additional action. However, if the friable material becomes disturbed, or is in poor condition, then stabilization measures need to be taken.

During renovation activities, the owners and their contractors should ascertain the contents of any new products (obtain Safety Data Sheets) installed in the railcar that would void the accuracy and validity of the previous inspection reports.

Additional bulk samples should be collected from previously concealed materials that may be revealed during demolition activity, or from materials outside the original inspection scope of work. "Suspect" material includes any material serving as a sprayed-on or troweled-on acoustic or fireproofing surface; floor and ceiling tiles; transite panels, siding or shingles; thermal insulation or any material associated with mechanical systems; or any binding agent such as tar sealant, mastic adhesive, roofing tar, caulking, et cetera.

C. Risks for Storage of Rail Cars Exposed to Elements

With very limited human exposure to only the exterior component of the rail cars, there is very little risk of health concerns based on the nature of the hazards present. Issues with lead contamination usually are the result of repeated exposure in the workplace or home. The biggest hazard associated with this type of exposure would be ingestion of lead from touching lead contaminated paint and eating before washing one's hands. It is recommended that anyone that touches lead-contaminated paints thoroughly wash their hands prior to touching anything that they are going to ingest.

There are similar risks associated with public access and/or tourism exposure to only the exterior components of the railcars. Risks associated with lead ingestion are more serious with children under the age of 6 or pregnant women. These risks are minimal given the nature of the amount of exposure, but it would be recommended that those who come into contact with lead-based paints on the railcars wash their hands before eating or drinking to limit the possible ingestion of lead.

Based on the last observed conditions and locations of the exterior asbestos, it is unlikely that these materials will be disturbed by limited exposure or public access/tourism exposure of the exterior of the railcars.

Long term storage of railcars with exterior lead-containing paint that are exposed to the elements is likely to result in lead contamination of the shallow soils immediately surrounding and under the railcars over time. Lead in soil is a particular hazard to young children and it is recommended that this area not be used for prolonged use of children (playground, childcare center or school) in the future, unless soil remediation is conducted. Lead in soils also strongly inhibits seed germination, root elongation, seedling development, plant growth, transpiration, chlorophyll production, and water and protein content.

Soil remediation is likely to include the removal and disposal of the top 6 inches of soil in the railcar storage area. The risk of lead leaching from the exterior paints into the surrounding soils could be mitigated by encapsulating/repainting the cars exteriors with a high quality exterior non-lead-based paint, and maintaining the integrity of this exterior barrier, by repainting as needed. The state of Wyoming's regulations mimic those of the EPA, requiring those who work with lead-based paints to be certified. Regulations around the presence of lead-based paint are mainly applicable to residential buildings and child-occupied facilities such as day care centers and schools.

IV. LIMITATIONS

ESA has endeavored to inspect the existing conditions within the affected areas using AHERA and UPRR inspection protocols. Regardless of the thoroughness of an inspection, it is possible that some areas containing asbestos were overlooked or inaccessible. The original inspection reports present general descriptions of various construction materials and the general locations where these materials



were encountered. If questions arise during the planning for renovation, demolition or other construction, ESA should be notified to permit us to review the situation and present recommendations. Hazardous material quantities in this report represent an approximation based upon conditions and accessibility at the time of the inspection. Asbestos Abatement Contractors bidding on abatement activities shall be responsible for verifying quantities and site conditions prior to submitting bids.

This report has been prepared on behalf of and exclusively for the use of The City of Cheyenne, Wyoming. The conclusions expressed by ESA regarding the conditions of the Site are based solely on the observations made between July 13, and August 20, 2021, the data collected during these inspections and the laboratory results of the samples collected and analyzed. The beneficiaries are hereby advised that conditions observed are subject to change. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party or be used or relied upon by any other party, in whole or in part, without The City of Cheyenne's' or ESA prior written consent.



EARTH SERVICES
& ABATEMENT

ATTACHMENT I

HAZARDOUS MATERIALS SUMMARY TABLE



EARTH SERVICES
& ABATEMENT

ATTACHMENT II

AHERA ASBESTOS INSPECTOR CERTIFICATION

Hazardous Materials Summary Table
Cheyenne, Wyoming 15 UPRR Railcars



Railcar Name/Number	Hazard Type	Material Description	Percent of hazard	Condition	Location	Quantity	Abatement Priority*	Cost Estimate for abatement
906208	ACM	Black sealant	15	Non-friable	Roof AC and access hatch	36 LF	4	\$ 900.00
	ACM	Gray sealant	1.71	Non-friable	Roof penetrations	6 SF	4	\$ 150.00
	ACM	Floor tile	2.41	Non-friable	Throughout	760 SF	1	\$ 7,980.00
	ACM	Red vinyl flooring	2.45	Non-friable	Exterior deck	40 SF	1	\$ 580.00
	ACM	White pipe wrap	70	Non-friable	Central air system piping	8 LF	2	\$ 360.00
	ACM	Old pipe insulation	40	Non-friable	Duct wrap	304 SF	3	\$ 7,600.00
	ACM	White pipe wrap	70	Non-friable	Undercarriage	16 SF	2	\$ 400.00
	ACM	White pipe wrap	70	Non-friable	Undercarriage	180 LF	3	\$ 8,100.00
	Lead	Beige Paint	1.70	Fair condition Poor Condition	Interior	900 SF	3	\$ 7,650.00
Lead	Silver Paint	0.68	Fair condition	Exterior	100 SF	2	\$ 850.00	
Lead	Silver Paint	0.68	Fair condition	Exterior	1000 SF	4	\$ 8,500.00	
906200	ACM	Gray floor tile	3.32	Non-friable	Floor throughout, except kitchen	460 SF	1	\$ 3,622.50
	ACM	Gray insulation	70	Non-friable	Ceiling throughout	729 SF	3	\$ 10,935.00
	ACM	White Fiberboard	30	Non-friable	Behind Furnace	81 SF	2	\$ 1,215.00
	ACM	White Fiberboard	30	Non-friable	Behind Furnace	10 SF	2	\$ 250.00
	ACM	Red cementitious flooring	1.75	Non-friable	Floor throughout, except kitchen	810 SF	1	\$ 12,150.00
	ACM	Gray sealant	1.67	Non-friable	Roof penetrations	15 LF	4	\$ 375.00
	ACM	Black Tar	8	Non-friable	Roof penetrations	15 LF	4	\$ 375.00
	ACM	Gray pipe wrap	70	Non-friable	Undercarriage	160 LF	3	\$ 7,200.00
	Lead	Beige Paint	2.4	Fair condition Poor Condition	Interior walls	900 SF	3	\$ 7,650.00
Lead	Silver Paint	5.5	Fair condition	Exterior	100 SF	2	\$ 850.00	
Lead	Silver Paint	5.5	Fair condition	Exterior	1000 SF	4	\$ 8,500.00	
UP 928	ACM	White pipe wrap	90	Non-friable	Interior and underside	222 LF	2	\$ 9,990.00
	ACM	Black fireboard	40	Non-friable	Interior behind elect. Boxes	10 SF	3	\$ 250.00
	ACM	Gray Transite	20	Non-friable	Interior loose bracing pieces	3 SF	2	\$ 75.00
	ACM	Black gasket	30	Friable	Interior pipe connections	1 LF	2	\$ 45.00
	ACM	Gray Coating	10	Non-friable	Roof	620 SF	4	\$ 15,500.00
	Lead	Yellow Paint	11	Fair condition Poor Condition	Exterior except for back and roof	250 SF	3	\$ 6,250.00
	Lead	Yellow Paint	11	Poor Condition	Exterior except for back and roof	250 SF	2	\$ 6,250.00
CNW11097	ACM	Black Bakelite	6	Non-friable	Breaker box	0.5 SF	3	\$ 125.00
	Lead	Gray Paint	1.2	Good Condition	Interior under wall boards	1000 SF	4	\$ 25,000.00
	Lead	Green/White/Black Paint	3.9	Poor Condition	Exterior handrails, steps, roof	500 SF	3	\$ 12,500.00
	Lead	Black Paint	2.1	Good Condition	Exterior undercarriage	350	4	\$ 15,750.00
CNW11111	ACM	Black Bakelite	6	Non-friable	Breaker box (on floor)	0.5 SF	2	\$ 125.00
	Lead	Yellow Paint	5.1	Poor Condition	Main Exterior	1000 SF	4	\$ 25,000.00
	Lead	Gray Paint	0.51	Fair condition Poor Condition	Interior throughout	500 SF	3	\$ 12,500.00
	Lead	Gray Paint	0.51	Poor Condition	Interior throughout	500 SF	2	\$ 12,500.00
CNW11047	Lead	Black Paint	0.54	Poor Condition	Exterior undercarriage	250 SF	4	\$ 6,250.00
	ACM	Black Bakelite	15	Non-friable	Breaker box (on wall)	0.5 SF	3	\$ 125.00
CNW11047	Lead	Black Paint	1	Poor Condition	Exterior undercarriage	250 SF	4	\$ 6,250.00
	ACM	Black Bakelite	15	Non-friable	Breaker box (on wall)	0.5 SF	3	\$ 125.00
D&RGW01476	ACM	Gray/black window caulk	6	Non-friable	Exterior window frames	30 LF	4	\$ 1,350.00
	ACM	Black tar	6	Non-friable	Roof penetrations	2 SF	4	\$ 150.00
	Lead	Orange Paint	6.4	Good Condition	Main Exterior	1000 SF	4	\$ 25,000.00
	Lead	White Paint	3	Poor Condition	Exterior handrails	150 SF	3	\$ 3,750.00
D&RGW01481	ACM	White Sealant	2.85	Non-friable	Roof penetrations	8 LF	4	\$ 360.00
	ACM	Black Bakelite	6	Non-friable	Brakers	0.5 SF	3	\$ 125.00
	Lead	Yellow Paint	7.90	Poor Condition	Exterior upper half	800 SF	4	\$ 20,000.00
	Lead	Silver Paint	3.90	Poor Condition	Exterior handrails and knuckles	150 SF	3	\$ 3,750.00
D&RGW01486	ACM	Brown/white Sealant	8	Non-friable	Roof penetrations	8 LF	4	\$ 360.00
	Lead	Yellow Paint	5.70	Fair condition	Exterior car, upper half	1000 SF	4	\$ 25,000.00
	Lead	Black Paint	1.90	Poor Condition	Exterior lower half of car and undercarriage	800 SF	4	\$ 20,000.00

Hazardous Materials Summary Table

Cheyenne, Wyoming 15 UPRR Railcars



Railcar Name/Number	Hazard Type	Material Description	Percent of hazard	Condition	Location	Quantity	Abatement Priority*	Cost Estimate for abatement
D&RGW01489	ACM	Black window caulk	8	Non-friable	Exterior windows	48 LF	4	\$ 2,160.00
	ACM	White Fiberboard	60	Friable	Around furnace	16 SF	1	\$ 400.00
	Lead	Green Paint	7	Good Condition	Interior	900 SF	4	\$ 22,500.00
				Poor Condition	Interior	100 SF	2	\$ 2,500.00
	Lead	Old Orange Paint	12	Fair condition	Short sides of car	500 SF	4	\$ 12,500.00
	Lead	White Paint	7.6	Fair condition	Exterior handrails	150 SF	3	\$ 3,750.00
	Lead	Black Paint	6.6	Poor Condition	Undercarriage	800 SF	4	\$ 20,000.00
D&RGW01524	ACM	Gray Transite Boards	15	Non-friable	Interior around furnace	24 SF	3	\$ 600.00
	ACM	Black caulk	2	Non-friable	Exterior windows	36 LF	4	\$ 1,620.00
	ACM	white coating	6.42	Non-friable	Interior, on water tank	12 SF	2	\$ 900.00
	ACM	Tan Sealant	1.43	Non-friable	Oil fill pipe, interior	1 LF	3	\$ 75.00
	ACM	White Coating	4.7	Non-friable	Exposed in cutout	50 SF	2	\$ 1,250.00
					Interior walls and ceiling	922 SF	4	\$ 23,050.00
	Lead	Yellow Paint	12	Poor Condition	Exterior sides & interior handrails	50 SF	2	\$ 1,250.00
				Fair condition	Exterior sides & interior handrails	1100 SF	3	\$ 27,500.00
FTSX 812	ACM	Gray Transite	15	Non-friable	Interior walls around former furnace	24 SF	3	\$ 600.00
	Lead	White Paint	1.6	Fair condition	Interior	1250 SF	3	\$ 31,250.00
	Lead	Yellow Paint	6.8	Fair condition	Exterior	900 SF	3	\$ 22,500.00
				Poor Condition	Exterior	100 SF	2	\$ 2,500.00
	Lead	Green/Red/Black (layered)	0.63	Poor Condition	Handrails	150 SF	2	\$ 3,750.00
MP 13835	ACM	white coating	10	Non-friable	Interior walls and ceiling	567 SF	3	\$ 14,175.00
	ACM	white coating	10	Non-friable	Interior water tank	102 SF	2	\$ 2,550.00
	ACM	Gray Transite Boards	15	Non-friable	Interior around furnace	24 SF	3	\$ 600.00
	ACM	Gray door sealant	4.8	Non-friable	Interior door frames	34 LF	3	\$ 1,530.00
	ACM	Gray Roof Seam Sealant	10	Non-friable	Exterior roof and wall joint along ends	18 LF	4	\$ 810.00
	ACM	Gray window caulk	10	Non-friable	Exterior large windows on pop out	18 LF	4	\$ 810.00
	Lead	Red Paint	3.8	Fair condition	Exterior	1000 SF	3	\$ 25,000.00
	Lead	White Paint	2.9	Poor Condition	Exterior handrails and roof	150 SF	2	\$ 3,750.00
RI 17017	ACM	White window glazing	1.75	Friable	Exterior windows	24 LF	2	\$ 1,080.00
	ACM	Black fire proofing	15	Non-friable	Rail undercarriage	340 SF	4	\$ 12,920.00
	Lead	Green Paint	1.4	Good Condition	Interior	1250 SF	3	\$ 31,250.00
	Lead	Yellow Paint	15	Poor Condition	Exterior Ends	250 SF	2	\$ 6,250.00
	Lead	Black Paint	3.7	Poor Condition	Undercarriage	350 SF	3	\$ 8,750.00
SP 4641	ACM	White/Green Coating	10	Non-friable	Water tank, base trim and interior walls	1040 SF	3	\$ 18,720.00
	ACM	White Wall Coating	10	Non-friable	Interior walls and ceiling throughout	972 SF	3	\$ 17,496.00
	ACM	White window caulk	10	Non-friable	Interior windows and large side windows	32 LF	2	\$ 1,440.00
	ACM	Gray door sealant	10	Non-friable	Between door and walls interior	26 LF	3	\$ 1,170.00
	ACM	Gray oil tank sealant	10	Friable	Interior oil fill penetration	1 LF	1	\$ 75.00
	ACM	White window caulk	10	Non-friable	Exterior retro-fitted windows & Vent	16 LF	4	\$ 720.00
	Lead	Orange Paint	6.20	Fair condition	Exterior ends and pop out sides	550 SF	3	\$ 13,750.00
	Lead	Dark Red Paint	1.60	Fair condition	Exterior, long sides	550 SF	3	\$ 13,750.00

Hazardous Materials Summary Table

Cheyenne, Wyoming 15 UPRR Railcars



Railcar Name/Number	Hazard Type	Material Description	Percent of hazard	Condition	Location	Quantity	Abatement Priority*	Cost Estimate for abatement
SP 7077	ACM	Silver/black coating	6	Friable	Exterior roof patches	10 SF	3	\$ 450.00
	ACM	Black tar	8	Non-friable	Exterior roof seams	80 LF	4	\$ 3,600.00
	ACM	Gray Insulation	40	Friable	Exposed in cutout	162 SF	1	\$ 2,430.00
					Interior walls, ceiling and floor	3078 SF	3	\$ 46,170.00
	ACM	White pipe wrap	30	Non-friable	Exposed in cutout	41 LF	2	\$ 1,845.00
					Undercarriage and plenum space	369 LF	4	\$ 16,605.00
	ACM	Gray sealant	2.2	Non-friable	Undercarriage where pipe removed	2 LF	4	\$ 90.00
	ACM	Red vinyl flooring	2.41	Friable	Back deck floor	40 SF	1	\$ 580.00
	ACM	Black/gray subflooring	1.75	Friable	Back deck floor	40 SF	1	\$ 580.00
	ACM	Black wall coating	6	Non-friable	Interior A/C area	150 SF	3	\$ 3,750.00
	ACM	Black Bakelite	1.59	Non-friable	Front Electric closet	4 SF	3	\$ 180.00
	ACM	Gray Fireboard	20	Non-friable	Behind electrical components	8 SF	3	\$ 600.00
	ACM	White Insulation	65	Friable	Electric closet walls and door, front end of car	64 SF	1	\$ 2,880.00
	ACM	White exhaust pipe wrap	30	Friable	Front furnace exhaust pipe	15 SF	1	\$ 675.00
	ACM	Gray heater block	10	Friable	Front Furnace	8 SF	1	\$ 600.00
	Lead	Beige paint	1.70	Fair condition	Interior walls and ceilings	625 SF	3	\$ 15,625.00
			Poor Condition	Interior walls and ceilings	625 SF	1	\$ 15,625.00	
Lead	Red paint	0.59	Poor Condition	Interior floors	350 SF	1	\$ 8,750.00	
Lead	Yellow Paint	4.30	Fair condition	Exterior	550 SF	3	\$ 13,750.00	
Lead	Light red paint	4.30	Fair condition	Exterior	550 SF	3	\$ 13,750.00	
SP 7078	ACM	Black/Gray sealant	8	Non-friable	Roof seams and penetrations	260 LF	4	\$ 11,700.00
	ACM	White/Brown paper insulation	15	Friable	Exposed in cutout	390 SF	1	\$ 5,850.00
					Walls, floors (base layer) and ceiling throughout	3510 SF	3	\$ 52,650.00
	ACM	Gray 9"x9" floor tile and gray leveling compound	6	Friable	Kitchen floor, second highest layer	100 SF	1	\$ 725.00
	ACM	Red Cementous flooring	1.75	Non-friable	Interior floor throughout, second lowest layer in Kitchen	810 SF	2	\$ 10,935.00
	ACM	White Fiberboard	65	Non-friable	Interior electric and boiler components	20 SF	3	\$ 500.00
	ACM	Black fiberboard	6	Friable	Interior electrical area, behind components	6 SF	1	\$ 270.00
	ACM	Black Bakelite	15	Friable	Breaker board	2 SF	1	\$ 150.00
	ACM	Beige pipe wrap	55	Friable	Exposed in cutout	10 LF	1	\$ 450.00
					Interior A/C and gas lines	10 LF	3	\$ 450.00
	ACM	Red/black vinyl flooring	1.92	Friable	Kitchen floor, second highest layer	100 SF	1	\$ 725.00
	ACM	White pipe wrap	15	Friable	Undercarriage	80 LF	3	\$ 3,600.00
	Lead	Red Paint	0.70	Poor Condition	Interior floors	35 SF	1	\$ 875.00
	Lead	Yellow Paint	4.10	Fair condition	Exterior	500 SF	4	\$ 12,500.00
Lead	Light red paint	3.20	Fair condition	Exterior	500 SF	4	\$ 12,500.00	
Lead	White Paint	0.73	Poor Condition	Interior kitchen	300 SF	1	\$ 7,500.00	

Notes & Definitions

ACM = Asbestos Containing Material

This table only includes materials from 2021 inspections that were over the thresholds for asbestos containing materials (1%) and lead based paint (0.5%)

Asbestos detections are chrysotile asbestos

"Friable asbestos material" means any material containing more than one per cent asbestos by area, as determined using the method specified in 40 CFR Part 763, Subpart E, Appendix E, Section 1 Polarized Light Microscopy (PLM), that, when dry can be crumbled, pulverized, or reduced to powder by hand pressure.

"Nonfriable asbestos-containing material" means any material containing more than one percent asbestos as determined using the method specified in 40 CFR Part 763, Subpart E, Appendix E, Section 1, Polarized Light Microscopy (PLM) that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

SF = Square feet

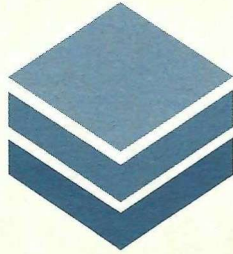
LF = Linear Feet

Some materials have two different abatement priority rankings due to location or condition.

*** Abatement Priority Rankings**

1. First priority for removal, immediate risk to health and the environment.
2. Second priority for removal, very likely to pose health risk to those who enter or work on or around these materials.
3. Third priority for removal, does not currently pose a health risk to those who enter or work around these materials but will likely degrade and need removal in the future, as long as material is not disturbed in the meantime.
4. Fourth priority for removal, does not currently pose a health risk to those who enter or work around these materials and will not likely degrade and need removal in the foreseeable future, as long as material is not disturbed.

Cost Estimates do not include mobilization and assume that all ranking 1 & 2 items will be abated in the same mobilization.



M·E·T·A
 Mayhew Environmental Training Associates
 I N C O R P O R A T E D

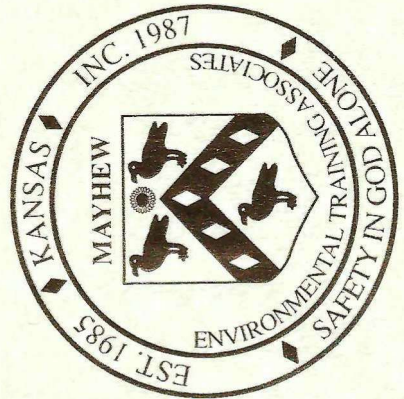
Certificate # C6LEMQA0R3U

Joseph Kulm

has on 5/20/2021, in Lawrence, KS completed the requirements for asbestos accreditation under Section 206 of TSCA Title II, 15 USC 2646

Asbestos Inspector Refresher

as approved by the US EPA under 40 CFR 763 (AHERA)
 on 5/20/2021 - 5/20/2021 and passed the associated exam on 5/20/2021 with a score of at least 70%



Robert Brooks Instructor

Thomas Mayhew
 President

SSN: XXX-XX-4785

Expiration: 5/20/2022

P.O. Box 786 - Lawrence, KS. 66044 - 800.444.6382

www.metaenvironmental.net



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

August 10th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock CNW 11047, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar CNW 11047 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 15th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 07/15/2021

Inspection End Date 07/15/2021

Report Date 08/10/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Caboose

Rolling Stock No CNW 11047 Car Name CNW 11047

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.129931°

State WY Longitude -104.814911°

Zip Code 82009

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11047

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 1

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details. The panel identified in samples CHE-CNW11047-150721-004 thru 006 is not considered a suspect material for asbestos.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/15/2021	CHE-CNW11047-150721-001 thru 003	Off-white sealant	Interior trim throughout	Not Detected	N/A	N/A	200 LF	N/A
07/15/2021	CHE-CNW11047-150721-004 thru 006	Yellow mastic	Interior wall and floor boards	Not Detected	N/A	N/A	1100 sq. ft.	N/A
07/15/2021	CHE-CNW11047-150721-007 thru 009	Black bakelite	Breakers	15%, Chrysotile	Category II	No	0.5 sq. ft.	3
07/15/2021	CHE-CNW11047-150721-010 thru 012	Black brake pads	Exterior wheels	Not Detected	N/A	N/A	4 sq. ft.	N/A
07/15/2021	CHE-CNW11047-150721-013 thru 015	Gray caulk	Door seams	Not Detected	N/A	N/A	45 LF	N/A

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11047

BUILDING AMERICA™

Lead-Based Paint Results

Lead Present³ Yes Total Number of Positive Components.³ 1

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/15/2021	CHE-CNW11047-150721-001L	Gray	Interior throughout	0.42 %	Poor
07/15/2021	CHE-CNW11047-150721-002L	Yellow	Exterior car	0.45 %	Good
07/15/2021	CHE-CNW11047-150721-003L	White	Handrails and steps	0.38 %	Fair
07/15/2021	CHE-CNW11047-150721-004L	Black	Exterior undercarriage	1 %	Poor

Polychlorinated Biphenyls Results

PCBs Present⁴ No Total Number of Positive Components.⁴ 0

Notes

PCBs Samples

Sample Date	Sample ID	Description	Location	PCBs Result	Quantity
07/15/2021	CHE-CNW11047-150721-001 P	Gray caulk	Door seams	Not Detected	45 LF

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11047

BUILDING AMERICA™

Mold Results

Suspect Mold Present No

Notes

- 1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
- 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
- 3 "Lead Present" and "Positive" is defined as paint with $\geq 0.5\%$ lead.
- 4 "PCBs Present" and "Positive" is defined as caulk with ≥ 50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11047



Railcar ID Marking



View of car, looking west-northwest



View of car, looking north



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11047



CHE-CNW11047-150721-001 thru 003, Asbestos Not Detected, Off-white sealant



CHE-CNW11047-150721-001 thru 003, Asbestos Not Detected, Off-white sealant



CHE-CNW11047-150721-004 thru 006, Asbestos Not Detected, Yellow mastic



CHE-CNW11047-150721-004 thru 006, Asbestos Not Detected, Yellow mastic



CHE-CNW11047-150721-007 thru 009, 15% Asbestos, Black bakelite



CHE-CNW11047-150721-007 thru 009, 15% Asbestos, Black bakelite



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11047



CHE-CNW11047-150721-010 thru 012, Asbestos Not Detected, Black brake pads



CHE-CNW11047-150721-010 thru 012, Asbestos Not Detected, Black brake pads



CHE-CNW11047-150721-013 thru 015, Asbestos Not Detected, Gray caulk



CHE-CNW11047-150721-013 thru 015, Asbestos Not Detected, Gray caulk



CHE-CNW11047-150721-001L, 0.42% Lead, Gray



CHE-CNW11047-150721-001L, 0.42% Lead, Gray



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11047



CHE-CNW11047-150721-002L, 0.45% Lead, Yellow



CHE-CNW11047-150721-002L, 0.45% Lead, Yellow



CHE-CNW11047-150721-003L, 0.38% Lead, White



CHE-CNW11047-150721-003L, 0.38% Lead, White



CHE-CNW11047-150721-004L, 1% Lead, Black



CHE-CNW11047-150721-004L, 1% Lead, Black



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11047



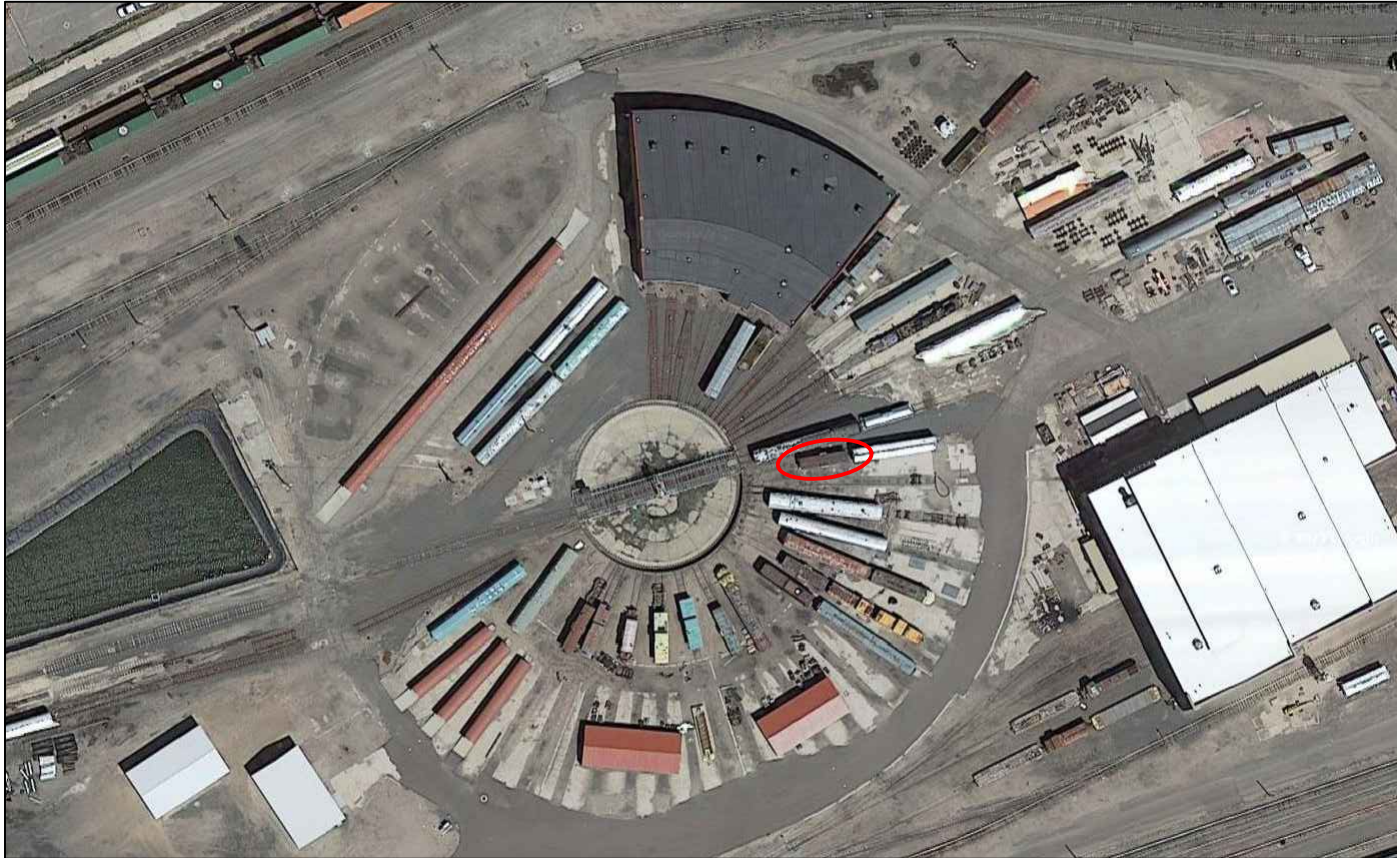
CHE-CNW11047-150721-001P, PCB Not Detected, Gray caulk



CHE-CNW11047-150721-001P, PCB Not Detected, Gray caulk

Appendix 1 - Figures

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>CNW 11047</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

CNW 11047
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

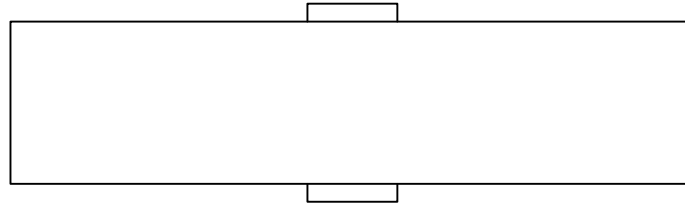
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

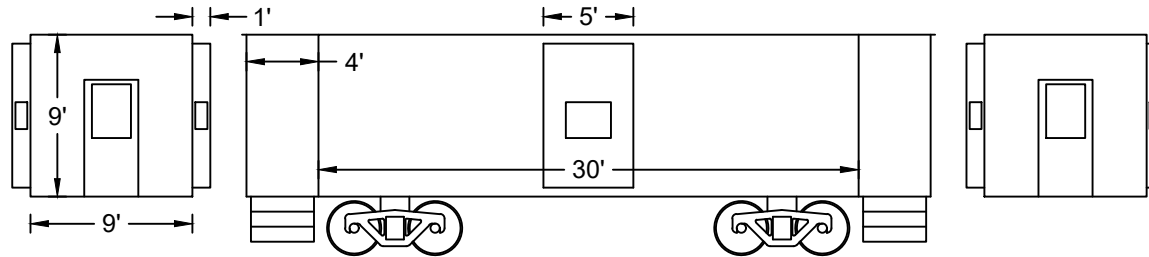
DATE: JULY-2021



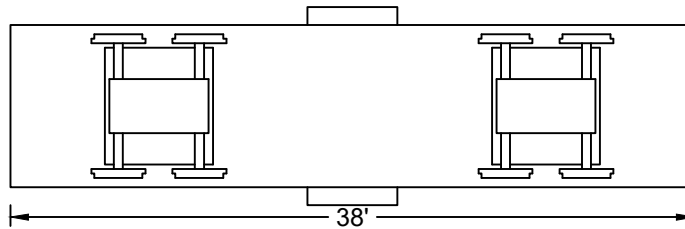
ROOF



FRONT END



BACK END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



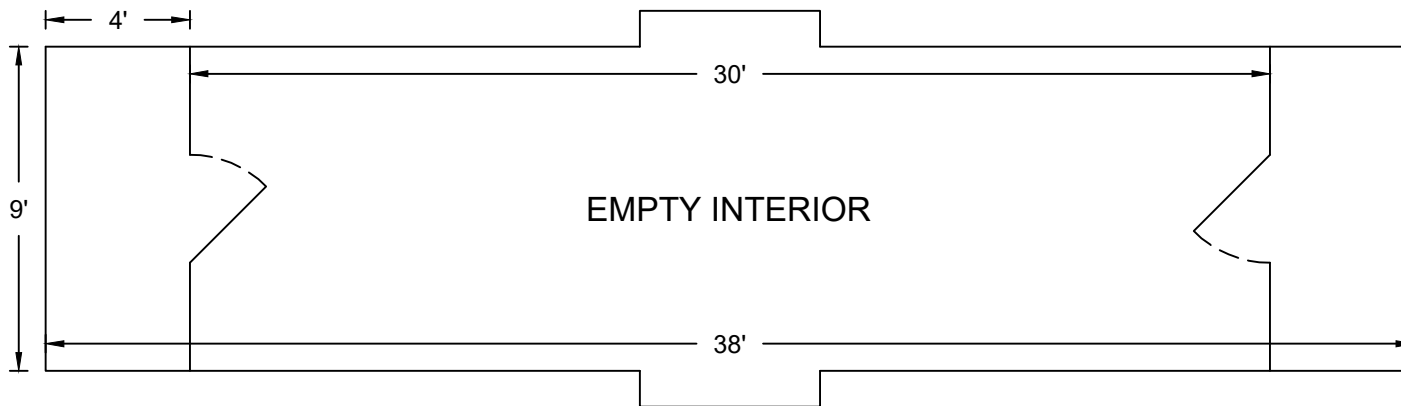
**EARTH SERVICES
& ABATEMENT**

CNW 11047
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



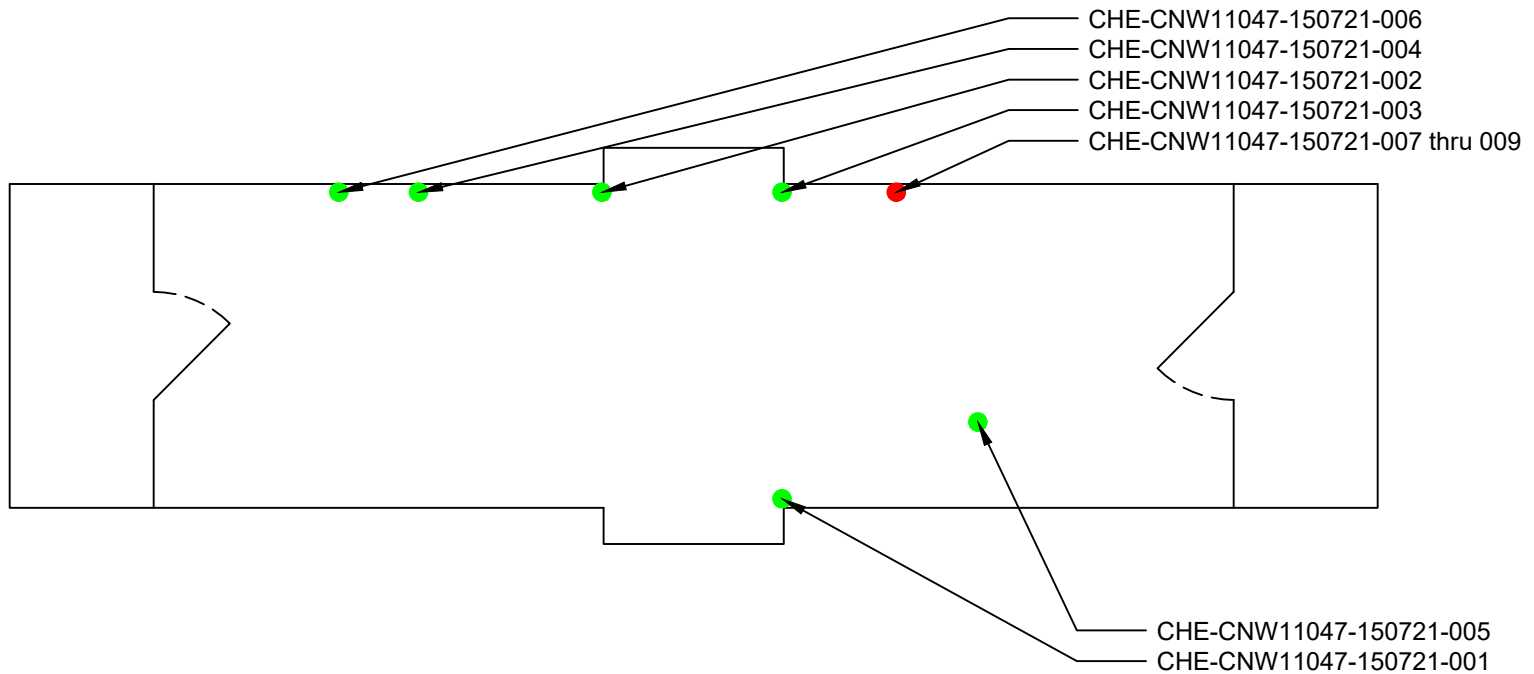
EARTH SERVICES
& ABATEMENT

CNW 11047
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

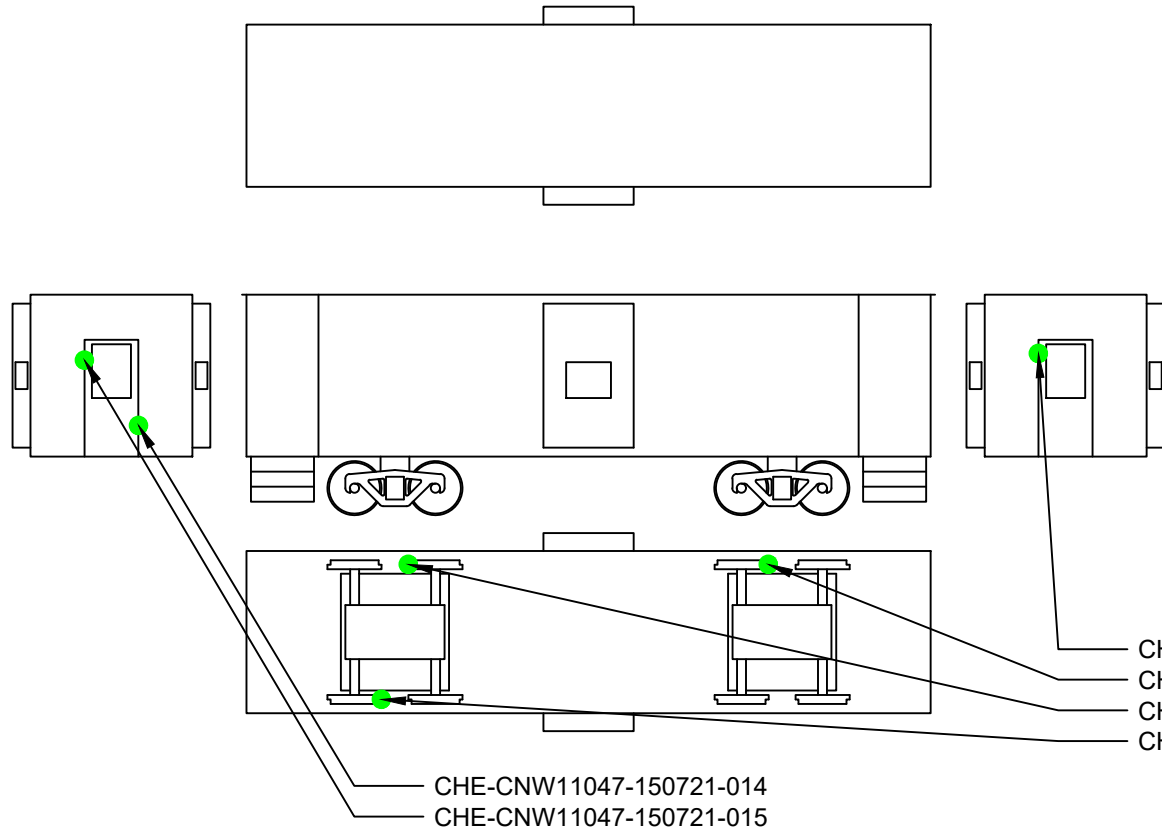
CNW 11047
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

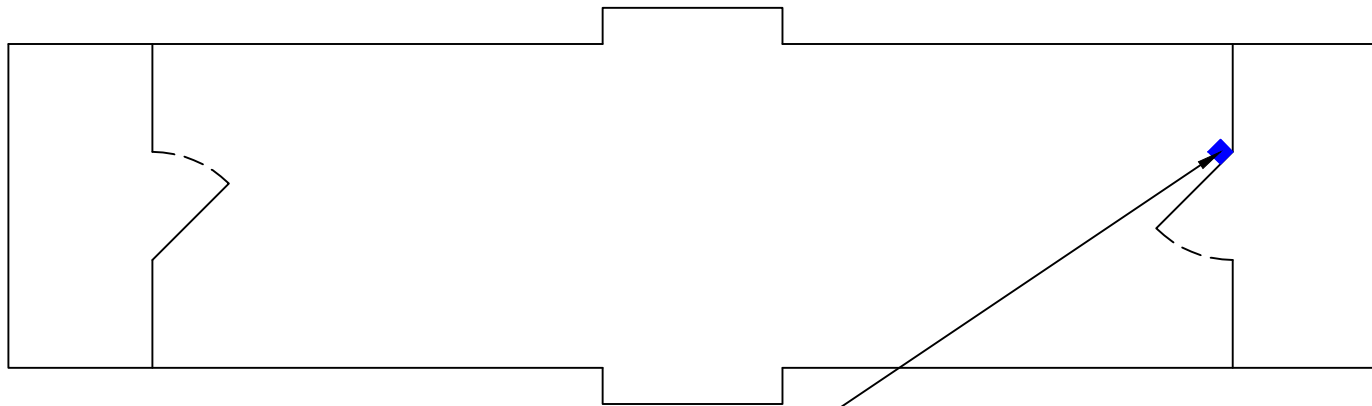
CNW 11047
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

**FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND**

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-CNW11047-150721-001L

INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT

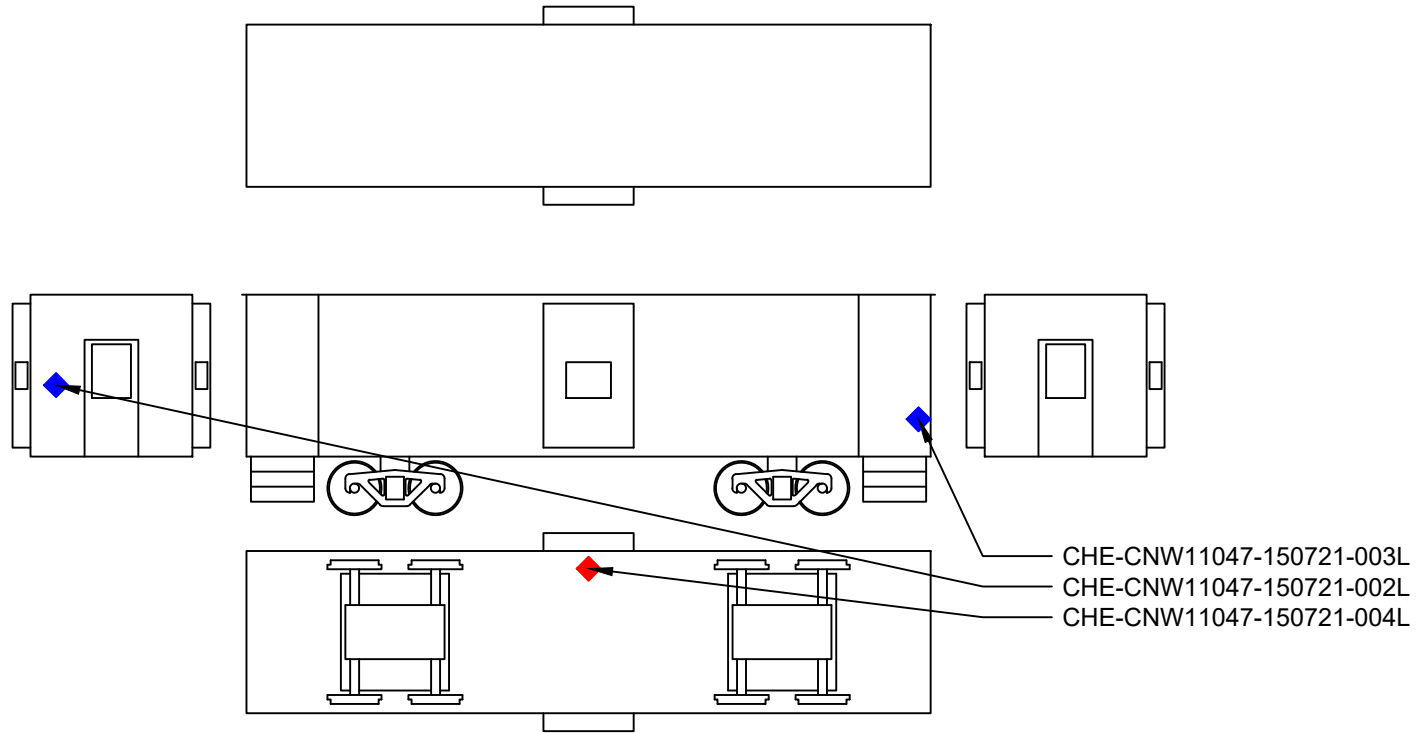
CNW 11047
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®




**EARTH SERVICES
& ABATEMENT**

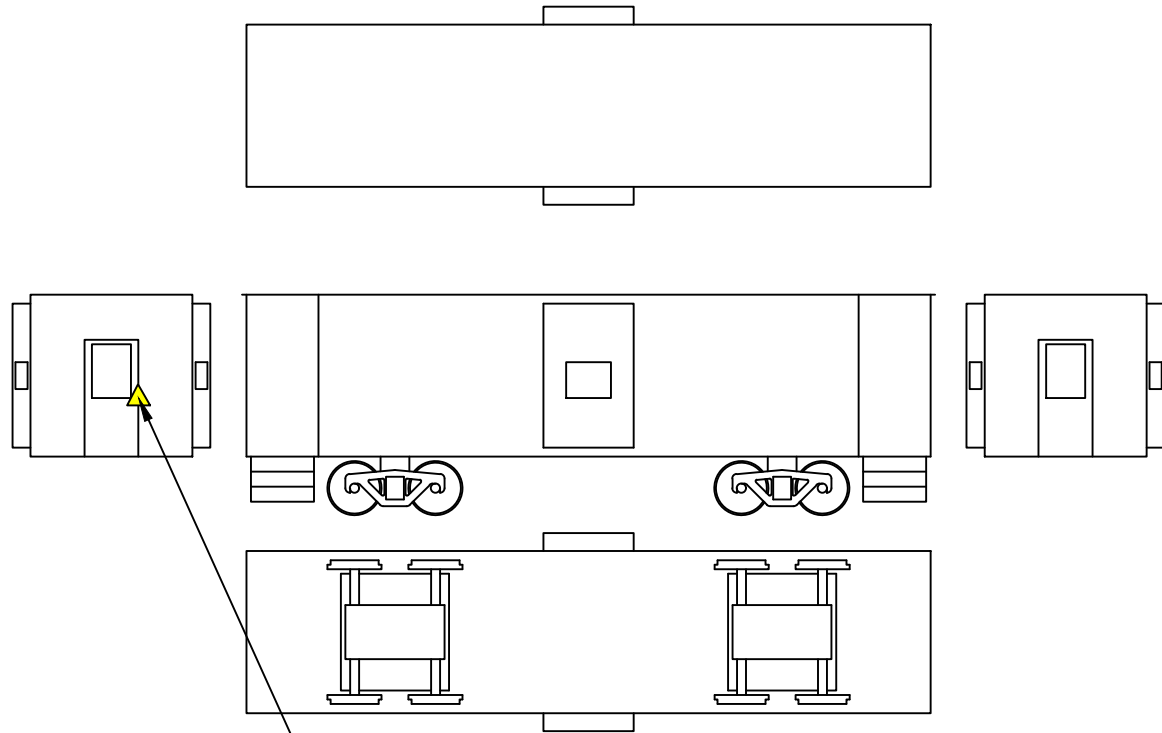
CNW 11047
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 7 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



CHE-CNW11047-150721-001P

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

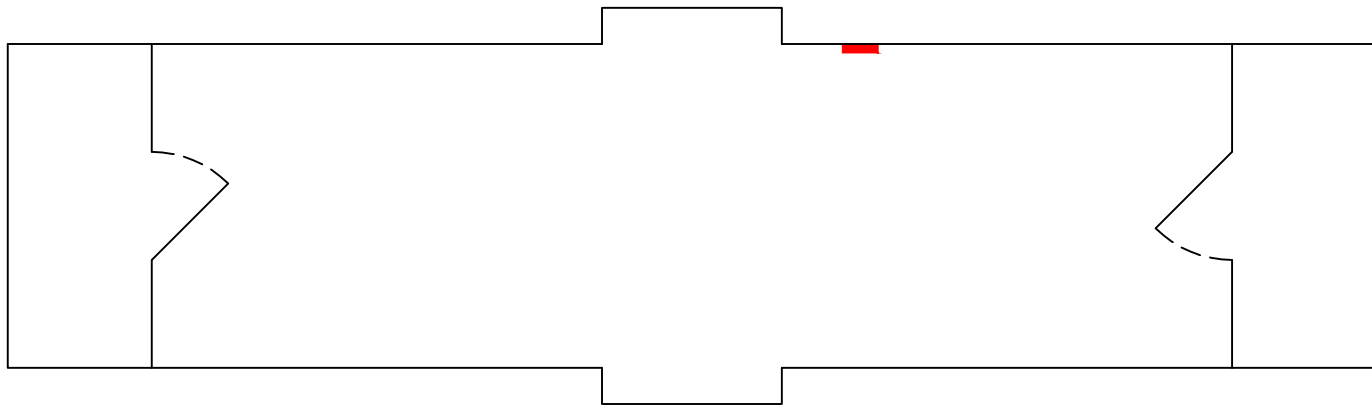
CNW 11047
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 8 - PCB SAMPLE LOCATIONS
LEGEND

-  - NON-PCB SAMPLE LOCATIONS (<50 PPM)
-  - PCB SAMPLE LOCATIONS (≥50 PPM)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT

CNW 11047
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM BLACK BAKELITE

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>CNW 11047</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129239
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

CNW 11047 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-CNW11047-150721-001	Sealant, Off White, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11047-150721-002	Sealant, Off White, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11047-150721-003	Sealant, Off White, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11047-150721-004	LAYER 1 Panel, Gray/ Brown, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	45% 55%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11047-150721-005	LAYER 1 Panel, Gray/ Brown, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	45% 55%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11047-150721-006	LAYER 1 Panel, Gray/ Brown, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	45% 55%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11047-150721-007	Bakelite, Black, Homogeneous	Chrysotile 15%	Non-Fibrous Material	85%
CHE-CNW11047-150721-008	Bakelite, *Not analyzed per client request			
CHE-CNW11047-150721-009	Bakelite, *Not analyzed per client request			

Jose Sequera Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129239
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

CNW 11047 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-CNW11047-150721-010	Brakes, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11047-150721-011	Brakes, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11047-150721-012	Brakes, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11047-150721-013	Caulking, Gray/ Dk. Brown, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11047-150721-014	Caulking, Gray/ Dk. Brown, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11047-150721-015	Caulking, Gray/ Dk. Brown, Homogeneous	None Detected	Non-Fibrous Material	100%

Jose Sequera Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



J3 Resources

Open Lab Fee

J3 Order # Lab use only
129239

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - CNW 11047	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / VWW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 15	Positive Stop: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
--	---

Signatures

Relinquished By: <i>[Signature]</i>	Date: 7/19	Time:
Received By: <i>[Signature]</i>	Date: 7/20/21	Time: 10:30
Relinquished By:	Date:	Time:
Received By:	Date:	Time:

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Eurofins J3 Resources, Inc.

3113 Red Bluff Road Pasadena, Texas 77503

Phone: (713) 290-0223 – Fax: (832) 831-5669

j3resources.com



J3 Resources

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022

Order #: JP211028594
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

WY Rollingstock Inspections-CNW 11047

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-CNW11047-150721-001L	Gray	4200	0.42%
CHE-CNW11047-150721-002L	Yellow	4500	0.45%
CHE-CNW11047-150721-003L	White	3800	0.38%
CHE-CNW11047-150721-004L	Black	10000	1%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi

Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

IH CHAIN OF CUSTODY



Open Lab Fee

28594

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City, CO Zip: 80022	City/State: _____ Zip: _____
	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - CNW 11047	Telephone – Office/Cell 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>

Special Instructions:

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
-------------------------------------	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW848-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0800 – Respirable Particulates

Total Number of Samples Submitted: 4	Positive Stop: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
--------------------------------------	--

Signatures

Relinquished By:	Date: 7/19	Time: _____
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)



Monday, August 09, 2021

Amanda Wozab
Earth Services & Abatement
6700 E. 50th Ave.
Commerce City, CO 80022

Re: ALS Workorder: 2107407
Project Name: Cheyenne RS
Project Number: 215WY001

Dear Ms. Wozab:

One solid sample was received from Earth Services & Abatement, on 7/21/2021. The sample was scheduled for the following analysis:

PCBs

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager



2107407

PCB:

The sample was analyzed using GC/ECD (electron capture detectors) according to the current revision of SOP 409 based on SW-846 Method 8082.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2107407

Client Name: Earth Services & Abatement

Client Project Name: Cheyenne RS

Client Project Number: 215WY001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CHE-CNW11047-150721-001P;	2107407-1		SOLID	15-Jul-21	10:00



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

WORKORDER #	
-------------	--

Form 2028

PROJECT NAME Cheyenne RS		SAMPLER Joseph Kulm		DATE	PAGE 1 of 1		
PROJECT No. 216WY001	SITE ID CNW 11047	TURNAROUND	5 Day		DISPOSAL By Lab or Return to Client		
COMPANY NAME Earth Services & Abatement	BILL TO COMPANY Earth Services & Abatement	PCB by 8002					
SEND REPORT TO	INVOICE ATTN TO						
ADDRESS 6700 E. 50th Ave.	ADDRESS 6700 E. 50th Ave.						
CITY / STATE / ZIP Commerce City, CO 80022	CITY / STATE / ZIP Commerce City, CO 80022						
PHONE 303-991-1280	PHONE 303-991-1280						
FAX 303-991-1282	FAX 303-991-1282						
E-MAIL Amanda.Wozab@esasite.com Joseph.Kulm@ESAsite.com	E-MAIL						
Lab ID	Field ID						Matrix
	CHE-CNW11047-150721-001P; Gray Caulk, door seam	NS	07.15.21	1000			X

*Time Zone (Circle) EST CST MST PST Matrix: O=oil S=soil NS=non-soil solid W=water L=liquid E=extract F=filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)
Preservative Key:	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

SIGNATURE	PRINTED NAME	DATE	TIME
<i>Joseph Kulm</i>	Joseph Kulm	3/19	
<i>Josh Eckley</i>	Josh Eckley	3/19	0945
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: EARTH SERVICES & ABATEMENT Workorder No: 2107407

Project Manager: KMO Initials: JPE Date: 07/21/2021

		N/A	YES	NO
1.	Are airbills / shipping documents present and/or removable? Tracking number: 2815 9831 3879		X	
2.	Are custody seals on shipping containers intact?	X		
3.	Are custody seals on sample containers intact?	X		
4.	Is there a COC (chain-of-custody) present?		X	
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6.	Are short-hold samples present?			X
7.	Are all samples within holding times for the requested analyses?		X	
8.	Were all sample containers received intact? (not broken or leaking)		X	
9.	Is there sufficient sample for the requested analyses?		X	
10.	Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		X	
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13.	Were the samples shipped on ice?			X
14.	Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #5	RAD ONLY		X
Cooler #: <u>1</u> Temperature (°C): <u>AMB</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>11</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? YES / NA All client bottle ID's vs ALS lab ID's double-checked by JE

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 7/23/21

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-CNW11047-150721-001P; Gray Caulk, door seam
Legal Location:
Collection Date: 7/15/2021 10:00

Date: 09-Aug-21
Work Order: 2107407
Lab ID: 2107407-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 7/30/2021	PrepBy: CPC
AROCLOR-1016	ND		2.8	MG/KG	6	8/6/2021 17:21
AROCLOR-1221	ND		5.7	MG/KG	6	8/6/2021 17:21
AROCLOR-1232	ND		2.8	MG/KG	6	8/6/2021 17:21
AROCLOR-1242	ND		2.8	MG/KG	6	8/6/2021 17:21
AROCLOR-1248	ND		2.8	MG/KG	6	8/6/2021 17:21
AROCLOR-1254	ND		2.8	MG/KG	6	8/6/2021 17:21
AROCLOR-1260	ND		2.8	MG/KG	6	8/6/2021 17:21
Surr: TETRACHLORO-M-XYLENE	80		69-129	%REC	6	8/6/2021 17:21
Surr: DECACHLOROBIPHENYL	97		55-135	%REC	6	8/6/2021 17:21

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-CNW11047-150721-001P; Gray Caulk, door seam
Legal Location:
Collection Date: 7/15/2021 10:00

Date: 09-Aug-21
Work Order: 2107407
Lab ID: 2107407-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 8/9/2021 1:58:14

Client: Earth Services & Abatement
 Work Order: 2107407
 Project: 215WY001 Cheyenne RS

QC BATCH REPORT

Batch ID: **EX210730-3-1** Instrument ID: **Pest-1** Method: **SW8082**

LCS Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:13**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.133	0.0333	0.133		99	80-120				50	
AROCLOR-1260	0.137	0.0333	0.133		103	80-125				50	
Surr: TETRACHLORO-M-XYLENE	0.0152		0.0167		91	69-129					
Surr: DECACHLOROBIPHENYL	0.0187		0.0167		112	55-135					

LCSD Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:32**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.125	0.0333	0.133		94	80-120		0.133	6	50	
AROCLOR-1260	0.131	0.0333	0.133		99	80-125		0.137	4	50	
Surr: TETRACHLORO-M-XYLENE	0.015		0.0167		90	69-129			1		
Surr: DECACHLOROBIPHENYL	0.0178		0.0167		107	55-135			5		

MB Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 11:25**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	ND	0.033									
AROCLOR-1221	ND	0.067									
AROCLOR-1232	ND	0.033									
AROCLOR-1242	ND	0.033									
AROCLOR-1248	ND	0.033									
AROCLOR-1254	ND	0.033									
AROCLOR-1260	ND	0.033									
Surr: TETRACHLORO-M-XYLENE	0.0158				95	69-129					
Surr: DECACHLOROBIPHENYL	0.0178				107	55-135					

The following samples were analyzed in this batch:

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>CNW 11047</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	CNW 11047
Exposure Area	Breakers
Asbestos Containing Material	Black bakelite
Sample Number	CHE-CNW11047-150721-007 thru 009
Size	NA
Quantity	0.5 SF
MATERIAL CONDITION (MC)	0
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	
BUILDING AGE (BA)	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	
MATERIAL TYPE	
Pipe Covering (PC)	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper	
Ceiling Plasters or Fireproofing (CP)	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	
WATER DAMAGE (WD)	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	
ROOF CHARACTERISTICS (RC)	-0.5
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	
EXPOSED SURFACE AREA (ESA)	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	
ACCESSIBILITY (AC)	4
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	
ACTIVITY AND MOVEMENT (A/M)	2
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	
WORK ENVIRONMENT (WE)	0.5
-0.5 =Sedentary 0.5 =Non-sedentary	
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration	
AIR - PLENUM / AIR STREAM (AP)	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists	
VELOCITY (if Air Plenum = 1) (VEL)	-0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	
FLOW (if Air Plenum = 1) (FL)	NA
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow	
FRIABILITY (F)	1
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	
ASBESTOS CONTENT (ASB)	2
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	
Exposure Value	24.5
Rating	3



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

August 10th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock CNW 11097, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar CNW 11097 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 14th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 07/14/2021

Inspection End Date 07/14/2021

Report Date 08/10/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50TH AVE City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Caboose

Rolling Stock No CNW 11097 Car Name CNW 11097

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.129553°

State WY Longitude -104.815052°

Zip Code 87002

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11097

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 1

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/14/2021	CHE-CNW11097-140721-001 thru 003	Black bakelite	Breakers	6%, Chrysotile	Category II	No	0.5 sq. ft.	4
07/14/2021	CHE-CNW11097-140721-004 thru 006	White sealant	Interior wall seams, door seams and roof penetrations	Not Detected	N/A	N/A	300 LF	N/A
07/14/2021	CHE-CNW11097-140721-007 thru 009	Beige mastic	Interior wall boards and floor boards	Not Detected	N/A	N/A	1100 sq. ft.	N/A
07/14/2021	CHE-CNW11097-140721-010 thru 012	Black brake pads	Exterior wheels	Not Detected	N/A	N/A	4 sq. ft.	N/A
07/14/2021	CHE-CNW11097-140721-013 thru 015	Black/brown caulk	Door seams	Not Detected	N/A	N/A	32 LF	N/A

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11097

BUILDING AMERICA™

Lead-Based Paint Results

Lead Present³ Yes Total Number of Positive Components.³ 3

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/14/2021	CHE-CNW11097-140721-001L	Gray	Interior under wall boards	1.2 %	Good
07/14/2021	CHE-CNW11097-140721-002L	Yellow	Exterior	0.014 %	Poor
07/14/2021	CHE-CNW11097-140721-003L	Green/White/Black	Exterior handrails, steps, roof	3.9 %	Poor
07/14/2021	CHE-CNW11097-140721-004L	Black	Exterior undercarriage	2.1 %	Good

Polychlorinated Biphenyls Results

PCBs Present⁴ No Total Number of Positive Components.⁴ 0

Notes

PCBs Samples

Sample Date	Sample ID	Description	Location	PCBs Result	Quantity
07/14/2021	CHE-CNW11097-140721-001 P	Black/brown caulk	Door seams	Not Detected	32 LF

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11097

BUILDING AMERICA™

Mold Results

Suspect Mold Present No

Notes

- 1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
- 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
- 3 "Lead Present" and "Positive" is defined as paint with $\geq 0.5\%$ lead.
- 4 "PCBs Present" and "Positive" is defined as caulk with ≥ 50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11097



Train ID Marking



View of railcar, looking east



View of railcar, looking south-southeast



View of railcar interior



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11097



CHE-CNW11097-140721-001 thru 003, 6% Asbestos, Black bakelite



CHE-CNW11097-140721-001 thru 003, 6% Asbestos, Black bakelite



CHE-CNW11097-140721-004 thru 006, Asbestos Not Detected, White sealant



CHE-CNW11097-140721-004 thru 006, Asbestos Not Detected, White sealant



CHE-CNW11097-140721-007 thru 009, Asbestos Not Detected, Beige mastic



CHE-CNW11097-140721-007 thru 009, Asbestos Not Detected, Beige mastic



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11097



CHE-CN11097-140721-010 thru 012, Asbestos Not Detected, Black brake pads



CHE-CN11097-140721-010 thru 012, Asbestos Not Detected, Black brake pads



CHE-CN11097-140721-013 thru 015, Asbestos Not Detected, Black/brown caulk



CHE-CN11097-140721-013 thru 015, Asbestos Not Detected, Black/brown caulk



CHE-CN11097-140721-001L, 1.2% Lead, Gray



CHE-CN11097-140721-001L, 1.2% Lead, Gray



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11097



CHE-CNW11097-140721-002L, 0.014% Lead, Yellow



CHE-CNW11097-140721-002L, 0.014% Lead, Yellow



CHE-CNW11097-140721-003L, 3.9% Lead, Green/White/Black



CHE-CNW11097-140721-003L, 3.9% Lead, Green/White/Black



CHE-CNW11097-140721-004L, 2.1% Lead, Black



CHE-CNW11097-140721-004L, 2.1% Lead, Black



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11097



CHE-CNW11097-140721-001P, PCB Not Detected,
Black/brown caulk



CHE-CNW11097-140721-001P, PCB Not Detected,
Black/brown caulk

Appendix 1 - Figures

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>CNW 11097</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT

CNW 11097
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

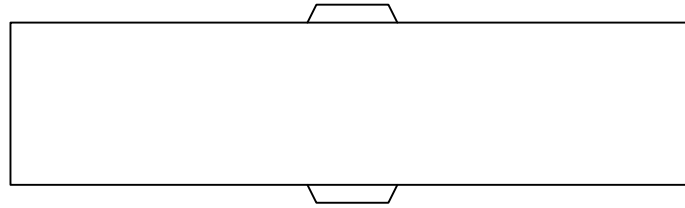
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

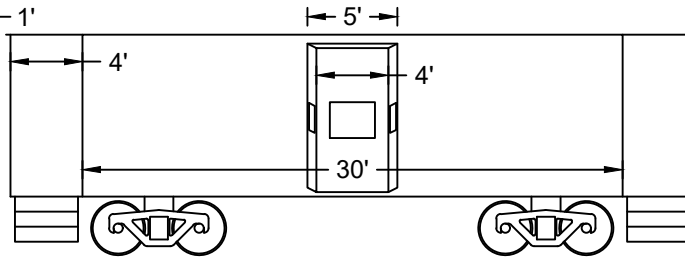
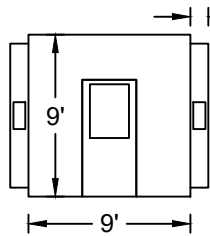
DATE: JULY-2021



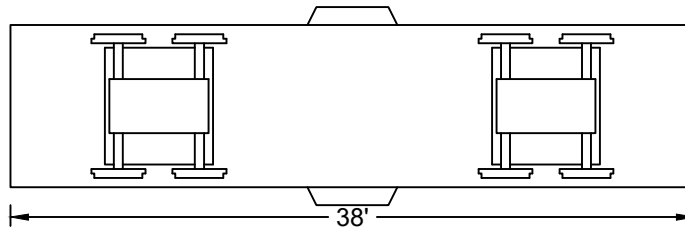
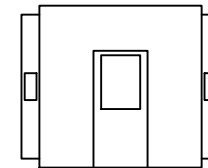
ROOF



FRONT END



BACK END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



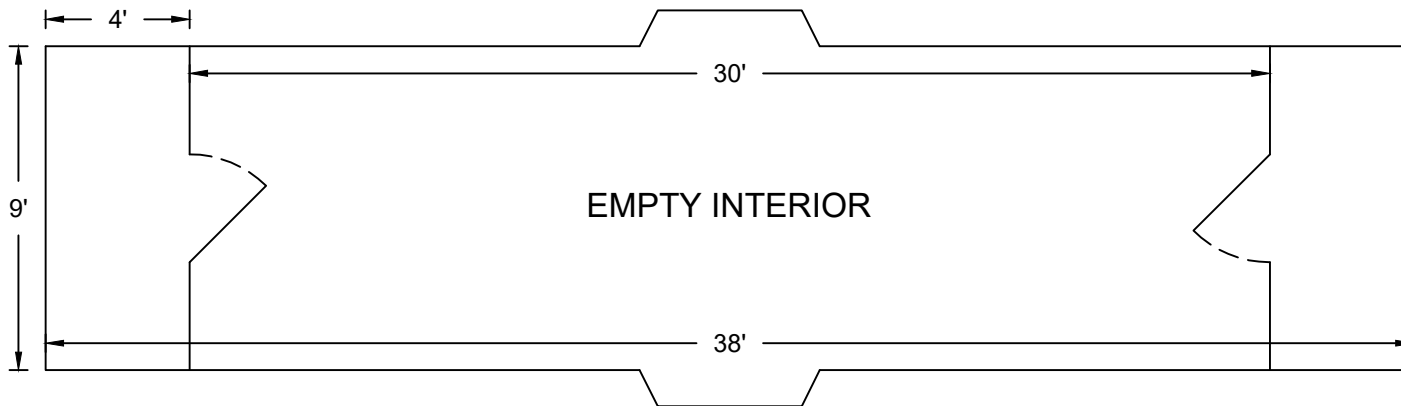
EARTH SERVICES
& ABATEMENT

CNW 11097
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT

CNW 11097
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

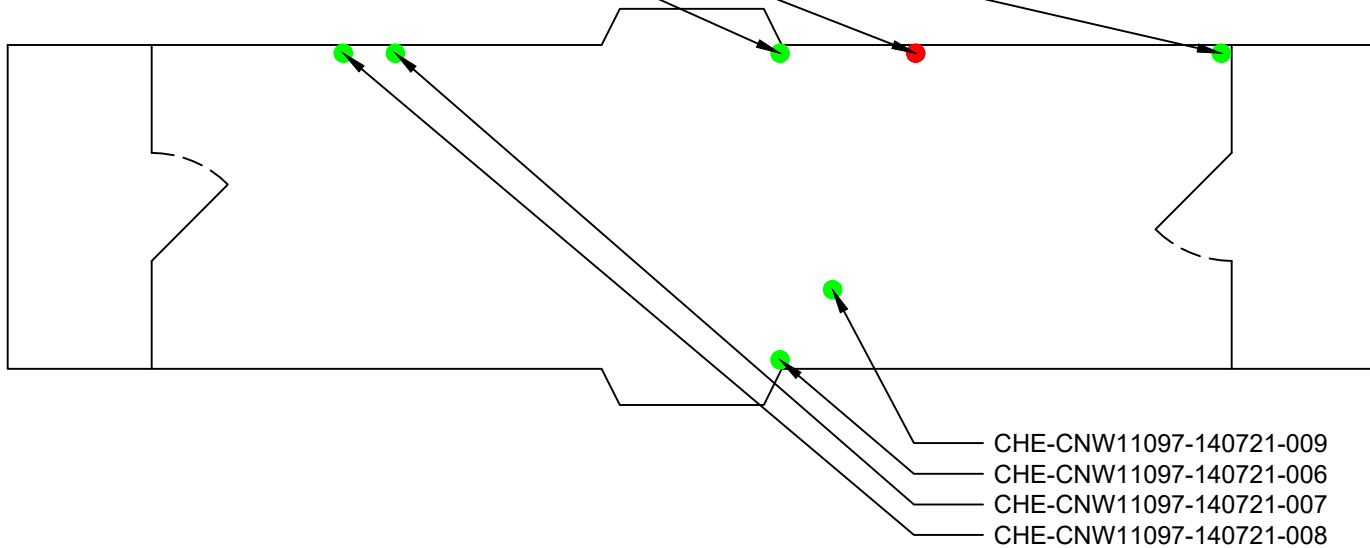
FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



CHE-CNW11097-140721-004
CHE-CNW11097-140721-001 thru 003
CHE-CNW11097-140721-005



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

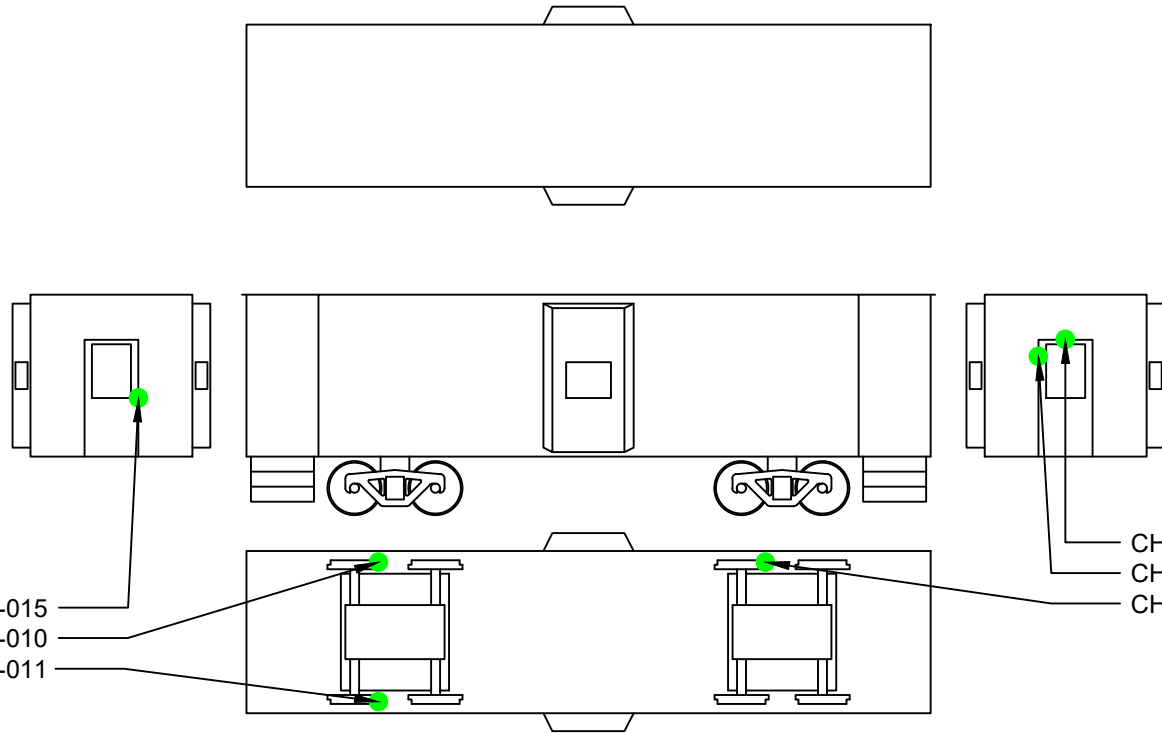
CNW 11097
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-CNW11097-140721-015
 CHE-CNW11097-140721-010
 CHE-CNW11097-140721-011

CHE-CNW11097-140721-013
 CHE-CNW11097-140721-014
 CHE-CNW11097-140721-012

EXTERIOR

NOTE:
 THIS DRAWING MUST BE
 PRINTED IN COLOR TO
 SHOW ALL INFORMATION
 ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
 & ABATEMENT**

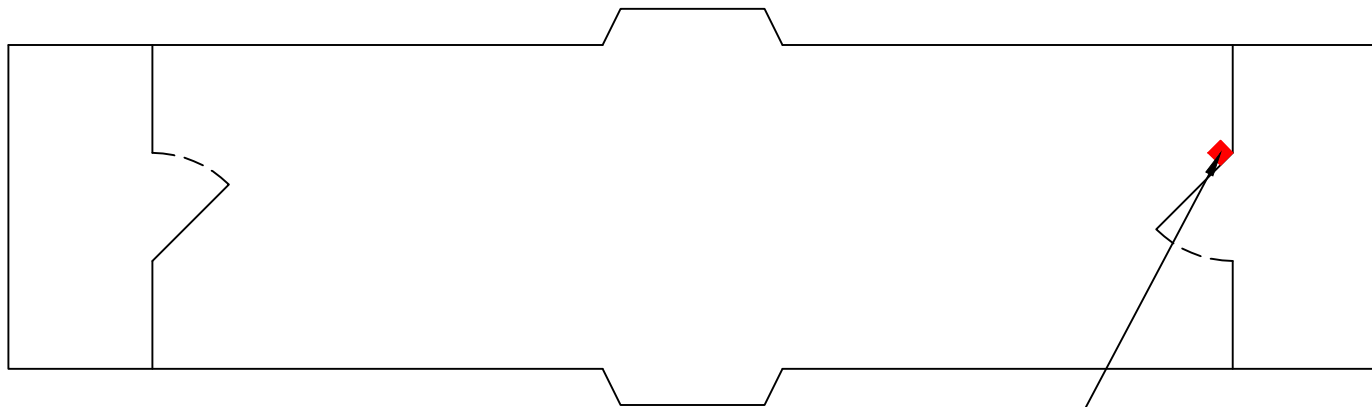
CNW 11097
 CHEYENNE YARD
 East Union Pacific Ave.
 CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-CNW11097-140721-001L

INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

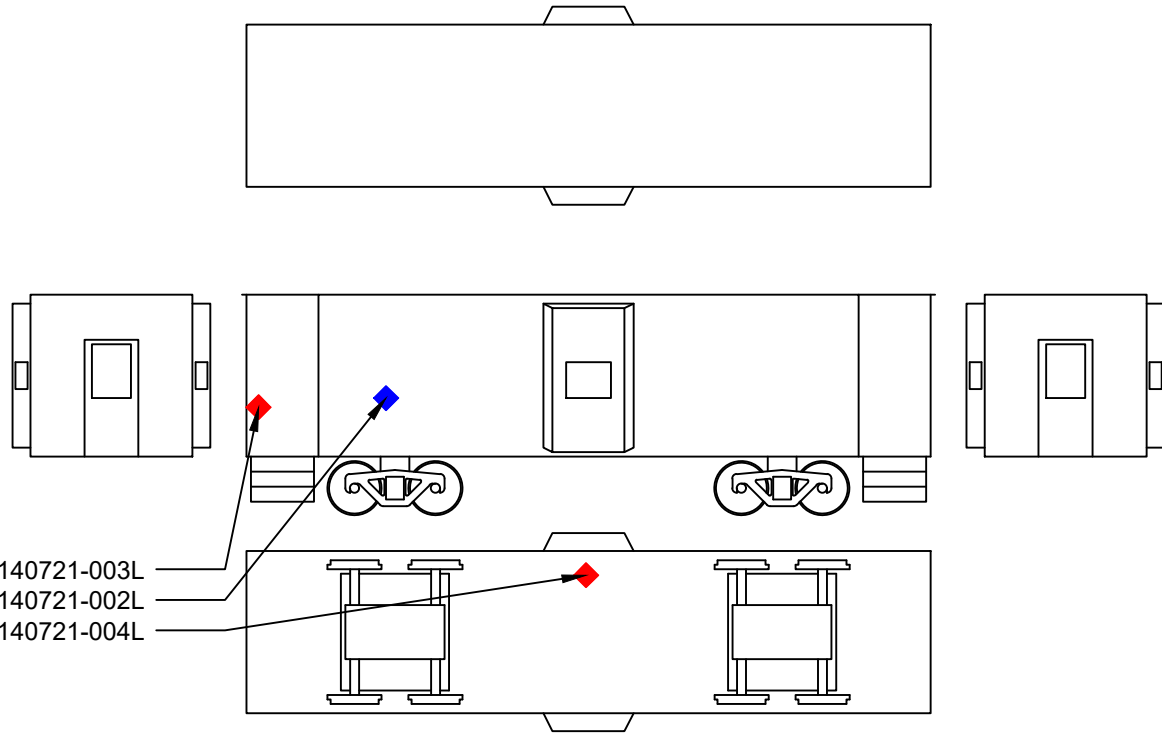
CNW 11097
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



CHE-CNW11097-140721-003L
 CHE-CNW11097-140721-002L
 CHE-CNW11097-140721-004L

EXTERIOR

NOTE:
 THIS DRAWING MUST BE
 PRINTED IN COLOR TO
 SHOW ALL INFORMATION
 ACCURATELY

FIGURE 7 - LBP SAMPLE LOCATIONS

LEGEND

- ◆ - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
- ◆ - LBP SAMPLE LOCATIONS (≥0.5% LEAD)

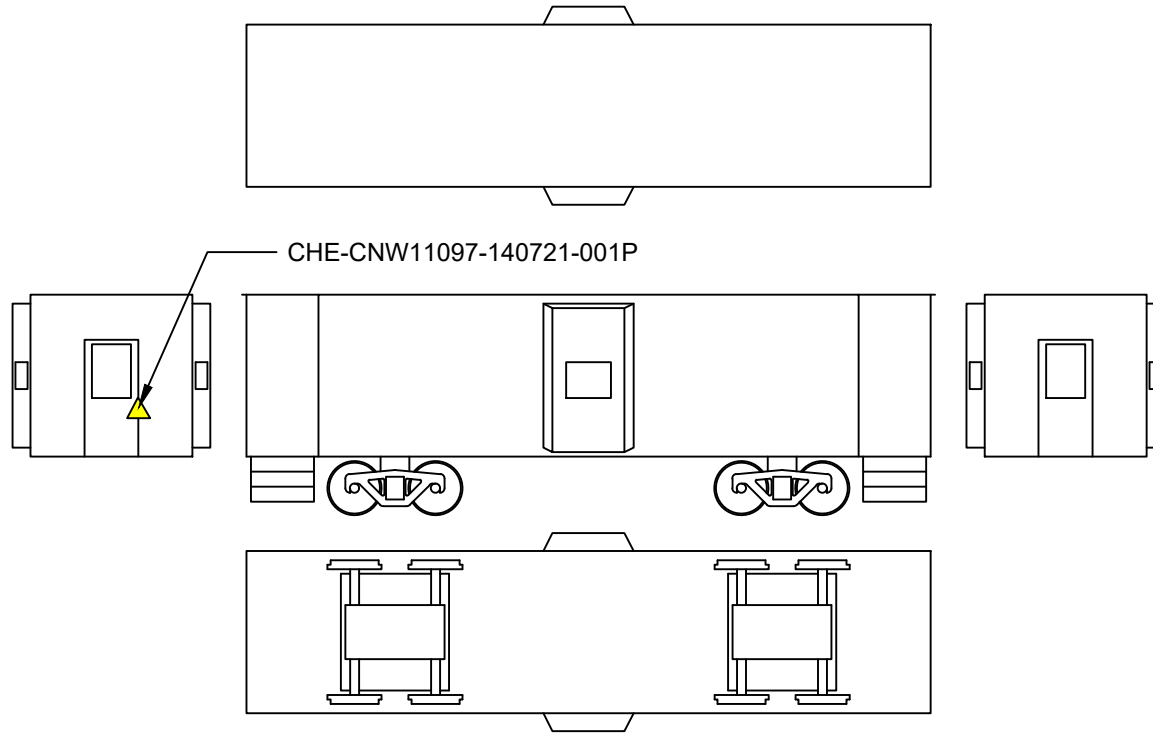


EARTH SERVICES
 & ABATEMENT

CNW 11097
 CHEYENNE YARD
 East Union Pacific Ave.
 CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

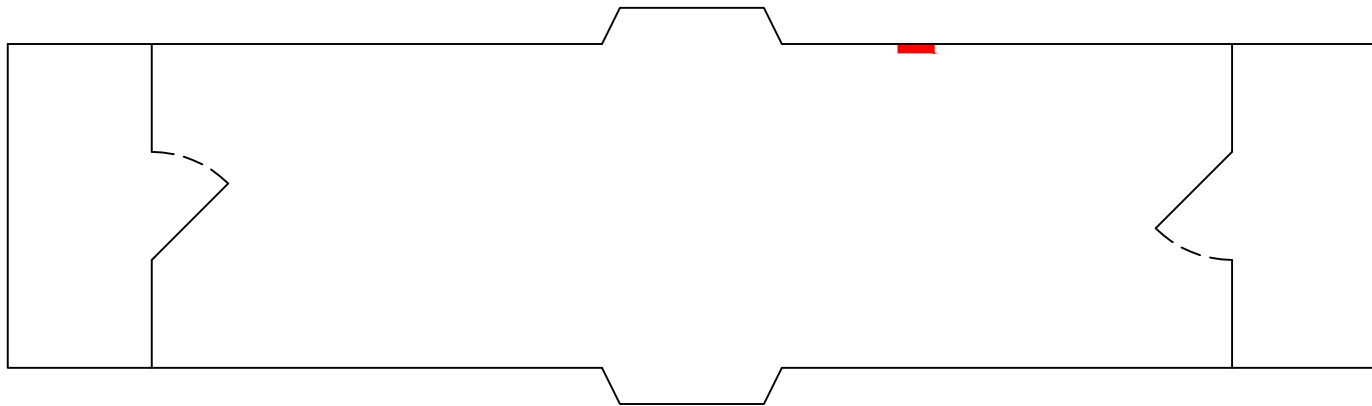
CNW 11097
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 8 - PCB SAMPLE LOCATIONS
LEGEND

- NON-PCB SAMPLE LOCATIONS (<50 PPM)
- PCB SAMPLE LOCATIONS (≥50 PPM)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

CNW 11097
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM BLACK BAKELITE

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>CNW 11097</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129241
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 22-Jul-2021

CNW 11097 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-CNW11097-140721-001	Bakelite, Black, Homogeneous	Chrysotile 6%	Non-Fibrous Material 94%
CHE-CNW11097-140721-002	Bakelite, *Not analyzed per client request		
CHE-CNW11097-140721-003	Bakelite, *Not analyzed per client request		
CHE-CNW11097-140721-004	Sealant, Gray/ White, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-CNW11097-140721-005	Sealant, Gray/ White, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-CNW11097-140721-006	Sealant, Gray/ White, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-CNW11097-140721-007	Mastic, Beige/ Brown, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-CNW11097-140721-008	Mastic, Beige/ Brown, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-CNW11097-140721-009	Mastic, Beige/ Brown, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-CNW11097-140721-010	Brakes, Black, Homogeneous	None Detected	Fibrous Glass 3% Non-Fibrous Material 97%
CHE-CNW11097-140721-011	Brakes, Black, Homogeneous	None Detected	Fibrous Glass 3% Non-Fibrous Material 97%

Juliann Johnson Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129241
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 22-Jul-2021

CNW 11097 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-CNW11097-140721-012	Brakes, Black, Homogeneous	None Detected	Fibrous Glass Non-Fibrous Material	3% 97%
CHE-CNW11097-140721-013	Caulking, Brown/ Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11097-140721-014	Caulking, Brown/ Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11097-140721-015	Caulking, Brown/ Black, Homogeneous	None Detected	Non-Fibrous Material	100%

Juliann Johnson Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



Open Lab Fee

J3 Order # (Lab use only)
12/21/19

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	_____
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - CNW 11097	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/8010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 15 **Positive Stop:** YES NO

Signatures

Relinquished By: <i>[Signature]</i>	Date: 7/19	Time: _____
Received By: <i>[Signature]</i>	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
**TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Eurofins J3 Resources, Inc.

3113 Red Bluff Road Pasadena, Texas 77503

Phone: (713) 290-0223 – Fax: (832) 831-5669

j3resources.com



J3 Resources

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022

Order #: JP211028593
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

WY Rollingstock Inspections-CNW 11097

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-CNW11097-140721-001L	Gray	12000	1.2%
CHE-CNW11097-140721-002L	Yellow	140	0.014%
CHE-CNW11097-140721-003L	Green/White/Black	39000	3.9%
CHE-CNW11097-140721-004L	Black	21000	2.1%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi

Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

IH CHAIN OF CUSTODY



Open Lab Fee

J3 Order # (Use only)
28593

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	_____
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - CNW 11097	Telephone – Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>

Special Instructions:

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-180	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 4

Positive Stop: YES NO

Signatures

Relinquished By:	Date: 7/19	Time: _____
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)



Monday, August 09, 2021

Amanda Wozab
Earth Services & Abatement
6700 E. 50th Ave.
Commerce City, CO 80022

Re: ALS Workorder: 2107408
Project Name: Cheyenne RS
Project Number: 215WY001

Dear Ms. Wozab:

One solid sample was received from Earth Services & Abatement, on 7/21/2021. The sample was scheduled for the following analysis:

PCBs

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager



2107408

PCB:

The sample was analyzed using GC/ECD (electron capture detectors) according to the current revision of SOP 409 based on SW-846 Method 8082.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2107408

Client Name: Earth Services & Abatement

Client Project Name: Cheyenne RS

Client Project Number: 215WY001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CHE-CNW11097-140721-001P; B	2107408-1		SOLID	14-Jul-21	10:00



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: EARTH SERVICES & ABATEMENT Workorder No: 2107408

Project Manager: KMO Initials: JPE Date: 07/21/2021

		N/A	YES	NO
1.	Are airbills / shipping documents present and/or removable? Tracking number: 2815 9831 3879		X	
2.	Are custody seals on shipping containers intact?	X		
3.	Are custody seals on sample containers intact?	X		
4.	Is there a COC (chain-of-custody) present?		X	
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6.	Are short-hold samples present?			X
7.	Are all samples within holding times for the requested analyses?		X	
8.	Were all sample containers received intact? (not broken or leaking)		X	
9.	Is there sufficient sample for the requested analyses?		X	
10.	Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		X	
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13.	Were the samples shipped on ice?			X
14.	Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #5	RAD ONLY		X
Cooler #: <u>1</u> Temperature (°C): <u>AMB</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>11</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? YES / NA All client bottle ID's vs ALS lab ID's double-checked by JE

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date:  7/21/21

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-CNW11097-140721-001P; Black/Brown Caulk, door
Legal Location:
Collection Date: 7/14/2021 10:00

Date: 09-Aug-21
Work Order: 2107408
Lab ID: 2107408-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 7/30/2021	PrepBy: CPC
AROCLOR-1016	ND		2.3	MG/KG	6	8/6/2021 17:39
AROCLOR-1221	ND		4.7	MG/KG	6	8/6/2021 17:39
AROCLOR-1232	ND		2.3	MG/KG	6	8/6/2021 17:39
AROCLOR-1242	ND		2.3	MG/KG	6	8/6/2021 17:39
AROCLOR-1248	ND		2.3	MG/KG	6	8/6/2021 17:39
AROCLOR-1254	ND		2.3	MG/KG	6	8/6/2021 17:39
AROCLOR-1260	ND		2.3	MG/KG	6	8/6/2021 17:39
Surr: TETRACHLORO-M-XYLENE	83		69-129	%REC	6	8/6/2021 17:39
Surr: DECACHLOROBIPHENYL	105		55-135	%REC	6	8/6/2021 17:39

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-CNW11097-140721-001P; Black/Brown Caulk, door
Legal Location:
Collection Date: 7/14/2021 10:00

Date: 09-Aug-21
Work Order: 2107408
Lab ID: 2107408-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 8/9/2021 2:02:01

Client: Earth Services & Abatement
 Work Order: 2107408
 Project: 215WY001 Cheyenne RS

QC BATCH REPORT

Batch ID: **EX210730-3-1** Instrument ID: **Pest-1** Method: **SW8082**

LCS		Sample ID: EX210730-3			Units: MG/KG			Analysis Date: 8/6/2021 14:13			
Client ID:		Run ID: PT210806-11			Prep Date: 7/30/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.133	0.0333	0.133		99	80-120				50	
AROCLOR-1260	0.137	0.0333	0.133		103	80-125				50	
Surr: TETRACHLORO-M-XYLENE	0.0152		0.0167		91	69-129					
Surr: DECACHLOROBIPHENYL	0.0187		0.0167		112	55-135					

LCSD		Sample ID: EX210730-3			Units: MG/KG			Analysis Date: 8/6/2021 14:32			
Client ID:		Run ID: PT210806-11			Prep Date: 7/30/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.125	0.0333	0.133		94	80-120		0.133	6	50	
AROCLOR-1260	0.131	0.0333	0.133		99	80-125		0.137	4	50	
Surr: TETRACHLORO-M-XYLENE	0.015		0.0167		90	69-129			1		
Surr: DECACHLOROBIPHENYL	0.0178		0.0167		107	55-135			5		

MB		Sample ID: EX210730-3			Units: MG/KG			Analysis Date: 8/6/2021 11:25				
Client ID:		Run ID: PT210806-11			Prep Date: 7/30/2021			DF: 1				
Analyte	Result	ReportLimit										Qual
AROCLOR-1016	ND	0.033										
AROCLOR-1221	ND	0.067										
AROCLOR-1232	ND	0.033										
AROCLOR-1242	ND	0.033										
AROCLOR-1248	ND	0.033										
AROCLOR-1254	ND	0.033										
AROCLOR-1260	ND	0.033										
Surr: TETRACHLORO-M-XYLENE	0.0158				95	69-129						
Surr: DECACHLOROBIPHENYL	0.0178				107	55-135						

The following samples were analyzed in this batch:

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>CNW 11097</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	CNW 11097
Exposure Area	Breakers
Asbestos Containing Material	Black bakelite
Sample Number	CHE-CNW11097-140721-001 thru 003
Size	NA
Quantity	0.5 SF
MATERIAL CONDITION (MC)	0
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	
BUILDING AGE (BA)	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	
MATERIAL TYPE	
Pipe Covering (PC)	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper	
Ceiling Plasters or Fireproofing (CP)	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	
WATER DAMAGE (WD)	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	
ROOF CHARACTERISTICS (RC)	-0.5
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	
EXPOSED SURFACE AREA (ESA)	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	
ACCESSIBILITY (AC)	4
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	
ACTIVITY AND MOVEMENT (A/M)	2
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	
WORK ENVIRONMENT (WE)	0.5
-0.5 =Sedentary 0.5 =Non-sedentary	
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration	
AIR - PLENUM / AIR STREAM (AP)	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists	
VELOCITY (if Air Plenum = 1) (VEL)	-0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	
FLOW (if Air Plenum = 1) (FL)	NA
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow	
FRIABILITY (F)	1
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	
ASBESTOS CONTENT (ASB)	1
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	
Exposure Value	12.25
Rating	4



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

August 10th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock CNW 11111, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar CNW 11111 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 15th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 07/15/2021

Inspection End Date 07/15/2021

Report Date 08/10/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Caboose

Rolling Stock No CNW 11111 Car Name CNW 11111

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.129688°

State WY Longitude -104.814858°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11111

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 1

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details. The fiberboard identified in samples CHE-CNW11111-150721-007 thru 009 is not considered a suspect material for asbestos.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/15/2021	CHE-CNW11111-150721-001 thru 003	Black bakelite	Breaker box	6%, Chrysotile	Category II	No	0.5 sq. ft.	4
07/15/2021	CHE-CNW11111-150721-004 thru 006	White/gray sealant	Interior trim	Not Detected	N/A	N/A	200 LF	N/A
07/15/2021	CHE-CNW11111-150721-007 thru 009	Yellow mastic	Interior wall board and flooring	Not Detected	N/A	N/A	1100 sq. ft.	N/A
07/15/2021	CHE-CNW11111-150721-010 thru 012	Gray caulk	Exterior windows	Not Detected	N/A	N/A	32 LF	N/A
07/15/2021	CHE-CNW11111-150721-013 thru 015	Black brake pads	Exterior wheels	Not Detected	N/A	N/A	4 sq. ft.	N/A

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11111

BUILDING AMERICA™

Lead-Based Paint Results

Lead Present³ Yes _____ Total Number of Positive Components.³ 3 _____

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/15/2021	CHE-CNW11111-150721-001L	Gray	Interior throughout	0.51 %	Poor
07/15/2021	CHE-CNW11111-150721-002L	Yellow	Exterior car	5.1 %	Poor
07/15/2021	CHE-CNW11111-150721-003L	Green	Exterior handrails and trim	0.27 %	Poor
07/15/2021	CHE-CNW11111-150721-004L	Black	Exterior undercarriage	0.54 %	Poor

Polychlorinated Biphenyls Results

PCBs Present⁴ No _____ Total Number of Positive Components.⁴ 0 _____

Notes

PCBs Samples

Sample Date	Sample ID	Description	Location	PCBs Result	Quantity
07/15/2021	CHE-CNW11111-150721-001 P	Gray caulk	Exterior windows	Not Detected	32 LF

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11111

BUILDING AMERICA™

Mold Results

Suspect Mold Present No

Notes

- 1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
- 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
- 3 "Lead Present" and "Positive" is defined as paint with $\geq 0.5\%$ lead.
- 4 "PCBs Present" and "Positive" is defined as caulk with ≥ 50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11111



Railcar ID marker



View of railcar, looking south



View of railcar, looking south



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11111



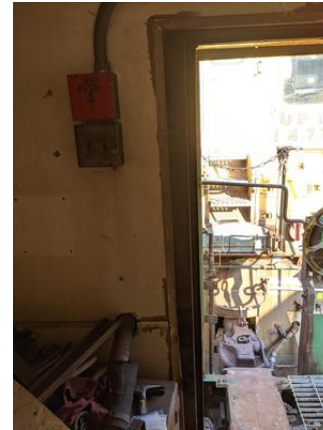
CHE-CNW11111-150721-001 thru 003, 6% Asbestos, Black bakelite



CHE-CNW11111-150721-001 thru 003, 6% Asbestos, Black bakelite



CHE-CNW11111-150721-004 thru 006, Asbestos Not Detected, White/gray sealant



CHE-CNW11111-150721-004 thru 006, Asbestos Not Detected, White/gray sealant



CHE-CNW11111-150721-007 thru 009, Asbestos Not Detected, Yellow mastic



CHE-CNW11111-150721-007 thru 009, Asbestos Not Detected, Yellow mastic



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11111



CHE-CNW11111-150721-010 thru 012, Asbestos Not Detected, Gray caulk



CHE-CNW11111-150721-010 thru 012, Asbestos Not Detected, Gray caulk



CHE-CNW11111-150721-013 thru 015, Asbestos Not Detected, Black brake pads



CHE-CNW11111-150721-013 thru 015, Asbestos Not Detected, Black brake pads



CHE-CNW11111-150721-001L, 0.51% Lead, Gray



CHE-CNW11111-150721-001L, 0.51% Lead, Gray



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11111



CHE-CNW11111-150721-002L, 5.1% Lead, Yellow



CHE-CNW11111-150721-002L, 5.1% Lead, Yellow



CHE-CNW11111-150721-003L, 0.27% Lead, Green



CHE-CNW11111-150721-003L, 0.27% Lead, Green



CHE-CNW11111-150721-004L, 0.54% Lead, Black



CHE-CNW11111-150721-004L, 0.54% Lead, Black



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No CNW 11111



CHE-CNW11111-150721-001P, PCB Not Detected, Gray caulk



CHE-CNW11111-150721-001P, PCB Not Detected, Gray caulk

Appendix 1 - Figures

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>CNW 11111</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

CNW 11111
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

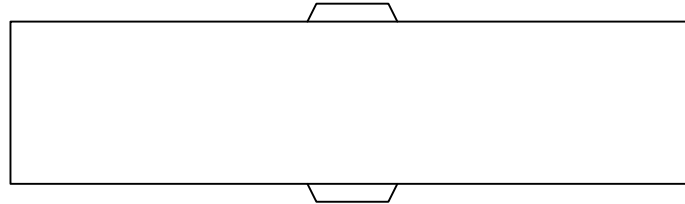
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

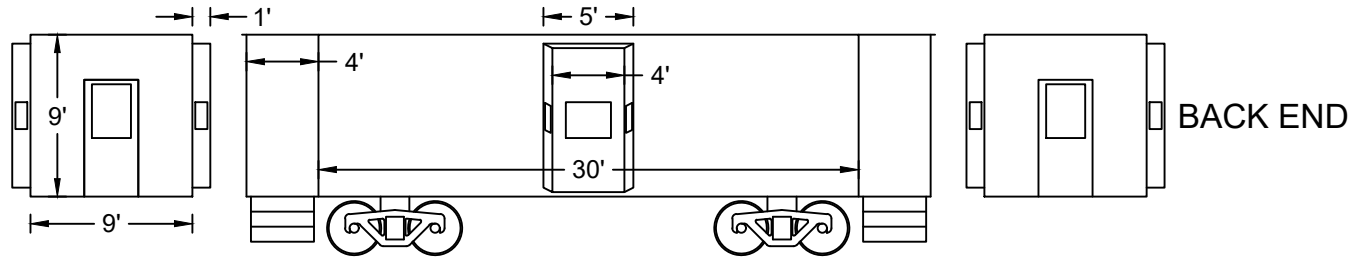
DATE: JULY-2021



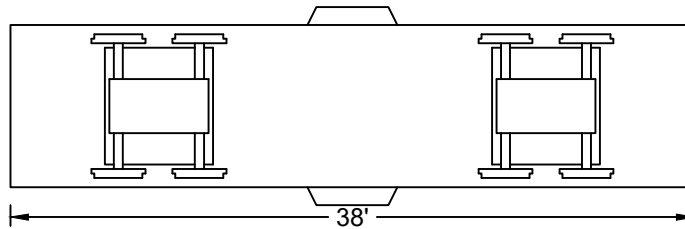
ROOF



FRONT END



BACK END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



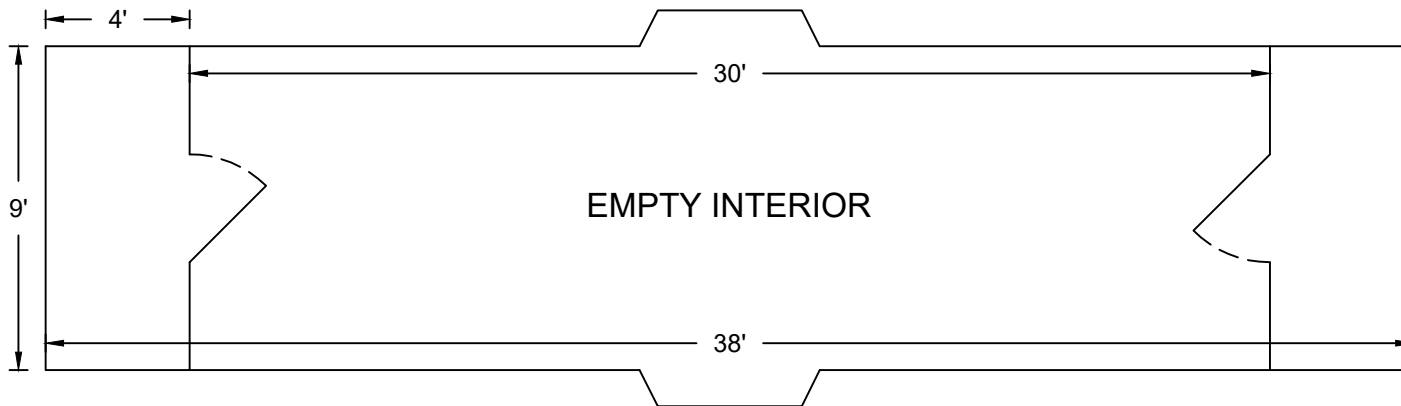
EARTH SERVICES
& ABATEMENT

CNW 11111
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT

CNW 11111
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

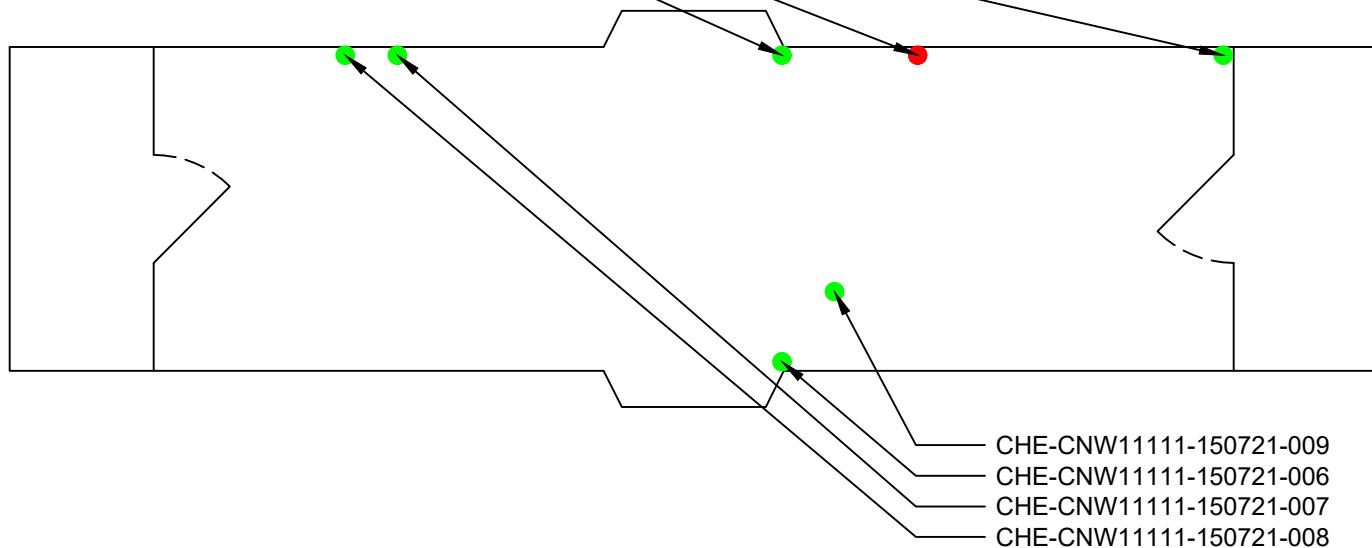
FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



CHE-CNW11111-150721-004
CHE-CNW11111-150721-001 thru 003
CHE-CNW11111-150721-005



CHE-CNW11111-150721-009
CHE-CNW11111-150721-006
CHE-CNW11111-150721-007
CHE-CNW11111-150721-008

INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

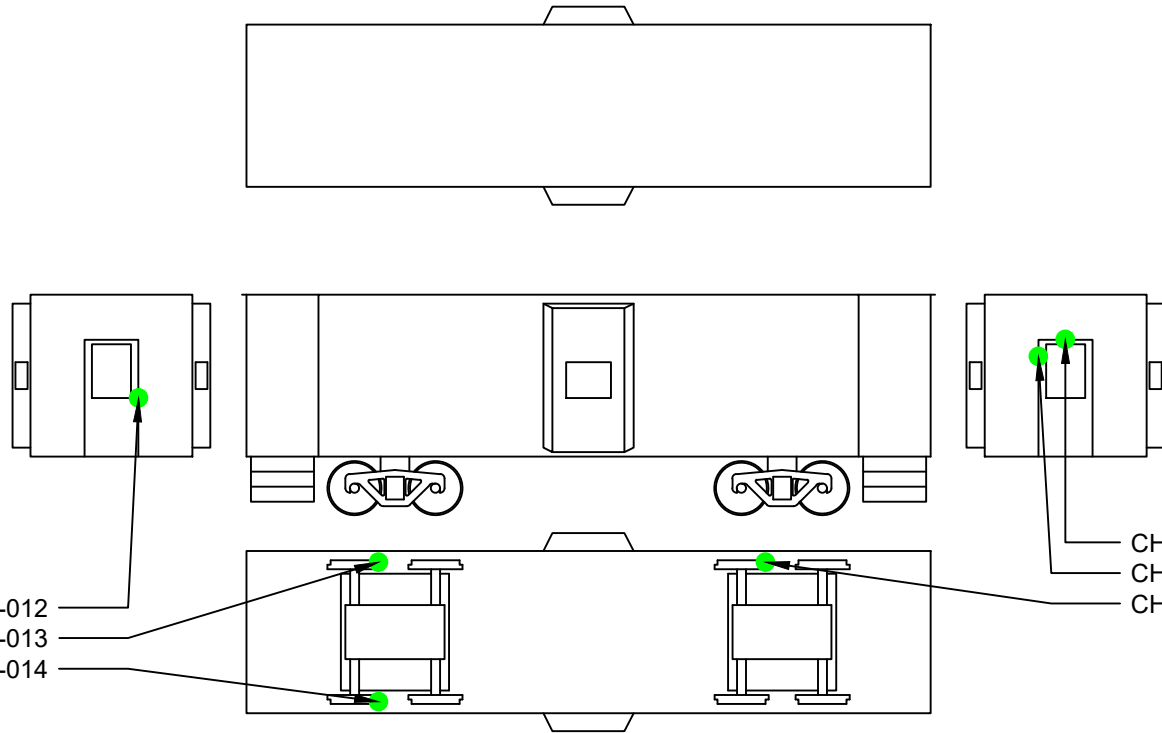
CNW 11111
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-CNW11111-150721-012
CHE-CNW11111-150721-013
CHE-CNW11111-150721-014

CHE-CNW11111-150721-010
CHE-CNW11111-150721-011
CHE-CNW11111-150721-015

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

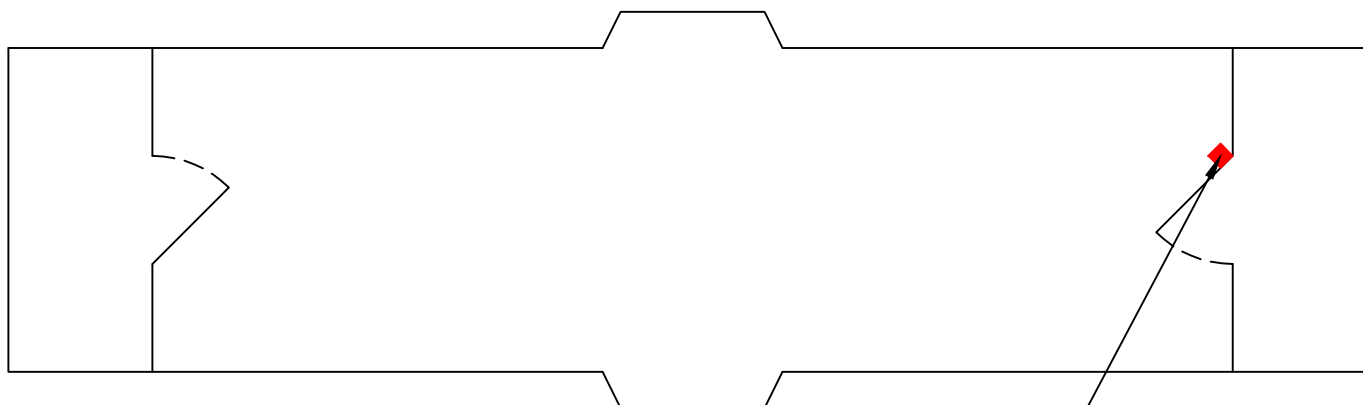
CNW 11111
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-CNW11111-150721-001L

INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

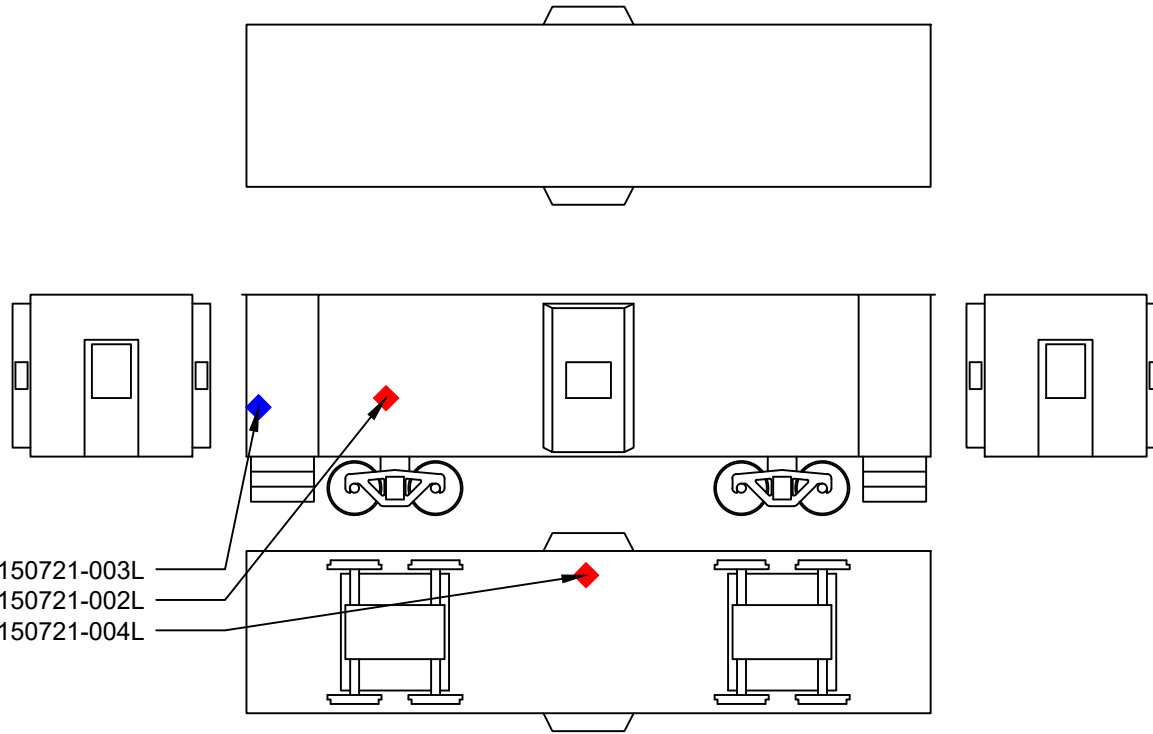
CNW 11111
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



CHE-CN1111-150721-003L
CHE-CN1111-150721-002L
CHE-CN1111-150721-004L

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**



CNW 11111
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

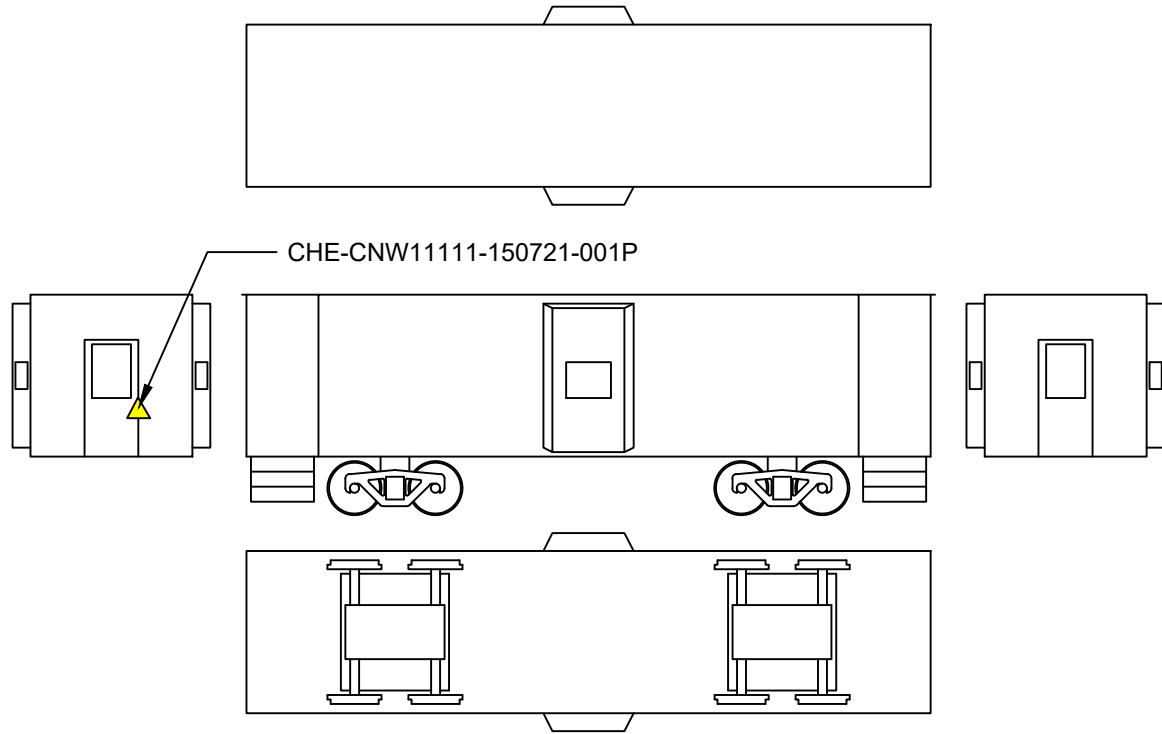
DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 7 - LBP SAMPLE LOCATIONS

LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

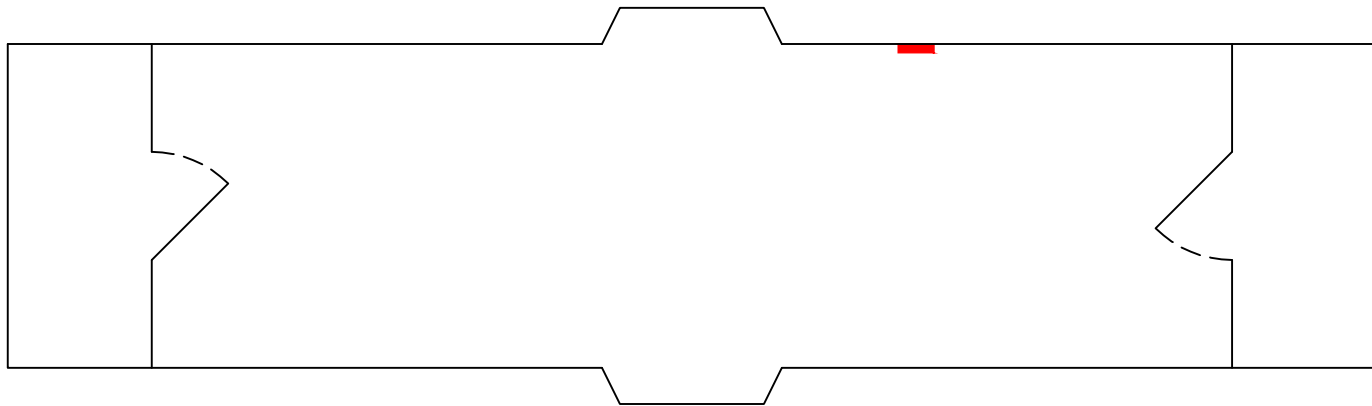
CNW 11111
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 8 - PCB SAMPLE LOCATIONS
LEGEND

-  - NON-PCB SAMPLE LOCATIONS (<50 PPM)
-  - PCB SAMPLE LOCATIONS (≥50 PPM)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

CNW 11111
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM BLACK BAKELITE

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>CNW 11111</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129235
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 22-Jul-2021

CNW 11111 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-CNW11111-150721-001	Bakelite, Black, Homogeneous	Chrysotile 6%	Non-Fibrous Material 94%
CHE-CNW11111-150721-002	Bakelite, *Not analyzed per client request		
CHE-CNW11111-150721-003	Bakelite, *Not analyzed per client request		
CHE-CNW11111-150721-004	Sealant, White/ Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-CNW11111-150721-005	Sealant, White/ Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-CNW11111-150721-006	Sealant, White/ Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-CNW11111-150721-007	LAYER 1 Fiberboard, Brown, Homogeneous	None Detected	Cellulose Fiber 90% Non-Fibrous Material 10%
	LAYER 2 Mastic, Yellow/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-CNW11111-150721-008	LAYER 1 Fiberboard, Brown, Homogeneous	None Detected	Cellulose Fiber 90% Non-Fibrous Material 10%
	LAYER 2 Mastic, Yellow/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-CNW11111-150721-009	LAYER 1 Fiberboard, Brown, Homogeneous	None Detected	Cellulose Fiber 90% Non-Fibrous Material 10%
	LAYER 2 Mastic, Yellow/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%

Juliann Johnson Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129235
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 22-Jul-2021

CNW 11111 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-CNW11111-150721-010	Caulking, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11111-150721-011	Caulking, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11111-150721-012	Caulking, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-CNW11111-150721-013	Brakes, Black, Homogeneous	None Detected	Fibrous Glass Non-Fibrous Material	2% 98%
CHE-CNW11111-150721-014	Brakes, Black, Homogeneous	None Detected	Fibrous Glass Non-Fibrous Material	2% 98%
CHE-CNW11111-150721-015	Brakes, Black, Homogeneous	None Detected	Fibrous Glass Non-Fibrous Material	2% 98%

Juliann Johnson Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



Open Lab Fee

J3 Order# (Lab use only)
M235

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City , CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - CNW 11111	Telephone – Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 15 **Positive Stop:** YES NO

Signatures

Relinquished By: <i>[Signature]</i>	Date: 7/19	Time:
Received By: <i>[Signature]</i>	Date: 7/20/21	Time: 10:30
Relinquished By:	Date:	Time:
Received By:	Date:	Time:

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
**TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Eurofins J3 Resources, Inc.

3113 Red Bluff Road Pasadena, Texas 77503

Phone: (713) 290-0223 – Fax: (832) 831-5669

j3resources.com



J3 Resources

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022

Order #: JP211028585
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

WY Rollingstock Inspections-CNW 11111

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-CNW11111-150721-001L	Gray	5100	0.51%
CHE-CNW11111-150721-002L	Yellow	51000	5.1%
CHE-CNW11111-150721-003L	Green	2700	0.27%
CHE-CNW11111-150721-004L	Black	5400	0.54%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi

Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

IH CHAIN OF CUSTODY



Open Lab Fee

20505
J3 Resources (only)

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	City/State: _____ Zip: _____
City/State: Commerce City, CO Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - CNW 11111	Telephone – Office/Cell 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>

Special Instructions:

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
-------------------------------------	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 4

Positive Stop: YES NO

Signatures

Relinquished By:	Date: 7/19	Time:
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.

**TAT's are in Business Days rather than Hours (i.e.1 Day TAT = End of Next Business Day)



Monday, August 09, 2021

Amanda Wozab
Earth Services & Abatement
6700 E. 50th Ave.
Commerce City, CO 80022

Re: ALS Workorder: 2107406
Project Name: Cheyenne RS
Project Number: 215WY001

Dear Ms. Wozab:

One solid sample was received from Earth Services & Abatement, on 7/21/2021. The sample was scheduled for the following analysis:

PCBs

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager



2107406

PCB:

The sample was analyzed using GC/ECD (electron capture detectors) according to the current revision of SOP 409 based on SW-846 Method 8082.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2107406

Client Name: Earth Services & Abatement

Client Project Name: Cheyenne RS

Client Project Number: 215WY001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CHE-CNW11111-150721-001P;	2107406-1		SOLID	15-Jul-21	12:00



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

WORKORDER #	
-------------	--

PROJECT NAME Cheyenne RS		SAMPLER Joseph Kulm		DATE		PAGE 1 of 1	
PROJECT No. 215WY001		SITE ID CNW 11111		TURNAROUND 5 Day		DISPOSAL By Lab or Return to Client	
COMPANY NAME Earth Services & Abatement		BILL TO COMPANY Earth Services & Abatement		PCB by 8082			
SEND REPORT TO		INVOICE ATTN TO					
ADDRESS 6700 E. 50th Ave.		ADDRESS 6700 E. 50th Ave.					
CITY / STATE / ZIP Commerce City, CO 80022		CITY / STATE / ZIP Commerce City, CO 80022					
PHONE 303-991-1280		PHONE 303-991-1280					
FAX 303-991-1282		FAX 303-991-1282					
E-MAIL Amanda.Wozab@esasite.com Joseph.Kulm@ESAsite.com		E-MAIL					
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
	CHE-CNW11111-160721-001P; Gray Caulk, ext. window	NS	07.15.21	1200			X

*Time Zone (Circle) EST CST MST PST Matrix: O=oil S=soil NS=non-soil solid W=water L=liquid E=extract F=filter
 For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035	

SIGNATURE	PRINTED NAME	DATE	TIME
<i>Joseph Kulm</i>	Joseph Kulm	7/19	
<i>Josh Eckert</i>	Josh Eckert	7/21/21	0945



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: EARTH SERVICES & ABATEMENT Workorder No: 2107406

Project Manager: KMO Initials: JPE Date: 07/21/2021

		N/A	YES	NO
1.	Are airbills / shipping documents present and/or removable? Tracking number: 2815 9831 3879		X	
2.	Are custody seals on shipping containers intact?	X		
3.	Are custody seals on sample containers intact?	X		
4.	Is there a COC (chain-of-custody) present?		X	
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6.	Are short-hold samples present?			X
7.	Are all samples within holding times for the requested analyses?		X	
8.	Were all sample containers received intact? (not broken or leaking)		X	
9.	Is there sufficient sample for the requested analyses?		X	
10.	Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		X	
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13.	Were the samples shipped on ice?			X
14.	Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #5		X
Cooler #: <u>1</u> Temperature (°C): <u>AMB</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>11</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? YES / NA All client bottle ID's vs ALS lab ID's double-checked by JE

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: 7/21/21

Project Manager Signature / Date: 

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-CNW11111-150721-001P; Gray Caulk, ext. window
Legal Location:
Collection Date: 7/15/2021 12:00

Date: 09-Aug-21
Work Order: 2107406
Lab ID: 2107406-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 7/30/2021	PrepBy: CPC
AROCLOR-1016	ND		2.2	MG/KG	6	8/6/2021 12:02
AROCLOR-1221	ND		4.4	MG/KG	6	8/6/2021 12:02
AROCLOR-1232	ND		2.2	MG/KG	6	8/6/2021 12:02
AROCLOR-1242	ND		2.2	MG/KG	6	8/6/2021 12:02
AROCLOR-1248	ND		2.2	MG/KG	6	8/6/2021 12:02
AROCLOR-1254	ND		2.2	MG/KG	6	8/6/2021 12:02
AROCLOR-1260	ND		2.2	MG/KG	6	8/6/2021 12:02
Surr: TETRACHLORO-M-XYLENE	104		69-129	%REC	6	8/6/2021 12:02
Surr: DECACHLOROBIPHENYL	94		55-135	%REC	6	8/6/2021 12:02

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-CNW11111-150721-001P; Gray Caulk, ext. window
Legal Location:
Collection Date: 7/15/2021 12:00

Date: 09-Aug-21
Work Order: 2107406
Lab ID: 2107406-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 8/9/2021 1:21:14

Client: Earth Services & Abatement
 Work Order: 2107406
 Project: 215WY001 Cheyenne RS

QC BATCH REPORT

Batch ID: **EX210730-3-1** Instrument ID: **Pest-1** Method: **SW8082**

LCS Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:13**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.133	0.0333	0.133		99	80-120				50	
AROCLOR-1260	0.137	0.0333	0.133		103	80-125				50	
Surr: TETRACHLORO-M-XYLENE	0.0152		0.0167		91	69-129					
Surr: DECACHLOROBIPHENYL	0.0187		0.0167		112	55-135					

LCSD Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:32**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.125	0.0333	0.133		94	80-120		0.133	6	50	
AROCLOR-1260	0.131	0.0333	0.133		99	80-125		0.137	4	50	
Surr: TETRACHLORO-M-XYLENE	0.015		0.0167		90	69-129			1		
Surr: DECACHLOROBIPHENYL	0.0178		0.0167		107	55-135			5		

MB Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 11:25**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	ND	0.033									
AROCLOR-1221	ND	0.067									
AROCLOR-1232	ND	0.033									
AROCLOR-1242	ND	0.033									
AROCLOR-1248	ND	0.033									
AROCLOR-1254	ND	0.033									
AROCLOR-1260	ND	0.033									
Surr: TETRACHLORO-M-XYLENE	0.0158				95	69-129					
Surr: DECACHLOROBIPHENYL	0.0178				107	55-135					

The following samples were analyzed in this batch:

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>CNW 11111</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	CNW 11111
Exposure Area	Breaker box
Asbestos Containing Material	Black bakelite
Sample Number	CHE-CNW11111-150721-001 thru 003
Size	NA
Quantity	0.5 SF
MATERIAL CONDITION (MC)	0
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	
BUILDING AGE (BA)	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	
MATERIAL TYPE	
Pipe Covering (PC)	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper	
Ceiling Plasters or Fireproofing (CP)	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	
WATER DAMAGE (WD)	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	
ROOF CHARACTERISTICS (RC)	-0.5
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	
EXPOSED SURFACE AREA (ESA)	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	
ACCESSIBILITY (AC)	4
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	
ACTIVITY AND MOVEMENT (A/M)	2
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	
WORK ENVIRONMENT (WE)	0.5
-0.5 =Sedentary 0.5 =Non-sedentary	
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration	
AIR - PLENUM / AIR STREAM (AP)	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists	
VELOCITY (if Air Plenum = 1) (VEL)	-0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	
FLOW (if Air Plenum = 1) (FL)	NA
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow	
FRIABILITY (F)	1
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	
ASBESTOS CONTENT (ASB)	1
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	
Exposure Value	12.25
Rating	4



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

August 10th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock D&RGW 01476, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar D&RGW 01476 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 17th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 07/17/2021

Inspection End Date 07/17/2021

Report Date 08/10/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01476 Car Name D&RGW; 01476

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.129618°

State WY Longitude -104.814722°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01476

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 2

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/17/2021	CHE-DRGW01476-1707 21-001 thru 003	Gray/black window caulk	Exterior window frames	6%, Chrysotile	Category II	No	30 LF	4
07/17/2021	CHE-DRGW01476-1707 21-004 thru 006	Brown fiberboard	Around boiler	Not Detected	N/A	N/A	24 sq. ft.	N/A
07/17/2021	CHE-DRGW01476-1707 21-007 thru 009	Gray bakelite	Breakers	Not Detected	N/A	N/A	0.5 sq. ft.	N/A
07/17/2021	CHE-DRGW01476-1707 21-010 thru 012	Black flooring and gray mastic	Floor throughout	Not Detected	N/A	N/A	320 sq. ft.	N/A
07/17/2021	CHE-DRGW01476-1707 21-013 thru 015	Black tar	Roof penetrations	6%, Chrysotile	Category I	No	2 sq. ft.	4

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01476

Lead-Based Paint Results

Lead Present³ Yes Total Number of Positive Components.³ 2

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/17/2021	CHE-DRGW01476-170721-001L	Green	Interior	0.037 %	Fair
07/17/2021	CHE-DRGW01476-170721-002L	Orange	Exterior	6.4 %	Good
07/17/2021	CHE-DRGW01476-170721-003L	White	Exterior handrails	3 %	Poor
07/17/2021	CHE-DRGW01476-170721-004L	Black	Undercarriage	0.098 %	Poor

Polychlorinated Biphenyls Results

PCBs Present⁴ No Total Number of Positive Components.⁴ 0

Notes

PCBs Samples

Sample Date	Sample ID	Description	Location	PCBs Result	Quantity
07/17/2021	CHE-DRGW01476-170721-001P	Gray/black window caulk	Exterior window frames	Not Detected	30 LF

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01476

BUILDING AMERICA™

Mold Results

Suspect Mold Present No

Notes

- 1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
- 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
- 3 "Lead Present" and "Positive" is defined as paint with $\geq 0.5\%$ lead.
- 4 "PCBs Present" and "Positive" is defined as caulk with ≥ 50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01476



Railcar ID Marking



View of railcar, looking east



View of railcar, looking west



Interior of railcar



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01476



CHE-DRGW01476-170721-001 thru 003, 6% Asbestos, Gray/black window caulk



CHE-DRGW01476-170721-001 thru 003, 6% Asbestos, Gray/black window caulk



CHE-DRGW01476-170721-004 thru 006, Asbestos Not Detected, Brown fiberboard



CHE-DRGW01476-170721-004 thru 006, Asbestos Not Detected, Brown fiberboard



CHE-DRGW01476-170721-007 thru 009, Asbestos Not Detected, Gray bakelite



CHE-DRGW01476-170721-007 thru 009, Asbestos Not Detected, Gray bakelite



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01476



CHE-DRGW01476-170721-010 thru 012, Asbestos Not Detected, Black flooring and gray mastic



CHE-DRGW01476-170721-010 thru 012, Asbestos Not Detected, Black flooring and gray mastic



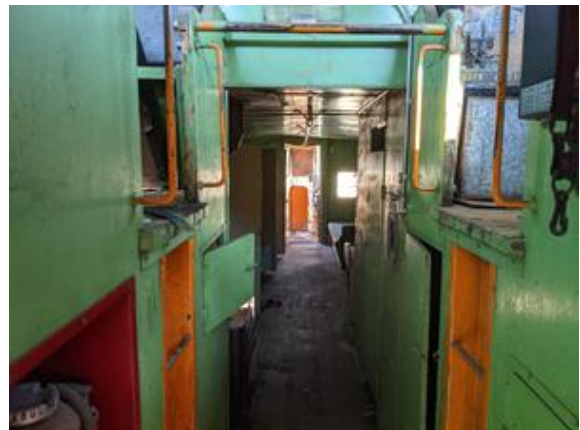
CHE-DRGW01476-170721-013 thru 015, 6% Asbestos, Black tar



CHE-DRGW01476-170721-013 thru 015, 6% Asbestos, Black tar



CHE-DRGW01476-170721-001L, 0.037% Lead, Green



CHE-DRGW01476-170721-001L, 0.037% Lead, Green



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01476



CHE-DRGW01476-170721-002L, 6.4% Lead, Orange



CHE-DRGW01476-170721-002L, 6.4% Lead, Orange



CHE-DRGW01476-170721-003L, 3% Lead, White



CHE-DRGW01476-170721-003L, 3% Lead, White



CHE-DRGW01476-170721-004L, 0.098% Lead, Black



CHE-DRGW01476-170721-004L, 0.098% Lead, Black



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01476



CHE-DRGW01476-170721-001P, PCB Not Detected,
Gray/black window caulk



CHE-DRGW01476-170721-001P, PCB Not Detected,
Gray/black window caulk

Appendix 1 - Figures

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01476</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT

D&RGW 01476
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

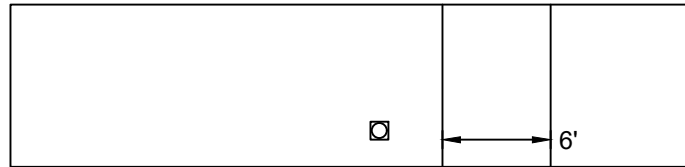
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

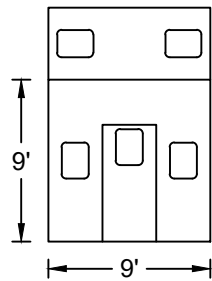
DATE: JULY-2021



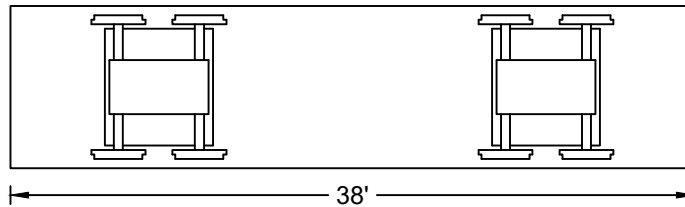
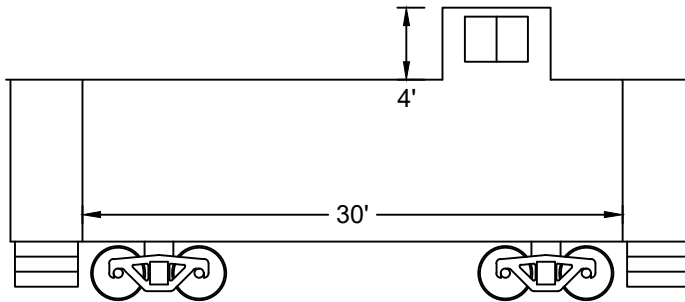
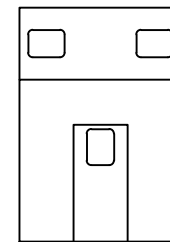
ROOF



FRONT END



BACK END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



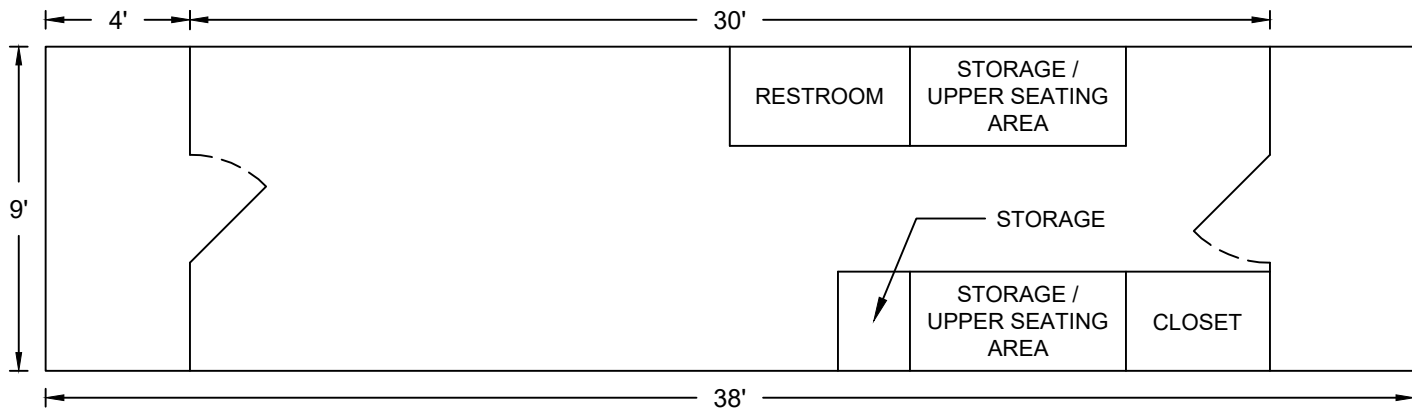
**EARTH SERVICES
& ABATEMENT**

D&RGW 01476
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



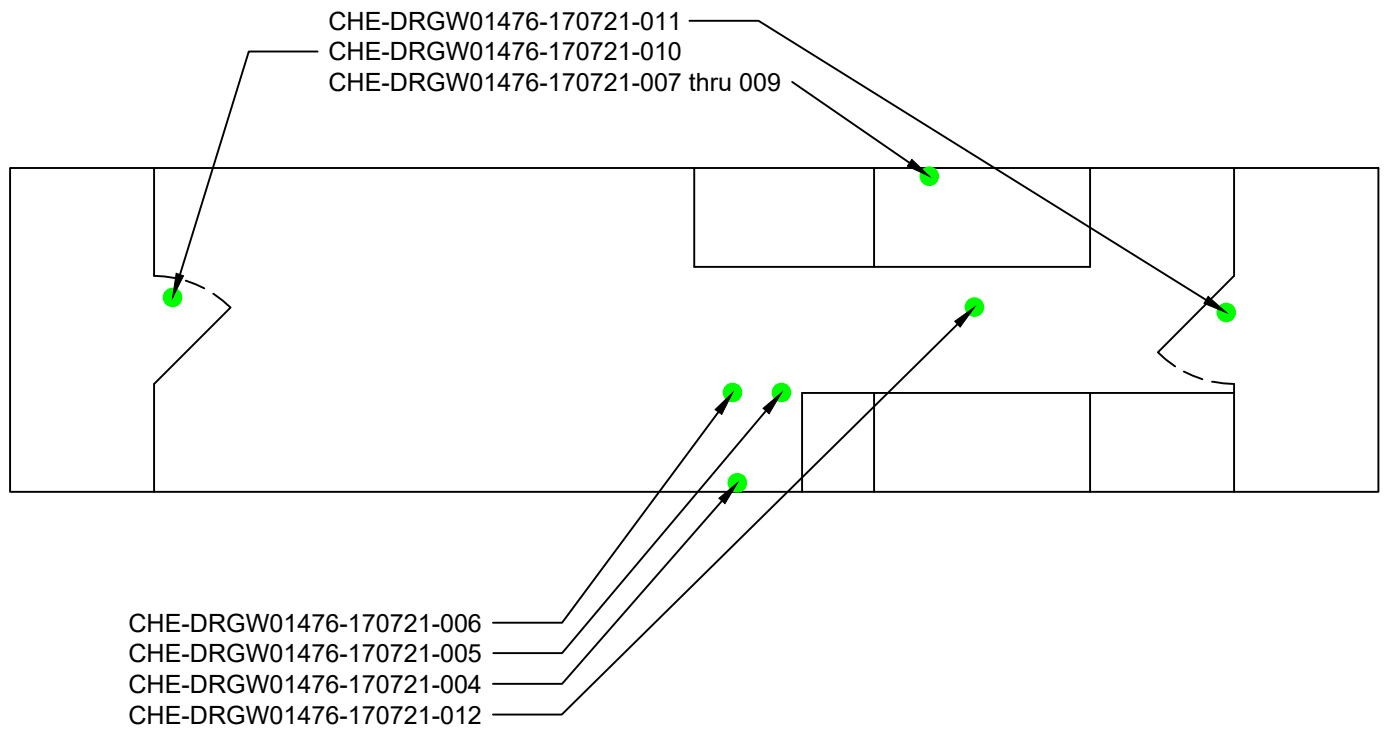
**EARTH SERVICES
& ABATEMENT**

D&RGW 01476
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

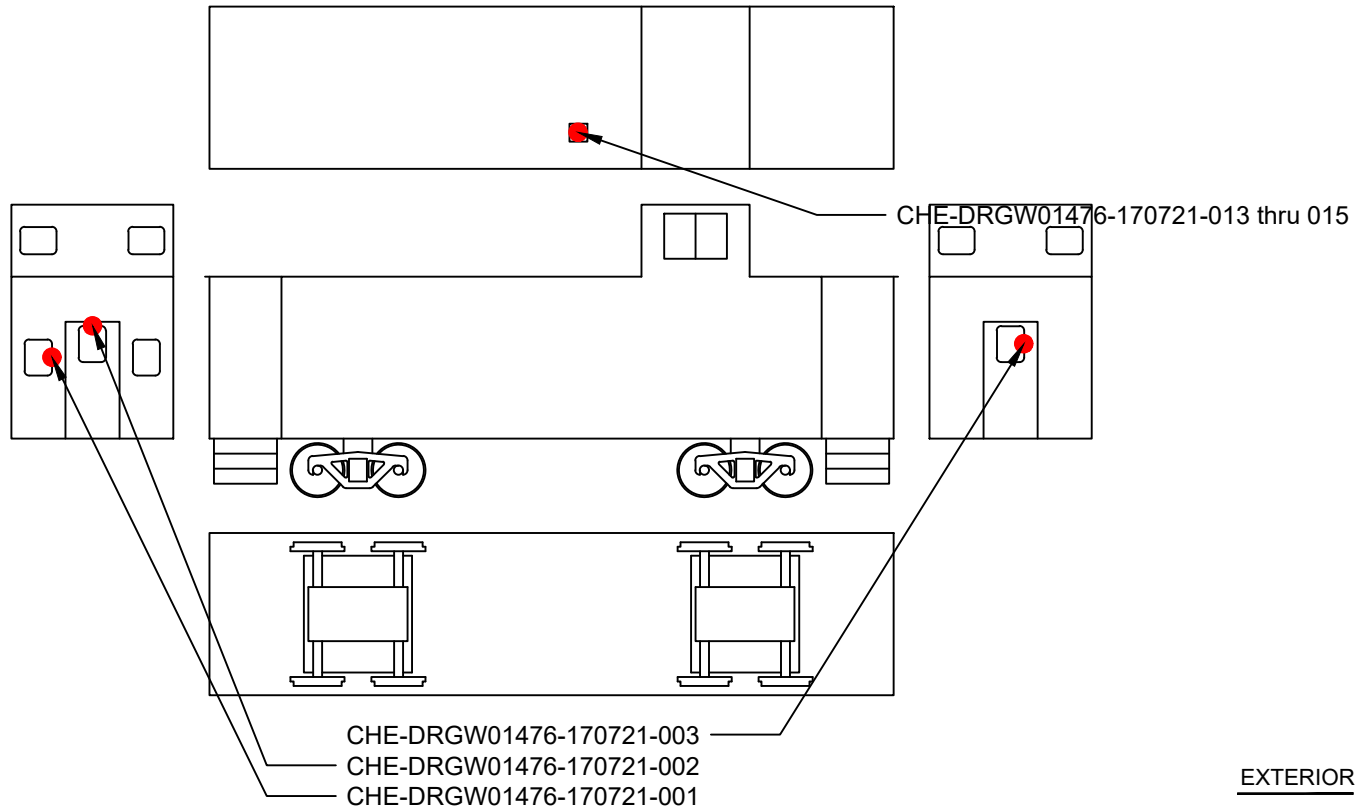
D&RGW 01476
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

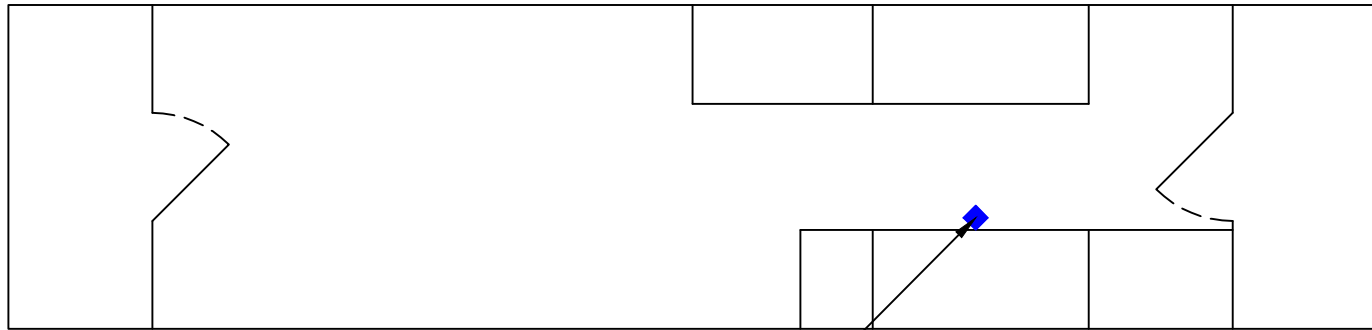
D&RGW 01476
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

**FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND**

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-DRGW01476-170721-001L

INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





EARTH SERVICES
& ABATEMENT

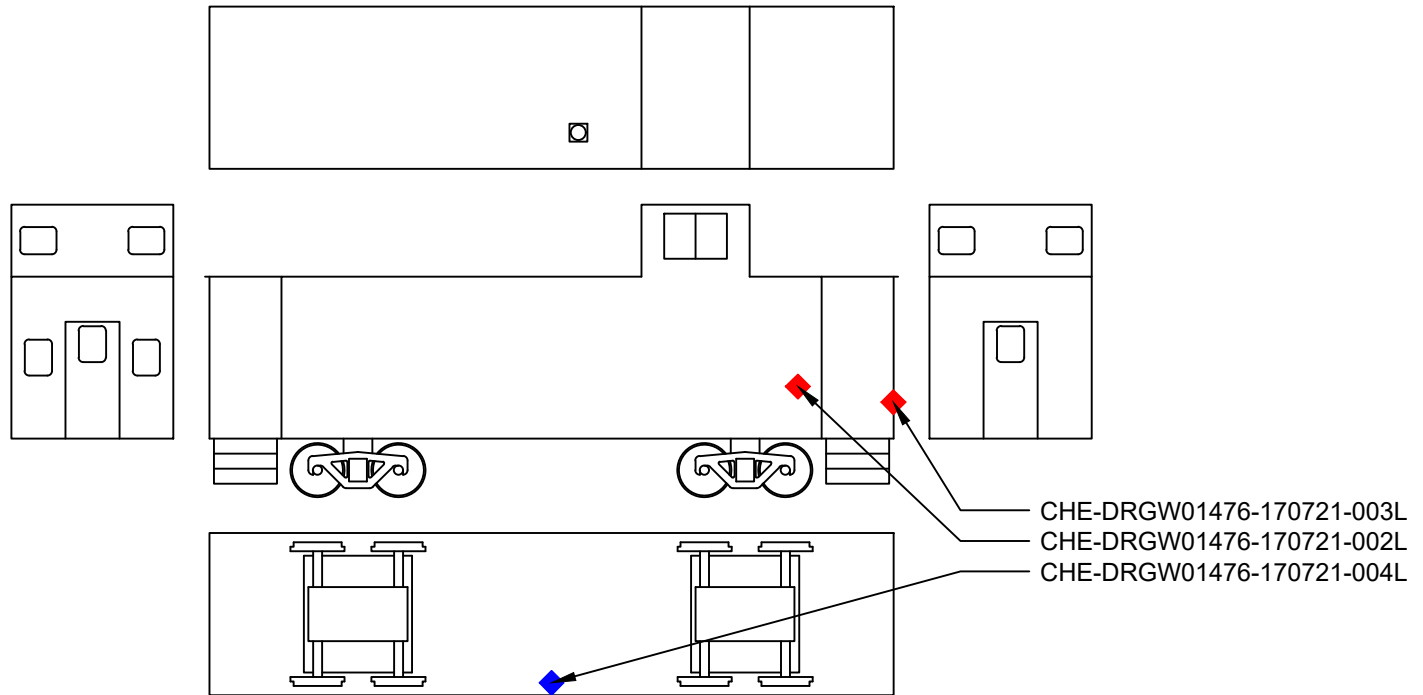
D&RGW 01476
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

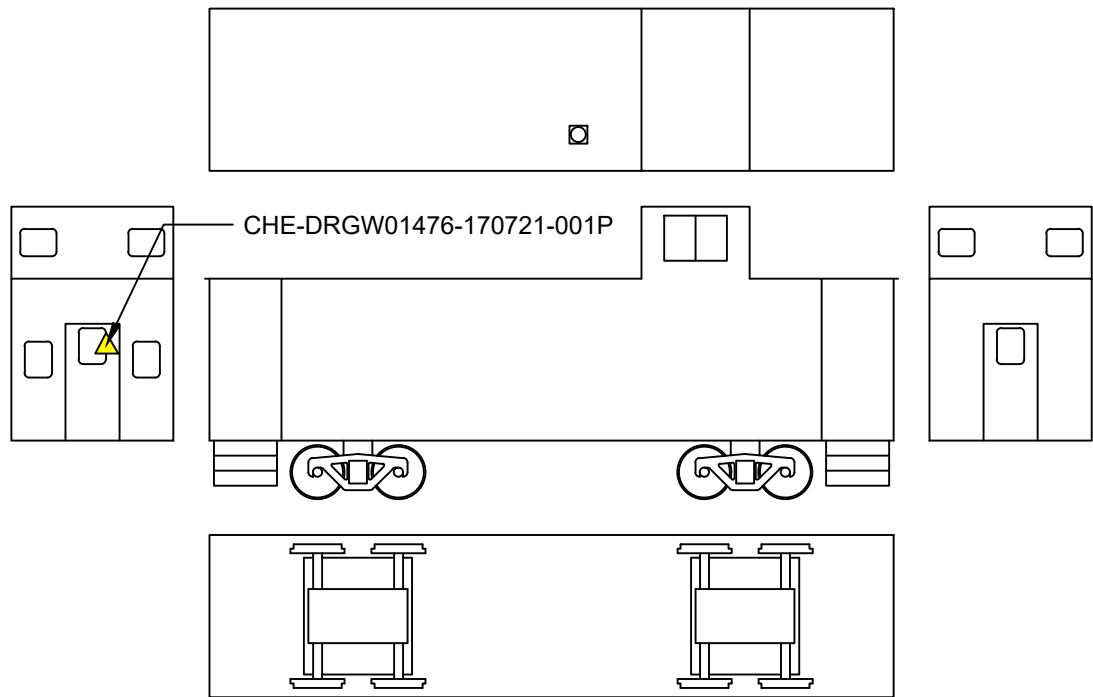
D&RGW 01476
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 7 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

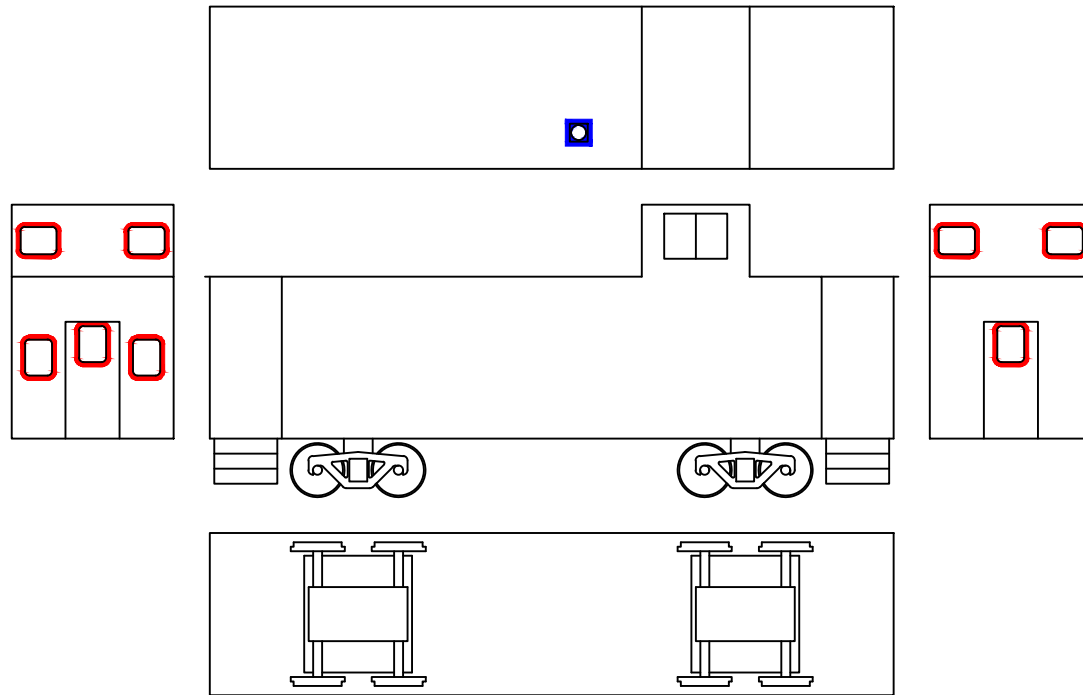
D&RGW 01476
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

**FIGURE 8 - PCB SAMPLE LOCATIONS
LEGEND**

-  - NON-PCB SAMPLE LOCATIONS (<50 PPM)
-  - PCB SAMPLE LOCATIONS (≥50 PPM)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**



D&RGW 01476
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)

LEGEND

-  - ACM GRAY/BLACK WINDOW CAULK
-  - ACM BLACK TAR

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01476</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129236
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 22-Jul-2021

D&RGW 01476 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-DRGW01476-170721-001	Caulking, Gray/ Black, Homogeneous	Chrysotile 6%	Non-Fibrous Material 94%
CHE-DRGW01476-170721-002	Caulking, *Not analyzed per client request		
CHE-DRGW01476-170721-003	Caulking, *Not analyzed per client request		
CHE-DRGW01476-170721-004	Fiberboard, Brown, Homogeneous	None Detected	Mineral Wool 40% Synthetic Fiber 20% Non-Fibrous Material 40%
CHE-DRGW01476-170721-005	Fiberboard, Brown, Homogeneous	None Detected	Mineral Wool 40% Synthetic Fiber 20% Non-Fibrous Material 40%
CHE-DRGW01476-170721-006	Fiberboard, Brown, Homogeneous	None Detected	Mineral Wool 40% Synthetic Fiber 20% Non-Fibrous Material 40%
CHE-DRGW01476-170721-007	Bakelite, Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-DRGW01476-170721-008	Bakelite, Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-DRGW01476-170721-009	Bakelite, Gray, Homogeneous	None Detected	Non-Fibrous Material 100%

Juliann Johnson Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129236
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 22-Jul-2021

D&RGW 01476 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-DRGW01476-170721-010	LAYER 1 Flooring, Brown/ Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Mastic, Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-DRGW01476-170721-011	LAYER 1 Flooring, Brown/ Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Mastic, Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-DRGW01476-170721-012	LAYER 1 Flooring, Brown/ Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Mastic, Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-DRGW01476-170721-013	Tar, Black, Homogeneous	Chrysotile 6%	Non-Fibrous Material 94%
CHE-DRGW01476-170721-014	Tar, *Not analyzed per client request		
CHE-DRGW01476-170721-015	Tar, *Not analyzed per client request		

Juliann Johnson Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



J3 Resource:

Open Lab Fee

129236

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	_____
City/State: Commerce City , CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - D&RGW 01476	Telephone - Office/Cell 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
-------------------------------------	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 15 **Positive Stop:** YES NO

Signatures

Relinquished By:	Date: 2/19	Time:
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022

Order #: JP211028586
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

WY Rollingstock Inspections-D&RGW 01476

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-DRGW01476-170721-001L	Green	370	0.037%
CHE-DRGW01476-170721-002L	Orange	64000	6.4%
CHE-DRGW01476-170721-003L	White	30000	3%
CHE-DRGW01476-170721-004L	Black	980	0.098%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi



Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

Open Lab Fee

28586

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	_____
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - D&RGW 01476	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions:	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 4 **Positive Stop:** YES NO

Signatures

Relinquished By:		Date: 7/19	Time:
Received By:		Date: 7/20/21	Time: 10:30
Relinquished By:		Date:	Time:
Received By:		Date:	Time:

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)



Monday, August 09, 2021

Amanda Wozab
Earth Services & Abatement
6700 E. 50th Ave.
Commerce City, CO 80022

Re: ALS Workorder: 2107401
Project Name: Cheyenne RS
Project Number: 215WY001

Dear Ms. Wozab:

One solid sample was received from Earth Services & Abatement, on 7/21/2021. The sample was scheduled for the following analysis:

PCBs

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager



2107401

PCB:

The sample was analyzed using GC/ECD (electron capture detectors) according to the current revision of SOP 409 based on SW-846 Method 8082.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2107401

Client Name: Earth Services & Abatement

Client Project Name: Cheyenne RS

Client Project Number: 215WY001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CHE-DRGW01476-170721-001P;	2107401-1		SOLID	17-Jul-21	10:00



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: EARTH SERVICES & ABATEMENT Workorder No: 2107401

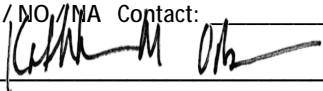
Project Manager: KMO Initials: JPE Date: 07/21/2021

		N/A	YES	NO
1.	Are airbills / shipping documents present and/or removable? Tracking number: 2815 9831 3879		X	
2.	Are custody seals on shipping containers intact?	X		
3.	Are custody seals on sample containers intact?	X		
4.	Is there a COC (chain-of-custody) present?		X	
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6.	Are short-hold samples present?			X
7.	Are all samples within holding times for the requested analyses?		X	
8.	Were all sample containers received intact? (not broken or leaking)		X	
9.	Is there sufficient sample for the requested analyses?		X	
10.	Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		X	
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13.	Were the samples shipped on ice?			X
14.	Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #5	RAD ONLY	X
Cooler #: <u>1</u> Temperature (°C): <u>AMB</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>11</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? YES / NA All client bottle ID's vs ALS lab ID's double-checked by JE

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: 7/21/21

Project Manager Signature / Date: 

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-DRGW01476-170721-001P; Caulk
Legal Location:
Collection Date: 7/17/2021 10:00

Date: 09-Aug-21
Work Order: 2107401
Lab ID: 2107401-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 7/30/2021	PrepBy: CPC
AROCLOR-1016	ND		2.2	MG/KG	6	8/6/2021 13:17
AROCLOR-1221	ND		4.3	MG/KG	6	8/6/2021 13:17
AROCLOR-1232	ND		2.2	MG/KG	6	8/6/2021 13:17
AROCLOR-1242	ND		2.2	MG/KG	6	8/6/2021 13:17
AROCLOR-1248	ND		2.2	MG/KG	6	8/6/2021 13:17
AROCLOR-1254	ND		2.2	MG/KG	6	8/6/2021 13:17
AROCLOR-1260	ND		2.2	MG/KG	6	8/6/2021 13:17
Surr: TETRACHLORO-M-XYLENE	71		69-129	%REC	6	8/6/2021 13:17
Surr: DECACHLOROBIPHENYL	75		55-135	%REC	6	8/6/2021 13:17

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-DRGW01476-170721-001P; Caulk
Legal Location:
Collection Date: 7/17/2021 10:00

Date: 09-Aug-21
Work Order: 2107401
Lab ID: 2107401-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 8/9/2021 1:39:25

Client: Earth Services & Abatement
 Work Order: 2107401
 Project: 215WY001 Cheyenne RS

QC BATCH REPORT

Batch ID: **EX210730-3-1** Instrument ID: **Pest-1** Method: **SW8082**

LCS Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:13**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.133	0.0333	0.133		99	80-120				50	
AROCLOR-1260	0.137	0.0333	0.133		103	80-125				50	
Surr: TETRACHLORO-M-XYLENE	0.0152		0.0167		91	69-129					
Surr: DECACHLOROBIPHENYL	0.0187		0.0167		112	55-135					

LCSD Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:32**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.125	0.0333	0.133		94	80-120		0.133	6	50	
AROCLOR-1260	0.131	0.0333	0.133		99	80-125		0.137	4	50	
Surr: TETRACHLORO-M-XYLENE	0.015		0.0167		90	69-129			1		
Surr: DECACHLOROBIPHENYL	0.0178		0.0167		107	55-135			5		

MB Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 11:25**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit										Qual
AROCLOR-1016	ND	0.033										
AROCLOR-1221	ND	0.067										
AROCLOR-1232	ND	0.033										
AROCLOR-1242	ND	0.033										
AROCLOR-1248	ND	0.033										
AROCLOR-1254	ND	0.033										
AROCLOR-1260	ND	0.033										
Surr: TETRACHLORO-M-XYLENE	0.0158				95	69-129						
Surr: DECACHLOROBIPHENYL	0.0178				107	55-135						

The following samples were analyzed in this batch:

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01476</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	D&RGW 01476	D&RGW 01476
Exposure Area	Exterior window frames☐	Roof penetrations☐
Asbestos Containing Material	Gray/black window caulk☐	Black tar☐
Sample Number	CHE-DRGW01476-170721-001 thru 003☐	CHE-DRGW01476-170721-013 thru 015☐
Size	NA	NA
Quantity	30 LF	2 SF
	2	2
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	1	1
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old		
MATERIAL TYPE Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	3
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	1
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	1	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	1
Exposure Value	14.25	12.25
Rating	4	4



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

August 10th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock D&RGW 01481, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar D&RGW 01481 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 16th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

**BUILDING AMERICA™
Inspection Type**

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 07/16/2021

Inspection End Date 07/16/2021

Report Date 08/10/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01481 Car Name D&RGW; 01481

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.129246°

State WY Longitude -104.817541°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01481

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 2

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details. The wood subfloor identified in samples CHE-DRGW01481-160721-013 thru 015 is not considered a suspect material for asbestos.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/16/2021	CHE-DRGW01481-160721-001 thru 003	Black/brown window caulk	Exterior window seams	Not Detected	N/A	N/A	48 LF	N/A
07/16/2021	CHE-DRGW01481-160721-004 thru 006	White sheet flooring and yellow mastic	Floor throughout interior	Not Detected	N/A	N/A	200 sq. ft.	N/A
07/16/2021	CHE-DRGW01481-160721-007 thru 009	White/brown sealant	Roof penetrations	2.85%, Chrysotile	Category II	No	8 LF	4
07/16/2021	CHE-DRGW01481-160721-010 thru 012	Black Bakelite	Breakers	6%, Chrysotile	Category II	No	0.5 sq. ft.	4
07/16/2021	CHE-DRGW01481-160721-013 thru 015	Black mastic	Interior, pop-up section	Not Detected	N/A	N/A	12 sq. ft.	N/A

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01481

BUILDING AMERICA™

Lead-Based Paint Results

Lead Present³ Yes Total Number of Positive Components.³ 2

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/16/2021	CHE-DRGW01481-160721-001L	White	Interior	< 0.00500 %	Poor
07/16/2021	CHE-DRGW01481-160721-002L	Yellow	Exterior upper half	7.9 %	Poor
07/16/2021	CHE-DRGW01481-160721-003L	Black	Exterior lower half and undercarriage	0.067 %	Poor
07/16/2021	CHE-DRGW01481-160721-004L	Silver	Exterior handrails and knuckles	3.9 %	Poor
07/16/2021	CHE-DRGW01481-160721-005L	Gray	Interior popup stairs and trim	0.19 %	Poor

Polychlorinated Biphenyls Results

PCBs Present⁴ No Total Number of Positive Components.⁴ 0

Notes

PCBs Samples

Sample Date	Sample ID	Description	Location	PCBs Result	Quantity
07/16/2021	CHE-DRGW01481-160721-001P	Black/brown window caulk	Exterior window seams	Not Detected	48 LF

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01481

Mold Results

Suspect Mold Present No

Notes

- 1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
- 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
- 3 "Lead Present" and "Positive" is defined as paint with $\geq 0.5\%$ lead.
- 4 "PCBs Present" and "Positive" is defined as caulk with ≥ 50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01481



Railcar ID Marker



View of railcar, looking west-northwest



View of railcar, looking northeast



View of car interior



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01481



CHE-DRGW01481-160721-001 thru 003, Asbestos Not Detected, Black/brown window caulk



CHE-DRGW01481-160721-001 thru 003, Asbestos Not Detected, Black/brown window caulk



CHE-DRGW01481-160721-004 thru 006, Asbestos Not Detected, White sheet flooring and yellow mastic



CHE-DRGW01481-160721-004 thru 006, Asbestos Not Detected, White sheet flooring and yellow mastic



CHE-DRGW01481-160721-007 thru 009, 2.85% Asbestos, White/brown sealant



CHE-DRGW01481-160721-007 thru 009, 2.85% Asbestos, White/brown sealant



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01481



CHE-DRGW01481-160721-010 thru 012, 6% Asbestos, Black Bakelite



CHE-DRGW01481-160721-010 thru 012, 6% Asbestos, Black Bakelite



CHE-DRGW01481-160721-013 thru 015, Asbestos Not Detected, Black mastic



CHE-DRGW01481-160721-013 thru 015, Asbestos Not Detected, Black mastic



CHE-DRGW01481-160721-001L, <0.005% Lead, White



CHE-DRGW01481-160721-001L, <0.005% Lead, White



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01481



CHE-DRGW01481-160721-002L, 7.9% Lead, Yellow



CHE-DRGW01481-160721-002L, 7.9% Lead, Yellow



CHE-DRGW01481-160721-003L, 0.067% Lead, Black



CHE-DRGW01481-160721-003L, 0.067% Lead, Black



CHE-DRGW01481-160721-004L, 3.9% Lead, Silver



CHE-DRGW01481-160721-004L, 3.9% Lead, Silver



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01481



CHE-DRGW01481-160721-005L, 0.19% Lead, Gray



CHE-DRGW01481-160721-005L, 0.19% Lead, Gray



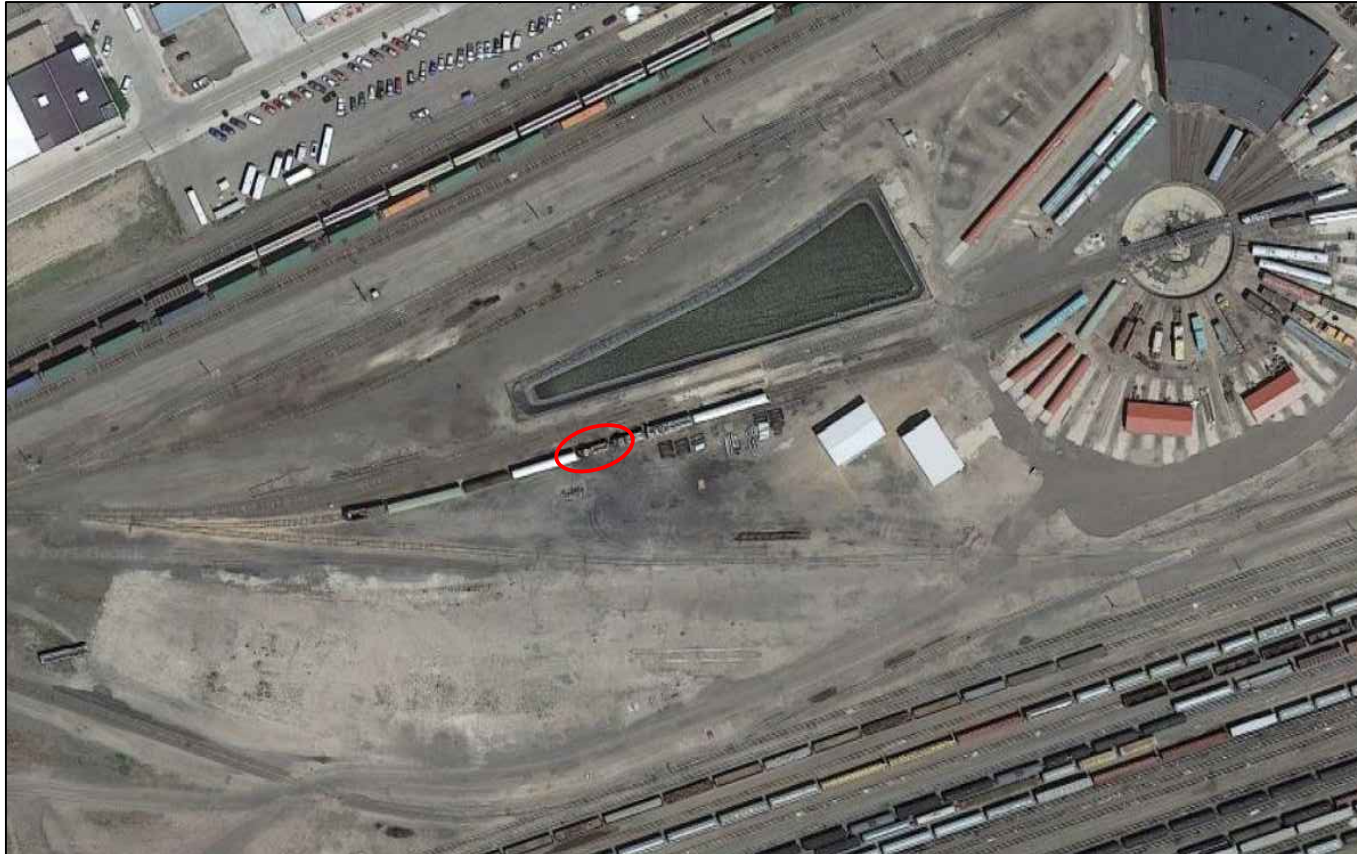
CHE-DRGW01481-160721-001P, PCB Not Detected,
Black/brown window caulk



CHE-DRGW01481-160721-001P, PCB Not Detected,
Black/brown window caulk

Appendix 1 - Figures

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01481</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT

D&RGW 01481
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

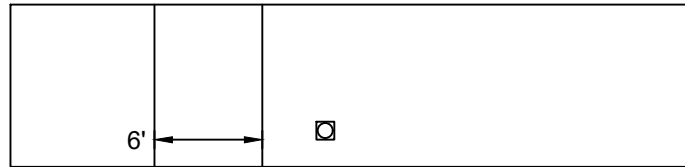
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

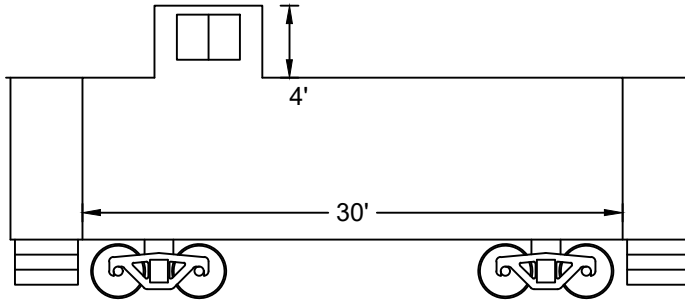
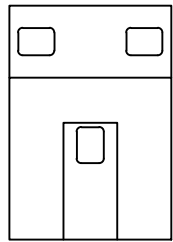
DATE: JULY-2021



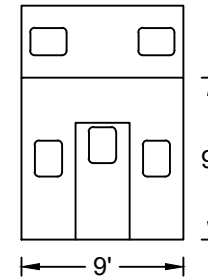
ROOF



FRONT END



BACK END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



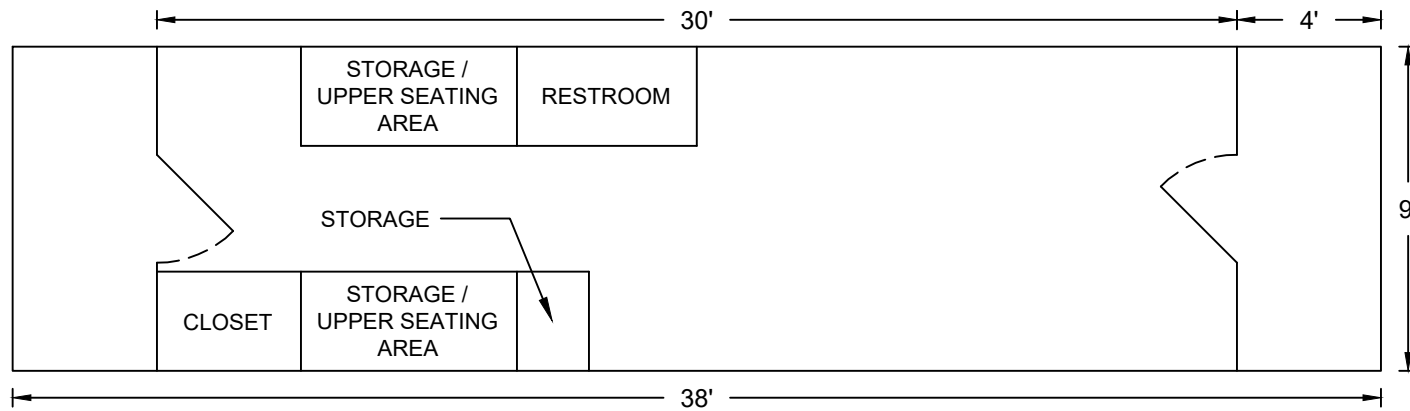
**EARTH SERVICES
& ABATEMENT**

D&RGW 01481
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



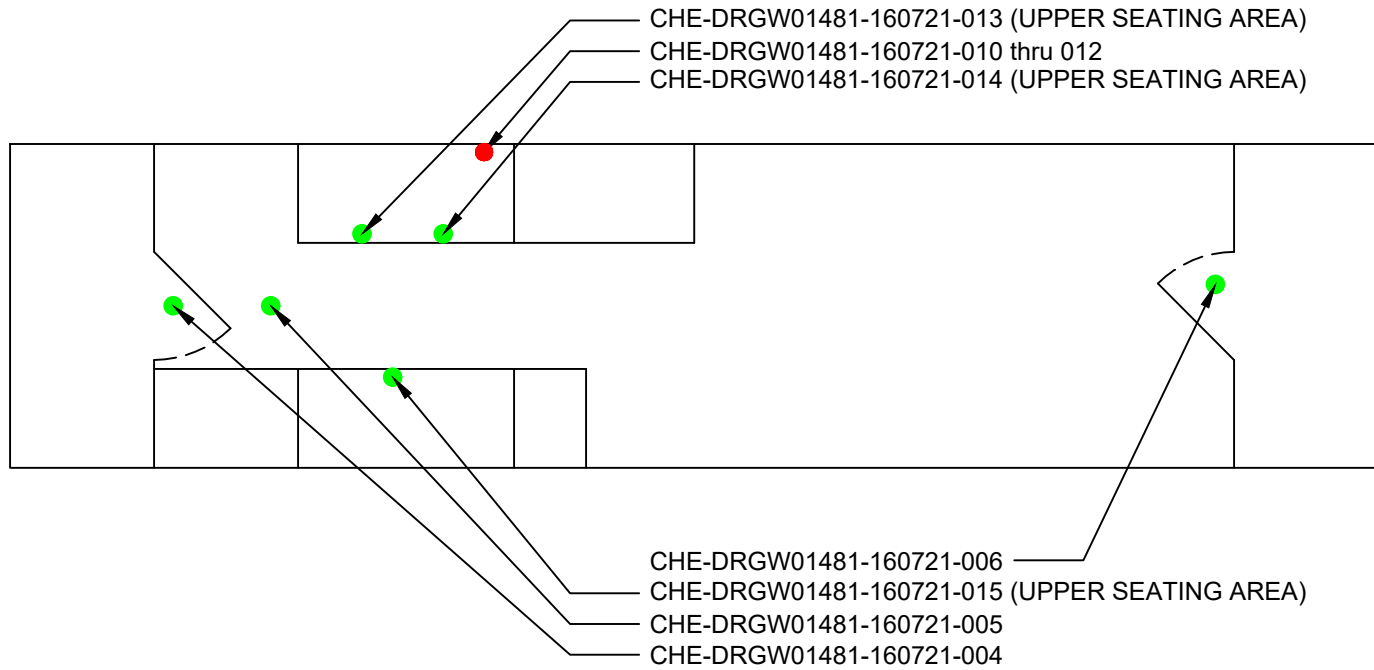
**EARTH SERVICES
& ABATEMENT**

D&RGW 01481
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

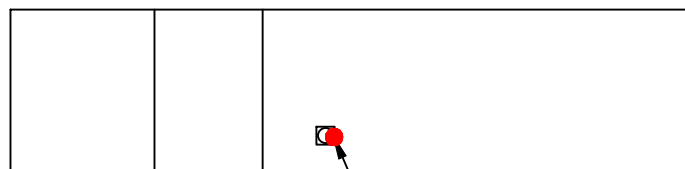
D&RGW 01481
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

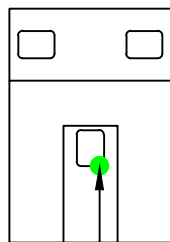
DATE: JULY-2021

**FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND**

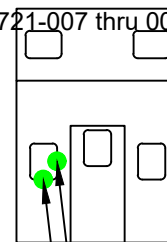
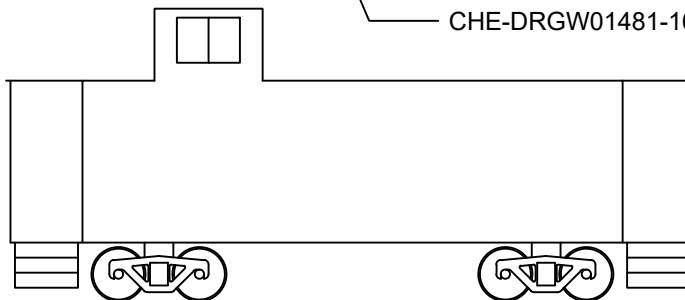
- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-DRGW01481-160721-007 thru 009



CHE-DRGW01481-160721-001



CHE-DRGW01481-160721-003
CHE-DRGW01481-160721-002



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

D&RGW 01481
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

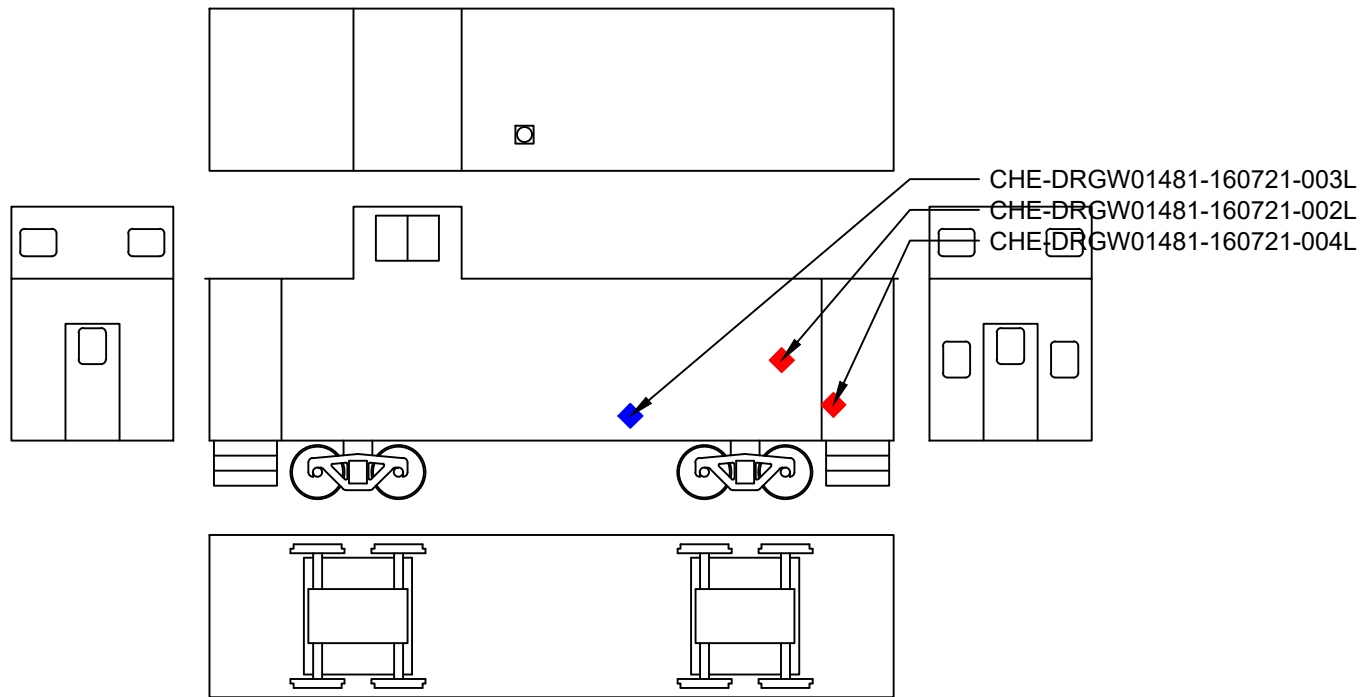
D&RGW 01481
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

**FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND**



-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY

**FIGURE 7 - LBP SAMPLE LOCATIONS
LEGEND**

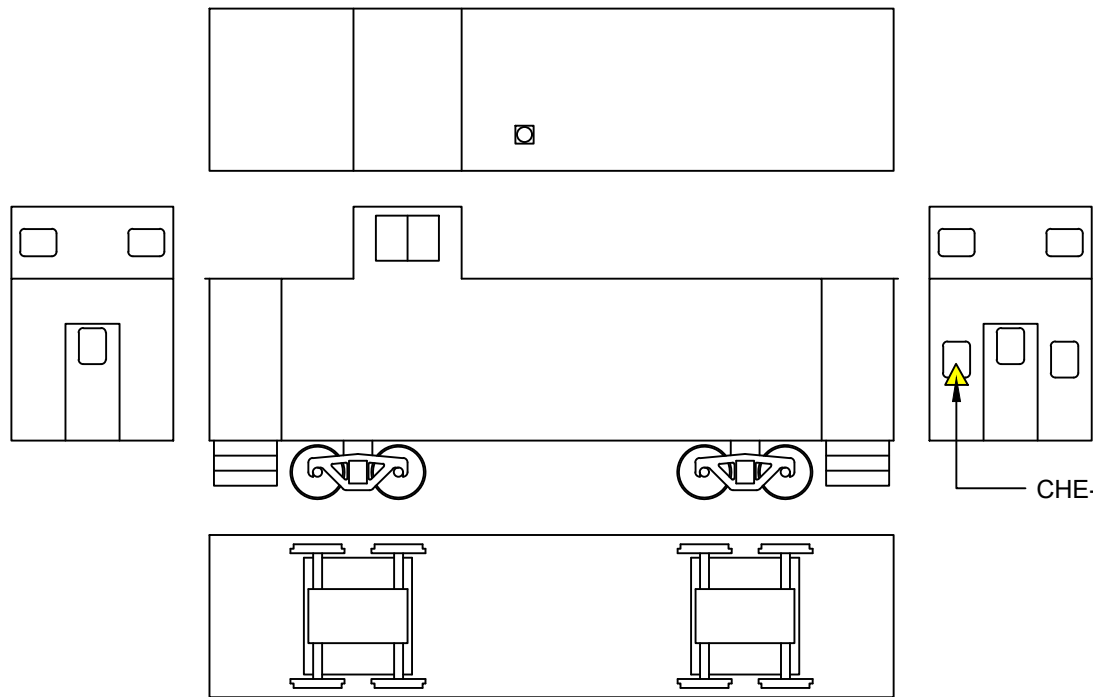
-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



**EARTH SERVICES
& ABATEMENT**

D&RGW 01481
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM DATE: JULY-2021



CHE-DRGW01481-160721-001P

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

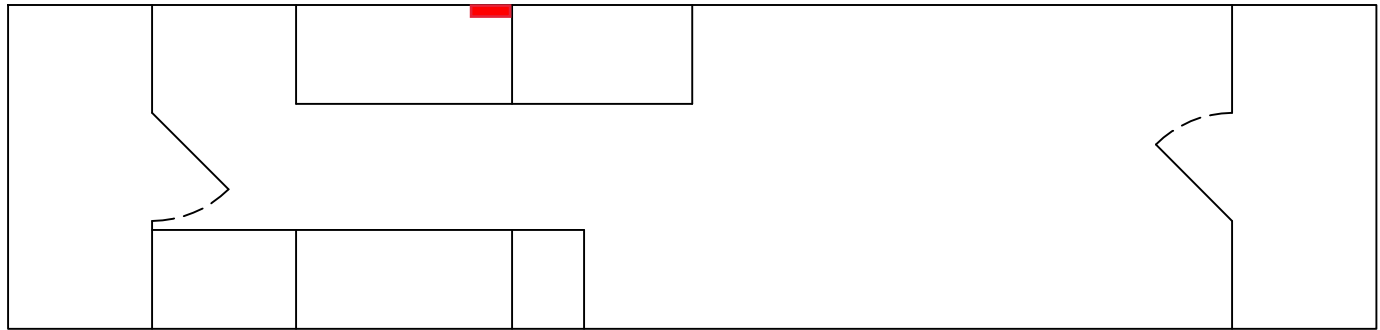
D&RGW 01481
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 8 - PCB SAMPLE LOCATIONS
LEGEND

-  - NON-PCB SAMPLE LOCATIONS (<50 PPM)
-  - PCB SAMPLE LOCATIONS (≥50 PPM)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

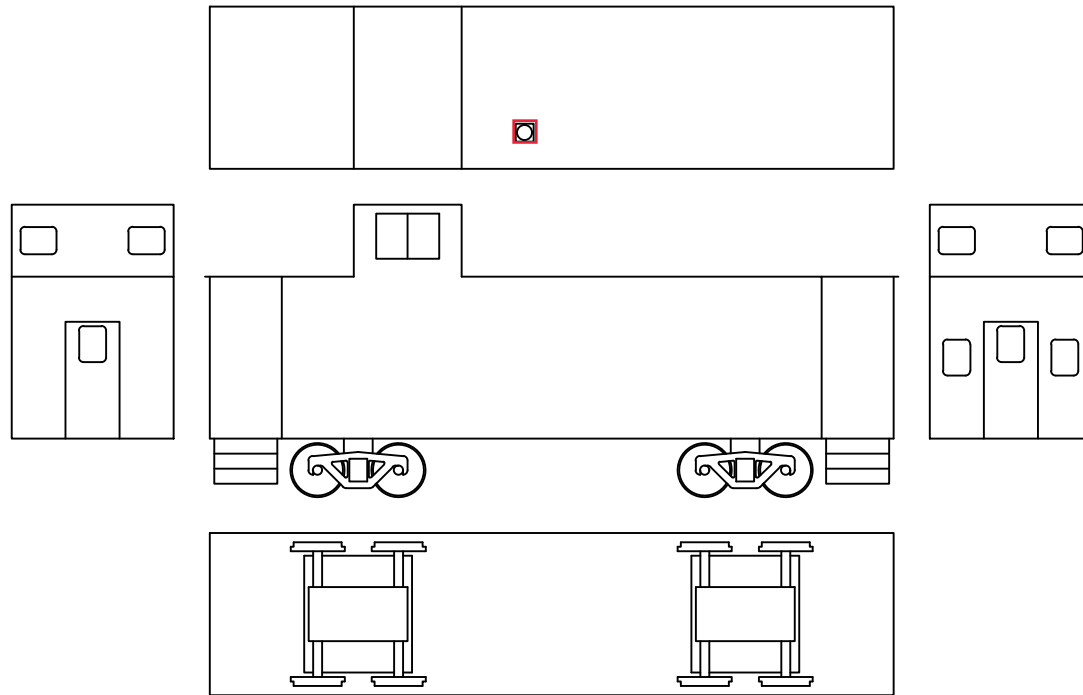
D&RGW 01481
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM BLACK BAKELITE



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

D&RGW 01481
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 10 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

— ACM WHITE/BROWN SEALANT

DRAWN BY: J. KULM

DATE: JULY-2021

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01481</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21129248
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

D&RGW 01481 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-DRGW01481-160721-001	Caulking, Brown/ Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01481-160721-002	Caulking, Brown/ Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01481-160721-003	Caulking, Brown/ Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01481-160721-004	LAYER 1 Sheet Flooring, Tan/ Gray, Homogeneous	None Detected	Cellulose Fiber Fibrous Glass Non-Fibrous Material	30% <1 70%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01481-160721-005	LAYER 1 Sheet Flooring, Tan/ Gray, Homogeneous	None Detected	Cellulose Fiber Fibrous Glass Non-Fibrous Material	30% <1 70%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01481-160721-006	LAYER 1 Sheet Flooring, Tan/ Gray, Homogeneous	None Detected	Cellulose Fiber Fibrous Glass Non-Fibrous Material	30% <1 70%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01481-160721-007	Sealant, Brown/ Gray, Homogeneous Original PLM Result: Chrysotile 2%	Chrysotile	2.85%	Non-Fibrous Material 97.15%

Gravimetric Reduction Prep

Juliann Johnson Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129248
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

D&RGW 01481 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE- DRGW01481- 160721-008 400 pt. POINT COUNT	Sealant, *Not analyzed per client request Original PLM Result: Chrysotile 2%		
Gravimetric Reduction Prep			
CHE- DRGW01481- 160721-009 400 pt. POINT COUNT	Sealant, *Not analyzed per client request Original PLM Result: Chrysotile 2%		
Gravimetric Reduction Prep			
CHE- DRGW01481- 160721-010	Bakelite, Black, Homogeneous	Chrysotile 6%	Non-Fibrous Material 94%
CHE- DRGW01481- 160721-011	Bakelite, *Not analyzed per client request		
CHE- DRGW01481- 160721-012	Bakelite, *Not analyzed per client request		
CHE- DRGW01481- 160721-013	LAYER 1 Flooring Mastic, Black, Homogeneous No Flooring Present	None Detected	Non-Fibrous Material 100%
	LAYER 2 Subfloor, Brown, Homogeneous	None Detected	Cellulose Fiber 90% Non-Fibrous Material 10%

Juliann Johnson Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129248
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

D&RGW 01481 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-DRGW01481-160721-014	LAYER 1 Flooring Mastic, Black, Homogeneous No Flooring Present	None Detected	Non-Fibrous Material	100%
	LAYER 2 Subfloor, Brown, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	90% 10%
CHE-DRGW01481-160721-015	LAYER 1 Flooring Mastic, Black, Homogeneous No Flooring Present	None Detected	Non-Fibrous Material	100%
	LAYER 2 Subfloor, Brown, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	90% 10%

Juliann Johnson Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



J3 Resources

Open Lab Fee

J3 Order # (Lab Use Only) 12240

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	_____
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - D&RGW 01481	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 15	Positive Stop: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
--	---

Signatures

Relinquished By:	Date: 7/19	Time: _____
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
**TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Eurofins J3 Resources, Inc.

3113 Red Bluff Road Pasadena, Texas 77503

Phone: (713) 290-0223 – Fax: (832) 831-5669

j3resources.com



J3 Resources

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022

Order #: JP211028587
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

WY Rollingstock Inspections-D&RGW 01481

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-DRGW01481-160721-001L	White	< 50	< 0.005%
CHE-DRGW01481-160721-002L	Yellow	79000	7.9%
CHE-DRGW01481-160721-003L	Black	670	0.067%
CHE-DRGW01481-160721-004L	Silver	39000	3.9%
CHE-DRGW01481-160721-005L	Gray	1900	0.19%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi

Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

IH CHAIN OF CUSTODY



Open Lab Fee

J3 Order # (Lab Use Only)
28587

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	_____
City/State: Commerce City , CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - D&RGW 01481	Telephone – Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions:	

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 5	Positive Stop: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
---	---

Signatures

Relinquished By:	Date: 7/19	Time:
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)



Monday, August 09, 2021

Amanda Wozab
Earth Services & Abatement
6700 E. 50th Ave.
Commerce City, CO 80022

Re: ALS Workorder: 2107413
Project Name: Cheyenne RS
Project Number: 215WY001

Dear Ms. Wozab:

One solid sample was received from Earth Services & Abatement, on 7/21/2021. The sample was scheduled for the following analysis:

PCBs

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager



2107413

PCB:

The sample was analyzed using GC/ECD (electron capture detectors) according to the current revision of SOP 409 based on SW-846 Method 8082.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2107413

Client Name: Earth Services & Abatement

Client Project Name: Cheyenne RS

Client Project Number: 215WY001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CHE-DRGW01481-160721-001P	2107413-1		SOLID	17-Jul-21	



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 2028



PROJECT NAME	PROJECT No.	COMPANY NAME	SEND REPORT TO	ADDRESS	CITY / STATE / ZIP	PHONE	FAX	E-MAIL	SAMPLER	SITE ID	EDD FORMAT	PURCHASE ORDER	BILL TO COMPANY	INVOICE ATTN TO	ADDRESS	CITY / STATE / ZIP	PHONE	FAX	E-MAIL	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	Lab ID	Field ID	
Cheyenne RS	215WY001	Earth Services & Abatement	Earth Services & Abatement	6700 E. 50th Ave.	Commerce City, CO 80022	303-991-1280	303-991-1282	Amanda.Wozab@esssiste.com Joseph.Kulim@esssiste.com	Joseph Kulim	D&RGW 01481			Earth Services & Abatement			6700 E. 50th Ave.	Commerce City, CO 80022	303-991-1280	303-991-1282		NS	07.17.21	04/14/1903				CHE-DRGW01481-160721-001P	

PCB by 8082

X

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY	<i>Joseph Kulim</i>	Joseph Kulim	7/19/21	
RELINQUISHED BY	<i>Josh Eckert</i>	Josh Eckert	7/21/21	0945
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

Form 2028 5 Day 1 of 1



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: EARTH SERVICES & ABATEMENT Workorder No: 2107413

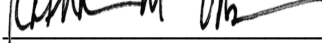
Project Manager: KMO Initials: JPE Date: 07/21/2021

		N/A	YES	NO
1.	Are airbills / shipping documents present and/or removable? Tracking number: 2815 9831 3879		X	
2.	Are custody seals on shipping containers intact?	X		
3.	Are custody seals on sample containers intact?	X		
4.	Is there a COC (chain-of-custody) present?		X	
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6.	Are short-hold samples present?			X
7.	Are all samples within holding times for the requested analyses?		X	
8.	Were all sample containers received intact? (not broken or leaking)		X	
9.	Is there sufficient sample for the requested analyses?		X	
10.	Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		X	
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13.	Were the samples shipped on ice?			X
14.	Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*:	#5	
		RAD ONLY		X
Cooler #: <u>1</u> Temperature (°C): <u>AMB</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>11</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? YES / NA All client bottle ID's vs ALS lab ID's double-checked by JE

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: 7/22/21

Project Manager Signature / Date: 

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-DRGW01481-160721-001P
Legal Location:
Collection Date: 7/17/2021

Date: 09-Aug-21
Work Order: 2107413
Lab ID: 2107413-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 7/30/2021	PrepBy: CPC
AROCLOR-1016	ND		2.5	MG/KG	6	8/6/2021 17:58
AROCLOR-1221	ND		5.1	MG/KG	6	8/6/2021 17:58
AROCLOR-1232	ND		2.5	MG/KG	6	8/6/2021 17:58
AROCLOR-1242	ND		2.5	MG/KG	6	8/6/2021 17:58
AROCLOR-1248	ND		2.5	MG/KG	6	8/6/2021 17:58
AROCLOR-1254	ND		2.5	MG/KG	6	8/6/2021 17:58
AROCLOR-1260	ND		2.5	MG/KG	6	8/6/2021 17:58
Surr: TETRACHLORO-M-XYLENE	84		69-129	%REC	6	8/6/2021 17:58
Surr: DECACHLOROBIPHENYL	115		55-135	%REC	6	8/6/2021 17:58

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-DRGW01481-160721-001P
Legal Location:
Collection Date: 7/17/2021

Date: 09-Aug-21
Work Order: 2107413
Lab ID: 2107413-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 8/9/2021 2:05:35

Client: Earth Services & Abatement
 Work Order: 2107413
 Project: 215WY001 Cheyenne RS

QC BATCH REPORT

Batch ID: **EX210730-3-1** Instrument ID: **Pest-1** Method: **SW8082**

LCS Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:13**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.133	0.0333	0.133		99	80-120				50	
AROCLOR-1260	0.137	0.0333	0.133		103	80-125				50	
Surr: TETRACHLORO-M-XYLENE	0.0152		0.0167		91	69-129					
Surr: DECACHLOROBIPHENYL	0.0187		0.0167		112	55-135					

LCSD Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:32**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.125	0.0333	0.133		94	80-120		0.133	6	50	
AROCLOR-1260	0.131	0.0333	0.133		99	80-125		0.137	4	50	
Surr: TETRACHLORO-M-XYLENE	0.015		0.0167		90	69-129			1		
Surr: DECACHLOROBIPHENYL	0.0178		0.0167		107	55-135			5		

MB Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 11:25**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	ND	0.033									
AROCLOR-1221	ND	0.067									
AROCLOR-1232	ND	0.033									
AROCLOR-1242	ND	0.033									
AROCLOR-1248	ND	0.033									
AROCLOR-1254	ND	0.033									
AROCLOR-1260	ND	0.033									
Surr: TETRACHLORO-M-XYLENE	0.0158				95	69-129					
Surr: DECACHLOROBIPHENYL	0.0178				107	55-135					

The following samples were analyzed in this batch:

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01481</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	D&RGW 01481	D&RGW 01481
Exposure Area	Roof penetrations <input type="checkbox"/>	Breakers <input type="checkbox"/>
Asbestos Containing Material	White/brown sealant <input type="checkbox"/>	Black Bakelite <input type="checkbox"/>
Sample Number	CHE-DRGW01481-160721-007 thru 009 <input type="checkbox"/>	CHE-DRGW01481-160721-010 thru 012 <input type="checkbox"/>
Size	NA	NA
Quantity	8 LF	0.5 SF
MATERIAL CONDITION (MC)	2	2
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area		
BUILDING AGE (BA)	1	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old		
MATERIAL TYPE		
Pipe Covering (PC)	NA	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper		
Ceiling Plasters or Fireproofing (CP)	NA	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture		
WATER DAMAGE (WD)	0	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread		
ROOF CHARACTERISTICS (RC)	-0.5	-0.5
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up		
EXPOSED SURFACE AREA (ESA)	4	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed		
ACCESSIBILITY (AC)	4	4
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high		
ACTIVITY AND MOVEMENT (A/M)	2	2
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently		
WORK ENVIRONMENT (WE)	0.5	0.5
-0.5 =Sedentary 0.5 =Non-sedentary		
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration		
AIR - PLENUM / AIR STREAM (AP)	1	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists		
VELOCITY (if Air Plenum = 1) (VEL)	-0.25	-0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling		
FLOW (if Air Plenum = 1) (FL)	NA	NA
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow		
FRIABILITY (F)	1	1
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure		
ASBESTOS CONTENT (ASB)	1	1
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos		
Exposure Value	14.25	14.25
Rating	4	4



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

August 17th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock D&RGW 01486, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar D&RGW 01486 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 16th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection Reinspection NESHAP Inspection

Inspection Start Date 07/16/2021

Inspection End Date 07/16/2021

Report Date 08/10/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State _____

Asset Information

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01486 Car Name D&RGW; 01486

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.129267°

State WY Longitude -104.817399°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm, Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie, Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens, Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01486

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 1

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/16/2021	CHE-DRGW01486-1607 21-001 thru 003	Black window caulk	Interior & exterior window seams	Not Detected	N/A	N/A	48 LF	N/A
07/16/2021	CHE-DRGW01486-1607 21-004 thru 006	White sheet flooring and yellow mastic	Floor throughout	Not Detected	N/A	N/A	200 sq. ft.	N/A
07/16/2021	CHE-DRGW01486-1607 21-007 thru 009	Brown/white sealant	Roof penetration	8%, Chrysotile	Category II	No	8 LF	4

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01486

BUILDING AMERICA™

Lead-Based Paint Results

Lead Present³ Yes Total Number of Positive Components.³ 2

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/16/2021	CHE-DRGW01486-160721-001L	White	Interior	< 0.00500 %	Poor
07/16/2021	CHE-DRGW01486-160721-002L	Yellow	Exterior car, upper half	5.7 %	Fair
07/16/2021	CHE-DRGW01486-160721-003L	Black	Exterior lower half of car and undercarriage	1.9 %	Poor
07/16/2021	CHE-DRGW01486-160721-004L	Silver	Exterior handrails and knuckles	0.17 %	Poor
07/16/2021	CHE-DRGW01486-160721-005L	Gray	Interior popup stairs and trim	0.0086 %	Poor

Polychlorinated Biphenyls Results

PCBs Present⁴ No Total Number of Positive Components.⁴ 0

Notes

PCBs Samples

Sample Date	Sample ID	Description	Location	PCBs Result	Quantity
07/16/2021	CHE-DRGW01486-160721-001P	Black window caulk	Interior & exterior window seams	Not Detected	48 LF

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01486

Mold Results

Suspect Mold Present No

Notes

- 1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
- 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
- 3 "Lead Present" and "Positive" is defined as paint with $\geq 0.5\%$ lead.
- 4 "PCBs Present" and "Positive" is defined as caulk with ≥ 50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01486



Railcar ID Marking



View of railcar, looking north-northeast



View of railcar, looking north-northwest



View of interior



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01486



CHE-DRGW01486-160721-001 thru 003, Asbestos Not Detected, Black window caulk



CHE-DRGW01486-160721-001 thru 003, Asbestos Not Detected, Black window caulk



CHE-DRGW01486-160721-004 thru 006, Asbestos Not Detected, White sheet flooring and yellow mastic



CHE-DRGW01486-160721-004 thru 006, Asbestos Not Detected, White sheet flooring and yellow mastic



CHE-DRGW01486-160721-007 thru 009, 8% Asbestos, Brown/white sealant



CHE-DRGW01486-160721-007 thru 009, 8% Asbestos, Brown/white sealant



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01486



CHE-DRGW01486-160721-001L, <0.005% Lead, White



CHE-DRGW01486-160721-001L, <0.005% Lead, White



CHE-DRGW01486-160721-002L, 5.7% Lead, Yellow



CHE-DRGW01486-160721-002L, 5.7% Lead, Yellow



CHE-DRGW01486-160721-003L, 1.9% Lead, Black



CHE-DRGW01486-160721-003L, 1.9% Lead, Black



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01486



CHE-DRGW01486-160721-004L, 0.17% Lead, Silver



CHE-DRGW01486-160721-004L, 0.17% Lead, Silver



CHE-DRGW01486-160721-005L, 0.0086% Lead, Gray



CHE-DRGW01486-160721-005L, 0.0086% Lead, Gray



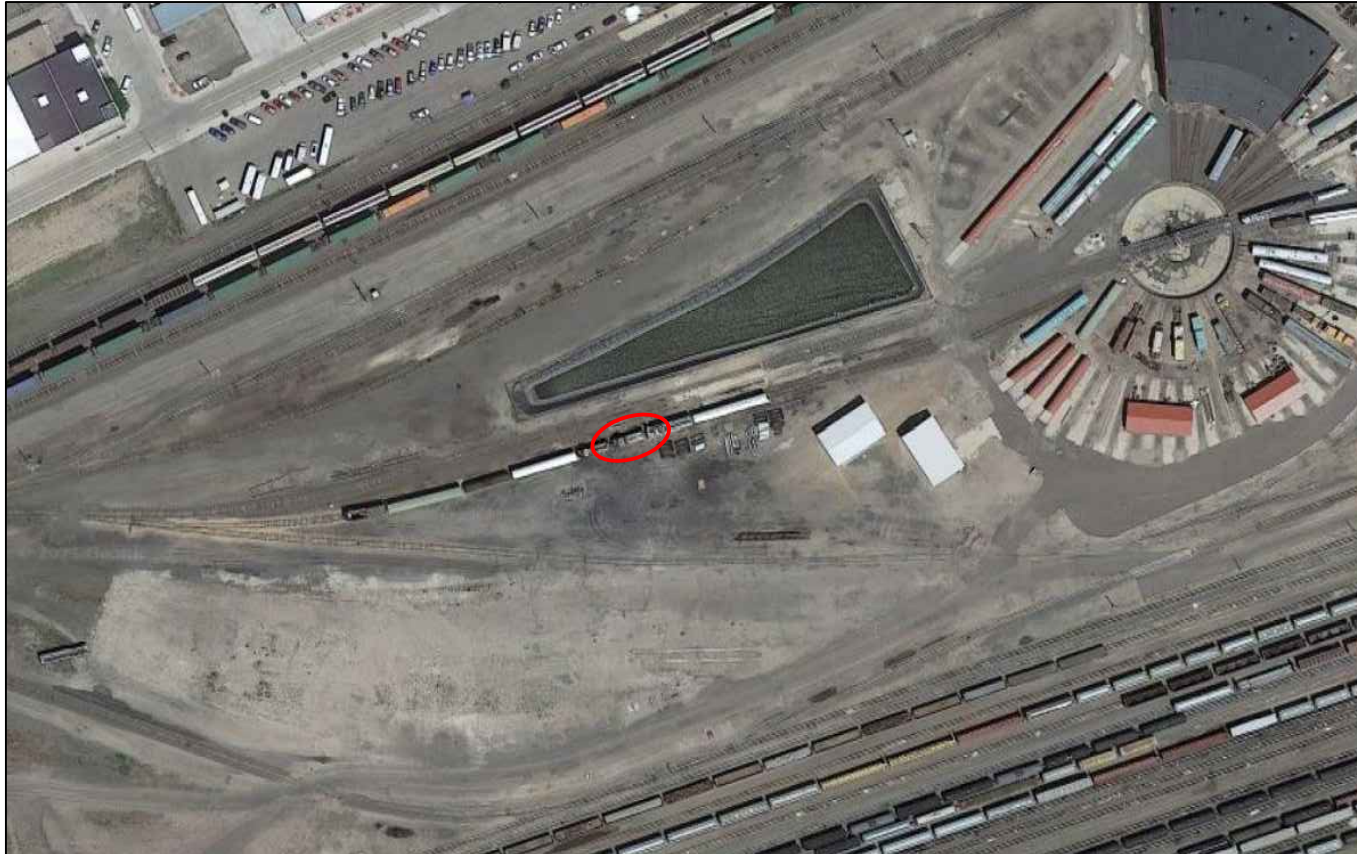
CHE-DRGW01486-160721-001P, PCB Not Detected,
Black window caulk



CHE-DRGW01486-160721-001P, PCB Not Detected,
Black window caulk

Appendix 1 - Figures

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01486</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT

D&RGW 01486
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

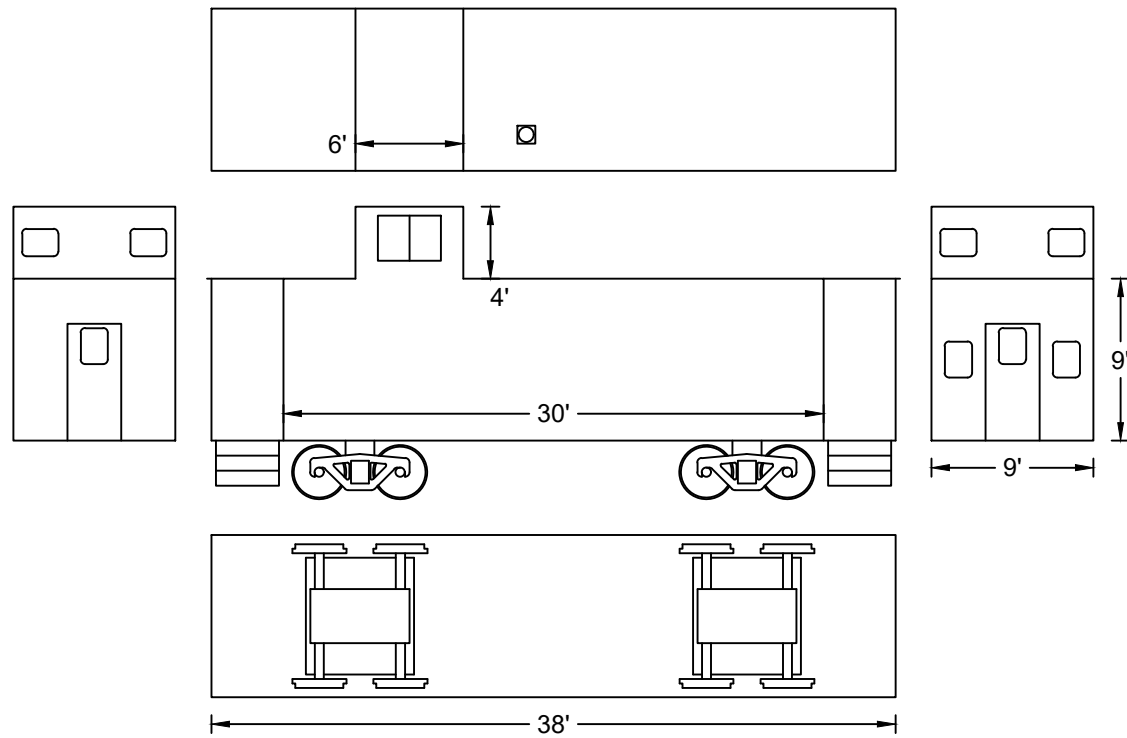
DATE: JULY-2021



ROOF

BACK END

FRONT END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



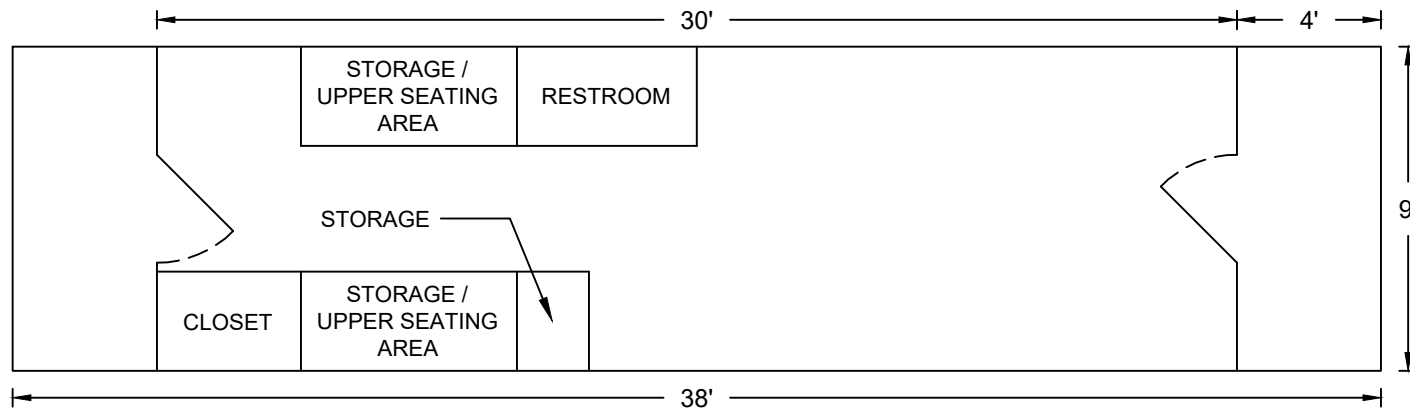
EARTH SERVICES
& ABATEMENT

D&RGW 01486
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



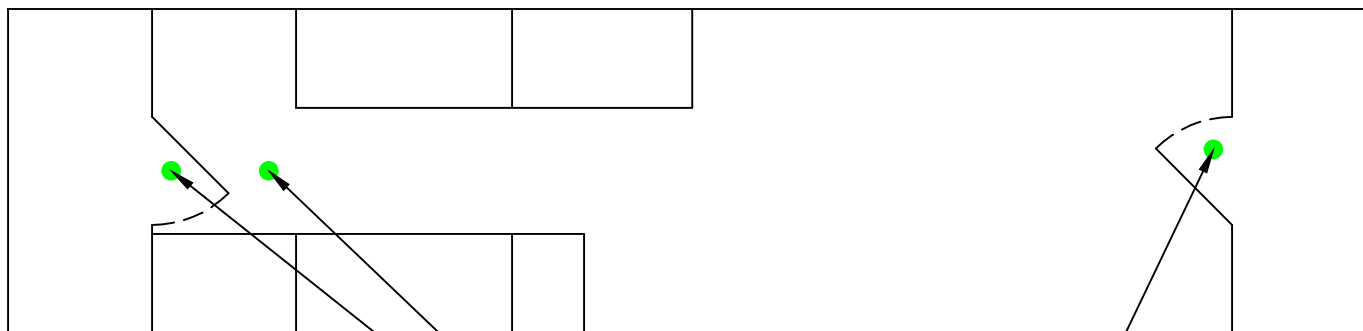
EARTH SERVICES
& ABATEMENT

D&RGW 01486
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



CHE-DRGW01486-160721-006
CHE-DRGW01486-160721-005
CHE-DRGW01486-160721-004

INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT

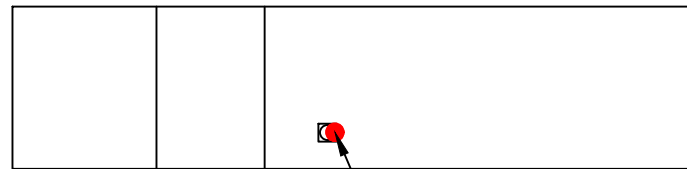
D&RGW 01486
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

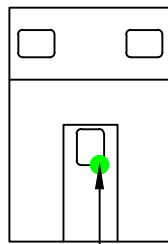
DATE: JULY-2021

FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND

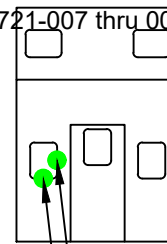
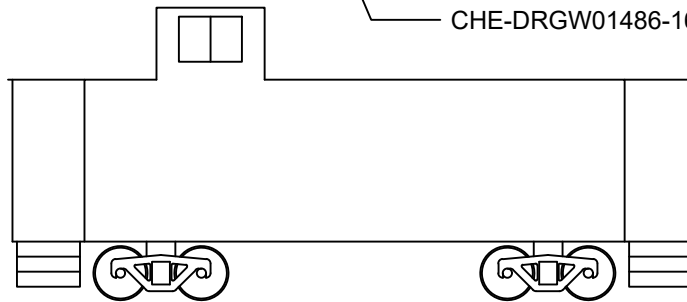
- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-DRGW01486-160721-007 thru 009



CHE-DRGW01486-160721-001



CHE-DRGW01486-160721-003
CHE-DRGW01486-160721-002



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

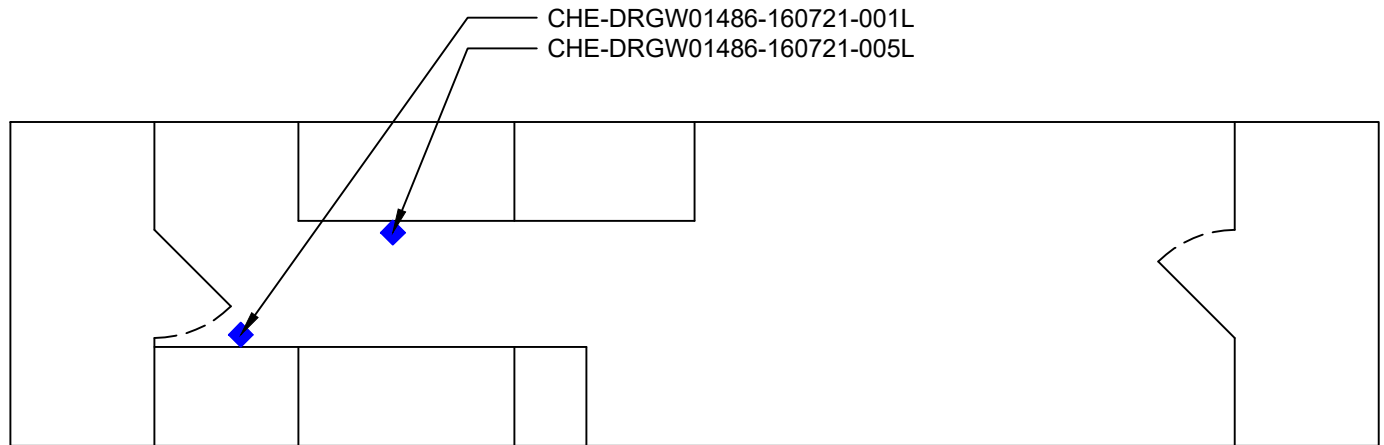
D&RGW 01486
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

**FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND**

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

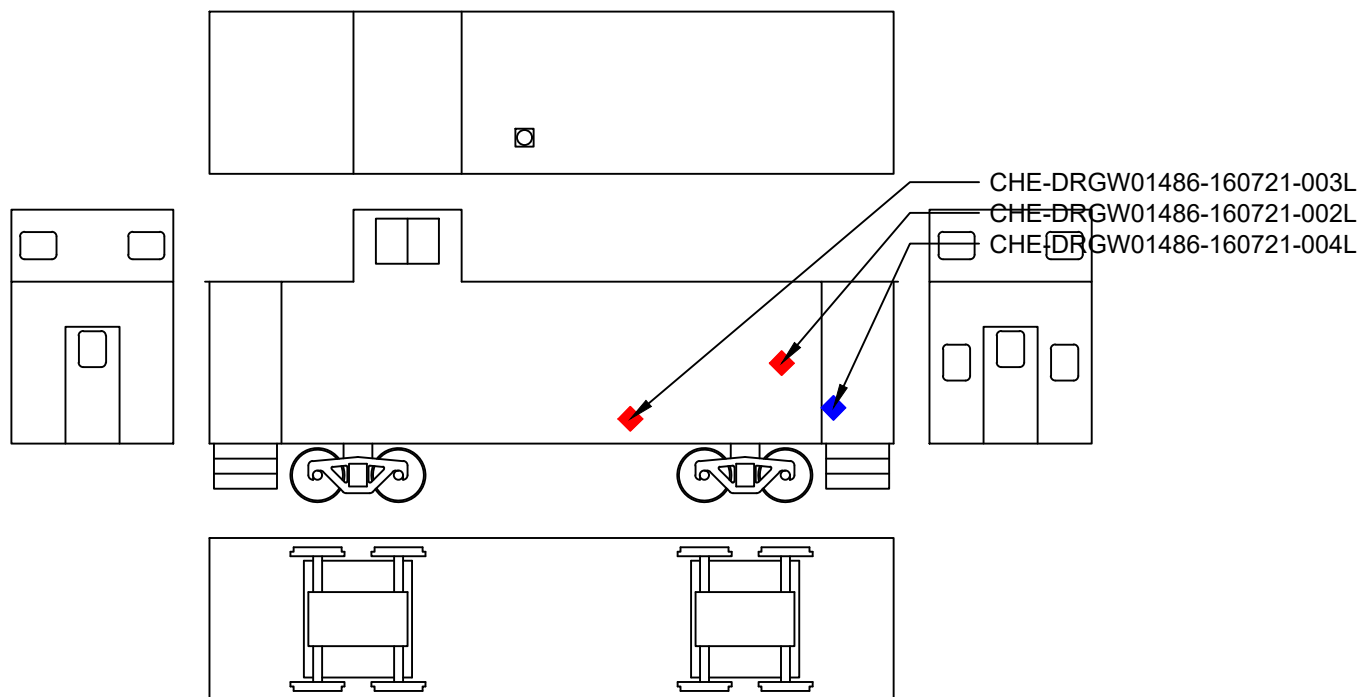
D&RGW 01486
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

**FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND**

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

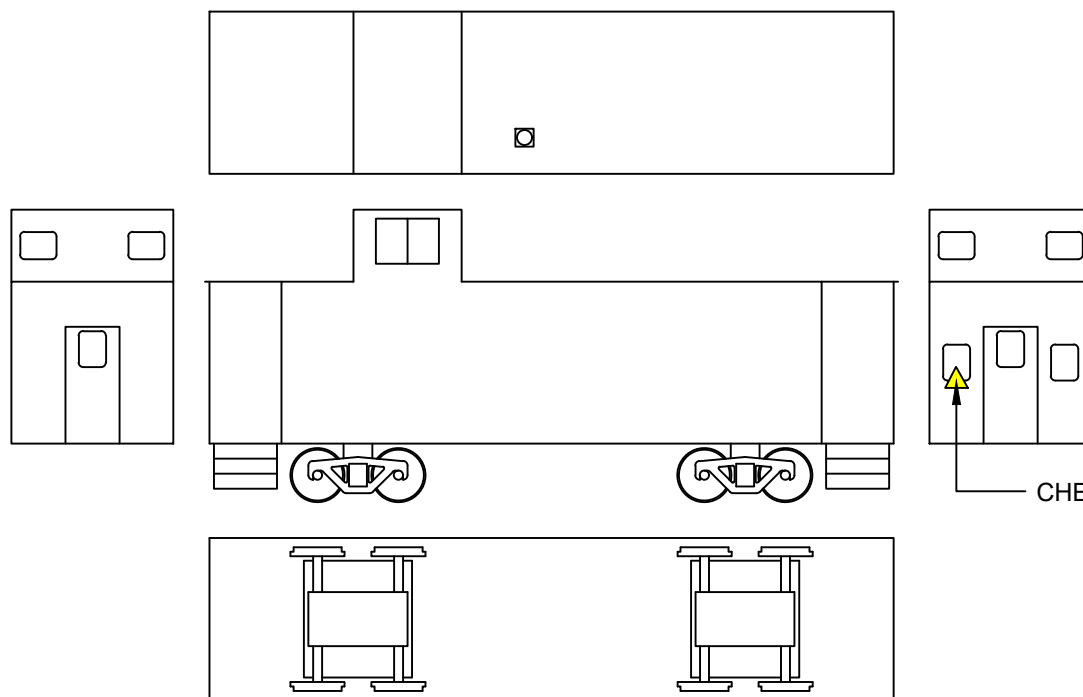
D&RGW 01486
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

**FIGURE 7 - LBP SAMPLE LOCATIONS
LEGEND**

- NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
- LBP SAMPLE LOCATIONS (≥0.5% LEAD)



CHE-DRGW01486-160721-001P

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

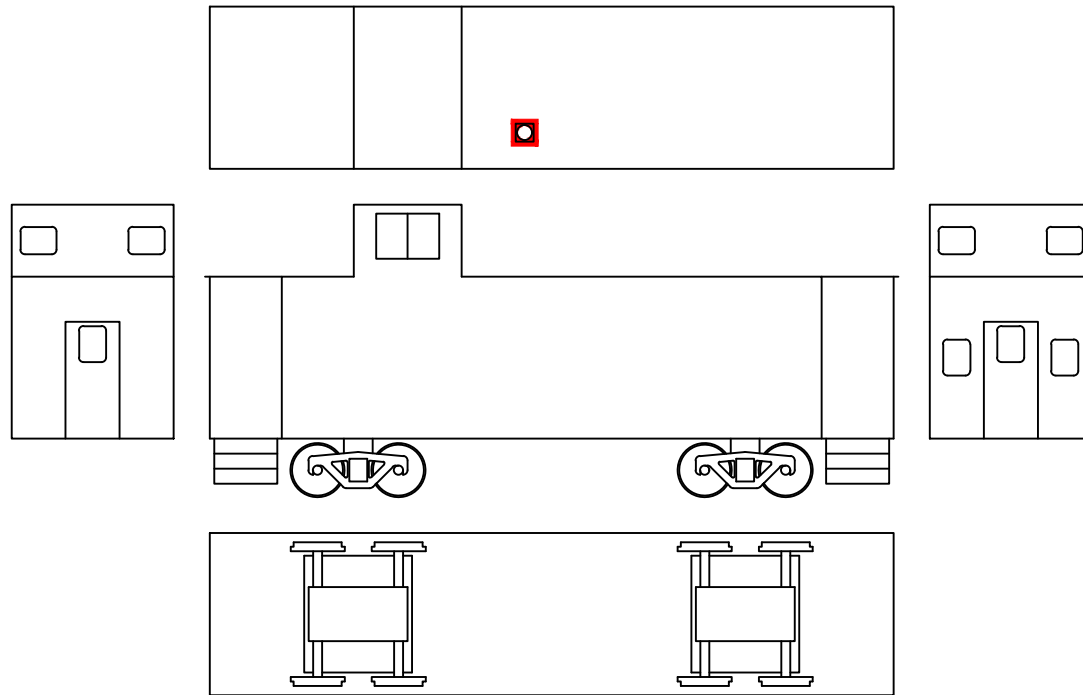
D&RGW 01486
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 8 - PCB SAMPLE LOCATIONS
LEGEND

-  - NON-PCB SAMPLE LOCATIONS (<50 PPM)
-  - PCB SAMPLE LOCATIONS (≥50 PPM)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

D&RGW 01486
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM BROWN / WHITE SEALANT

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01486</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21129253
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 22-Jul-2021

D&RGW 01486 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-DRGW01486-160721-001	Caulk, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01486-160721-002	Caulk, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01486-160721-003	Caulk, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01486-160721-004	LAYER 1 Sheet Flooring, Brown, Homogeneous	None Detected	Cellulose Fiber Fibrous Glass Non-Fibrous Material	30% 2% 68%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01486-160721-005	LAYER 1 Sheet Flooring, Brown, Homogeneous	None Detected	Cellulose Fiber Fibrous Glass Non-Fibrous Material	30% 2% 68%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01486-160721-006	LAYER 1 Sheet Flooring, Brown, Homogeneous	None Detected	Cellulose Fiber Fibrous Glass Non-Fibrous Material	30% 2% 68%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01486-160721-007	Sealant, Brown/ White, Homogeneous	Chrysotile 8%	Non-Fibrous Material	92%

Arnold Flores

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21129253
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 22-Jul-2021

D&RGW 01486 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE- DRGW01486- 160721-008	Sealant, *Not analyzed per client request		
CHE- DRGW01486- 160721-009	Sealant, *Not analyzed per client request		

Arnold Flores

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



Open Lab Fee

J3 Order # 129255

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	_____
_____	City/State: _____ Zip: _____
City/State: Commerce City , CO	PO #: 215WY001
Zip: 80022	

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - D&RGW 01486	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 9 **Positive Stop:** YES NO

Signatures

Relinquished By:	Date: 7/19	Time: _____
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
**TAT's are in Business Days rather than Hours (i.e.1 Day TAT = End of Next Business Day)

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022

Order #: JP211028582
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

WY Rollingstock Inspections-D&RGW 01486

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-DRGW01486-160721-001L	White	< 50	< 0.005%
CHE-DRGW01486-160721-002L	Yellow	57000	5.7%
CHE-DRGW01486-160721-003L	Black	19000	1.9%
CHE-DRGW01486-160721-004L	Silver	1700	0.17%
CHE-DRGW01486-160721-005L	Gray	86	0.0086%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi



Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

IH CHAIN OF CUSTODY



Open Lab Fee

20582
J3 Resources (Lab Use Only)

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	_____
_____	City/State: _____ Zip: _____
City/State: Commerce City , CO Zip: 80022	PO #: 215WY001

Project Information	
Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - D&RGW 01486	Telephone – Office/Cell 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: <input checked="" type="checkbox"/> Email: <input type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions:	

Turnaround Times – Please Select One				
Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>

ASBESTOS						
PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS			SILICA/PARTICULATES
Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 5	Positive Stop: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
---	---

Signatures			
Relinquished By:		Date: 7/19	Time:
Received By:		Date: 7/20/21	Time: 10:30
Relinquished By:	_____	Date: _____	Time: _____
Received By:	_____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)



Monday, August 09, 2021

Amanda Wozab
Earth Services & Abatement
6700 E. 50th Ave.
Commerce City, CO 80022

Re: ALS Workorder: 2107412
Project Name: Cheyenne RS
Project Number: 215WY001

Dear Ms. Wozab:

One solid sample was received from Earth Services & Abatement, on 7/21/2021. The sample was scheduled for the following analysis:

PCBs

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager



2107412

PCB:

The sample was analyzed using GC/ECD (electron capture detectors) according to the current revision of SOP 409 based on SW-846 Method 8082.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2107412

Client Name: Earth Services & Abatement

Client Project Name: Cheyenne RS

Client Project Number: 215WY001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CHE-DRGW01486-160721-001P	2107412-1		SOLID	17-Jul-21	



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: EARTH SERVICES & ABATEMENT Workorder No: 2107412

Project Manager: KMO Initials: JPE Date: 07/21/2021

		N/A	YES	NO
1.	Are airbills / shipping documents present and/or removable? Tracking number: 2815 9831 3879		X	
2.	Are custody seals on shipping containers intact?	X		
3.	Are custody seals on sample containers intact?	X		
4.	Is there a COC (chain-of-custody) present?		X	
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6.	Are short-hold samples present?			X
7.	Are all samples within holding times for the requested analyses?		X	
8.	Were all sample containers received intact? (not broken or leaking)		X	
9.	Is there sufficient sample for the requested analyses?		X	
10.	Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		X	
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13.	Were the samples shipped on ice?			X
14.	Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*:	#5	
		RAD ONLY		X
Cooler #: <u>1</u> Temperature (°C): <u>AMB</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>11</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? YES / NA All client bottle ID's vs ALS lab ID's double-checked by JE

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 7/22/21

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-DRGW01486-160721-001P
Legal Location:
Collection Date: 7/17/2021

Date: 09-Aug-21
Work Order: 2107412
Lab ID: 2107412-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 7/30/2021	PrepBy: CPC
AROCLOR-1016	ND		2	MG/KG	6	8/6/2021 17:02
AROCLOR-1221	ND		4.1	MG/KG	6	8/6/2021 17:02
AROCLOR-1232	ND		2	MG/KG	6	8/6/2021 17:02
AROCLOR-1242	ND		2	MG/KG	6	8/6/2021 17:02
AROCLOR-1248	ND		2	MG/KG	6	8/6/2021 17:02
AROCLOR-1254	ND		2	MG/KG	6	8/6/2021 17:02
AROCLOR-1260	ND		2	MG/KG	6	8/6/2021 17:02
Surr: TETRACHLORO-M-XYLENE	80		69-129	%REC	6	8/6/2021 17:02
Surr: DECACHLOROBIPHENYL	93		55-135	%REC	6	8/6/2021 17:02

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-DRGW01486-160721-001P
Legal Location:
Collection Date: 7/17/2021

Date: 09-Aug-21
Work Order: 2107412
Lab ID: 2107412-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 8/9/2021 1:55:08

Client: Earth Services & Abatement
 Work Order: 2107412
 Project: 215WY001 Cheyenne RS

QC BATCH REPORT

Batch ID: **EX210730-3-1** Instrument ID: **Pest-1** Method: **SW8082**

LCS Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:13**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.133	0.0333	0.133		99	80-120				50	
AROCLOR-1260	0.137	0.0333	0.133		103	80-125				50	
Surr: TETRACHLORO-M-XYLENE	0.0152		0.0167		91	69-129					
Surr: DECACHLOROBIPHENYL	0.0187		0.0167		112	55-135					

LCSD Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:32**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.125	0.0333	0.133		94	80-120		0.133	6	50	
AROCLOR-1260	0.131	0.0333	0.133		99	80-125		0.137	4	50	
Surr: TETRACHLORO-M-XYLENE	0.015		0.0167		90	69-129			1		
Surr: DECACHLOROBIPHENYL	0.0178		0.0167		107	55-135			5		

MB Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 11:25**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	ND	0.033									
AROCLOR-1221	ND	0.067									
AROCLOR-1232	ND	0.033									
AROCLOR-1242	ND	0.033									
AROCLOR-1248	ND	0.033									
AROCLOR-1254	ND	0.033									
AROCLOR-1260	ND	0.033									
Surr: TETRACHLORO-M-XYLENE	0.0158				95	69-129					
Surr: DECACHLOROBIPHENYL	0.0178				107	55-135					

The following samples were analyzed in this batch:

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01486</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	D&RGW 01486
Exposure Area	Roof penetration
Asbestos Containing Material	Brown/white sealant
Sample Number	CHE-DRGW01486-160721-007 thru 009
Size	NA
Quantity	8 LF
MATERIAL CONDITION (MC)	2
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	
BUILDING AGE (BA)	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	
MATERIAL TYPE	
Pipe Covering (PC)	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper	
Ceiling Plasters or Fireproofing (CP)	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	
WATER DAMAGE (WD)	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	
ROOF CHARACTERISTICS (RC)	NA
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	
EXPOSED SURFACE AREA (ESA)	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	
ACCESSIBILITY (AC)	3
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	
ACTIVITY AND MOVEMENT (A/M)	1
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	
WORK ENVIRONMENT (WE)	0.5
-0.5 =Sedentary 0.5 =Non-sedentary	
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration	
AIR - PLENUM / AIR STREAM (AP)	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists	
VELOCITY (if Air Plenum = 1) (VEL)	0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	
FLOW (if Air Plenum = 1) (FL)	0.25
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow	
FRIABILITY (F)	1
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	
ASBESTOS CONTENT (ASB)	1
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	
Exposure Value	13.5
Rating	4



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

August 10th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock D&RGW 01489, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar D&RGW 01489 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 15th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 07/15/2021

Inspection End Date 07/15/2021

Report Date 08/10/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01489 Car Name D&RGW; 01489

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.130044°

State WY Longitude -104.814435°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01489

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 2

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/15/2021	CHE-DRGW01489-1507 21-001 thru 003	Black window caulk	Exterior windows	8%, Chrysotile	Category II	No	48 LF	4
07/15/2021	CHE-DRGW01489-1507 21-004 thru 006	White fiberboard	Around furnace	60%, Chrysotile	N/A	Yes	16 sq. ft.	1
07/15/2021	CHE-DRGW01489-1507 21-007 thru 009	Breakers	Breaker box	Not Detected	N/A	N/A	0.5 sq. ft.	N/A
07/15/2021	CHE-DRGW01489-1507 21-010 thru 012	Black tar	Roof penetrations	Not Detected	N/A	N/A	8 LF	N/A

¹ "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

² For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

³ "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

⁴ "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01489

BUILDING AMERICA™

Lead-Based Paint Results

Lead Present³ Yes _____ Total Number of Positive Components.³ 4 _____

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/15/2021	CHE-DRGW01489-150721-001L	Green	Interior	7 %	Good
07/15/2021	CHE-DRGW01489-150721-002L	"Old" Orange	Short sides of car	13 %	Fair
07/15/2021	CHE-DRGW01489-150721-003L	White	Exterior handrails	7.6 %	Fair
07/15/2021	CHE-DRGW01489-150721-004L	"New" Orange	Long side of car	< 0.00500 %	Good
07/15/2021	CHE-DRGW01489-150721-005L	Black	Underside	6.6 %	Poor

Polychlorinated Biphenyls Results

PCBs Present⁴ No _____ Total Number of Positive Components.⁴ 0 _____

Notes

PCBs Samples

Sample Date	Sample ID	Description	Location	PCBs Result	Quantity
07/15/2021	CHE-DRGW01489-150721-001P	Black window caulk	Exterior windows	Not Detected	48 LF

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01489

Mold Results

Suspect Mold Present No

Notes

- 1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
- 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
- 3 "Lead Present" and "Positive" is defined as paint with $\geq 0.5\%$ lead.
- 4 "PCBs Present" and "Positive" is defined as caulk with ≥ 50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01489



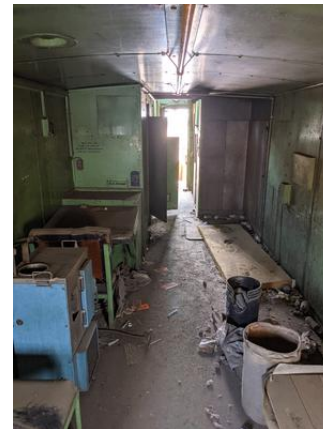
Railcar ID Marker



View of railcar, looking northeast



View of railcar, looking southwest



Car interior



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01489



CHE-DRGW01489-150721-001 thru 003, 8% Asbestos,
Black window caulk



CHE-DRGW01489-150721-001 thru 003, 8% Asbestos,
Black window caulk



CHE-DRGW01489-150721-004 thru 006, 60% Asbestos,
White fiberboard



CHE-DRGW01489-150721-004 thru 006, 60% Asbestos,
White fiberboard



CHE-DRGW01489-150721-007 thru 009, Asbestos Not
Detected, Breakers



CHE-DRGW01489-150721-007 thru 009, Asbestos Not
Detected, Breakers



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01489



CHE-DRGW01489-150721-010 thru 012, Asbestos Not Detected, Black tar



CHE-DRGW01489-150721-010 thru 012, Asbestos Not Detected, Black tar



CHE-DRGW01489-150721-001L, 7% Lead, Green



CHE-DRGW01489-150721-001L, 7% Lead, Green



CHE-DRGW01489-150721-002L, 13% Lead, "Old" Orange



CHE-DRGW01489-150721-002L, 13% Lead, "Old" Orange



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01489



CHE-DRGW01489-150721-003L, 7.6% Lead, White



CHE-DRGW01489-150721-003L, 7.6% Lead, White



CHE-DRGW01489-150721-004L, <0.005% Lead, "New" Orange



CHE-DRGW01489-150721-004L, <0.005% Lead, "New" Orange



CHE-DRGW01489-150721-005L, 6.6% Lead, Black



CHE-DRGW01489-150721-005L, 6.6% Lead, Black



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01489



CHE-DRGW01489-150721-001P, PCB Not Detected,
Black window caulk



CHE-DRGW01489-150721-001P, PCB Not Detected,
Black window caulk

Appendix 1 - Figures

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01489</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY

D&RGW 01489 FORMER LOCATION

CURRENT LOCATION



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

D&RGW 01489
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

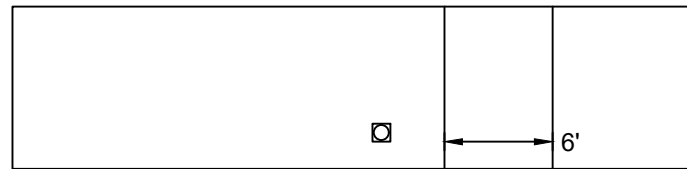
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

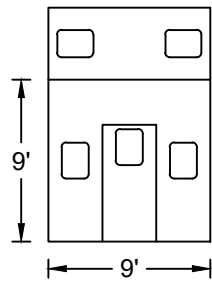
DATE: JULY-2021



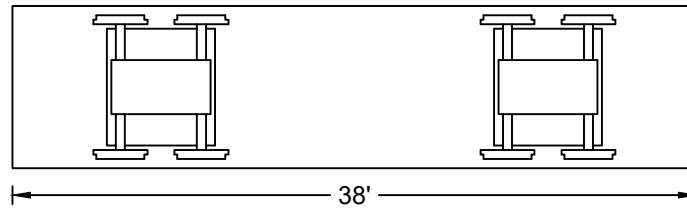
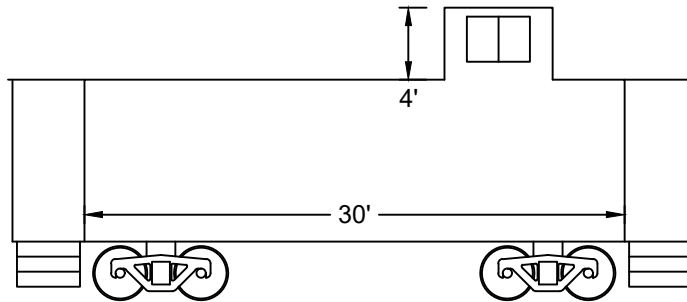
ROOF



FRONT END



BACK END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



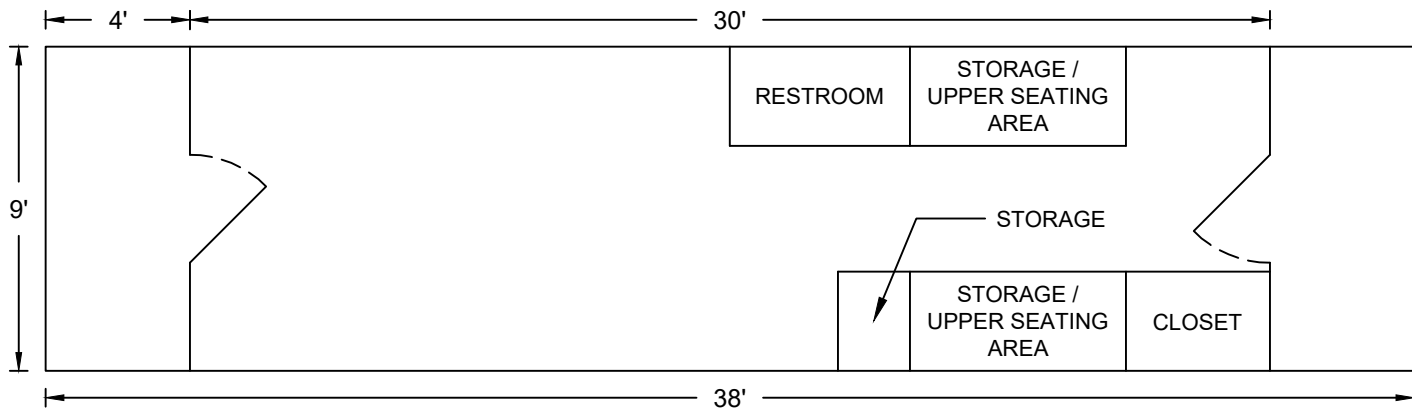
**EARTH SERVICES
& ABATEMENT**

D&RGW 01489
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

D&RGW 01489
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

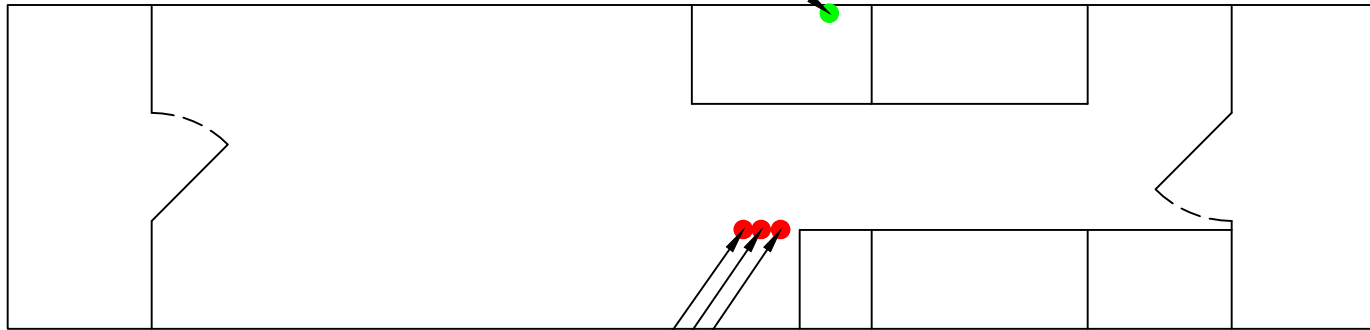
FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



CHE-DRGW01489-150721-007 thru 009



CHE-DRGW01489-150721-004
CHE-DRGW01489-150721-005
CHE-DRGW01489-150721-006

INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

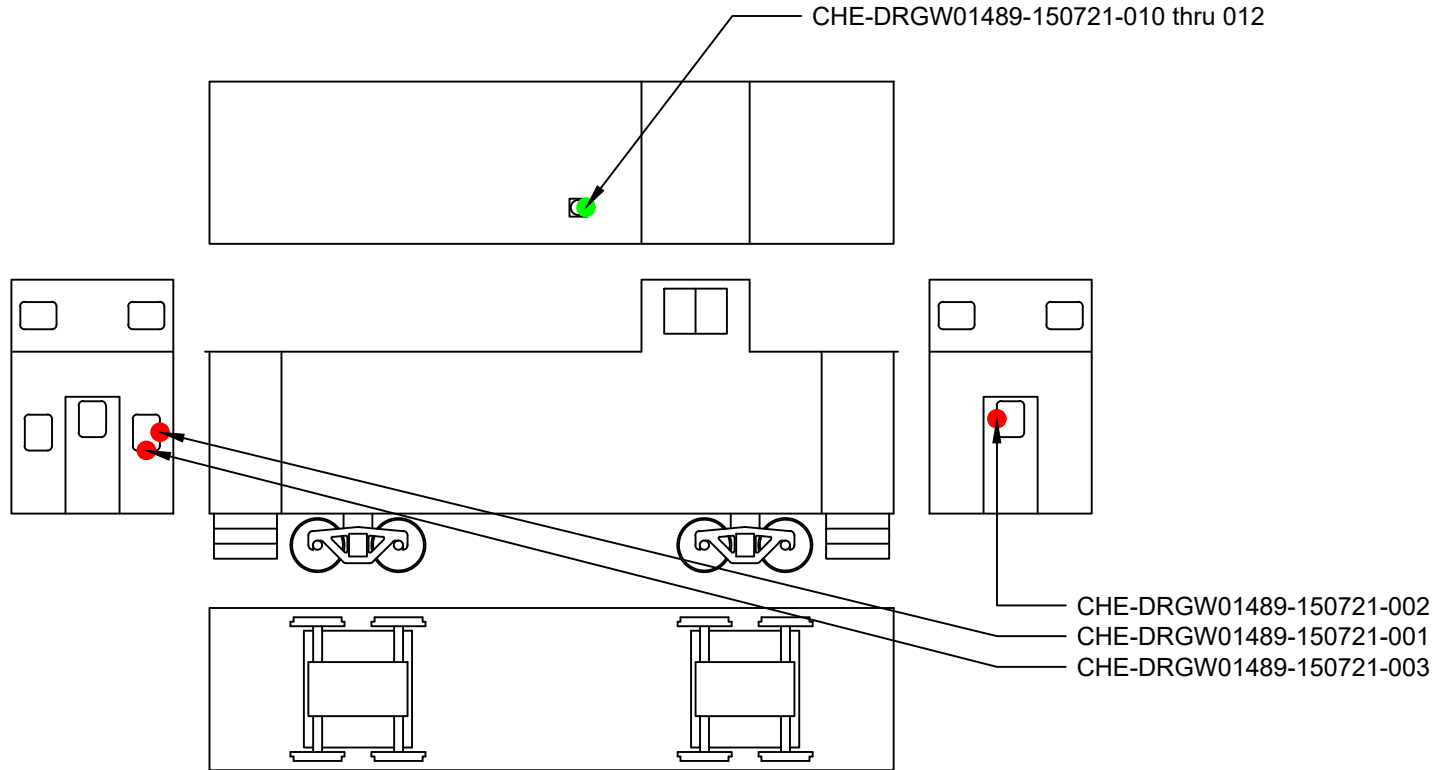
D&RGW 01489
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND

- — NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- — ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

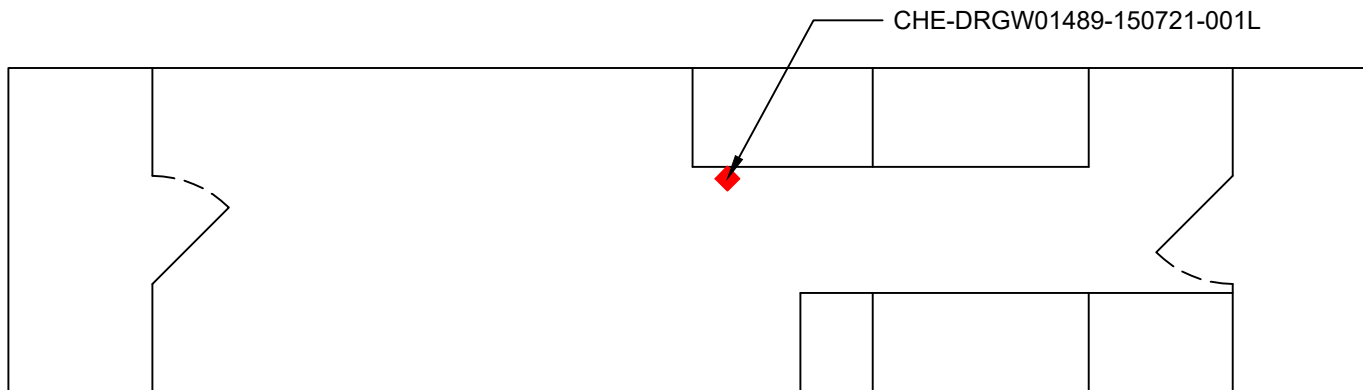
D&RGW 01489
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

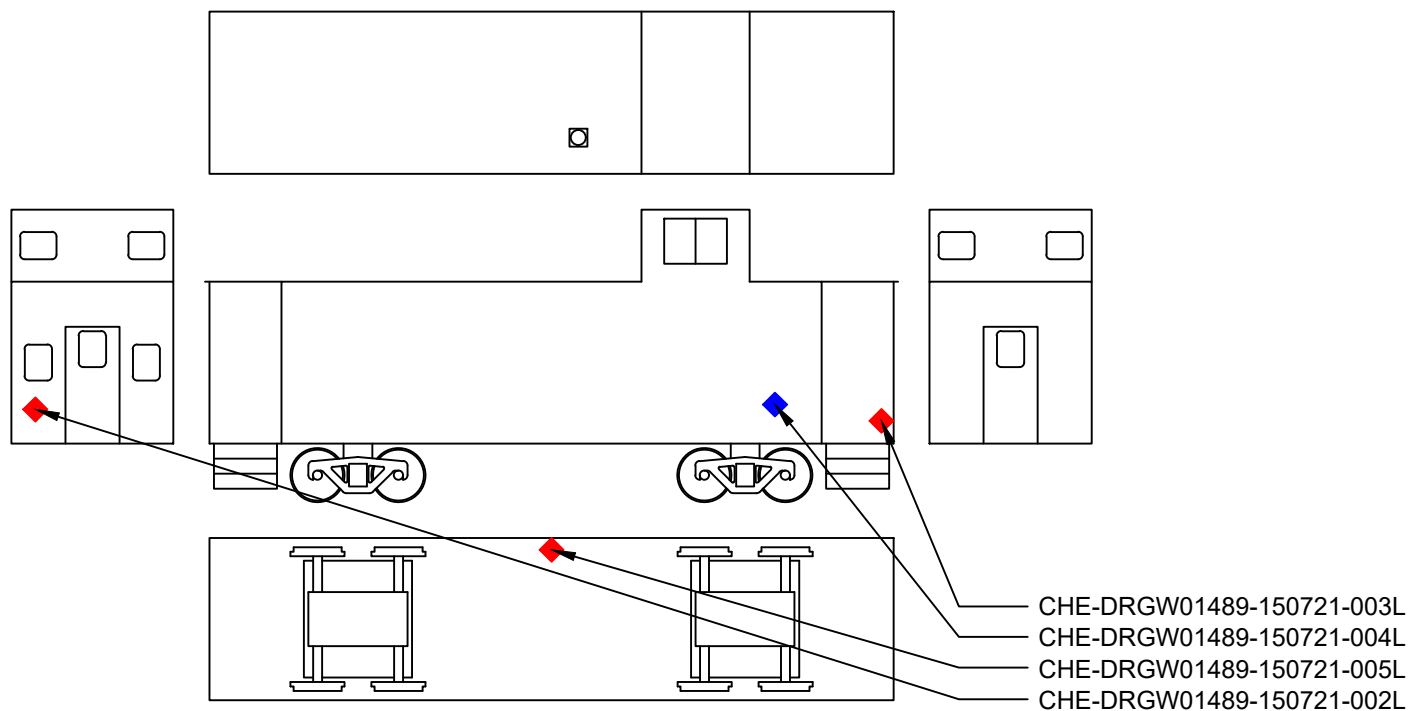
D&RGW 01489
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

**FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND**

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

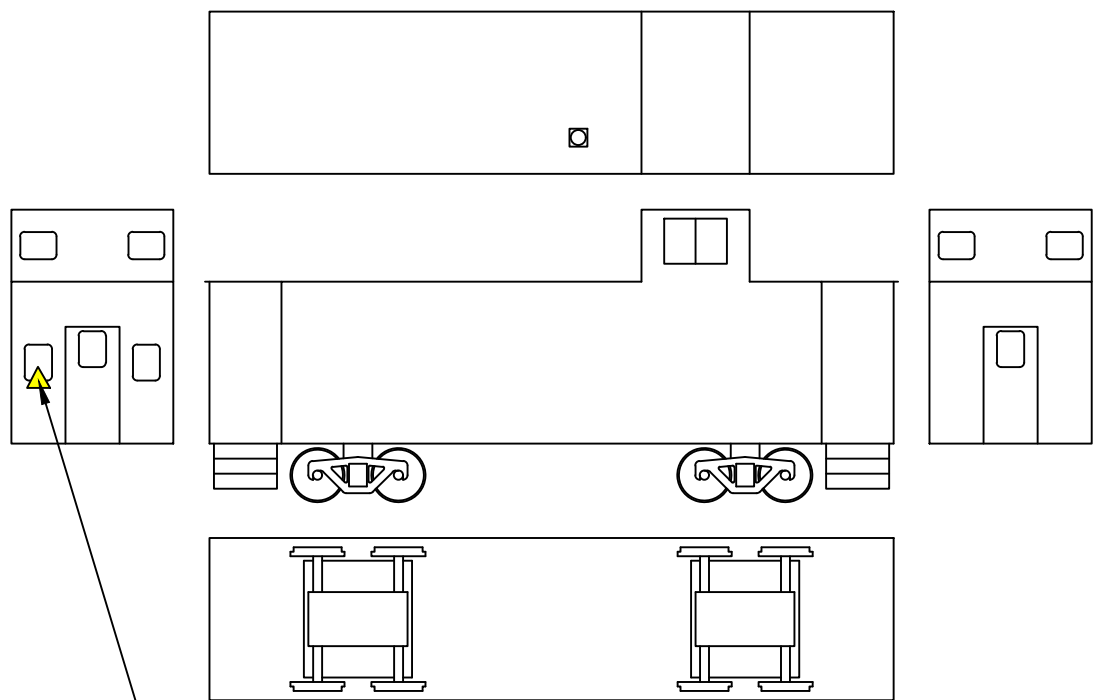
D&RGW 01489
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

**FIGURE 7 - LBP SAMPLE LOCATIONS
LEGEND**

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



CHE-DRGW01489-150721-001P

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

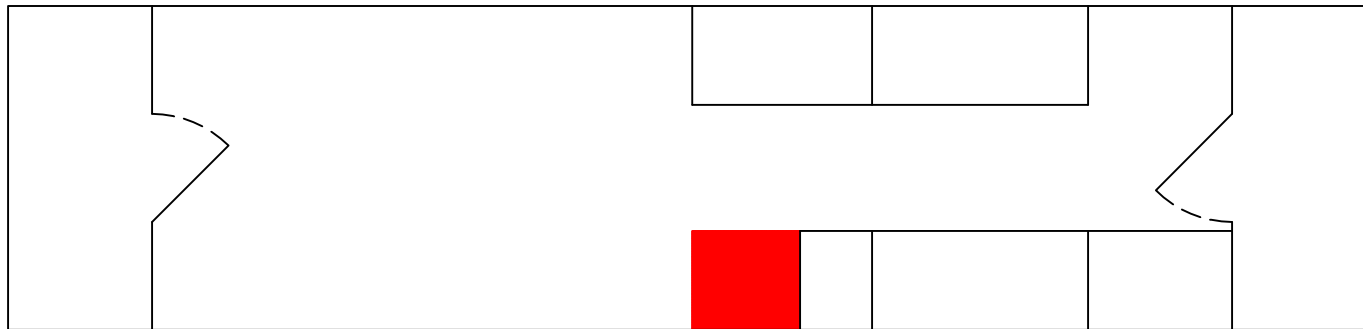
D&RGW 01489
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 8 - PCB SAMPLE LOCATIONS
LEGEND

-  - NON-PCB SAMPLE LOCATIONS (<50 PPM)
-  - PCB SAMPLE LOCATIONS (≥50 PPM)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

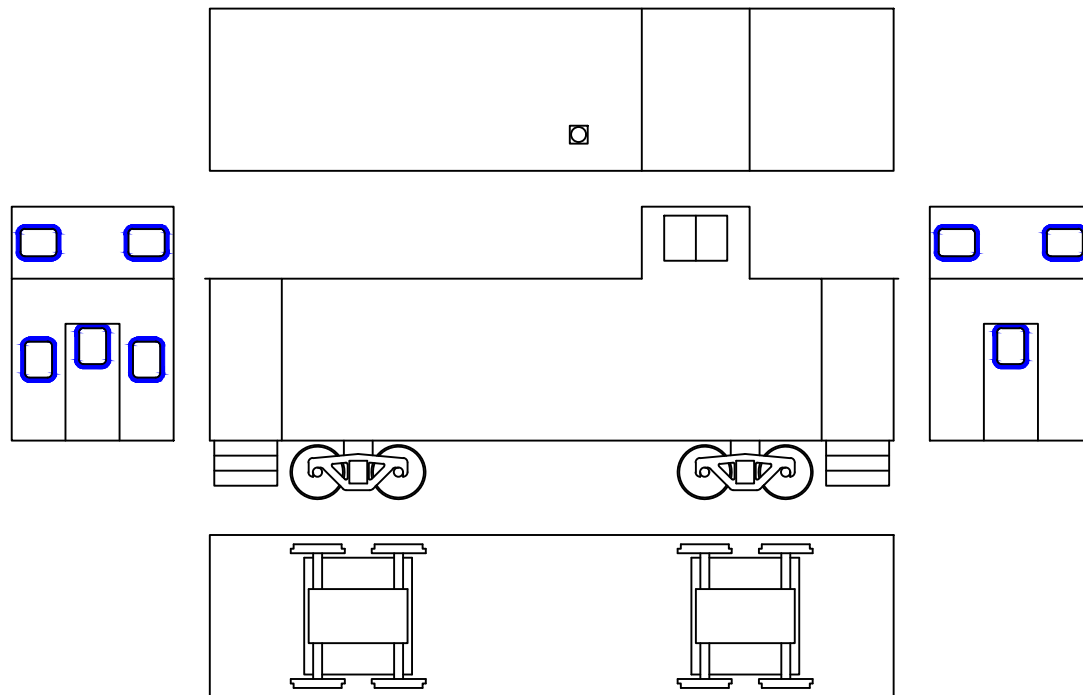
D&RGW 01489
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM WHITE FIBERBOARD



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

D&RGW 01489
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 10 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM BLACK WINDOW CAULKING

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01489</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21129251
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 22-Jul-2021

D&RGW 01489 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-DRGW01489-150721-001	Window Caulk, Black, Homogeneous	Chrysotile 8%	Non-Fibrous Material 92%
CHE-DRGW01489-150721-002	Window Caulk, *Not analyzed per client request		
CHE-DRGW01489-150721-003	Window Caulk, *Not analyzed per client request		
CHE-DRGW01489-150721-004	Fiberboard, Gray, Homogeneous	Chrysotile 60%	Non-Fibrous Material 40%
CHE-DRGW01489-150721-005	Fiberboard, *Not analyzed per client request		
CHE-DRGW01489-150721-006	Fiberboard, *Not analyzed per client request		
CHE-DRGW01489-150721-007	Bakelite, Black, Homogeneous	None Detected	Fibrous Glass 10% Non-Fibrous Material 90%
CHE-DRGW01489-150721-008	Bakelite, Black, Homogeneous	None Detected	Fibrous Glass 10% Non-Fibrous Material 90%
CHE-DRGW01489-150721-009	Bakelite, Black, Homogeneous	None Detected	Fibrous Glass 10% Non-Fibrous Material 90%

Anh Phung

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21129251
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 22-Jul-2021

D&RGW 01489 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-DRGW01489-150721-010	Roof Penetration Tar, Black, Homogeneous	None Detected	Synthetic Fiber	5%
			Non-Fibrous Material	95%
CHE-DRGW01489-150721-011	Roof Penetration Tar, Black, Homogeneous	None Detected	Synthetic Fiber	5%
			Non-Fibrous Material	95%
CHE-DRGW01489-150721-012	Roof Penetration Tar, Black, Homogeneous	None Detected	Synthetic Fiber	5%
			Non-Fibrous Material	95%

Anh Phung

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



J3 Resources

Open Lab Fee

J3 Order # (Lab use only)
187057

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	_____
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - D&RGW 01489	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 12	Positive Stop: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
--	---

Signatures

Relinquished By:	Date: 7/19	Time: _____
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
**TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022

Order #: JP211028589
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

WY Rollingstock Inspections-D&RGW 01489

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-DRGW01489-150721-001L	Green	70000	7%
CHE-DRGW01489-150721-002L	Orange	130000	13%
CHE-DRGW01489-150721-003L	White	76000	7.6%
CHE-DRGW01489-150721-004L	Orange	< 50	< 0.005%
CHE-DRGW01489-150721-005L	Black	66000	6.6%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi



Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

IH CHAIN OF CUSTODY



Open Lab Fee

28589

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - D&RGW 01489	Telephone – Office/Cell 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>

Special Instructions:

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 5 **Positive Stop:** YES NO

Signatures

Relinquished By:	Date: 7/19	Time:
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)



Monday, August 09, 2021

Amanda Wozab
Earth Services & Abatement
6700 E. 50th Ave.
Commerce City, CO 80022

Re: ALS Workorder: 2107405
Project Name: Cheyenne RS
Project Number: 215WY001

Dear Ms. Wozab:

One solid sample was received from Earth Services & Abatement, on 7/21/2021. The sample was scheduled for the following analysis:

PCBs

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager



2107405

PCB:

The sample was analyzed using GC/ECD (electron capture detectors) according to the current revision of SOP 409 based on SW-846 Method 8082.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2107405

Client Name: Earth Services & Abatement

Client Project Name: Cheyenne RS

Client Project Number: 215WY001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CHE-DRGW01489-150721-001P;	2107405-1		SOLID	15-Jul-21	



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: EARTH SERVICES & ABATEMENT Workorder No: 2107405

Project Manager: KMO Initials: JPE Date: 07/21/2021

		N/A	YES	NO
1.	Are airbills / shipping documents present and/or removable? Tracking number: 2815 9831 3879		X	
2.	Are custody seals on shipping containers intact?	X		
3.	Are custody seals on sample containers intact?	X		
4.	Is there a COC (chain-of-custody) present?		X	
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6.	Are short-hold samples present?			X
7.	Are all samples within holding times for the requested analyses?		X	
8.	Were all sample containers received intact? (not broken or leaking)		X	
9.	Is there sufficient sample for the requested analyses?		X	
10.	Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		X	
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13.	Were the samples shipped on ice?			X
14.	Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #5		X
Cooler #: <u>1</u> Temperature (°C): <u>AMB</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>11</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? YES / NA All client bottle ID's vs ALS lab ID's double-checked by JE

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date  7/21/21

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-DRGW01489-150721-001P; Window Caulk
Legal Location:
Collection Date: 7/15/2021

Date: 09-Aug-21
Work Order: 2107405
Lab ID: 2107405-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 7/30/2021	PrepBy: CPC
AROCLOR-1016	ND		2.9	MG/KG	6	8/6/2021 13:54
AROCLOR-1221	ND		5.9	MG/KG	6	8/6/2021 13:54
AROCLOR-1232	ND		2.9	MG/KG	6	8/6/2021 13:54
AROCLOR-1242	ND		2.9	MG/KG	6	8/6/2021 13:54
AROCLOR-1248	ND		2.9	MG/KG	6	8/6/2021 13:54
AROCLOR-1254	ND		2.9	MG/KG	6	8/6/2021 13:54
AROCLOR-1260	ND		2.9	MG/KG	6	8/6/2021 13:54
Surr: TETRACHLORO-M-XYLENE	78		69-129	%REC	6	8/6/2021 13:54
Surr: DECACHLOROBIPHENYL	105		55-135	%REC	6	8/6/2021 13:54

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-DRGW01489-150721-001P; Window Caulk
Legal Location:
Collection Date: 7/15/2021

Date: 09-Aug-21
Work Order: 2107405
Lab ID: 2107405-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 8/9/2021 1:47:57

Client: Earth Services & Abatement
 Work Order: 2107405
 Project: 215WY001 Cheyenne RS

QC BATCH REPORT

Batch ID: **EX210730-3-1** Instrument ID: **Pest-1** Method: **SW8082**

LCS Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:13**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.133	0.0333	0.133		99	80-120				50	
AROCLOR-1260	0.137	0.0333	0.133		103	80-125				50	
Surr: TETRACHLORO-M-XYLENE	0.0152		0.0167		91	69-129					
Surr: DECACHLOROBIPHENYL	0.0187		0.0167		112	55-135					

LCSD Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:32**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.125	0.0333	0.133		94	80-120		0.133	6	50	
AROCLOR-1260	0.131	0.0333	0.133		99	80-125		0.137	4	50	
Surr: TETRACHLORO-M-XYLENE	0.015		0.0167		90	69-129			1		
Surr: DECACHLOROBIPHENYL	0.0178		0.0167		107	55-135			5		

MB Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 11:25**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	ND	0.033									
AROCLOR-1221	ND	0.067									
AROCLOR-1232	ND	0.033									
AROCLOR-1242	ND	0.033									
AROCLOR-1248	ND	0.033									
AROCLOR-1254	ND	0.033									
AROCLOR-1260	ND	0.033									
Surr: TETRACHLORO-M-XYLENE	0.0158				95	69-129					
Surr: DECACHLOROBIPHENYL	0.0178				107	55-135					

The following samples were analyzed in this batch:

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01489</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	D&RGW 01489	D&RGW 01489
Exposure Area	Exterior windows <input type="checkbox"/>	Around furnace <input type="checkbox"/>
Asbestos Containing Material	Black window caulk <input type="checkbox"/>	White fiberboard <input type="checkbox"/>
Sample Number	CHE-DRGW01489-150721-001 thru 003 <input type="checkbox"/>	CHE-DRGW01489-150721-004 thru 006 <input type="checkbox"/>
Size	NA	NA
Quantity	48 LF	16 SF
MATERIAL CONDITION (MC)	2	2
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area		
BUILDING AGE (BA)	1	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old		
MATERIAL TYPE		
Pipe Covering (PC)	NA	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper		
Ceiling Plasters or Fireproofing (CP)	NA	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture		
WATER DAMAGE (WD)	0	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread		
ROOF CHARACTERISTICS (RC)	-0.5	-0.5
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up		
EXPOSED SURFACE AREA (ESA)	4	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed		
ACCESSIBILITY (AC)	4	4
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high		
ACTIVITY AND MOVEMENT (A/M)	2	2
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently		
WORK ENVIRONMENT (WE)	0.5	0.5
-0.5 =Sedentary 0.5 =Non-sedentary		
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration		
AIR - PLENUM / AIR STREAM (AP)	1	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists		
VELOCITY (if Air Plenum = 1) (VEL)	-0.25	-0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling		
FLOW (if Air Plenum = 1) (FL)	NA	NA
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow		
FRIABILITY (F)	1	3
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure		
ASBESTOS CONTENT (ASB)	1	3
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos		
Exposure Value	14.25	128.25
Rating	4	1



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

August 17th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock D&RGW 01524, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar D&RGW 01524 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 17th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 07/17/2021

Inspection End Date 07/17/2021

Report Date 08/10/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01524 Car Name D&RGW; 01524

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.129563°

State WY Longitude -104.814576°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01524

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 4

Total Number of Materials Containing <= 1% Asbestos. 1

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/17/2021	CHE-DRGW01524-1707 21-001 thru 003	Beige flooring and gray mastic	Interior floors throughout	Not Detected	N/A	N/A	270 sq. ft.	N/A
07/17/2021	CHE-DRGW01524-1707 21-004 thru 006	Gray transite boards	Interior around furnace	15%, Chrysotile	Category I	No	24 sq. ft.	3
07/17/2021	CHE-DRGW01524-1707 21-007 thru 009	Black caulk	Exterior windows	2%, Chrysotile	Category II	No	36 LF	4
07/17/2021	CHE-DRGW01524-1707 21-010 thru 012	White coating	Interior, on water tank	6.42%, Chrysotile	Category II	No	12 sq. ft.	4
07/17/2021	CHE-DRGW01524-1707 21-013 thru 015	Tan sealant	Oil fill pipe, interior	1.43%, Chrysotile	N/A	N/A	1 LF	N/A
07/17/2021	CHE-DRGW01524-1707 21-016 thru 018	Black brake pads	Exterior wheels	Not Detected	N/A	N/A	4 sq. ft.	N/A
07/17/2021	CHE-DRGW01524-1707 21-019 thru 021	White coating	Interior walls and ceilings	4.7%, Chrysotile	Category II	No	972 sq. ft.	4

¹ "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

² For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

³ "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

⁴ "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01524

BUILDING AMERICA™

Lead-Based Paint Results

Lead Present³ Yes _____ Total Number of Positive Components.³ 1 _____

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/17/2021	CHE-DRGW01524-170721-001L	Gray	Interior throughout	0.13 %	Fair
07/17/2021	CHE-DRGW01524-170721-002L	Yellow	Exterior sides, Interior handrails	12 %	Fair
07/17/2021	CHE-DRGW01524-170721-003L	Black	Exterior undercarriage and interior stairs	0.083 %	Poor
07/17/2021	CHE-DRGW01524-170721-004L	White	Exterior handrails	0.25 %	Poor

Polychlorinated Biphenyls Results

PCBs Present⁴ No _____ Total Number of Positive Components.⁴ 0 _____

Notes

PCBs Samples

Sample Date	Sample ID	Description	Location	PCBs Result	Quantity
07/17/2021	CHE-DRGW01524-170721-001P	Black caulk	Exterior windows	Not Detected	36 LF

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01524

BUILDING AMERICA™

Mold Results

Suspect Mold Present No

Notes

- 1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
- 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
- 3 "Lead Present" and "Positive" is defined as paint with $\geq 0.5\%$ lead.
- 4 "PCBs Present" and "Positive" is defined as caulk with ≥ 50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01524



Railcar ID Marking



View of railcar, looking south



View of railcar, looking north



Railcar interior



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

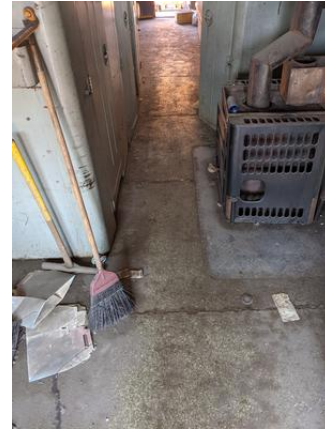
Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01524



CHE-DRGW01524-170721-001 thru 003, Asbestos Not Detected, Beige flooring and gray mastic



CHE-DRGW01524-170721-001 thru 003, Asbestos Not Detected, Beige flooring and gray mastic



CHE-DRGW01524-170721-004 thru 006, 15% Asbestos, Gray transite boards



CHE-DRGW01524-170721-004 thru 006, 15% Asbestos, Gray transite boards



CHE-DRGW01524-170721-007 thru 009, 2% Asbestos, Black caulk



CHE-DRGW01524-170721-007 thru 009, 2% Asbestos, Black caulk



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01524



CHE-DRGW01524-170721-010 thru 012, 6.42% Asbestos, White coating



CHE-DRGW01524-170721-010 thru 012, 6.42% Asbestos, White coating



CHE-DRGW01524-170721-013 thru 015, 1.43% Asbestos, Tan sealant



CHE-DRGW01524-170721-013 thru 015, 1.43% Asbestos, Tan sealant



CHE-DRGW01524-170721-016 thru 018, Asbestos Not Detected, Black brake pads



CHE-DRGW01524-170721-016 thru 018, Asbestos Not Detected, Black brake pads



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01524



CHE-DRGW01524-170721-019 thru 021, 4.7% Asbestos, White coating



CHE-DRGW01524-170721-019 thru 021, 4.7% Asbestos, White coating



CHE-DRGW01524-170721-001L, 0.13% Lead, Gray



CHE-DRGW01524-170721-001L, 0.13% Lead, Gray



CHE-DRGW01524-170721-002L, 12% Lead, Yellow



CHE-DRGW01524-170721-002L, 12% Lead, Yellow



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No D&RGW; 01524



CHE-DRGW01524-170721-003L, 0.083% Lead, Black



CHE-DRGW01524-170721-003L, 0.083% Lead, Black



CHE-DRGW01524-170721-004L, 0.25% Lead, White



CHE-DRGW01524-170721-004L, 0.25% Lead, White



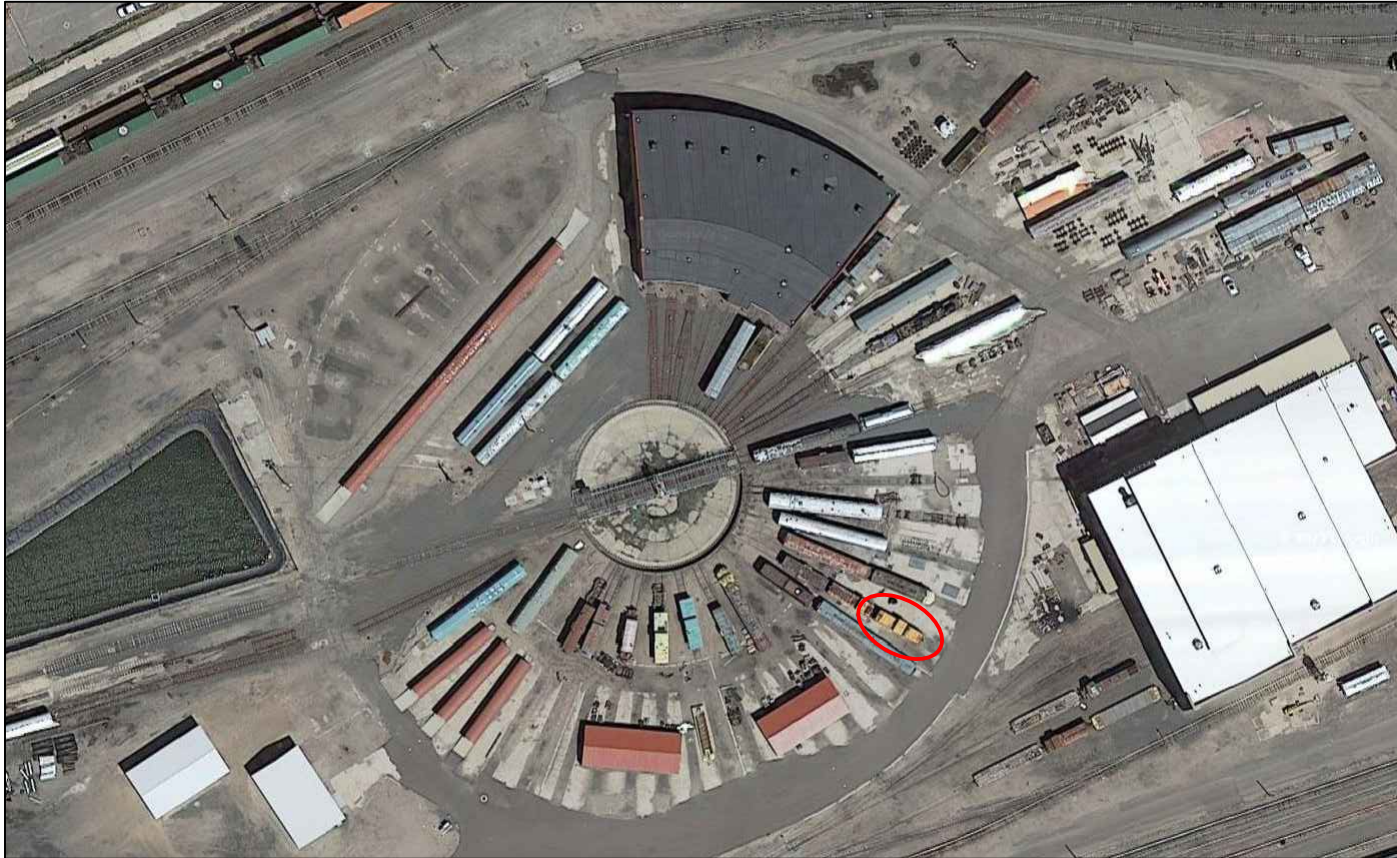
CHE-DRGW01524-170721-001P, PCB Not Detected,
Black caulk



CHE-DRGW01524-170721-001P, PCB Not Detected,
Black caulk

Appendix 1 - Figures

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01524</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

D&RGW 01524
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

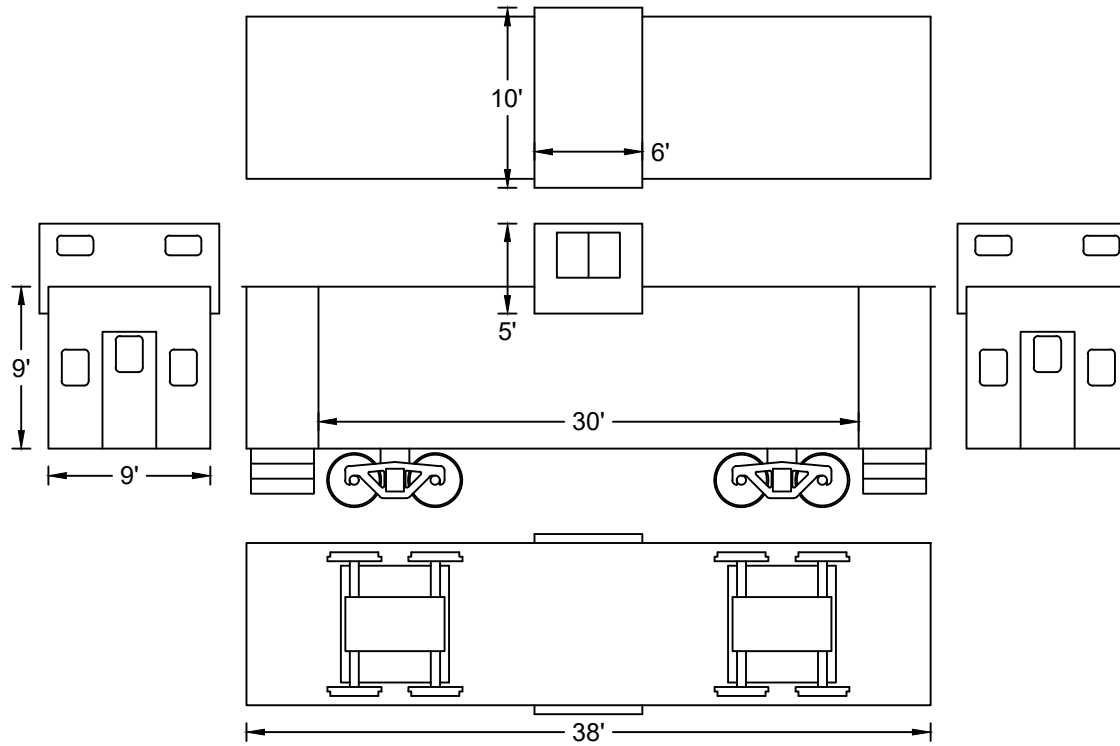
DATE: JULY-2021



ROOF

FRONT END

BACK END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



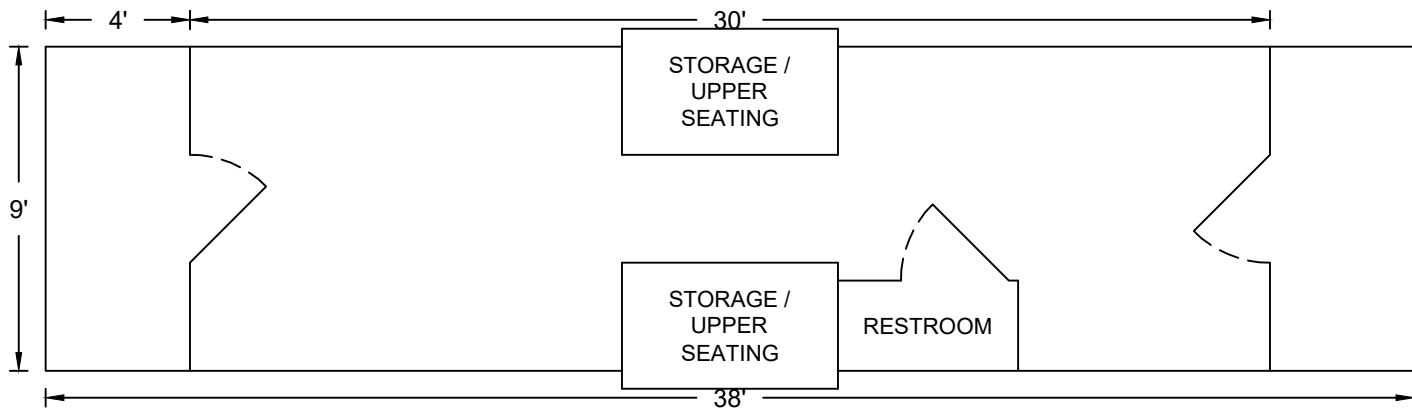
**EARTH SERVICES
& ABATEMENT**

D&RGW 01524
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



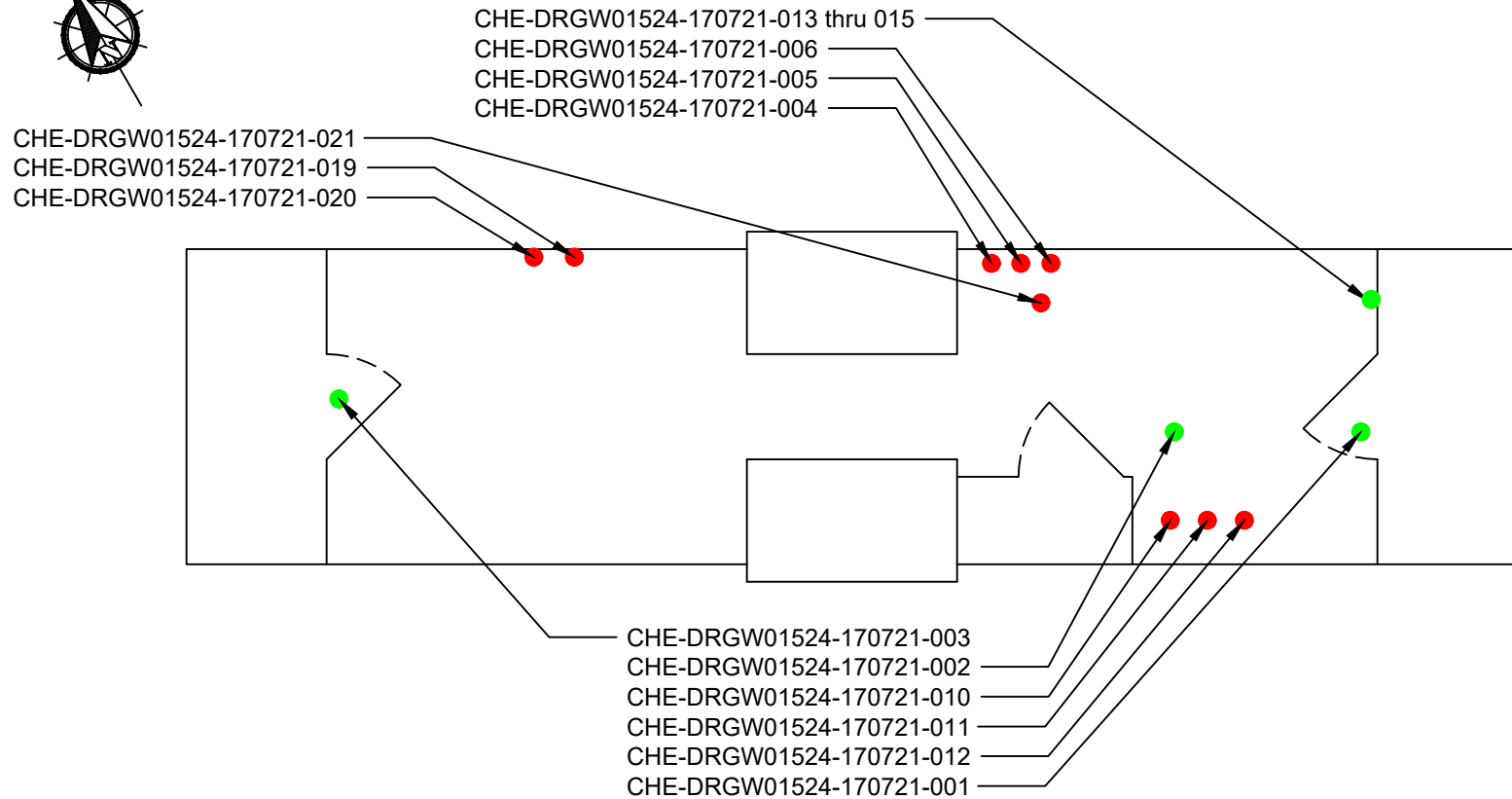
EARTH SERVICES
& ABATEMENT

D&RGW 01524
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

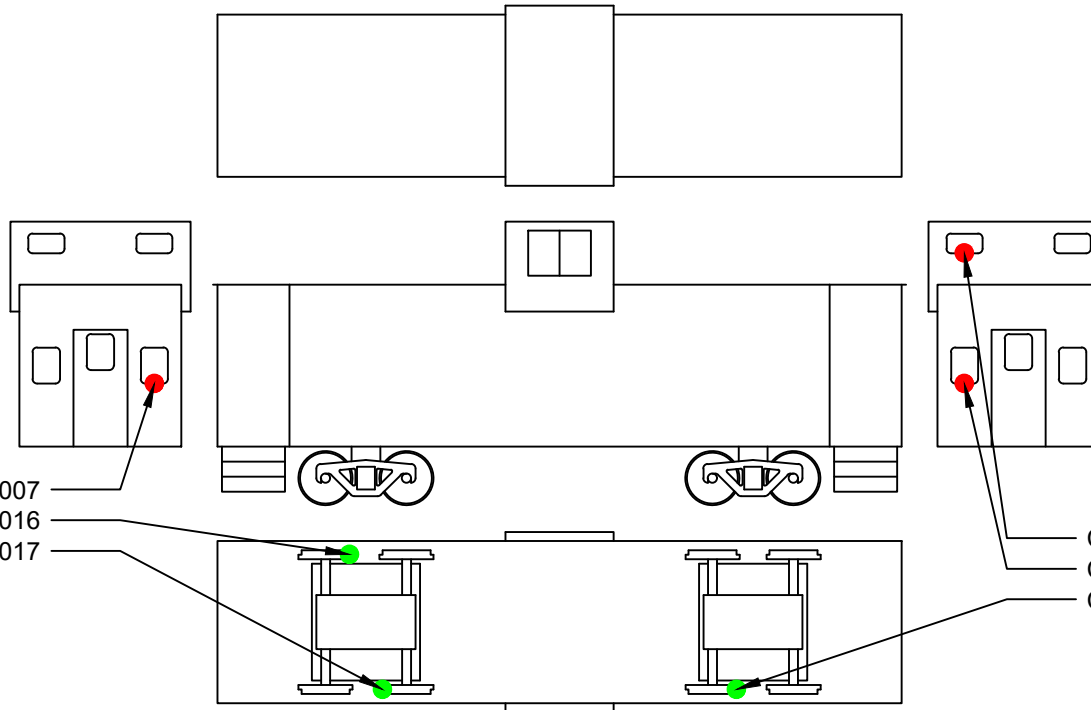
D&RGW 01524
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

**FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND**

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-DRGW01524-170721-007
CHE-DRGW01524-170721-016
CHE-DRGW01524-170721-017

CHE-DRGW01524-170721-009
CHE-DRGW01524-170721-008
CHE-DRGW01524-170721-018

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

D&RGW 01524
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

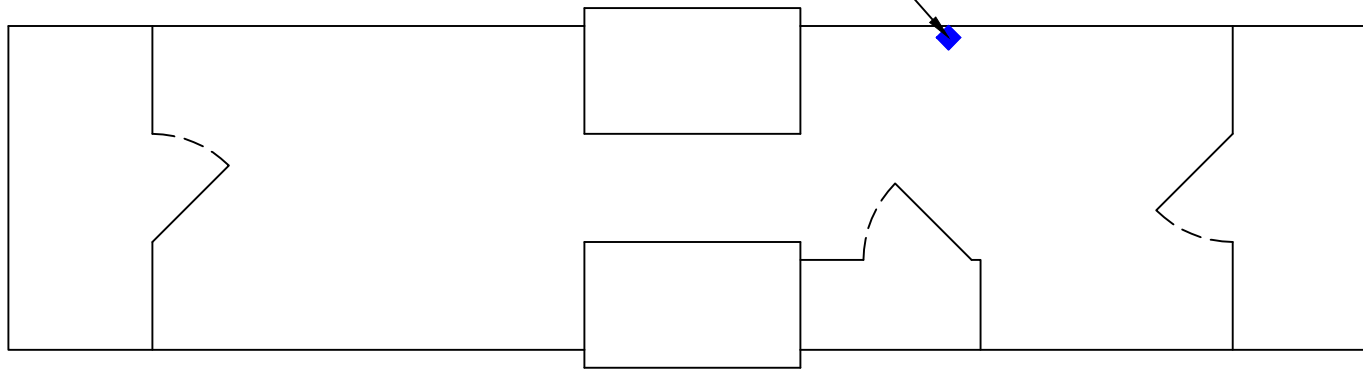
DATE: JULY-2021

**FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND**

- - NON-ACM SAMPLE LOCATIONS (≤1% ASBESTOS)
- - ACM SAMPLE LOCATIONS (>1% ASBESTOS)



CHE-DRGW01524-170721-001L



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

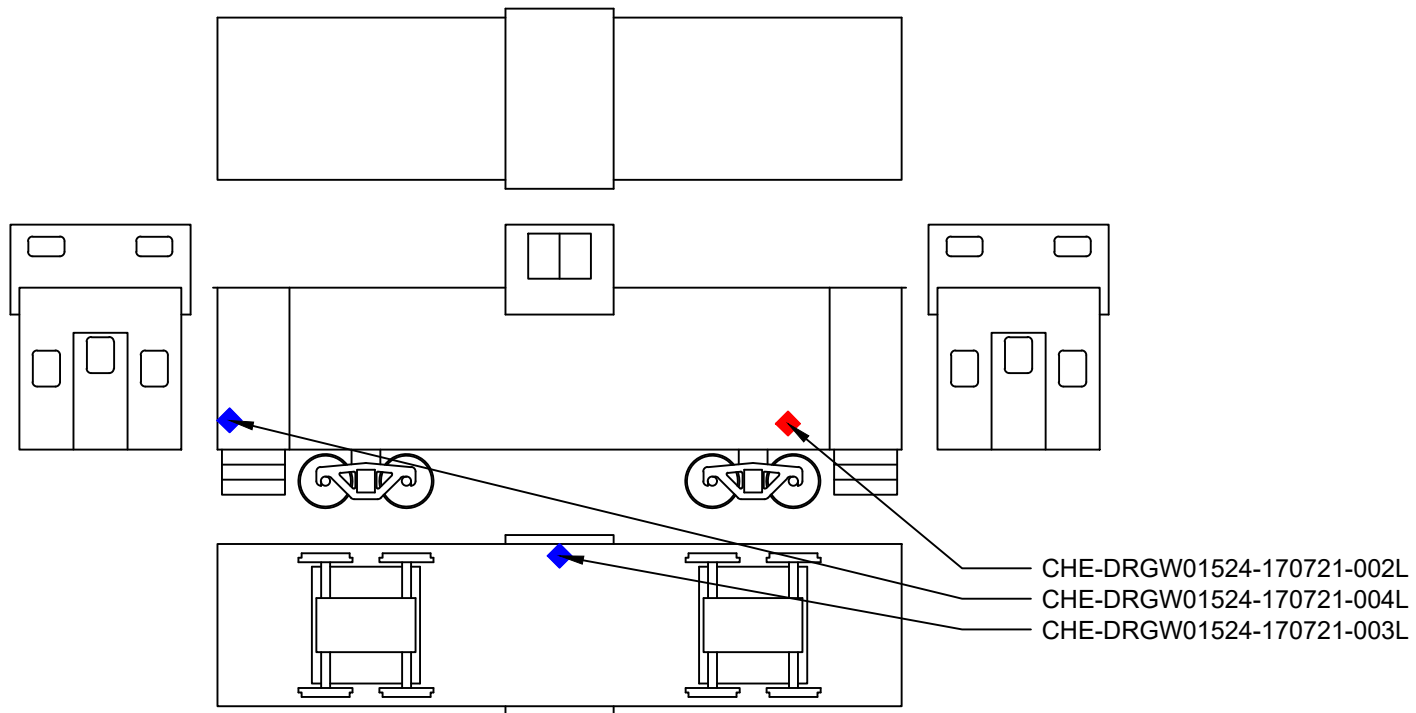
D&RGW 01524
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

**FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND**

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

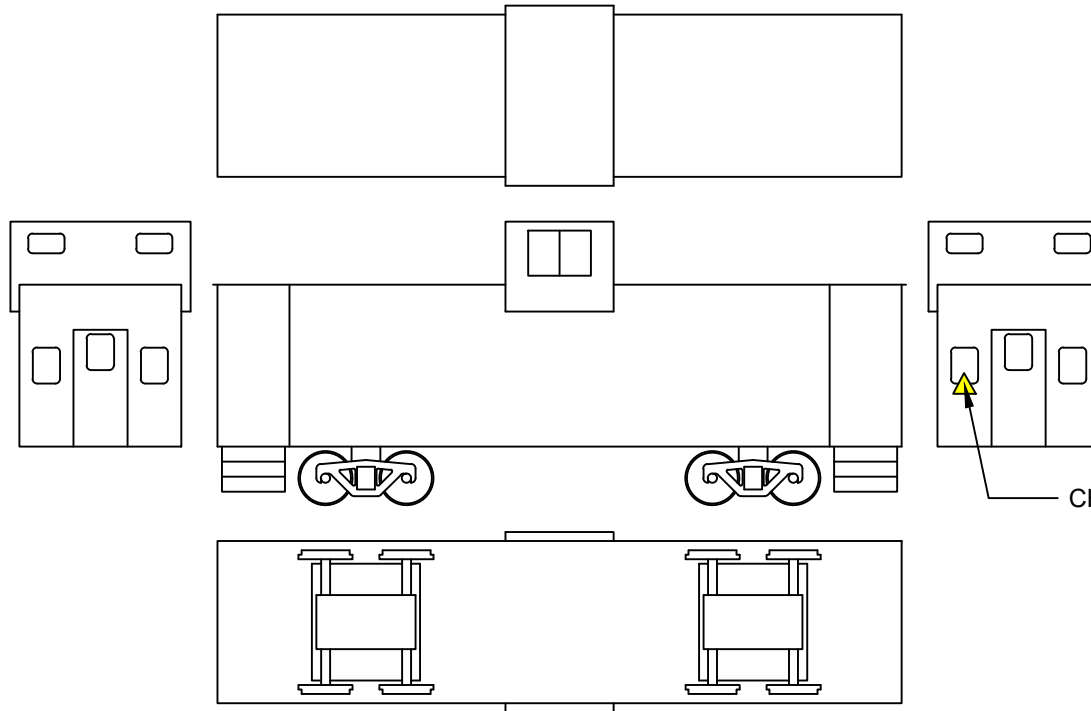
D&RGW 01524
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 7 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



CHE-DRGW01524-170721-001P

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

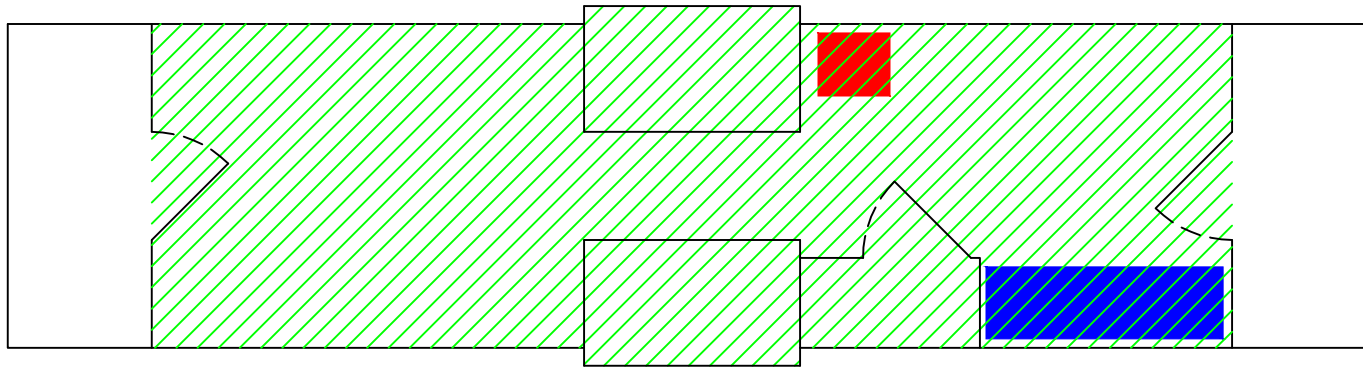
D&RGW 01524
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 8 - PCB SAMPLE LOCATIONS
LEGEND

-  - NON-PCB SAMPLE LOCATIONS (<50 PPM)
-  - PCB SAMPLE LOCATIONS (≥50 PPM)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**




D&RGW 01524
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

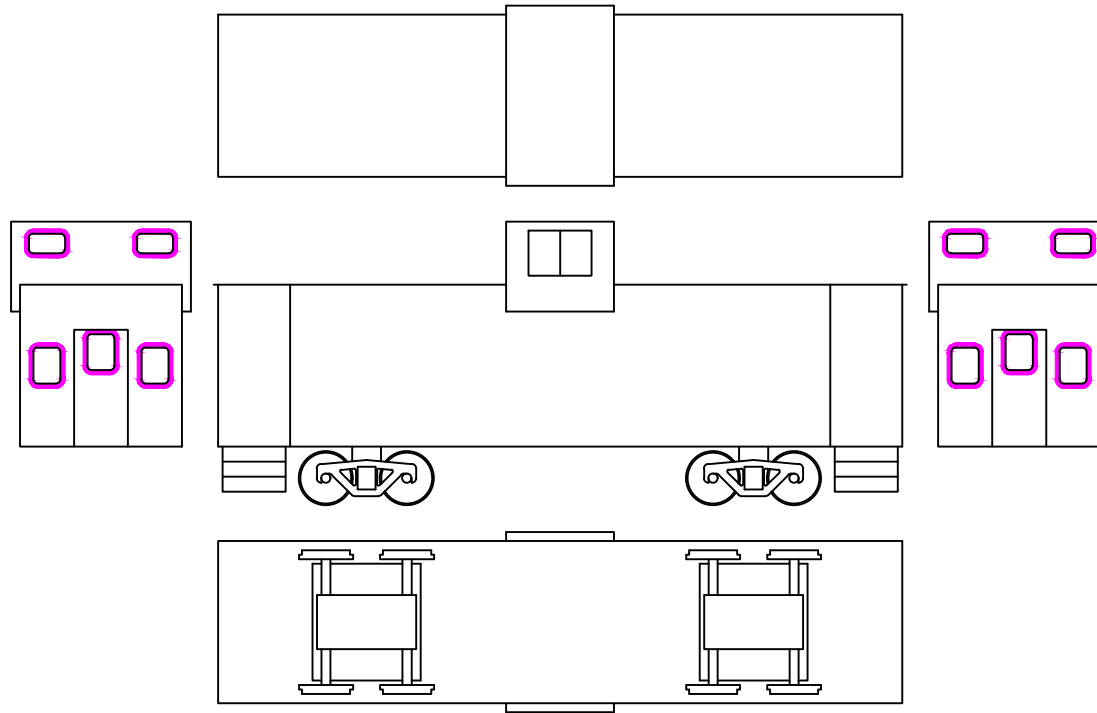
DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)

LEGEND

-  - ACM GRAY TRANSITE BOARDS
-  - ACM WHITE COATING
-  - ACM WHITE COATING



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

D&RGW 01524
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 10 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM BLACK CAULK

DRAWN BY: J. KULM

DATE: JULY-2021

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01524</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129237
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021


D&RGW 01524 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE- DRGW01524- 170721-001	LAYER 1 Flooring, Green/ Beige, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 2 Mastic, Gray, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE- DRGW01524- 170721-002	LAYER 1 Flooring, Green/ Beige, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 2 Mastic, Gray, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE- DRGW01524- 170721-003	LAYER 1 Flooring, Green/ Beige, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 2 Mastic, Gray, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE- DRGW01524- 170721-004	Transite, Gray, Homogeneous	Chrysotile 15%	Non-Fibrous Material	85%
CHE- DRGW01524- 170721-005	Transite, *Not analyzed per client request			
CHE- DRGW01524- 170721-006	Transite, *Not analyzed per client request			
CHE- DRGW01524- 170721-007 400 pt. POINT COUNT	Caulk, Black, Homogeneous Original PLM Result: 5% Chrysotile	Chrysotile 2.00%	Non-Fibrous Material	98.00%

Gravimetric Reduction Prep

Jose Sequera

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129237
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

D&RGW 01524 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-DRGW01524-170721-008	Caulk, *Not analyzed per client request		
CHE-DRGW01524-170721-009	Caulk, *Not analyzed per client request		
CHE-DRGW01524-170721-010 400 pt. POINT COUNT	Coating, Gray, Homogeneous Original PLM Result: 5% Chrysotile	Chrysotile 6.42%	Non-Fibrous Material 93.58%
Gravimetric Reduction Prep			
CHE-DRGW01524-170721-011	Coating, *Not analyzed per client request		
CHE-DRGW01524-170721-012	Coating, *Not analyzed per client request		
CHE-DRGW01524-170721-013 400 pt. POINT COUNT	Sealant, Beige, Homogeneous Original PLM Result: 3% Chrysotile	Chrysotile 1.33%	Non-Fibrous Material 98.67%
Gravimetric Reduction Prep			
CHE-DRGW01524-170721-014	Sealant, *Not analyzed per client request		
CHE-DRGW01524-170721-015	Sealant, *Not analyzed per client request		

Jose Sequera Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

NVLAP Lab Code: 600120-0 AIHA-LAP, LLC Lab ID: 157714 TDSHS License: 30-0457

Page 2 of 3

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129237
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

D&RGW 01524 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-DRGW01524-170721-016	Brakes, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01524-170721-017	Brakes, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01524-170721-018	Brakes, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-DRGW01524-170721-019	Coating, Beige, Homogeneous	Chrysotile 8%	Non-Fibrous Material	92%
CHE-DRGW01524-170721-020	Coating, *Not analyzed per client request			

Jose Sequera Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



J3 Resource:

Open Lab Fee

129237

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - D&RGW 01524	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW848-7421 <input type="checkbox"/> Soil/Sludge - SW848-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW848-6010B <input type="checkbox"/> Effluent - SW848-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 20 **Positive Stop:** YES NO

Signatures

Relinquished By:	Date: 7/19 Time: _____
Received By:	Date: 7/20/21 Time: 10:30
Relinquished By: _____	Date: _____ Time: _____
Received By: _____	Date: _____ Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

IH CHAIN OF CUSTODY



Project Name WY Rollingstock Inspections
 Project Number 215WY001 - D&E

Page ____ of ____

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME/CONDITION
CHE-DRGW01524-170721-001	Beige flooring	
CHE-DRGW01524-170721-002	Int. throughout	
CHE-DRGW01524-170721-003		
CHE-DRGW01524-170721-004	Gray transite	
CHE-DRGW01524-170721-005	Int. behind furnace	
CHE-DRGW01524-170721-006		
CHE-DRGW01524-170721-007	Black caulk	
CHE-DRGW01524-170721-008	Ext. windows	
CHE-DRGW01524-170721-009		
CHE-DRGW01524-170721-010	White coating	
CHE-DRGW01524-170721-011	Int. water tank	
CHE-DRGW01524-170721-012		
CHE-DRGW01524-170721-013	Tan sealant	
CHE-DRGW01524-170721-014	Int. oil fill pipe	
CHE-DRGW01524-170721-015		
CHE-DRGW01524-170721-016	Brakes	
CHE-DRGW01524-170721-017	Ext. wheels	
CHE-DRGW01524-170721-018		
CHE-DRGW01524-170721-019	White coating	
CHE-DRGW01524-170721-020	Int. wall and ceiling coating	

Comments/Special Instructions:

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129508
Project #: 215WY001
Date Received: 29-Jul-2021
Date Analyzed: 02-Aug-2021
Date Reported: 03-Aug-2021

D&RGW 01524 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents		Non-Asbestos Constituents	
CHE-DRGW01524-170721-014 400 pt. POINT COUNT	Sealant, Beige, Homogeneous Original PLM Result: 3% Chrysotile	Chrysotile	1.43%	Non-Fibrous Material	98.57%
Gravimetric Reduction Prep					
CHE-DRGW01524-170721-015 400 pt. POINT COUNT	Sealant, Beige, Homogeneous Original PLM Result: 3% Chrysotile	Chrysotile	0.47%	Non-Fibrous Material	99.53%
Gravimetric Reduction Prep					

Jose Sequera Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



J3 Resource:

Open Lab Fee

129508

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City , CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - D&RGW 01524	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 20 **Positive Stop:** YES NO

Signatures

Relinquished By:	Date: 7/19 Time: _____
Received By:	Date: 7/20/21 Time: 10:30
Relinquished By: _____	Date: _____ Time: _____
Received By: _____	Date: _____ Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Project Name WY Rollinastock Inspections
 Project Number 215WY001 - D&E

Page ____ of ____

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME/CONDITION
CHE-DRGW01524-170721-001	Beige flooring	
CHE-DRGW01524-170721-002	Int. throughout	
CHE-DRGW01524-170721-003		
CHE-DRGW01524-170721-004	Gray transite	
CHE-DRGW01524-170721-005	Int. behind furnace	
CHE-DRGW01524-170721-006		
CHE-DRGW01524-170721-007	Black caulk	
CHE-DRGW01524-170721-008	Ext. windows	
CHE-DRGW01524-170721-009		
CHE-DRGW01524-170721-010	White caulk	
CHE-DRGW01524-170721-011	Int. water tank	
CHE-DRGW01524-170721-012		
CHE-DRGW01524-170721-013	Tan sealant	
CHE-DRGW01524-170721-014	Int. oil fill pipe	
CHE-DRGW01524-170721-015		
CHE-DRGW01524-170721-016	Brakes	
CHE-DRGW01524-170721-017	Ext. wheels	
CHE-DRGW01524-170721-018		
CHE-DRGW01524-170721-019	White coating	
CHE-DRGW01524-170721-020	Int. wall and ceiling coating	

Comments/Special Instructions:

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order:	222105227
CustomerID:	ESAB42
CustomerPO:	
ProjectID:	

Attn: **Joseph Kulm**
Earth Services & Abatement, Inc.
6700 E. 50th Ave.
Commerce City, CO 80022

Phone: (303) 339-3051
 Fax:
 Received: 7/20/2021 01:30 PM
 Analysis Date: 7/28/2021
 Collected: 7/17/2021

Project: 215WY001, DRWG 01524

Test Report: Polarized Light Microscopy (PLM) - Point Count Performed by EPA 600/R-93/116 Method with Gravimetric Reduction and 400 Point Count

SAMPLE ID	DESCRIPTION	APPEARANCE	(% Matrix		NON- ASBESTOS % Fibrous	NON- ASBESTOS % NON-FIBROUS	ASBESTOS % TYPES
			Organic	Acid			
CHE- DRGW01524- 170721-021 222105227-0001	WHITE COATING	White Fibrous	24.2	21.8		49.2 Non-fibrous (other)	4.7 Chrysotile
		Homogeneous					

Analyst(s)

Timothy Kleehammer (1)Henry Printz, TEM/PCM Laboratory Supervisor
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. EMSL suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 07/28/2021 10:36:04



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

222105227

EMSL Analytical, Inc.
1010 Yuma Street

Denver, CO 80204
PHONE: (303) 740-5700
FAX: (303) 741-1400

Company: Earth Services & Abatement, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same If Bill to is Different note instructions in Comments**	
Street: 6700 E. 50th Ave.		Third Party Billing requires written authorization from third party	
City: Commerce City	State/Province: CO	Zip/Postal Code: 80022	Country: United States
Report To (Name): Amanda Wozab		Telephone #: 303-991-1280	
Email Address: See special instructions		Fax #: 303-991-1282	Purchase Order:
Project Name/Number: 215WY001, DRWG 01524		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: Wyoming		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	

Turnaround Time (TAT) Options* - Please Check

3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)
PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input checked="" type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input checked="" type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5	Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: Joseph Kulm Samplers Signature:

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
CHE-DRGW01524-170721-021	White coating		7/17/2021, 1000 AM

Client Sample # (s): - Total # of Samples:

Relinquished (Client): Robert Szynskie Date: 7-20-21 Time:

Received (Lab): LM Date: 7/20 1:30 Time:

Comments/Special Instructions:

Do Gravimetric reduction and point count as needed. Send results to: robert.szynskie@esasite.com, amanda.wozab@esasite.com, patrick.mcgilvrey@esasite.com

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022

Order #: JP211028583
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

WY Rollingstock Inspections-D&RGW 01524

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-DRGW01524-170721-001L	Gray	1300	0.13%
CHE-DRGW01524-170721-002L	Yellow	120000	12%
CHE-DRGW01524-170721-003L	Black	830	0.083%
CHE-DRGW01524-170721-004L	White	2500	0.25%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi



Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

Open Lab Fee

26583 only

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	City/State: _____ Zip: _____
City/State: Commerce City, CO Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - D&RGW 01524	Telephone – Office/Cell 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions:	

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 4	Positive Stop: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
---	---

Signatures

Relinquished By:	Date: 7/19 Time: _____
Received By:	Date: 7/20/21 Time: 10:30
Relinquished By: _____	Date: _____ Time: _____
Received By: _____	Date: _____ Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.

**TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)



Monday, August 09, 2021

Amanda Wozab
Earth Services & Abatement
6700 E. 50th Ave.
Commerce City, CO 80022

Re: ALS Workorder: 2107399
Project Name: Cheyenne RS
Project Number: 215WY001

Dear Ms. Wozab:

One solid sample was received from Earth Services & Abatement, on 7/21/2021. The sample was scheduled for the following analysis:

PCBs

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager



2107399

PCB:

The sample was analyzed using GC/ECD (electron capture detectors) according to the current revision of SOP 409 based on SW-846 Method 8082.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2107399

Client Name: Earth Services & Abatement

Client Project Name: Cheyenne RS

Client Project Number: 215WY001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CHE-DRGW01524-170721-001P;	2107399-1		SOLID	17-Jul-21	12:00



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: EARTH SERVICES & ABATEMENT

Workorder No: 2107399

Project Manager: KMO

Initials: JPE

Date: 07/21/2021

		N/A	YES	NO
1.	Are airbills / shipping documents present and/or removable? Tracking number: 2815 9831 3879		X	
2.	Are custody seals on shipping containers intact?	X		
3.	Are custody seals on sample containers intact?	X		
4.	Is there a COC (chain-of-custody) present?		X	
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6.	Are short-hold samples present?			X
7.	Are all samples within holding times for the requested analyses?		X	
8.	Were all sample containers received intact? (not broken or leaking)		X	
9.	Is there sufficient sample for the requested analyses?		X	
10.	Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		X	
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13.	Were the samples shipped on ice?			X
14.	Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #5		X
Cooler #: <u>1</u> Temperature (°C): <u>AMB</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>11</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? YES / NA All client bottle ID's vs ALS lab ID's double-checked by JE

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date:  7/21/21

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-DRGW01524-170721-001P; Caulk
Legal Location:
Collection Date: 7/17/2021 12:00

Date: 09-Aug-21
Work Order: 2107399
Lab ID: 2107399-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 7/30/2021	PrepBy: CPC
AROCLOR-1016	ND		1.9	MG/KG	6	8/6/2021 12:21
AROCLOR-1221	ND		3.8	MG/KG	6	8/6/2021 12:21
AROCLOR-1232	ND		1.9	MG/KG	6	8/6/2021 12:21
AROCLOR-1242	ND		1.9	MG/KG	6	8/6/2021 12:21
AROCLOR-1248	ND		1.9	MG/KG	6	8/6/2021 12:21
AROCLOR-1254	ND		1.9	MG/KG	6	8/6/2021 12:21
AROCLOR-1260	ND		1.9	MG/KG	6	8/6/2021 12:21
Surr: TETRACHLORO-M-XYLENE	84		69-129	%REC	6	8/6/2021 12:21
Surr: DECACHLOROBIPHENYL	100		55-135	%REC	6	8/6/2021 12:21

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-DRGW01524-170721-001P; Caulk
Legal Location:
Collection Date: 7/17/2021 12:00

Date: 09-Aug-21
Work Order: 2107399
Lab ID: 2107399-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 8/9/2021 1:30:33

Client: Earth Services & Abatement
 Work Order: 2107399
 Project: 215WY001 Cheyenne RS

QC BATCH REPORT

Batch ID: **EX210730-3-1** Instrument ID: **Pest-1** Method: **SW8082**

LCS Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:13**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.133	0.0333	0.133		99	80-120				50	
AROCLOR-1260	0.137	0.0333	0.133		103	80-125				50	
Surr: TETRACHLORO-M-XYLENE	0.0152		0.0167		91	69-129					
Surr: DECACHLOROBIPHENYL	0.0187		0.0167		112	55-135					

LCSD Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 14:32**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.125	0.0333	0.133		94	80-120		0.133	6	50	
AROCLOR-1260	0.131	0.0333	0.133		99	80-125		0.137	4	50	
Surr: TETRACHLORO-M-XYLENE	0.015		0.0167		90	69-129			1		
Surr: DECACHLOROBIPHENYL	0.0178		0.0167		107	55-135			5		

MB Sample ID: **EX210730-3** Units: **MG/KG** Analysis Date: **8/6/2021 11:25**

Client ID: Run ID: **PT210806-11** Prep Date: **7/30/2021** DF: **1**

Analyte	Result	ReportLimit										Qual
AROCLOR-1016	ND	0.033										
AROCLOR-1221	ND	0.067										
AROCLOR-1232	ND	0.033										
AROCLOR-1242	ND	0.033										
AROCLOR-1248	ND	0.033										
AROCLOR-1254	ND	0.033										
AROCLOR-1260	ND	0.033										
Surr: TETRACHLORO-M-XYLENE	0.0158				95	69-129						
Surr: DECACHLOROBIPHENYL	0.0178				107	55-135						

The following samples were analyzed in this batch:

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>D&RGW; 01524</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	D&RGW 01524	D&RGW 01524
Exposure Area	Interior around furnace	Exterior windows
Asbestos Containing Material	Gray transite boards	Black caulk
Sample Number	CHE-DRGW01524-170721-004 thru 006	CHE-DRGW01524-170721-007 thru 009
Size	NA	NA
Quantity	24 SF	36 LF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	3	2
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	NA	NA
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	1	1
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	0.25	0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	0.25	0.25
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	1	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	2	1
Exposure Value	31	14.5
Rating	3	4

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prior

Asset Number	D&RGW 01524	D&RGW 01524
Exposure Area	Interior, on water tank	Interior walls and ceiling
Asbestos Containing Material	White coating	White coating
Sample Number	CHE-DRGW01524-170721-010 thru 012	CHE-DRGW01524-170721-019 thru 021
Size	NA	NA
Quantity	12 SF	972 SF
MATERIAL CONDITION (MC)	1	1
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area		
BUILDING AGE (BA)	1	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old		
MATERIAL TYPE		
Pipe Covering (PC)	NA	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper		
Ceiling Plasters or Fireproofing (CP)	NA	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture		
WATER DAMAGE (WD)	0	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread		
ROOF CHARACTERISTICS (RC)	-0.5	-0.5
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up		
EXPOSED SURFACE AREA (ESA)	4	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed		
ACCESSIBILITY (AC)	4	3
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high		
ACTIVITY AND MOVEMENT (A/M)	2	1
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently		
WORK ENVIRONMENT (WE)	0.5	0.5
-0.5 =Sedentary 0.5 =Non-sedentary		
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration		
AIR - PLENUM / AIR STREAM (AP)	1	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists		
VELOCITY (if Air Plenum = 1) (VEL)	-0.25	0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling		
FLOW (if Air Plenum = 1) (FL)	NA	0.25
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow		
FRIABILITY (F)	1	1
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure		
ASBESTOS CONTENT (ASB)	1	1
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos		
Exposure Value	13.25	12
Rating	4	4



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

July 27th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock FTSX 812, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar FTSX 812 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 14th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 07/14/2021

Inspection End Date 07/14/2021

Report Date 07/27/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Caboose

Rolling Stock No FTSX 812 Car Name FTSX 812

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.129563°

State WY Longitude -104.815232°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 07/27/2021

Rolling Stock Type Caboose

Rolling Stock No FTSX 812

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 1

Total Number of Materials Containing <= 1% Asbestos. 1

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details. The insulation identified in samples CHE-FTSX812-140721-013 thru 015 is not considered a suspect material for asbestos.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/14/2021	CHE-FTSX812-140721-001 thru 003	Black rubberized flooring and clear mastic	Interior floor throughout	Not Detected	N/A	N/A	270 sq. ft.	N/A
07/14/2021	CHE-FTSX812-140721-004 thru 006	Gray transite	Interior walls, around former furnace	15%, Chrysotile	Category I	No	24 sq. ft.	3
07/14/2021	CHE-FTSX812-140721-007 thru 009	White sealant	Removed window opening	Not Detected	N/A	N/A	16 LF	N/A
07/14/2021	CHE-FTSX812-140721-010 thru 012	White sealant	Exterior door windows	Not Detected	N/A	N/A	14 LF	N/A
07/14/2021	CHE-FTSX812-140721-013 thru 015	Black coating	Interior, between exterior shell and walls and ceiling	0.42%, Chrysotile	N/A	N/A	680 sq. ft.	N/A
07/14/2021	CHE-FTSX812-140721-016 thru 018	Black break pads	Exterior wheels	Not Detected	N/A	N/A	4 sq. ft.	N/A

¹ "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

² For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

³ "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

⁴ "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 07/27/2021

Rolling Stock Type Caboose

Rolling Stock No FTSX 812

BUILDING AMERICA™

Lead-Based Paint Results

Lead Present³ Yes _____ Total Number of Positive Components.³ 3 _____

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/14/2021	CHE-FTSX812-140721-001L	White	Interior	1.6 %	Fair
07/14/2021	CHE-FTSX812-140721-002L	Yellow	Exterior	6.8 %	Poor
07/14/2021	CHE-FTSX812-140721-003L	Green/Red/Black (layered)	Handrails	0.63 %	Poor
07/14/2021	CHE-FTSX812-140721-004L	Black	Exterior undercarriage	0.29 %	Poor

Polychlorinated Biphenyls Results

PCBs Present⁴ No Suspect Materials _____ Total Number of Positive Components.⁴ 0 _____

Notes

Mold Results

Suspect Mold Present _____ No _____

Notes

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 07/27/2021

Rolling Stock Type Caboose

Rolling Stock No FTSX 812



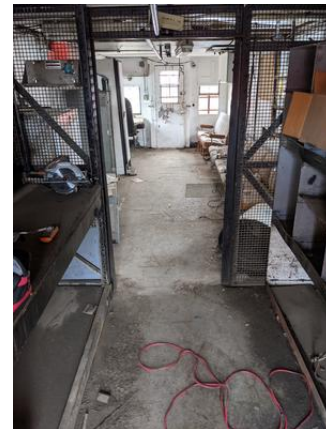
Train ID Marking



View of railcar, looking north-northeast



View of railcar, looking south-southeast



View of railcar interior



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 07/27/2021

Rolling Stock Type Caboose

Rolling Stock No FTSX 812



CHE-FTSX812-140721-001 thru 003, Asbestos Not Detected, Black rubberized flooring and clear mastic



CHE-FTSX812-140721-001 thru 003, Asbestos Not Detected, Black rubberized flooring and clear mastic



CHE-FTSX812-140721-004 thru 006, 15% Asbestos, Gray transite



CHE-FTSX812-140721-004 thru 006, 15% Asbestos, Gray transite



CHE-FTSX812-140721-007 thru 009, Asbestos Not Detected, White sealant



CHE-FTSX812-140721-007 thru 009, Asbestos Not Detected, White sealant



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

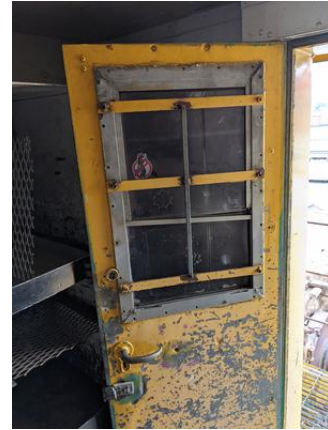
Report Date 07/27/2021

Rolling Stock Type Caboose

Rolling Stock No FTSX 812



CHE-FTSX812-140721-010 thru 012, Asbestos Not Detected, White sealant



CHE-FTSX812-140721-010 thru 012, Asbestos Not Detected, White sealant



CHE-FTSX812-140721-013 thru 015, 0.42% Asbestos, Black coating



CHE-FTSX812-140721-013 thru 015, 0.42% Asbestos, Black coating



CHE-FTSX812-140721-016 thru 018, Asbestos Not Detected, Black break pads



CHE-FTSX812-140721-016 thru 018, Asbestos Not Detected, Black break pads



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 07/27/2021

Rolling Stock Type Caboose

Rolling Stock No FTSX 812



CHE-FTSX812-140721-001L, 1.6% Lead, White



CHE-FTSX812-140721-001L, 1.6% Lead, White



CHE-FTSX812-140721-002L, 6.8% Lead, Yellow



CHE-FTSX812-140721-002L, 6.8% Lead, Yellow



CHE-FTSX812-140721-003L, 0.63% Lead, Green/Red/Black (layered)



CHE-FTSX812-140721-003L, 0.63% Lead, Green/Red/Black (layered)



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 07/27/2021

Rolling Stock Type Caboose

Rolling Stock No FTSX 812



CHE-FTSX812-140721-004L, 0.29% Lead, Black



CHE-FTSX812-140721-004L, 0.29% Lead, Black

Appendix 1 - Figures

Report Date	<u>07/27/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>FTSX 812</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



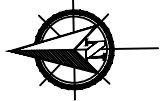
**EARTH SERVICES
& ABATEMENT**

FTSX 812
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

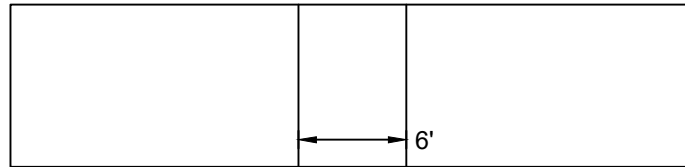
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

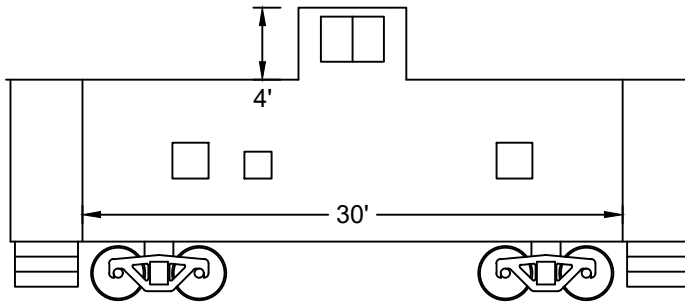
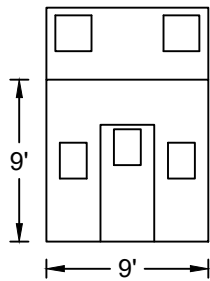
DATE: JULY-2021



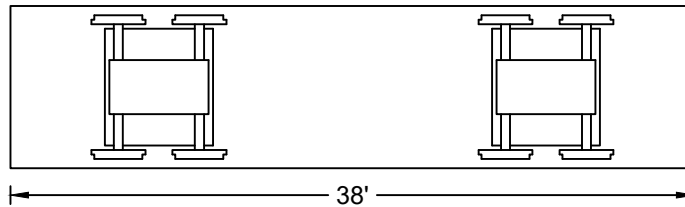
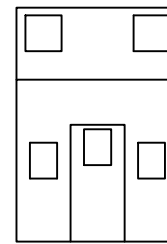
ROOF



FRONT END



BACK END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



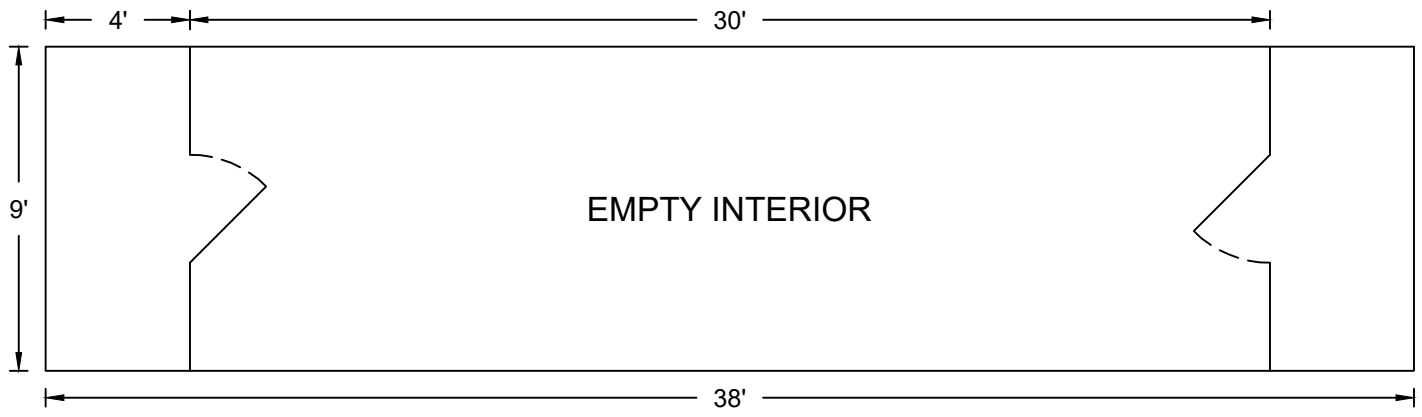
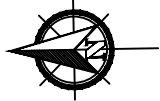
EARTH SERVICES
& ABATEMENT

FTSX 812
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



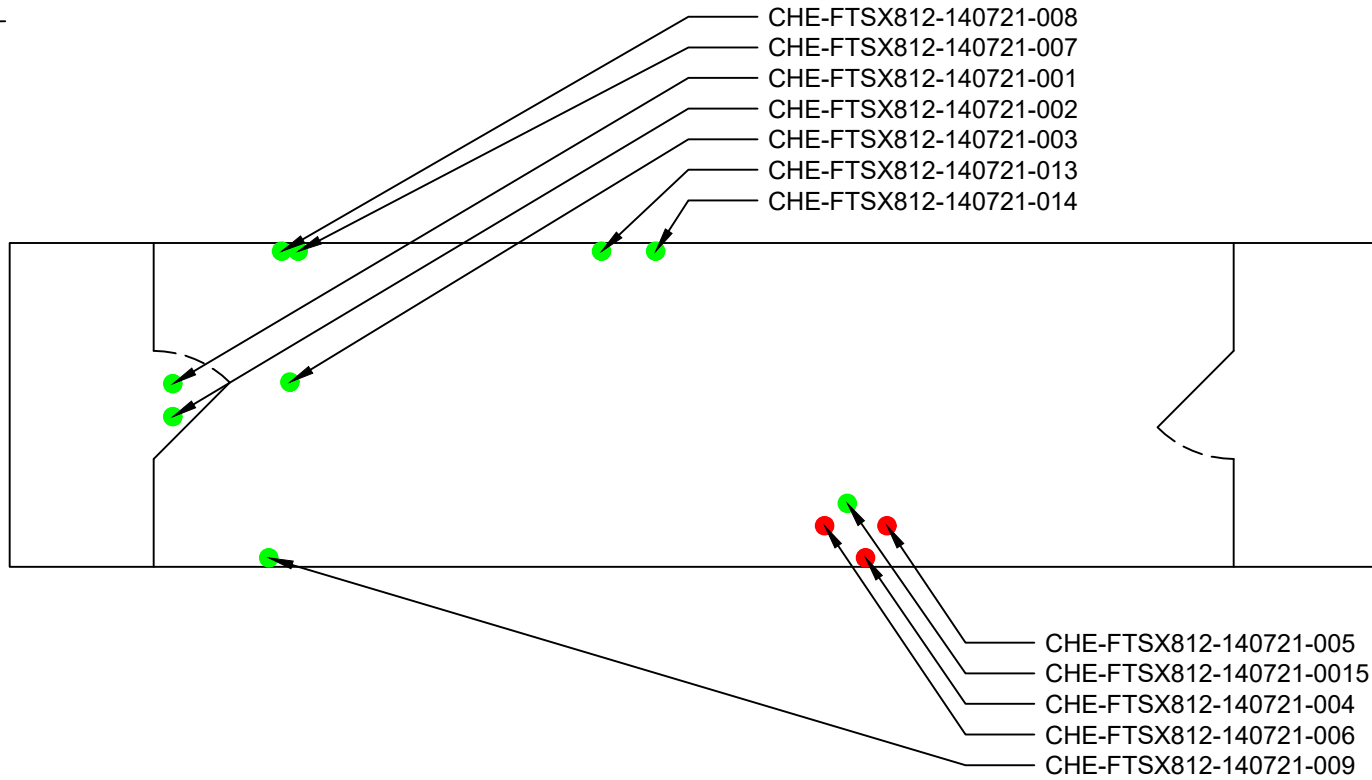
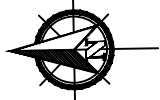
**EARTH SERVICES
& ABATEMENT**

FTSX 812
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 3 - RAILCAR LAYOUT



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

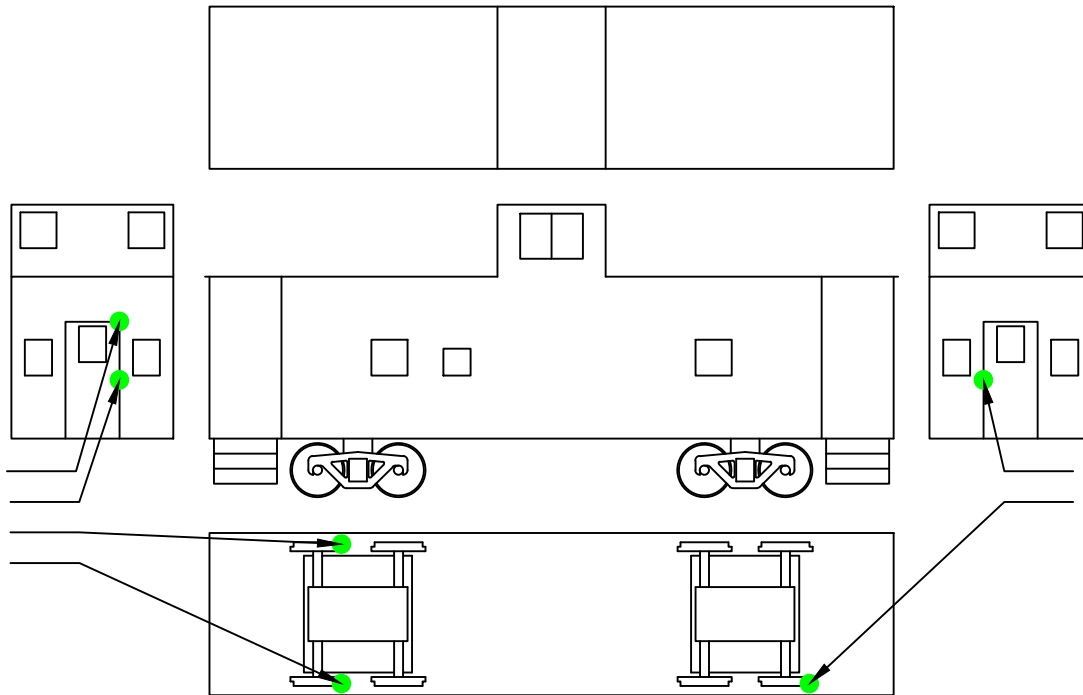
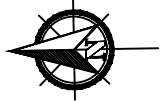
FTSX 812
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS (≤1% ASBESTOS)
- - ACM SAMPLE LOCATIONS (>1% ASBESTOS)



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY

EXTERIOR



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

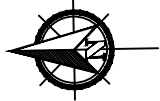
FTSX 812
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

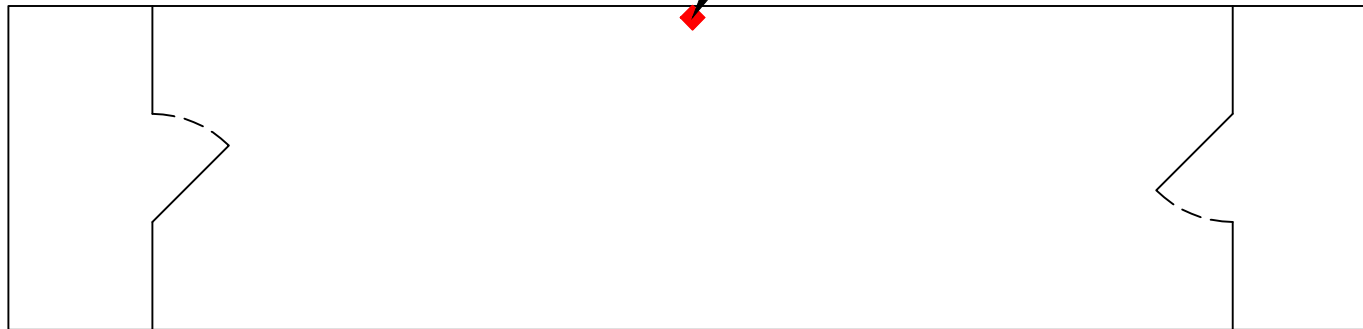
DATE: JULY-2021

FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-FTSX812-140721-001L



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

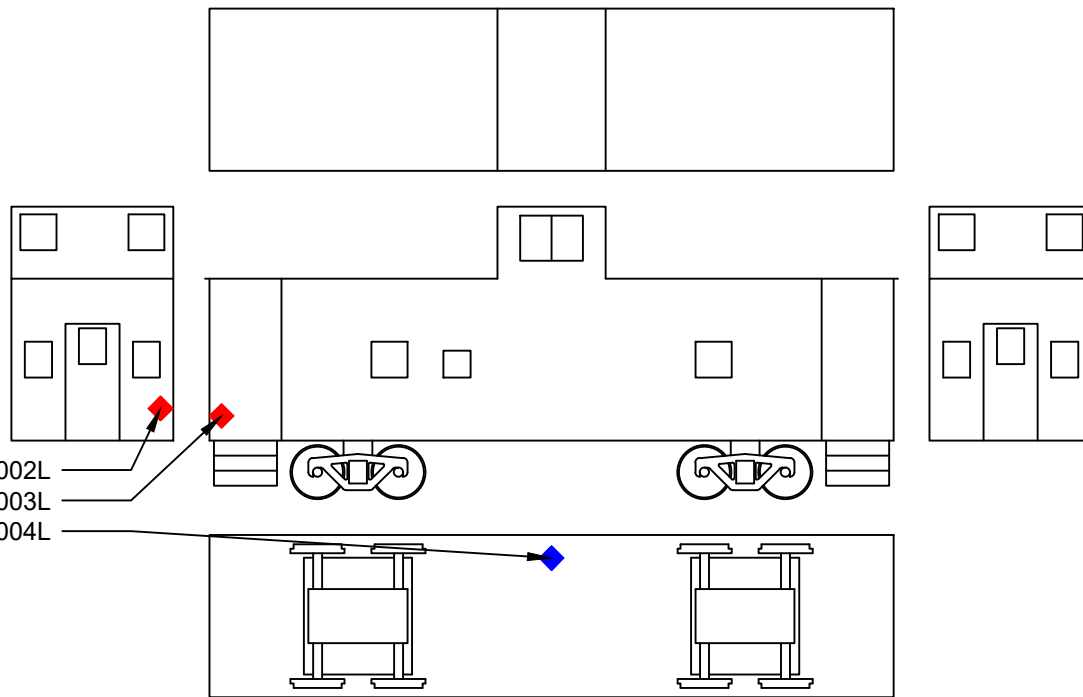
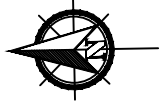
FTSX 812
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



CHE-FTSX812-140721-002L
CHE-FTSX812-140721-003L
CHE-FTSX812-140721-004L

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

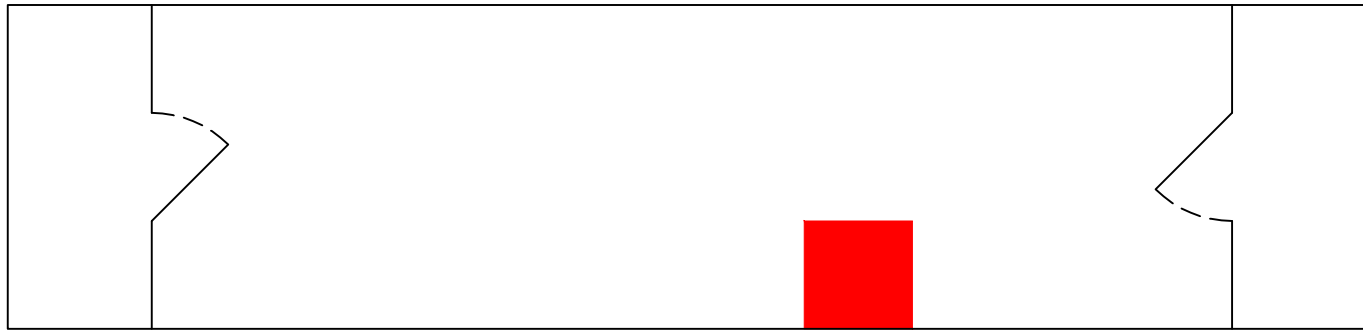
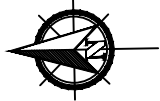
FTSX 812
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

**FIGURE 7 - LBP SAMPLE LOCATIONS
LEGEND**

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

FTSX 812
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 8 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM GRAY TRANSITE

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>07/27/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>FTSX 812</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21129233
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

FTSX-812 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-FTSX812-140721-001	LAYER 1 Flooring, Black, Homogeneous	None Detected	Synthetic Fiber 5% Non-Fibrous Material 95%
	LAYER 2 Mastic, Clear, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-FTSX812-140721-002	LAYER 1 Flooring, Black, Homogeneous	None Detected	Synthetic Fiber 5% Non-Fibrous Material 95%
	LAYER 2 Mastic, Clear, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-FTSX812-140721-003	LAYER 1 Flooring, Black, Homogeneous	None Detected	Synthetic Fiber 5% Non-Fibrous Material 95%
	LAYER 2 Mastic, Clear, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-FTSX812-140721-004	Transite, Gray, Homogeneous	Chrysotile 15%	Non-Fibrous Material 85%
CHE-FTSX812-140721-005	Transite, *Not analyzed per client request		
CHE-FTSX812-140721-006	Transite, *Not analyzed per client request		
CHE-FTSX812-140721-007	Sealant, White, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-FTSX812-140721-008	Sealant, White, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-FTSX812-140721-009	Sealant, White, Homogeneous	None Detected	Non-Fibrous Material 100%

Arnold Flores

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21129233
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

FTSX-812 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-FTSX812-140721-010	Sealant, White, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-FTSX812-140721-011	Sealant, White, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-FTSX812-140721-012	Sealant, White, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-FTSX812-140721-013 400 pt. POINT COUNT	LAYER 1 Coating, Black, Homogeneous Original PLM Result: <1% Chrysotile	Chrysotile 0.37%	Mineral Wool Non-Fibrous Material	5% 94.63%
	LAYER 2 Insulation, Yellow, Homogeneous	None Detected	Mineral Wool Non-Fibrous Material	98% 2%
Gravimetric Reduction Prep - Layer 1				
CHE-FTSX812-140721-014 400 pt. POINT COUNT	LAYER 1 Coating, Black, Homogeneous Original PLM Result: <1% Chrysotile	Chrysotile 0.42%	Mineral Wool Non-Fibrous Material	5% 94.58%
	LAYER 2 Insulation, Yellow, Homogeneous	None Detected	Mineral Wool Non-Fibrous Material	98% 2%
Gravimetric Reduction Prep - Layer 1				
CHE-FTSX812-140721-015 400 pt. POINT COUNT	LAYER 1 Coating, Black, Homogeneous Original PLM Result: <1% Chrysotile	Chrysotile 0.38%	Mineral Wool Non-Fibrous Material	5% 94.62%
	LAYER 2 Insulation, Yellow, Homogeneous	None Detected	Mineral Wool Non-Fibrous Material	98% 2%
Gravimetric Reduction Prep - Layer 1				

Arnold Flores

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21129233
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

FTSX-812 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-FTSX812-140721-016	Brakes, Black, Homogeneous	None Detected	Mineral Wool	3%
			Non-Fibrous Material	97%
CHE-FTSX812-140721-017	Brakes, Black, Homogeneous	None Detected	Mineral Wool	3%
			Non-Fibrous Material	97%
CHE-FTSX812-140721-018	Brakes, Black, Homogeneous	None Detected	Mineral Wool	3%
			Non-Fibrous Material	97%

Arnold Flores

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



Open Lab Fee

J3 Order # (Lab Use Only)
[Handwritten Signature]

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City , CO	Zip: 80022
PO #: 215WY001	

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - FTSX 812	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>

Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / VWW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 18	Positive Stop: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
--	---

Signatures

Relinquished By: <i>[Signature]</i>	Date: 7/19	Time:
Received By: <i>[Signature]</i>	Date: 7/20/21	Time: 10:30
Relinquished By:	Date:	Time:
Received By:	Date:	Time:

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Project Name WY Rollingstock Inspections

Project Number 215WY001 - FTS

Page ___ of ___

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME/CONDITION
CHE-FTSX812-140721-001	Black rubberized flooring	
CHE-FTSX812-140721-002	Int. floor throughout	
CHE-FTSX812-140721-003		
CHE-FTSX812-140721-004	Gray transite	
CHE-FTSX812-140721-005	Int. former furnace location	
CHE-FTSX812-140721-006		
CHE-FTSX812-140721-007	White sealant	
CHE-FTSX812-140721-008	Removed Windows	
CHE-FTSX812-140721-009		
CHE-FTSX812-140721-010	White sealant	
CHE-FTSX812-140721-011	Ext. door windows	
CHE-FTSX812-140721-012		
CHE-FTSX812-140721-013	Black coating	
CHE-FTSX812-140721-014	Interior walls and ceiling	
CHE-FTSX812-140721-015		
CHE-FTSX812-140721-016	Black brakes	
CHE-FTSX812-140721-017	Ext. car wheels	
CHE-FTSX812-140721-018		
Comments/Special Instructions:		

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022


Order #: JP211028595
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

WY Rollingstock Inspections-FTSX 812

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-FTSX812-140721-001L	White	16000	1.6%
CHE-FTSX812-140721-002L	Yellow	68000	6.8%
CHE-FTSX812-140721-003L	Green/Red/Black	6300	0.63%
CHE-FTSX812-140721-004L	Black	2900	0.29%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi



Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

IH CHAIN OF CUSTODY



Open Lab Fee

Order # (Lab Use Only)
28595

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City , CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - FTSX 812	Telephone – Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>

Special Instructions:

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 4

Positive Stop: YES NO

Signatures

Relinquished By:	Date: 7/19	Time:
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By:	Date:	Time:
Received By:	Date:	Time:

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>07/27/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>FTSX 812</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	FTSX 812
Exposure Area	Interior walls, around former furnace □
Asbestos Containing Material	Gray transite □
Sample Number	CHE-FTSX812-140721-004 thru 006 □
Size	NA
Quantity	24 SF
MATERIAL CONDITION (MC)	2
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	
BUILDING AGE (BA)	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	
MATERIAL TYPE	
Pipe Covering (PC)	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper	
Ceiling Plasters or Fireproofing (CP)	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	
WATER DAMAGE (WD)	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	
ROOF CHARACTERISTICS (RC)	-0.5
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	
EXPOSED SURFACE AREA (ESA)	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	
ACCESSIBILITY (AC)	4
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	
ACTIVITY AND MOVEMENT (A/M)	2
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	
WORK ENVIRONMENT (WE)	0.5
-0.5 =Sedentary 0.5 =Non-sedentary	
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration	
AIR - PLENUM / AIR STREAM (AP)	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists	
VELOCITY (if Air Plenum = 1) (VEL)	-0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	
FLOW (if Air Plenum = 1) (FL)	NA
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow	
FRIABILITY (F)	1
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	
ASBESTOS CONTENT (ASB)	2
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	
Exposure Value	28.5
Rating	3



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

August 17th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock MP 13835, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar MP 13835 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 13th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 07/13/2021

Inspection End Date 07/13/2021

Report Date 08/10/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Caboose

Rolling Stock No MP 13835 Car Name MP 13835

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.129563°

State WY Longitude -104.815307°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No MP 13835

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 6

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details. The wood identified in samples CHE-MP13835-130721-001 thru 002 is not considered a suspect material for asbestos.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/13/2021	CHE-MP13835-130721-001 thru 003	Beige flooring and beige mastic	Interior floor throughout	Not Detected	N/A	N/A	162 sq. ft.	N/A
07/13/2021	CHE-MP13835-130721-004 thru 006	White coating	Interior walls and ceiling	10%, Chrysotile	Category II	No	567 sq. ft.	4
07/13/2021	CHE-MP13835-130721-007 thru 009	Linoleum table top (no mastic)	Interior table	Not Detected	N/A	N/A	8 sq. ft.	N/A
07/13/2021	CHE-MP13835-130721-010 thru 012	Gray window glazing	Interior large windows	Not Detected	N/A	N/A	16 LF	N/A
07/13/2021	CHE-MP13835-130721-013 thru 015	White coating	Interior water tank	10%, Chrysotile	Category II	No	102 sq. ft.	4
07/13/2021	CHE-MP13835-130721-016 thru 018	Gray transite boards	Interior around furnace	15%, Chrysotile	Category I	No	24 sq. ft.	3
07/13/2021	CHE-MP13835-130721-019 thru 021	Gray door sealant	Interior door frames	4.8%, Chrysotile	Category II	No	34 LF	4
07/13/2021	CHE-MP13835-130721-022 thru 024	Gray roof seam sealant	Exterior roof and wall joint along ends	10%, Chrysotile	Category II	No	18 LF	4

¹ "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

² For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

³ "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

⁴ "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No MP 13835

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/13/2021	CHE-MP13835-130721-025 thru 027	Gray window caulk	Exterior large windows on popout	10%, Chrysotile	Category II	No	18 LF	4
07/13/2021	CHE-MP13835-130721-028 thru 030	Black brake pads	Exterior wheels	Not Detected	N/A	N/A	2 sq. ft.	N/A

Lead-Based Paint Results

Lead Present³ Yes Total Number of Positive Components.³ 2

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/13/2021	CHE-MP13835-130721-001L	Gray	Interior	0.036 %	Good
07/13/2021	CHE-MP13835-130721-002L	Red	Exterior	3.8 %	Fair
07/13/2021	CHE-MP13835-130721-003L	White	Exterior handrails and roof	2.9 %	Poor

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No MP 13835

BUILDING AMERICA™

Polychlorinated Biphenyls Results

PCBs Present⁴ No Total Number of Positive Components.⁴ 0

Notes

PCBs Samples

Sample Date	Sample ID	Description	Location	PCBs Result	Quantity
07/13/2021	CHE-MP13835-130721-001P	Gray window caulk	Exterior large windows on popout	Not Detected	18 LF

Mold Results

Suspect Mold Present No

Notes

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No MP 13835



Train ID marker



View of train, looking south-southwest



View of train, looking northwest



View of train interior



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No MP 13835



CHE-MP13835-130721-001 thru 003, Asbestos Not Detected, Beige flooring and beige mastic



CHE-MP13835-130721-001 thru 003, Asbestos Not Detected, Beige flooring and beige mastic



CHE-MP13835-130721-004 thru 006, 10% Asbestos, White coating



CHE-MP13835-130721-004 thru 006, 10% Asbestos, White coating



CHE-MP13835-130721-007 thru 009, Asbestos Not Detected, Linoleum table top (no mastic)



CHE-MP13835-130721-007 thru 009, Asbestos Not Detected, Linoleum table top (no mastic)



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No MP 13835



CHE-MP13835-130721-010 thru 012, Asbestos Not Detected, Gray window glazing



CHE-MP13835-130721-010 thru 012, Asbestos Not Detected, Gray window glazing



CHE-MP13835-130721-013 thru 015, 10% Asbestos, White coating



CHE-MP13835-130721-013 thru 015, 10% Asbestos, White coating



CHE-MP13835-130721-016 thru 018, 15% Asbestos, Gray transite boards



CHE-MP13835-130721-016 thru 018, 15% Asbestos, Gray transite boards



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No MP 13835



CHE-MP13835-130721-019 thru 021, 4.8% Asbestos, Gray door sealant



CHE-MP13835-130721-019 thru 021, 4.8% Asbestos, Gray door sealant



CHE-MP13835-130721-022 thru 024, 10% Asbestos, Gray roof seam sealant



CHE-MP13835-130721-022 thru 024, 10% Asbestos, Gray roof seam sealant



CHE-MP13835-130721-025 thru 027, 10% Asbestos, Gray window caulk



CHE-MP13835-130721-025 thru 027, 10% Asbestos, Gray window caulk



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No MP 13835



CHE-MP13835-130721-028 thru 030, Asbestos Not Detected, Black brake pads



CHE-MP13835-130721-028 thru 030, Asbestos Not Detected, Black brake pads



CHE-MP13835-130721-001L, 0.036% Lead, Gray



CHE-MP13835-130721-001L, 0.036% Lead, Gray



CHE-MP13835-130721-002L, 3.8% Lead, Red



CHE-MP13835-130721-002L, 3.8% Lead, Red



BUILDING AMERICA™

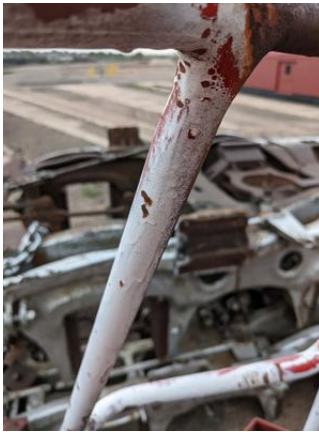
Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No MP 13835



CHE-MP13835-130721-003L, 2.9% Lead, White



CHE-MP13835-130721-003L, 2.9% Lead, White



CHE-MP13835-130721-001P, PCB Not Detected, Gray window caulk



CHE-MP13835-130721-001P, PCB Not Detected, Gray window caulk

Appendix 1 - Figures

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>MP 13835</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



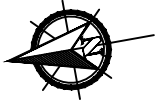
**EARTH SERVICES
& ABATEMENT**

MP 13835
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

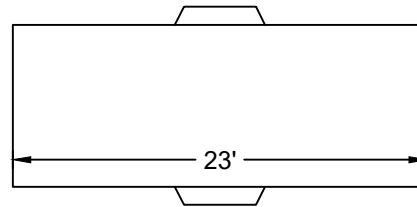
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

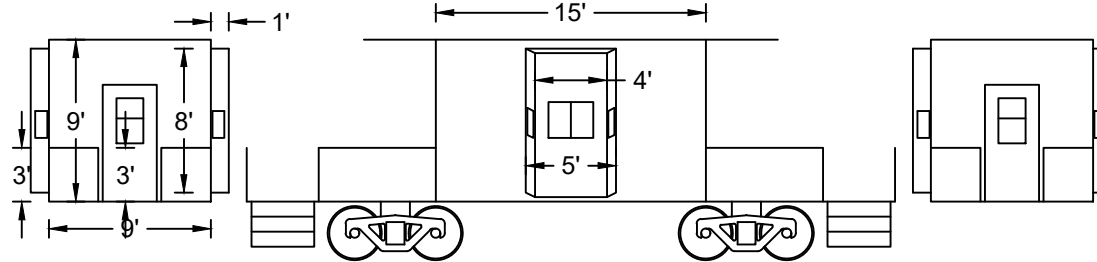
DATE: JULY-2021



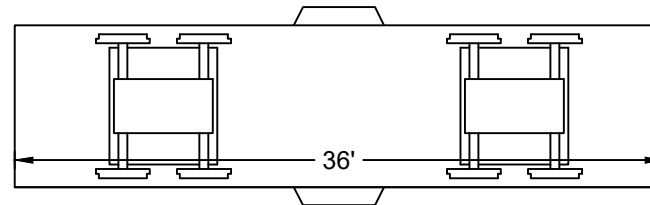
ROOF



FRONT END



BACK END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



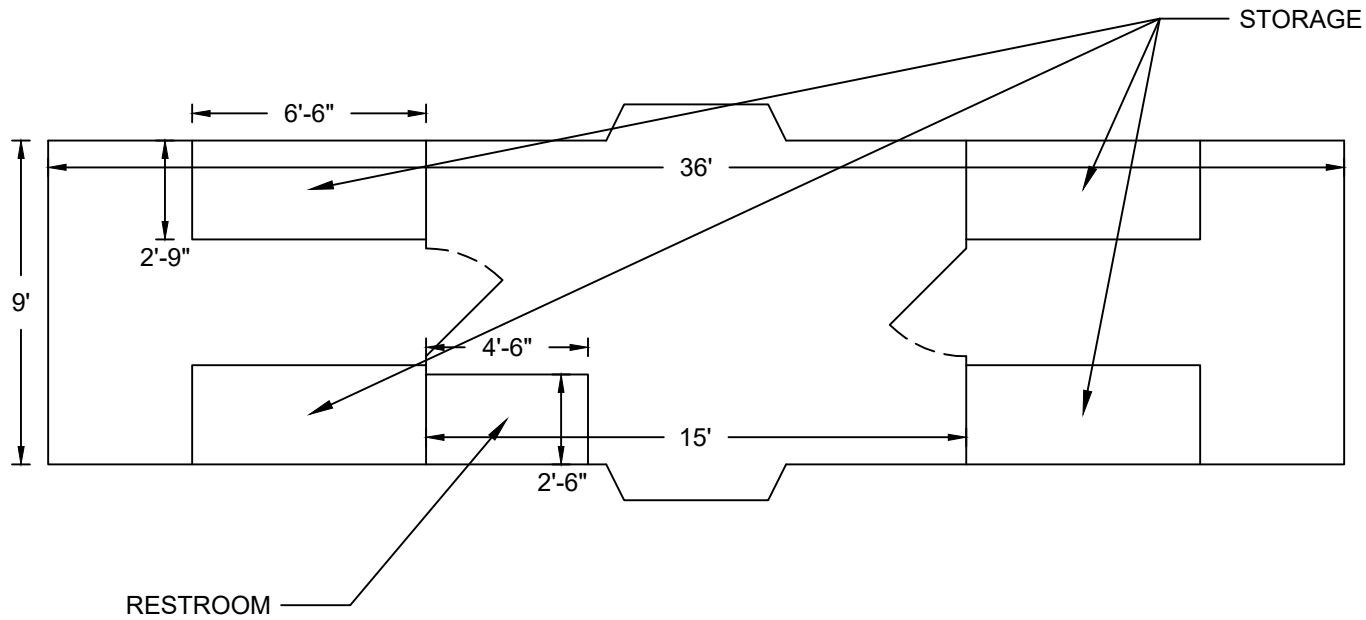
EARTH SERVICES
& ABATEMENT

MP 13835
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



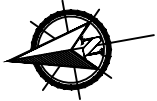
**EARTH SERVICES
& ABATEMENT**

MP 13835
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

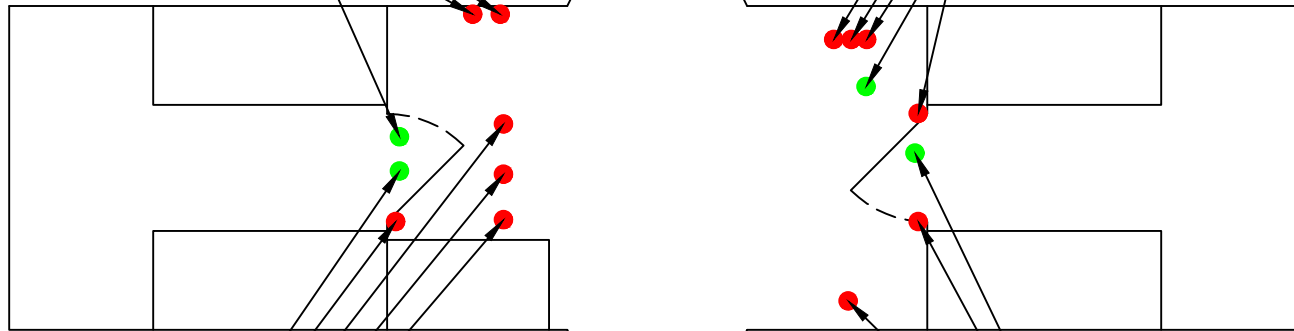
FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



CHE-MP13835-130721-005
 CHE-MP13835-130721-004
 CHE-MP13835-130721-001



CHE-MP13835-130721-011
 CHE-MP13835-130721-010
 CHE-MP13835-130721-018
 CHE-MP13835-130721-017
 CHE-MP13835-130721-016
 CHE-MP13835-130721-007 thru 009
 CHE-MP13835-130721-019

CHE-MP13835-130721-002
 CHE-MP13835-130721-021
 CHE-MP13835-130721-015
 CHE-MP13835-130721-014
 CHE-MP13835-130721-013

CHE-MP13835-130721-003
 CHE-MP13835-130721-020
 CHE-MP13835-130721-006
 CHE-MP13835-130721-012

INTERIOR

NOTE:
 THIS DRAWING MUST BE
 PRINTED IN COLOR TO
 SHOW ALL INFORMATION
 ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
 & ABATEMENT

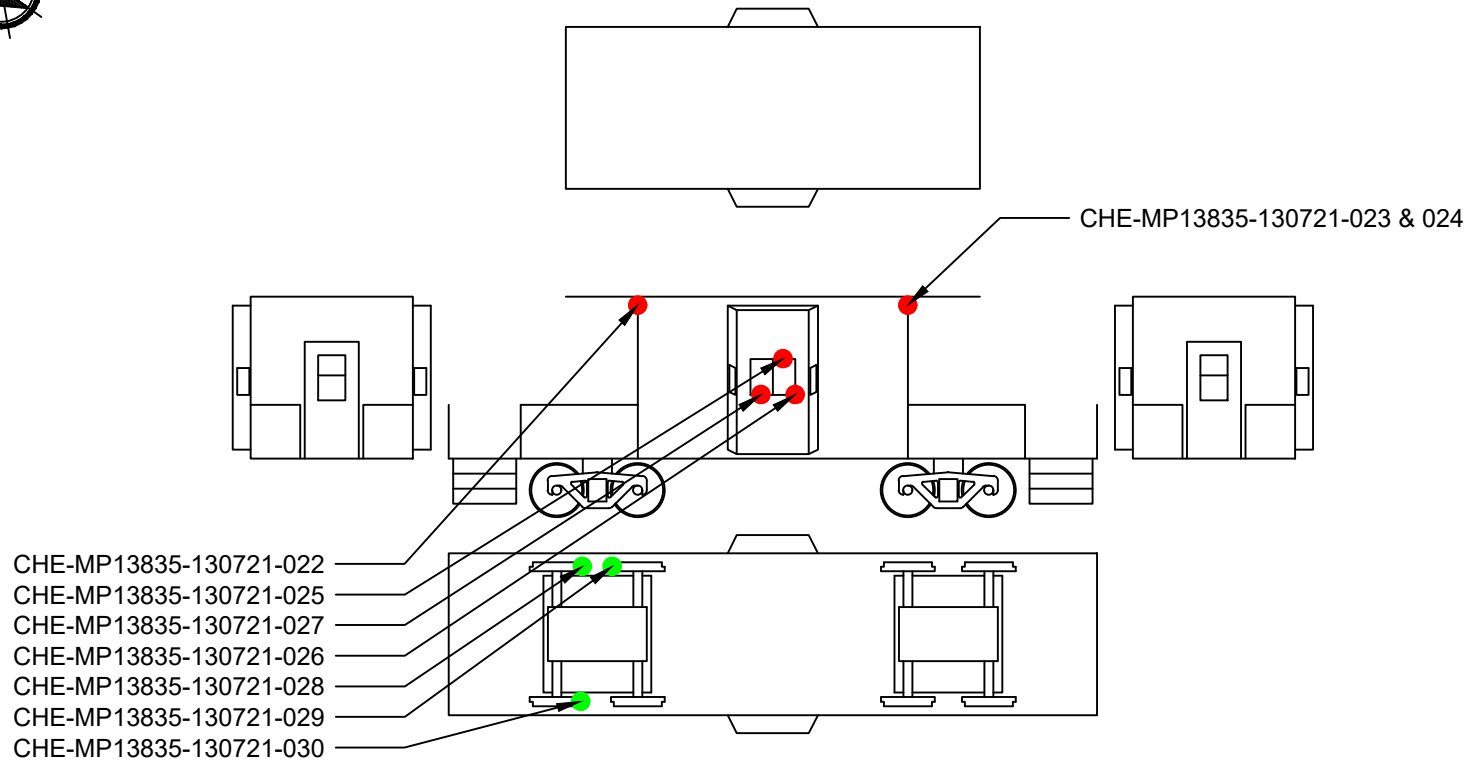
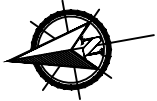
MP 13835
 CHEYENNE YARD
 East Union Pacific Ave.
 CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

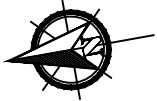
MP 13835
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

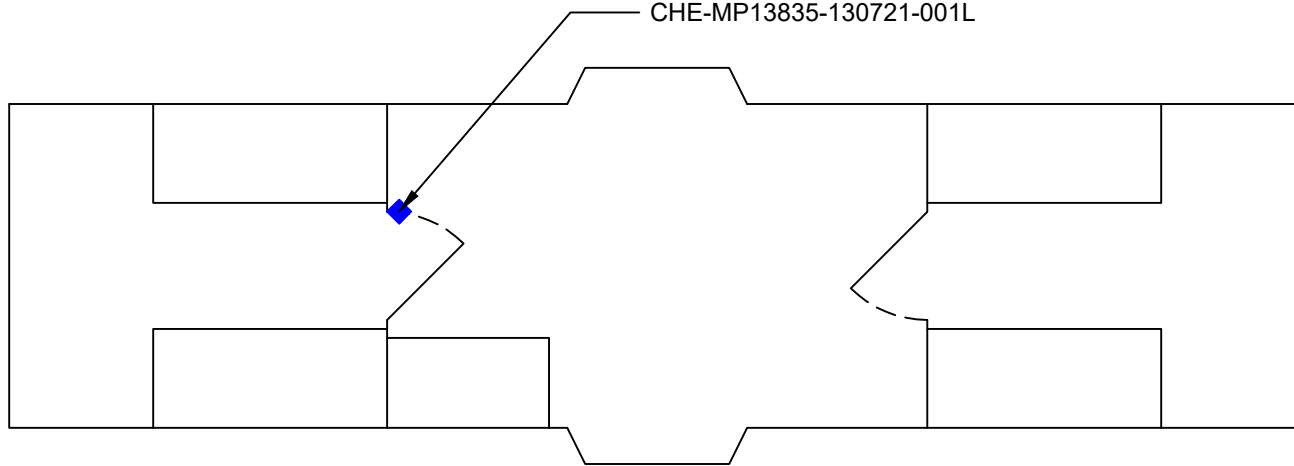
DATE: JULY-2021

**FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND**

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-MP13835-130721-001L



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®




**EARTH SERVICES
& ABATEMENT**

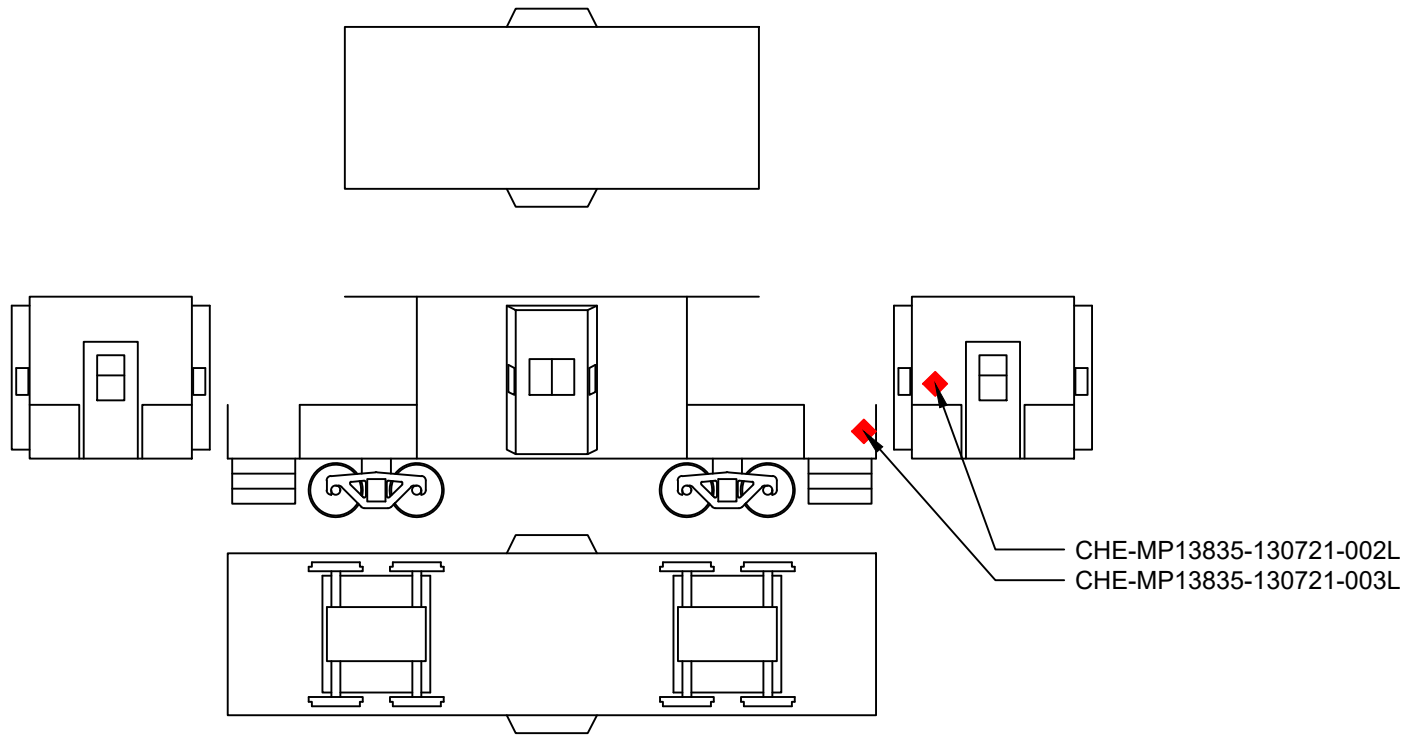
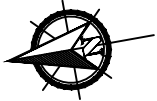
MP 13835
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

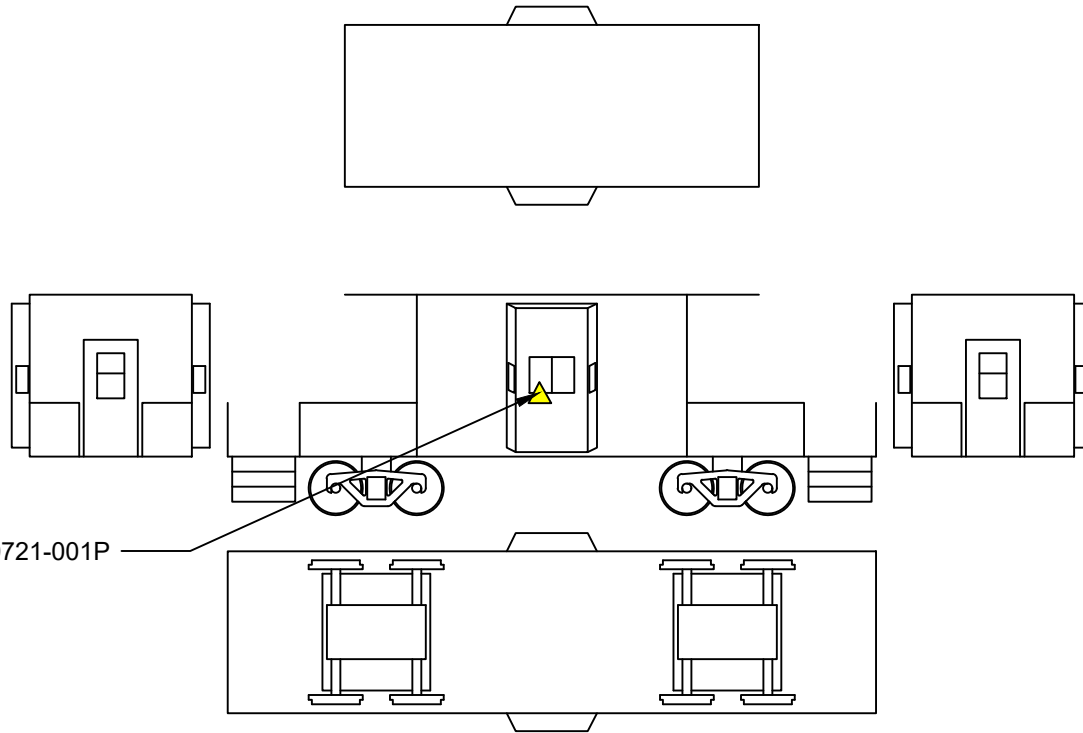
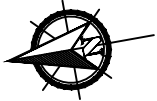
MP 13835
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 7 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



CHE-MP13835-130721-001P

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

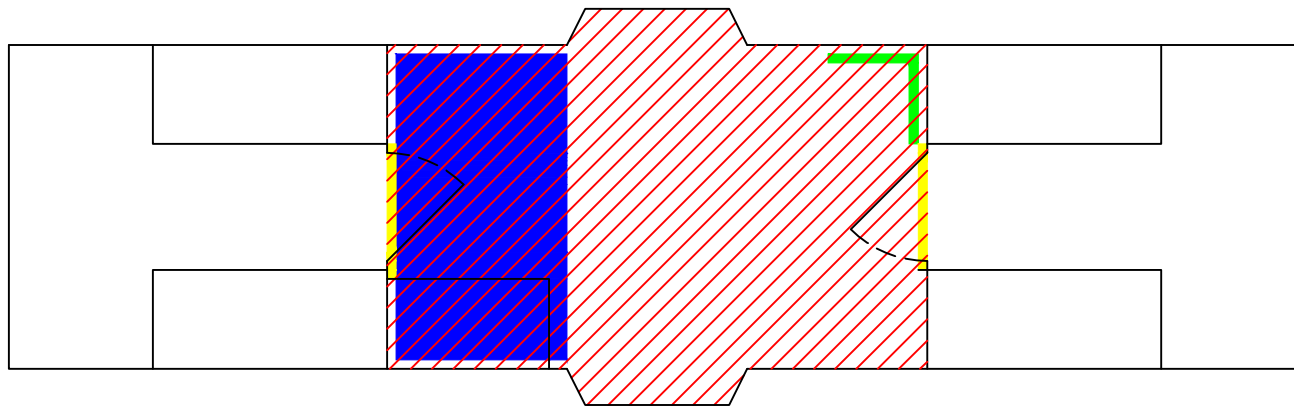
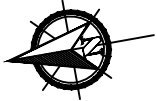
MP 13835
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 8 - PCB SAMPLE LOCATIONS
LEGEND

- NON-PCB SAMPLE LOCATIONS (<50 PPM)
- PCB SAMPLE LOCATIONS (≥50 PPM)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®







**EARTH SERVICES
& ABATEMENT**

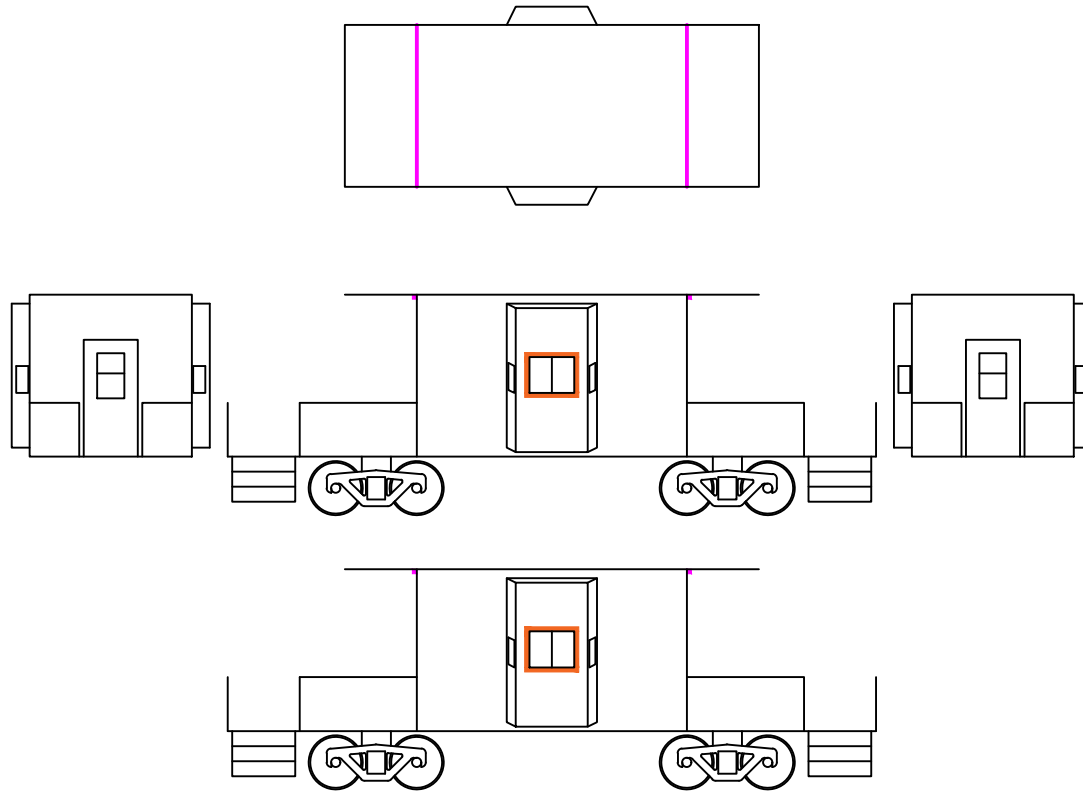
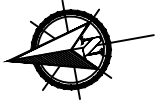
MP 13835
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

-  - ACM WHITE COATING
-  - ACM WHITE COATING
-  - ACM GRAY TRANSITE BOARDS
-  - ACM GRAY DOOR SEALANT



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**



MP 13835
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 10 - ACM LOCATIONS (>1% ASBESTOS)

LEGEND

-  — ACM ROOF SEAM SEALANT
-  — ACM GRAY WINDOW CAULK

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>MP 13835</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129232
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

Rolling Stock #MP 13835

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-MP13835-130721-001	LAYER 1 Flooring, Beige, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Mastic, Beige, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 3 Wood, Brown, Homogeneous	None Detected	Cellulose Fiber 95% Non-Fibrous Material 5%
CHE-MP13835-130721-002	LAYER 1 Flooring, Beige, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Mastic, Beige, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 3 Wood, Brown, Homogeneous	None Detected	Cellulose Fiber 95% Non-Fibrous Material 5%
CHE-MP13835-130721-003	LAYER 1 Flooring, Beige, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Mastic, Beige, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-MP13835-130721-004	Coating, White, Homogeneous	Chrysotile 10%	Non-Fibrous Material 90%
CHE-MP13835-130721-005	Coating, *Not analyzed per client request		
CHE-MP13835-130721-006	Coating, *Not analyzed per client request		
CHE-MP13835-130721-007	Sheet Flooring, Gray, Homogeneous No Mastic Present	None Detected	Cellulose Fiber 25% Non-Fibrous Material 75%

Jovahny Dominguez Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129232
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

Rolling Stock #MP 13835

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-MP13835-130721-008	Sheet Flooring, Gray, Homogeneous No Mastic Present	None Detected	Cellulose Fiber 25% Non-Fibrous Material 75%
CHE-MP13835-130721-009	Sheet Flooring, Gray, Homogeneous No Mastic Present	None Detected	Cellulose Fiber 25% Non-Fibrous Material 75%
CHE-MP13835-130721-010	Window Glazing, Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-MP13835-130721-011	Window Glazing, Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-MP13835-130721-012	Window Glazing, Gray, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-MP13835-130721-013	Coating, White, Homogeneous	Chrysotile 10%	Non-Fibrous Material 90%
CHE-MP13835-130721-014	Coating, *Not analyzed per client request		
CHE-MP13835-130721-015	Coating, *Not analyzed per client request		
CHE-MP13835-130721-016	Transite, Gray, Homogeneous	Chrysotile 15%	Non-Fibrous Material 85%
CHE-MP13835-130721-017	Transite, *Not analyzed per client request		
CHE-MP13835-130721-018	Transite, *Not analyzed per client request		
CHE-MP13835-130721-019	Door Sealant, Gray, Homogeneous	Chrysotile 10%	Non-Fibrous Material 90%

Jovahnnny Dominguez Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129232
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

Rolling Stock #MP 13835

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-MP13835-130721-020	Door Sealant, *Not analyzed per client request		
CHE-MP13835-130721-022	Roof Seam Sealant, Gray, Homogeneous	Chrysotile 10%	Non-Fibrous Material 90%
CHE-MP13835-130721-023	Roof Seam Sealant, *Not analyzed per client request		
CHE-MP13835-130721-024	Roof Seam Sealant, *Not analyzed per client request		
CHE-MP13835-130721-025	Window Caulk, Gray, Homogeneous	Chrysotile 10%	Non-Fibrous Material 90%
CHE-MP13835-130721-026	Window Caulk, *Not analyzed per client request		
CHE-MP13835-130721-027	Window Caulk, *Not analyzed per client request		
CHE-MP13835-130721-028	Brakes, Black, Homogeneous	None Detected	Fibrous Glass <1% Non-Fibrous Material 100%
CHE-MP13835-130721-029	Brakes, Black, Homogeneous	None Detected	Fibrous Glass <1% Non-Fibrous Material 100%
CHE-MP13835-130721-030	Brakes, Black, Homogeneous	None Detected	Fibrous Glass <1% Non-Fibrous Material 100%

Jovahnnny Dominguez Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



J3 Order (Lab Use Only)
[Handwritten Signature]

Submitter Name: Joseph Kulm	Bill to: SAME
Company: Earth Services & Abatement	Address: _____
Address: 6700 E. 50th Ave.	_____
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001 - Rolling Stock # MP 13835

Project Information

Project Name: 2020 Assigned Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - Rolling Stock # MP 13835	Telephone – Office/Cell 402.578.6858
Reports - Email Address: Amanda.Wozab@ESASite.com; Joseph.Kulm@ESASite.com	
Invoice - Email Address: Same as above	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/> Text: <input type="checkbox"/>
Special Instructions: 1) 400 Point Count, GR when applicable; at >1% AND ≤5% 2) PC,GR >1% AND ≤1.49%; no positive stop	

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
-------------------------------------	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

Flame AA	Graphite Furnace AA - LEAD	ICP	PARTICULATES
<input type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Gravimetric <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 30	Positive Stop: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
---------------------------------------	--

Signatures

Relinquished By: <i>[Signature]</i>	Date: 3/19	Time: _____
Received By: <i>[Signature]</i>	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

IH CHAIN OF CUSTODY

Project Name/Number 215WY001 - Rolling Stock # MP 13835

Page 2 of 2

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME
CHE-MP13835-130721-001	Flooring, Beige/Multi Colored	
CHE-MP13835-130721-002	" "	
CHE-MP13835-130721-003	" "	
CHE-MP13835-130721-004	Wall/Ceiling Coating, White	
CHE-MP13835-130721-005	" "	
CHE-MP13835-130721-006	" "	
CHE-MP13835-130721-007	Linoleum, Gray	
CHE-MP13835-30721-008	" "	
CHE-MP13835-130721-009	" "	
CHE-MP13835-130721-010	Window Glazing, White	
CHE-MP13835-130721-011	" "	
CHE-MP13835-130721-012	" "	
CHE-MP13835-130721-013	Water Tank Coating, Gray/White	
CHE-MP13835-130721-014	" "	
CHE-MP13835-130721-015	" "	
CHE-MP13835-130721-016	Transite, Gray	
CHE-MP13835-130721-017	" "	
CHE-MP13835-130721-018	" "	
CHE-MP13835-130721-019	Door Sealant, Tan	
CHE-MP13835-130721-020	" "	
CHE-MP13835-130721-022	Roof Seam Sealant, Off-White	
CHE-MP13835-130721-023	" "	
CHE-MP13835-130721-024	" "	
CHE-MP13835-130721-025	Lg. Window Caulking, White	
CHE-MP13835-130721-026	" "	
CHE-MP13835-130721-027	" "	
CHE-MP13835-130721-028	Brakes, Black	
CHE-MP13835-130721-029	" "	
CHE-MP13835-130721-030	" "	
Comments/Special Instructions: 1) 400 Point Count (25%), GR when applicable; at >1% AND ≤5% 2) 400 Point Count/GR >1% AND ≤1.49%; no positive stop		

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204
 Phone/Fax: (303) 740-5700 / (303) 741-1400
<http://www.EMSL.com> denverlab@emsl.com

EMSL Order: 222105226
 CustomerID: ESAB42
 CustomerPO:
 ProjectID:

Attn: **Joseph Kulm**
Earth Services & Abatement, Inc.
6700 E. 50th Ave.
Commerce City, CO 80022

Phone: (303) 339-3051
 Fax:
 Received: 7/20/2021 01:30 PM
 Analysis Date: 7/28/2021
 Collected:

Project: **215WY001**

Test Report: Polarized Light Microscopy (PLM) - Point Count Performed by EPA 600/R-93/116 Method with Gravimetric Reduction and 400 Point Count

SAMPLE ID	DESCRIPTION	APPEARANCE	(% Matrix Organic Acid)		NON- ASBESTOS % Fibrous	NON- ASBESTOS % NON-FIBROUS	ASBESTOS % TYPES
CHE-MP13835-130721-021 222105226-0001	DOOR SEALANT, TAN	Brown/Silver Fibrous	29.4	30.2		35.6 Non-fibrous (other)	4.8 Chrysotile
		Homogeneous					

Analyst(s)
 Timothy Kleehammer (1)


 Henry Printz, TEM/PCM Laboratory Supervisor
 or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. EMSL suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 07/28/2021 10:07:24



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

222105226

EMSL Analytical, Inc.
1010 Yuma Street

Denver, CO 80204

PHONE: (303) 740-5700

FAX: (303) 741-1400

Company Name : Earth Services & Abatement		EMSL Customer ID:	
Street: 6700 E 50th Ave		City: Commerce City	State/Province: CO
Zip/Postal Code: 80022	Country: US	Telephone #: 303-991-1280	Fax #:
Report To (Name): Joseph Kulm, Amanda Wozab		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: joseph.kulm@esasite.com		Purchase Order:	
Project Name/Number: 215WY001		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken: WY		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

EMSL-Bill to: Same Different - If Bill to is Different note instructions in Comments**
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* - Please Check

3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input checked="" type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	TEM- Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)
PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NYS 198.8 SOF-V <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	Soil/Rock/Vermiculite <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<1%) <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%) <input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM Qualitative via Filtration Prep <input type="checkbox"/> TEM Qualitative via Drop Mount Prep <input type="checkbox"/> Cincinnati Method EPA 600/R-04/004 - PLM/TEM (BC only) Other: <input type="checkbox"/>

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: Joseph Kulm Samplers Signature:

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
CHE-MP13835-130721-021	Door Sealant, Tan		

Client Sample # (s): CHE-MP13835-130721-021 - CHE-MP13835-130721-021 Total # of Samples: 1

Relinquished (Client): Robert Szymanski Date: 7-20-21 Time:

Received (Lab): LM Date: 7/20 1:30 Time:

Comments/Special Instructions:
1) Point Count 400 w/ Gravimetric if PLM results are positive and ≤5%
2) No positive stop if 1) results are ≤1.49%

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022


Order #: JP211028584
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

WY Rollingstock Inspections-Rolling Stock # MP 13835

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-MP13835-130721-001L	Gray	360	0.036%
CHE-MP13835-130721-002L	Red	38000	3.8%
CHE-MP13835-130721-003L	White	29000	2.9%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi


Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

IH CHAIN OF CUSTODY



28584 (Sample ID only)

Submitter Name: Joseph Kulm	Bill to: SAME
Company: Earth Services & Abatement	Address:
Address: 6700 E. 50th Ave.	
City/State: Commerce City, CO Zip: 80022	City/State: _____ Zip: _____
PO #: 215WY001 Rolling Stock # MP 13835	

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 Rolling Stock # MP 13835	Telephone – Office/Cell: 402.578.6858
Reports - Email Address: Amanda.Wozab@ESASite.com; Joseph.Kulm@ESASite.com	
Invoice - Email Address: Same as above	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/> Text: <input type="checkbox"/>

Special Instructions:

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-180	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erlonite ID

METALS

PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 3 **Positive Stop:** YES NO

Signatures

Relinquished By:	Date: 7/19/21	Time:
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)



Monday, August 09, 2021

Amanda Wozab
Earth Services & Abatement
6700 E. 50th Ave.
Commerce City, CO 80022

Re: ALS Workorder: 2107404
Project Name: Rolling Stock # MP 13835
Project Number: 205WY001

Dear Ms. Wozab:

One solid sample was received from Earth Services & Abatement, on 7/21/2021. The sample was scheduled for the following analysis:

PCBs

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager



2107404

PCB:

The sample was analyzed using GC/ECD (electron capture detectors) according to the current revision of SOP 409 based on SW-846 Method 8082.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2107404

Client Name: Earth Services & Abatement

Client Project Name: Rolling Stock # MP 13835

Client Project Number: 205WY001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CHE-MP13835-130721-001P	2107404-1		SOLID	13-Jul-21	



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: EARTH SERVICES & ABATEMENT Workorder No: 2107404

Project Manager: KMO Initials: JPE Date: 07/21/2021

		N/A	YES	NO
1.	Are airbills / shipping documents present and/or removable? Tracking number: 2815 9831 3879		X	
2.	Are custody seals on shipping containers intact?	X		
3.	Are custody seals on sample containers intact?	X		
4.	Is there a COC (chain-of-custody) present?		X	
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6.	Are short-hold samples present?			X
7.	Are all samples within holding times for the requested analyses?		X	
8.	Were all sample containers received intact? (not broken or leaking)		X	
9.	Is there sufficient sample for the requested analyses?		X	
10.	Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		X	
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13.	Were the samples shipped on ice?			X
14.	Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*:	#5	
		RAD ONLY		X
Cooler #: <u>1</u> Temperature (°C): <u>AMB</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>11</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? YES / NA All client bottle ID's vs ALS lab ID's double-checked by JE

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 7/21/21

Client: Earth Services & Abatement
Project: 205WY001 Rolling Stock # MP 13835
Sample ID: CHE-MP13835-130721-001P
Legal Location:
Collection Date: 7/13/2021

Date: 09-Aug-21
Work Order: 2107404
Lab ID: 2107404-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 7/30/2021	PrepBy: CPC
AROCLOR-1016	ND		3.8	MG/KG	6	8/6/2021 13:36
AROCLOR-1221	ND		7.6	MG/KG	6	8/6/2021 13:36
AROCLOR-1232	ND		3.8	MG/KG	6	8/6/2021 13:36
AROCLOR-1242	ND		3.8	MG/KG	6	8/6/2021 13:36
AROCLOR-1248	ND		3.8	MG/KG	6	8/6/2021 13:36
AROCLOR-1254	ND		3.8	MG/KG	6	8/6/2021 13:36
AROCLOR-1260	ND		3.8	MG/KG	6	8/6/2021 13:36
Surr: TETRACHLORO-M-XYLENE	93		69-129	%REC	6	8/6/2021 13:36
Surr: DECACHLOROBIPHENYL	104		55-135	%REC	6	8/6/2021 13:36

Client: Earth Services & Abatement
Project: 205WY001 Rolling Stock # MP 13835
Sample ID: CHE-MP13835-130721-001P
Legal Location:
Collection Date: 7/13/2021

Date: 09-Aug-21
Work Order: 2107404
Lab ID: 2107404-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 8/9/2021 1:43:20

Client: Earth Services & Abatement
 Work Order: 2107404
 Project: 205WY001 Rolling Stock # MP 13835

QC BATCH REPORT

Batch ID: **EX210730-3-1** Instrument ID: **Pest-1** Method: **SW8082**

LCS		Sample ID: EX210730-3			Units: MG/KG			Analysis Date: 8/6/2021 14:13			
Client ID:		Run ID: PT210806-11			Prep Date: 7/30/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.133	0.0333	0.133		99	80-120				50	
AROCLOR-1260	0.137	0.0333	0.133		103	80-125				50	
Surr: TETRACHLORO-M-XYLENE	0.0152		0.0167		91	69-129					
Surr: DECACHLOROBIPHENYL	0.0187		0.0167		112	55-135					

LCSD		Sample ID: EX210730-3			Units: MG/KG			Analysis Date: 8/6/2021 14:32			
Client ID:		Run ID: PT210806-11			Prep Date: 7/30/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.125	0.0333	0.133		94	80-120		0.133	6	50	
AROCLOR-1260	0.131	0.0333	0.133		99	80-125		0.137	4	50	
Surr: TETRACHLORO-M-XYLENE	0.015		0.0167		90	69-129			1		
Surr: DECACHLOROBIPHENYL	0.0178		0.0167		107	55-135			5		

MB		Sample ID: EX210730-3			Units: MG/KG			Analysis Date: 8/6/2021 11:25				
Client ID:		Run ID: PT210806-11			Prep Date: 7/30/2021			DF: 1				
Analyte	Result	ReportLimit										Qual
AROCLOR-1016	ND	0.033										
AROCLOR-1221	ND	0.067										
AROCLOR-1232	ND	0.033										
AROCLOR-1242	ND	0.033										
AROCLOR-1248	ND	0.033										
AROCLOR-1254	ND	0.033										
AROCLOR-1260	ND	0.033										
Surr: TETRACHLORO-M-XYLENE	0.0158				95	69-129						
Surr: DECACHLOROBIPHENYL	0.0178				107	55-135						

The following samples were analyzed in this batch:

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>MP 13835</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	MP 13835	MP 13835
Exposure Area	Interior walls and ceiling	Interior water tank
Asbestos Containing Material	White coating	White coating
Sample Number	CHE-MP13835-130721-004 thru 006	CHE-MP13835-130721-013 thru 015
Size	NA	NA
Quantity	567 SF	102 SF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	1	1
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	1	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	1
Exposure Value	13.25	13.25
Rating	4	4

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority

Asset Number	MP 13835	MP 13835
Exposure Area	Interior around furnace	Interior door frames
Asbestos Containing Material	Gray transite boards	Gray door sealant
Sample Number	CHE-MP13835-130721-016 thru 018	CHE-MP13835-130721-019 thru 021
Size	NA	NA
Quantity	24 SF	34 LF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	1	1
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	1	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	2	1
Exposure Value	26.5	13.25
Rating	3	4

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	MP 13835	MP 13835
Exposure Area	Exterior roof and wall joint along ends	Exterior large windows on popout
Asbestos Containing Material	Gray roof seam sealant	Gray window caulk
Sample Number	CHE-MP13835-130721-022 thru 024	CHE-MP13835-130721-025 thru 027
Size	NA	NA
Quantity	18 LF	18 LF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	1	1
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	3	3
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	1	1
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	0.25	0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	0.25	0.25
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	1	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	1
Exposure Value	12	12
Rating	4	4



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

July 28th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock RI 17017, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar RI 17017 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 15th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 07/15/2021

Inspection End Date 07/15/2021

Report Date 07/28/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Caboose

Rolling Stock No RI 17017 Car Name RI 17017

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.130244°

State WY Longitude -104.814762°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dic,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 07/28/2021

Rolling Stock Type Caboose

Rolling Stock No RI 17017

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 2

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/15/2021	CHE-RI17017-150721-001 thru 003	White window glazing	Exterior windows	1.75%, Chrysotile	N/A	Yes	24 LF	3
07/15/2021	CHE-RI17017-150721-001 thru 003	Silver coating	Door windows (layered with glazing)	Not Detected	N/A	N/A	24 LF	N/A
07/15/2021	CHE-RI17017-150721-004 thru 006	Black fire proofing	Railcar undercarriage	15%, Chrysotile	Category II	No	340 sq. ft.	3

¹ "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

² For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

³ "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

⁴ "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 07/28/2021

Rolling Stock Type Caboose

Rolling Stock No RI 17017

BUILDING AMERICA™

Lead-Based Paint Results

Lead Present³ Yes _____ Total Number of Positive Components.³ 3 _____

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/15/2021	CHE-RI17017-150721-001L	Green	Interior	1.4 %	Good
07/15/2021	CHE-RI17017-150721-002L	Yellow	Exterior ends	15 %	Poor
07/15/2021	CHE-RI17017-150721-003L	Red	Exterior roof and exterior sides	0.42 %	Poor
07/15/2021	CHE-RI17017-150721-004L	Black	Undercarriage	3.7 %	Poor
07/15/2021	CHE-RI17017-150721-005L	White/Gray/Silver	Exterior handrails	0.22 %	Poor

Polychlorinated Biphenyls Results

PCBs Present⁴ No Suspect Material _____ Total Number of Positive Components.⁴ 0 _____

Notes

Mold Results

Suspect Mold Present _____ No _____

Notes

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 07/28/2021

Rolling Stock Type Caboose

Rolling Stock No RI 17017



Railcar ID marking



View of railcar, looking west-southwest



View of railcar, looking north



Railcar interior



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 07/28/2021

Rolling Stock Type Caboose

Rolling Stock No RI 17017



CHE-RI17017-150721-001 thru 003, 1.75% Asbestos, White window glazing



CHE-RI17017-150721-001 thru 003, 1.75% Asbestos, White window glazing



CHE-RI17017-150721-001 thru 003, Asbestos Not Detected, Silver coating



CHE-RI17017-150721-001 thru 003, Asbestos Not Detected, Silver coating



CHE-RI17017-150721-004 thru 006, 15% Asbestos, Black fire proofing



CHE-RI17017-150721-004 thru 006, 15% Asbestos, Black fire proofing



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 07/28/2021

Rolling Stock Type Caboose

Rolling Stock No RI 17017



CHE-RI17017-150721-001L, 1.4% Lead, Green



CHE-RI17017-150721-001L, 1.4% Lead, Green



CHE-RI17017-150721-002L, 15% Lead, Yellow



CHE-RI17017-150721-002L, 15% Lead, Yellow



CHE-RI17017-150721-003L, 0.42% Lead, Red



CHE-RI17017-150721-003L, 0.42% Lead, Red



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 07/28/2021

Rolling Stock Type Caboose

Rolling Stock No RI 17017



CHE-RI17017-150721-004L, 3.7% Lead, Black



CHE-RI17017-150721-004L, 3.7% Lead, Black

Appendix 1 - Figures

Report Date	<u>07/28/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>RI 17017</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

RI 17017
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

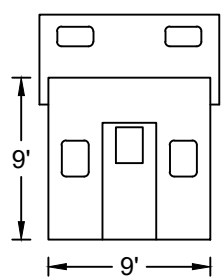
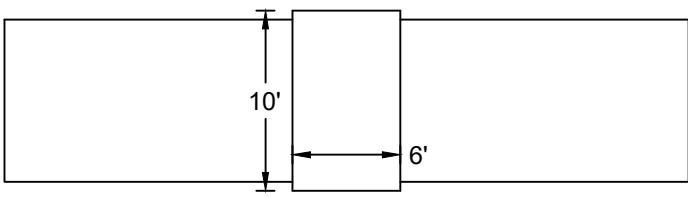
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

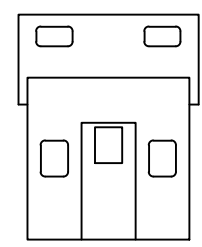
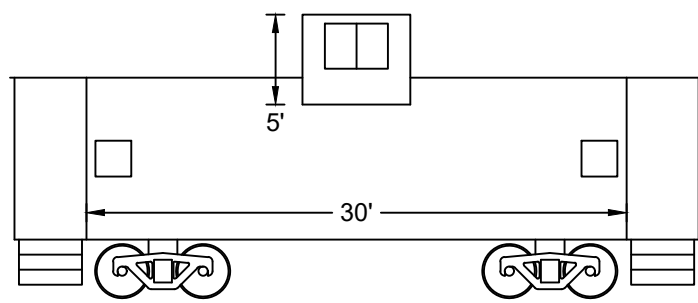
DATE: JULY-2021



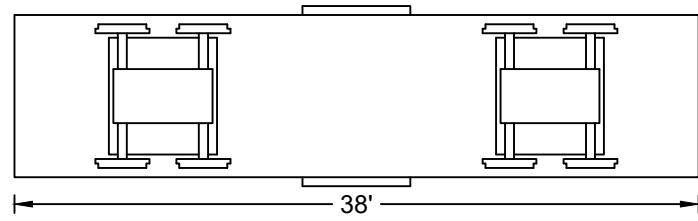
ROOF



FRONT END



BACK END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



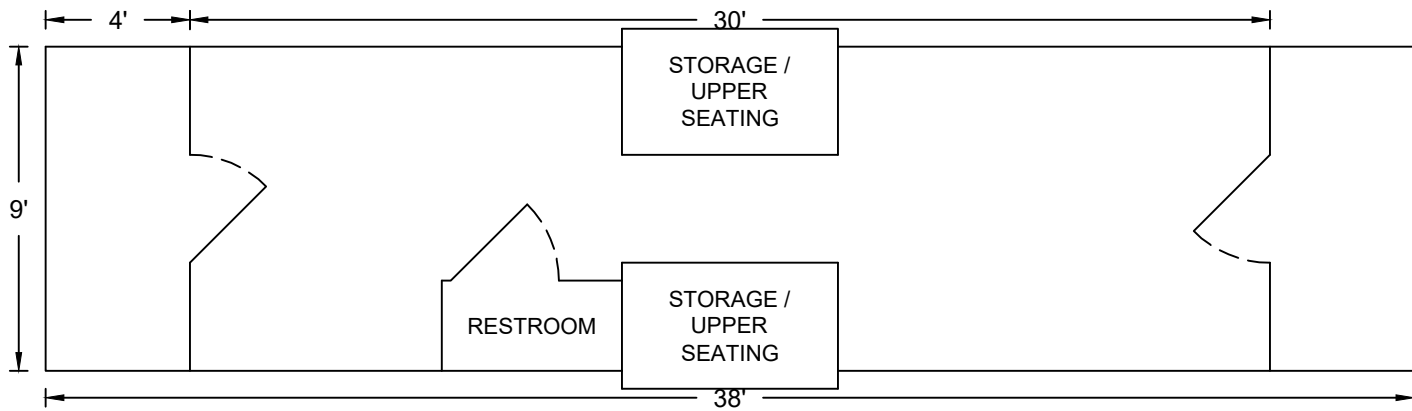
**EARTH SERVICES
& ABATEMENT**

RI 17017
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



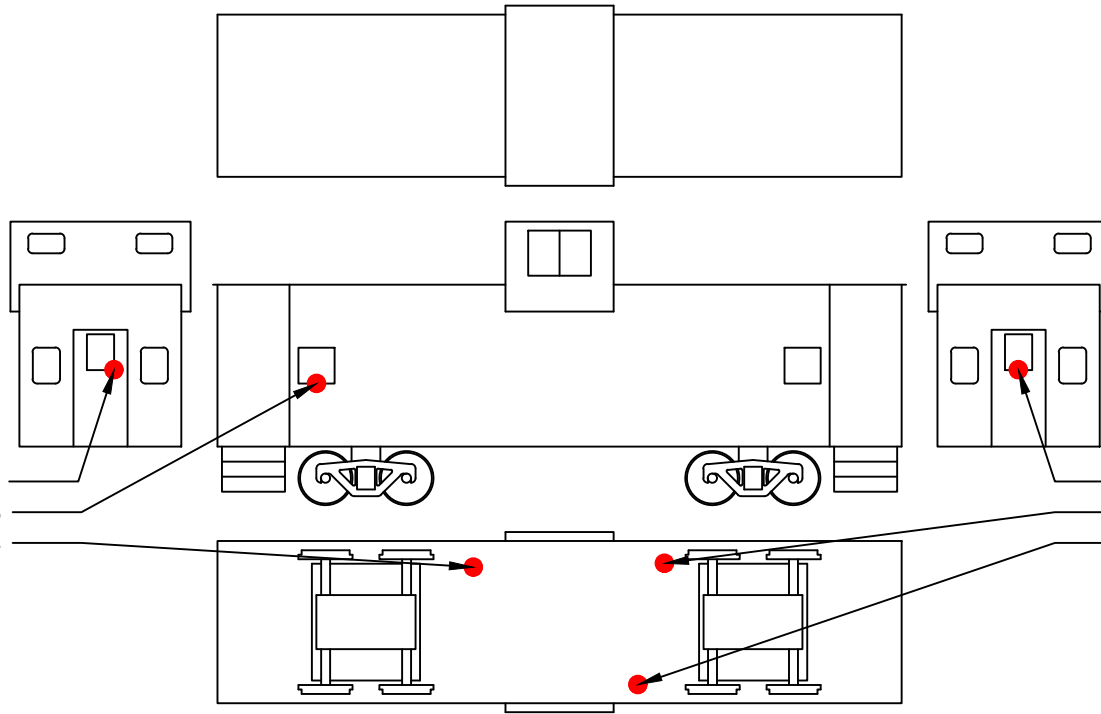
EARTH SERVICES
& ABATEMENT

RI 17017
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



CHE-RI17017-150721-001
CHE-RI17017-150721-003
CHE-RI17017-150721-004

CHE-RI17017-150721-002
CHE-RI17017-150721-005
CHE-RI17017-150721-006

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



**EARTH SERVICES
& ABATEMENT**

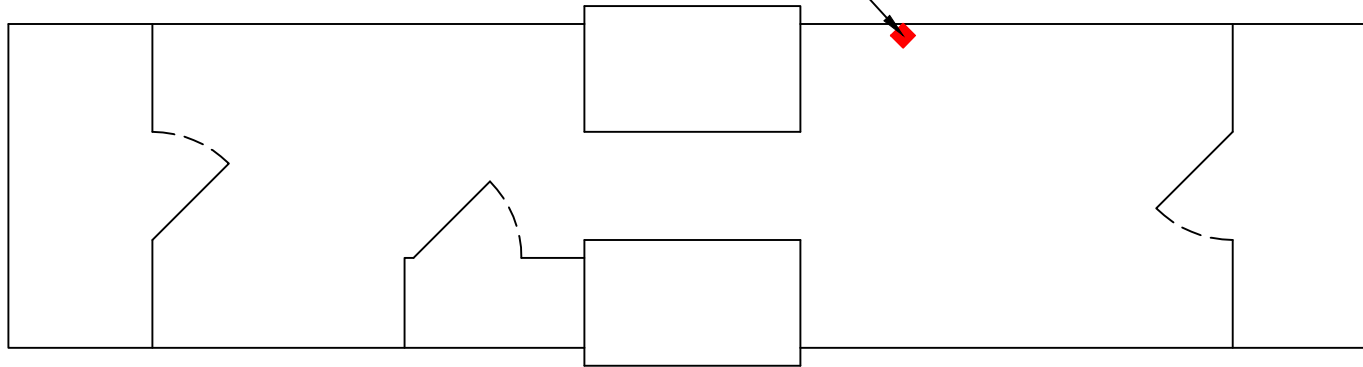
RI 17017
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND
● - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
● - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)

DRAWN BY: J. KULM DATE: JULY-2021



CHE-RI17017-150721-001L



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

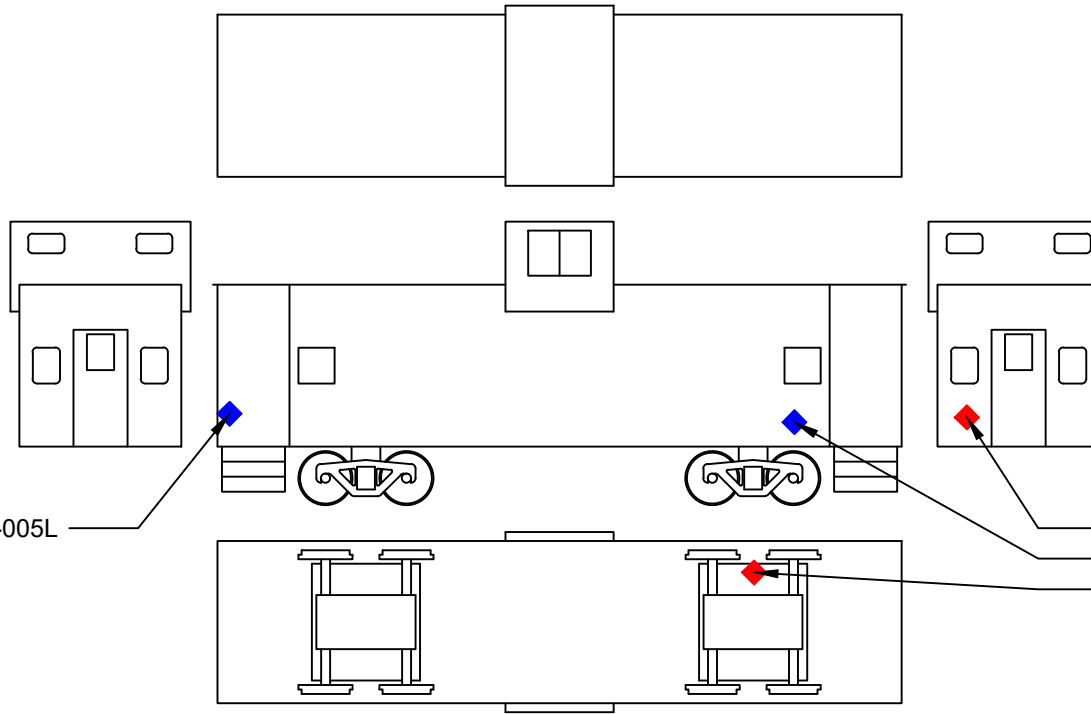
RI 17017
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 5 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



CHE-RI17017-150721-005L

CHE-RI17017-150721-002L
CHE-RI17017-150721-003L
CHE-RI17017-150721-004L

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



**EARTH SERVICES
& ABATEMENT**

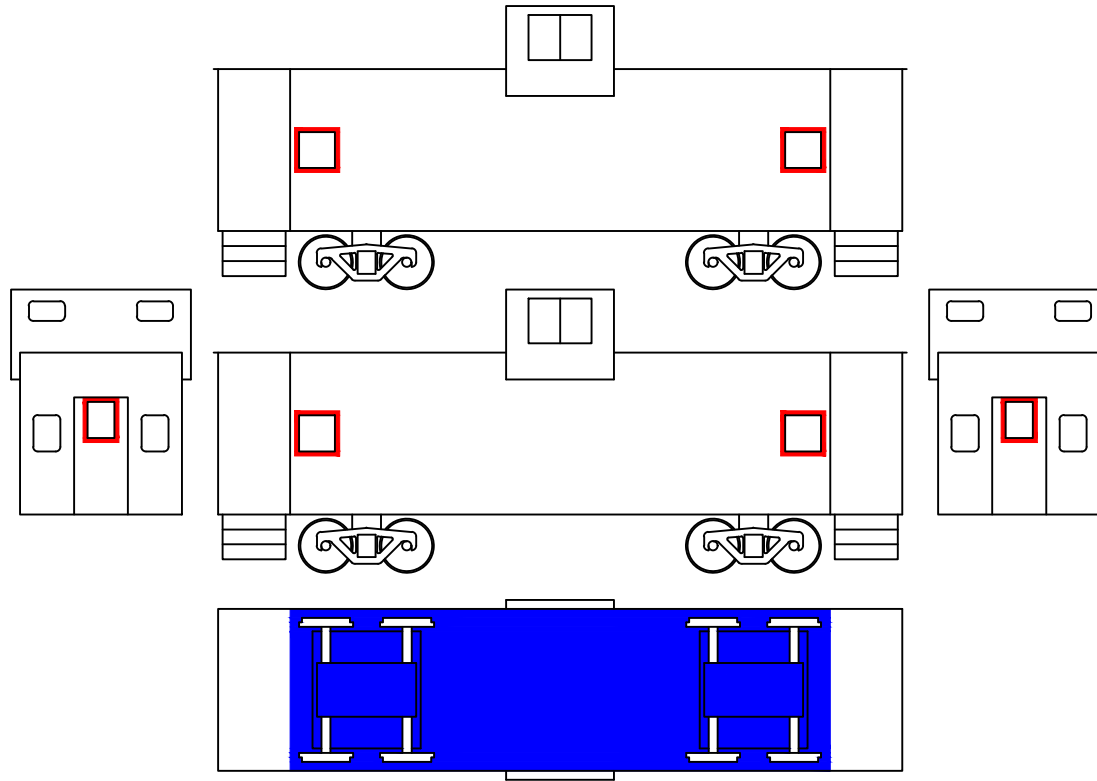
RI 17017
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND

- ◆ - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
- ◆ - LBP SAMPLE LOCATIONS (≥0.5% LEAD)

DRAWN BY: J. KULM

DATE: JULY-2021



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**



RI 17017
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 7 - ACM LOCATIONS (>1% ASBESTOS)

LEGEND

-  - ACM WHITE WINDOW GLAZING
-  - ACM BLACK FIRE PROOFING

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>07/28/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>RI 17017</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21129263
Project #: 215WY001
Date Received: 21-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 22-Jul-2021

RI 17017 WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-RI17017-150721-001	LAYER 1 Sealant, Silver, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Window Glazing, White, Homogeneous Original PLM Result: 2% Chrysotile	Chrysotile 1.25%	Talc 2% Non-Fibrous Material 96.75%
400 pt. POINT COUNT			
CHE-RI17017-150721-002	LAYER 1 Sealant, Silver, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Window Glazing, White, Homogeneous Original PLM Result: 2% Chrysotile	Chrysotile 1.75%	Talc 2% Non-Fibrous Material 96.25%
400 pt. POINT COUNT			
CHE-RI17017-150721-003	LAYER 1 Sealant, Silver, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Window Glazing, *Not analyzed per client request		
400 pt. POINT COUNT			
CHE-RI17017-150721-004	Fire Proofing, Black, Homogeneous	Chrysotile 15%	Non-Fibrous Material 85%
CHE-RI17017-150721-005	Fire Proofing, *Not analyzed per client request		
CHE-RI17017-150721-006	Fire Proofing, *Not analyzed per client request		

Arnold Flores

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



129203
(For Vendor Use Only)

Submitter Name: Joseph Kulm	Bill to: SAME
Company: Earth Services & Abatement	Address: _____
Address: 6700 E. 50th Ave.	_____
City/State: Commerce City, CO Zip: 80022	City/State: _____ Zip: _____
PO #: 215WY001 - RI 17017	

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - RI 17017	Telephone – Office/Cell 402.578.6858
Reports - Email Address: Amanda.Wozab@ESASite.com; Joseph.Kulm@ESASite.com	
Invoice - Email Address: Same as above	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/> Text: <input type="checkbox"/>
Special Instructions: 1) 400 Point Count, GR when applicable; at >1% AND ≤5% 2) PC,GR >1% AND ≤1.49%; no positive stop	

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS	PARTICULATES
--------	--------------

Flame AA	Graphite Furnace AA - LEAD	ICP	Gravimetric
<input type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 6	Positive Stop: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
--------------------------------------	--

Signatures

Relinquished By:	Date: 7/19/21	Time: _____
Received By:	Date: 7/21/21	Time: 8:23
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

IH CHAIN OF CUSTODY

Project Name/Number 215WY001 - RI 17017

Page 2 of 2

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME
CHE-RI17017-150721-001	Window Glazing	
CHE-RI17017-150721-002	" "	
CHE-RI17017-150721-003	" "	
CHE-RI17017-150721-004	Fireproofing, Black	
CHE-RI17017-150721-005	" "	
CHE-RI17017-150721-006	" "	

Comments/Special Instructions: 1) 400 Point Count (25%), GR when applicable; at >1% AND ≤5%
2) 400 Point Count/GR >1% AND ≤1.49%; no positive stop

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022


Order #: JP211028591
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

WY Rollingstock Inspections-RI 17017

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-RI17017-150721-001L	Green	14000	1.4%
CHE-RI17017-150721-002L	Yellow	150000	15%
CHE-RI17017-150721-003L	Red	4200	0.42%
CHE-RI17017-150721-004L	Black	37000	3.7%
CHE-RI17017-150721-005L	White/Silver/Gray	2200	0.22%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi


Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

IH CHAIN OF CUSTODY



20591 (Use only)

Submitter Name: Joseph Kulm	Bill to: SAME
Company: Earth Services & Abatement	Address: _____
Address: 6700 E. 50th Ave.	_____
City/State: Commerce City, CO Zip: 80022	City/State: _____ Zip: _____
PO #: 215WY001 - RI 17017	

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - RI 17017	Telephone – Office/Cell 402.578.6858
Reports - Email Address: Amanda.Wozab@ESASite.com; Joseph.Kulm@ESASite.com	
Invoice - Email Address: Same as above	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/> Text: <input type="checkbox"/>
Special Instructions:	

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
-------------------------------------	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

Flame AA	Graphite Furnace AA - LEAD	ICP	PARTICULATES
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 5	Positive Stop: <input type="checkbox"/> YES <input type="checkbox"/> NO
--------------------------------------	---

Signatures

Relinquished By:	Date: 7/19/21	Time: _____
Received By:	Date: 7/20/21	Time: 10:20
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>07/28/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>RI 17017</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	RI 17017	RI 17017
Exposure Area	Exterior windows ☐	Railcar undercarriage ☐
Asbestos Containing Material	White window glazing ☐	Black fire proofing ☐
Sample Number	CHE-RI17017-150721-001 thru 003 ☐	CHE-RI17017-150721-004 thru 006 ☐
Size	NA	NA
Quantity	24 LF	340 SF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	3	2
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	2	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	2
Exposure Value	30.5	28.5
Rating	3	3



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

August 17th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock SP 4641, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar SP 4641 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on July 13th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 07/13/2021

Inspection End Date 07/13/2021

Report Date 08/10/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Jospeh Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Caboose

Rolling Stock No SP 4641 Car Name SP 4641

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.129569°

State WY Longitude -104.815450°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No SP 4641

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 6

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details. The wood identified in samples CHE-SP4641-130721-001 thru 003 is not considered a suspect material for asbestos.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/13/2021	CHE-SP4641-130721-001 thru 003	Green rubber flooring (no mastic)	Floor throughout interior	Not Detected	N/A	N/A	240 sq. ft.	N/A
07/13/2021	CHE-SP4641-130721-004 thru 006	White/Green Coating	Water tank, base trim and interior walls	10%, Chrysotile	Category II	No	1040 sq. ft.	4
07/13/2021	CHE-SP4641-130721-007 thru 009	Black bakelite	Breaker box	Not Detected	N/A	N/A	3 sq. ft.	N/A
07/13/2021	CHE-SP4641-130721-010 thru 012	Black/Brown, Vibration Dampener	On interior walls, under trim	Not Detected	N/A	N/A	28 LF	N/A
07/13/2021	CHE-SP4641-130721-013 thru 015	White wall coating	Interior walls and ceiling throughout	10%, Chrysotile	Category II	No	972 sq. ft.	4
07/13/2021	CHE-SP4641-130721-016 thru 018	White window caulk	Interior windows and large side windows	10%, Chrysotile	Category II	No	32 LF	4
07/13/2021	CHE-SP4641-130721-019 thru 021	Gray door sealant	Between door and walls, interior	10%, Chrysotile	Category II	No	26 LF	4
07/13/2021	CHE-SP4641-130721-022 thru 024	Gray oil tank sealant	Interior oil fill penetration	10%, Chrysotile	N/A	Yes	1 LF	3

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No SP 4641

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
07/13/2021	CHE-SP4641-130721-02 5 thru 027	Black Brake Pads	Exterior wheels	Not Detected	N/A	N/A	4 sq. ft.	N/A
07/13/2021	CHE-SP4641-130721-02 8 thru 030	White window caulk	Exterior retro-fitted windows and vent	10%, Chrysotile	Category II	No	16 LF	4

Lead-Based Paint Results

Lead Present³ Yes Total Number of Positive Components.³ 2

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
07/13/2021	CHE-SP4641-130721-001L	Green	Interior	0.37 %	Fair
07/13/2021	CHE-SP4641-130721-002L	Orange	Exterior ends and popout sides	6.2 %	Fair
07/13/2021	CHE-SP4641-130721-003L	Dark Red	Exterior, long sides	1.6 %	Fair
07/13/2021	CHE-SP4641-130721-004L	White	Exterior handrails	0.024 %	Fair

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No SP 4641

BUILDING AMERICA™

Polychlorinated Biphenyls Results

PCBs Present⁴ No Total Number of Positive Components.⁴ 0

Notes

PCBs Samples

Sample Date	Sample ID	Description	Location	PCBs Result	Quantity
07/13/2021	CHE-SP4641-130721-001P	White window caulk	Interior windows and large side windows	Not Detected	32 LF
07/13/2021	CHE-SP4641-130721-002P	White window caulk	Exterior retro-fitted windows and vent	Not Detected	16 LF

Mold Results

Suspect Mold Present No

Notes

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No SP 4641



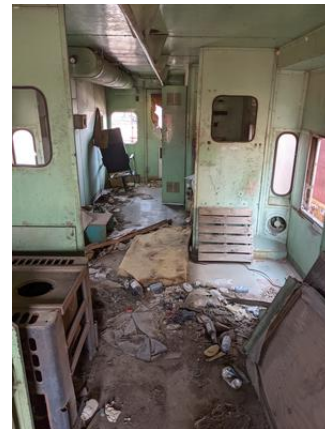
Train ID



View of car, looking north-norhtwest



View of car, looking south-southeast



Car interior



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

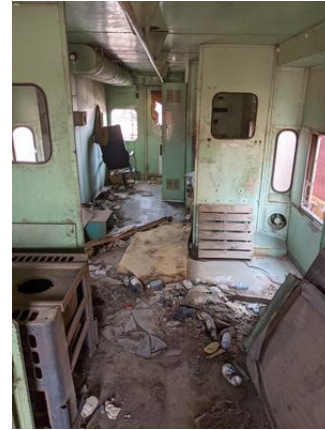
Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No SP 4641



CHE-SP4641-130721-001 thru 003, Asbestos Not Detected, Green rubber flooring (no mastic)



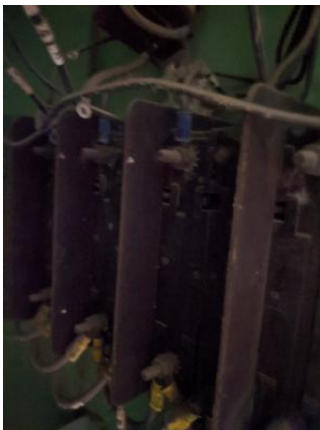
CHE-SP4641-130721-001 thru 003, Asbestos Not Detected, Green rubber flooring (no mastic)



CHE-SP4641-130721-004 thru 006, 10% Asbestos, White/Green Coating



CHE-SP4641-130721-004 thru 006, 10% Asbestos, White/Green Coating



CHE-SP4641-130721-007 thru 009, Asbestos Not Detected, Black bakelite



CHE-SP4641-130721-007 thru 009, Asbestos Not Detected, Black bakelite



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No SP 4641



CHE-SP4641-130721-010 thru 012, Asbestos Not Detected, Black/Brown, Vibration Dampener



CHE-SP4641-130721-010 thru 012, Asbestos Not Detected, Black/Brown, Vibration Dampener



CHE-SP4641-130721-013 thru 015, 10% Asbestos, White wall coating



CHE-SP4641-130721-013 thru 015, 10% Asbestos, White wall coating



CHE-SP4641-130721-016 thru 018, 10% Asbestos, White window caulk



CHE-SP4641-130721-016 thru 018, 10% Asbestos, White window caulk



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No SP 4641



CHE-SP4641-130721-019 thru 021, 10% Asbestos, Gray door sealant



CHE-SP4641-130721-019 thru 021, 10% Asbestos, Gray door sealant



CHE-SP4641-130721-019 thru 021, 10% Asbestos, Gray door sealant



CHE-SP4641-130721-022 thru 024, 10% Asbestos, Gray oil tank sealant



CHE-SP4641-130721-022 thru 024, 10% Asbestos, Gray oil tank sealant



CHE-SP4641-130721-025 thru 027, Asbestos Not Detected, Black Brake Pads



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No SP 4641



CHE-SP4641-130721-025 thru 027, Asbestos Not Detected, Black Brake Pads



CHE-SP4641-130721-028 thru 030, 10% Asbestos, White window caulk



CHE-SP4641-130721-028 thru 030, 10% Asbestos, White window caulk



CHE-SP4641-130721-001L, 0.37% Lead, Green



CHE-SP4641-130721-001L, 0.37% Lead, Green



CHE-SP4641-130721-002L, 6.2% Lead, Orange



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No SP 4641



CHE-SP4641-130721-002L, 6.2% Lead, Orange



CHE-SP4641-130721-003L, 1.6% Lead, Dark Red



CHE-SP4641-130721-003L, 1.6% Lead, Dark Red



CHE-SP4641-130721-004L, 0.024% Lead, White



CHE-SP4641-130721-004L, 0.024% Lead, White



CHE-SP4641-130721-001P, PCB Not Detected, White window caulk



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 08/10/2021

Rolling Stock Type Caboose

Rolling Stock No SP 4641



CHE-SP4641-130721-001P, PCB Not Detected, White window caulk



CHE-SP4641-130721-002P, PCB Not Detected, White window caulk



CHE-SP4641-130721-002P, PCB Not Detected, White window caulk

Appendix 1 - Figures

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>SP 4641</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

SP 4641
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

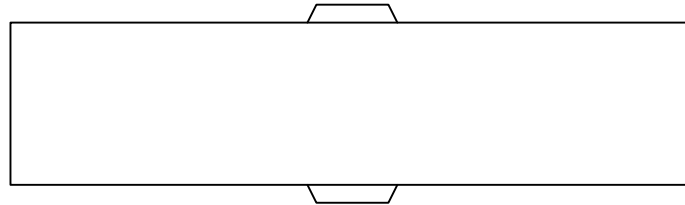
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

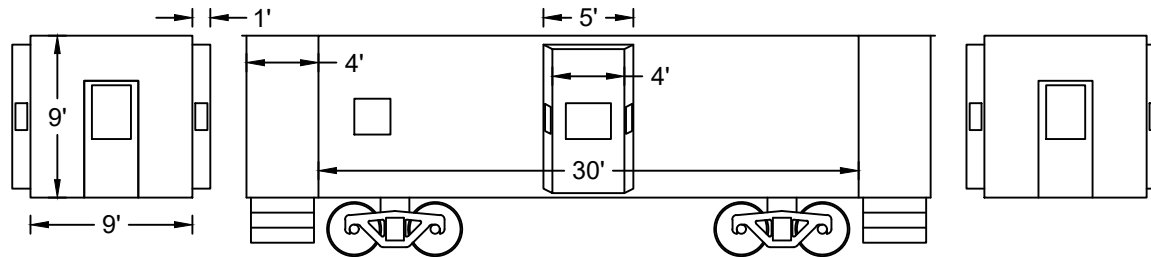
DATE: JULY-2021



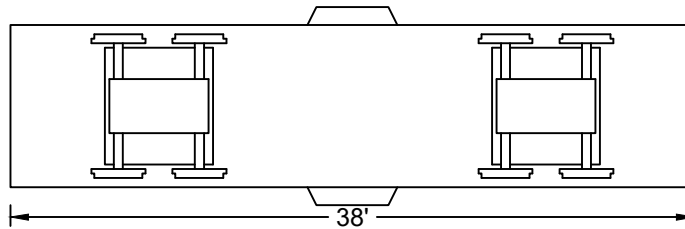
ROOF



FRONT END



BACK END



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



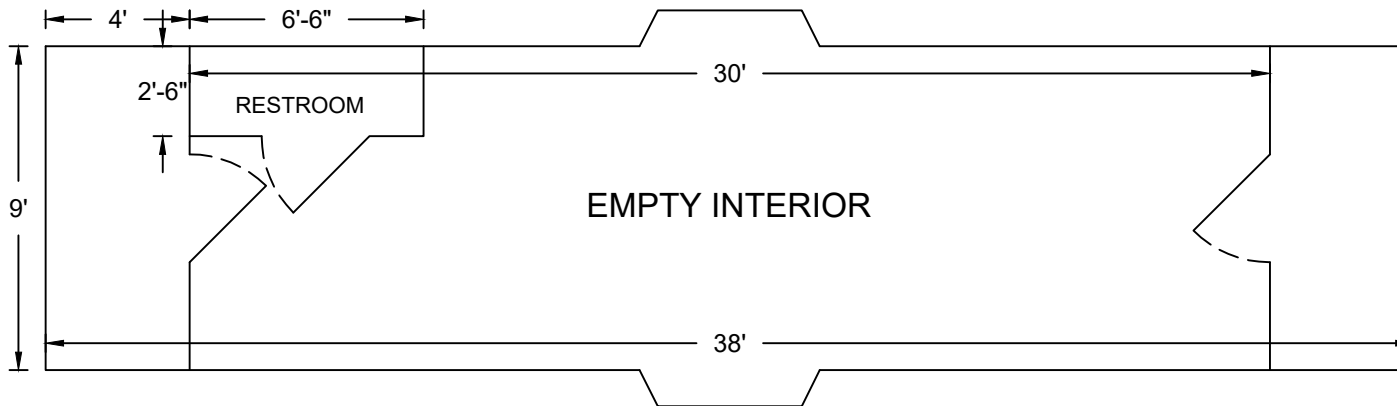
**EARTH SERVICES
& ABATEMENT**

SP 4641
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



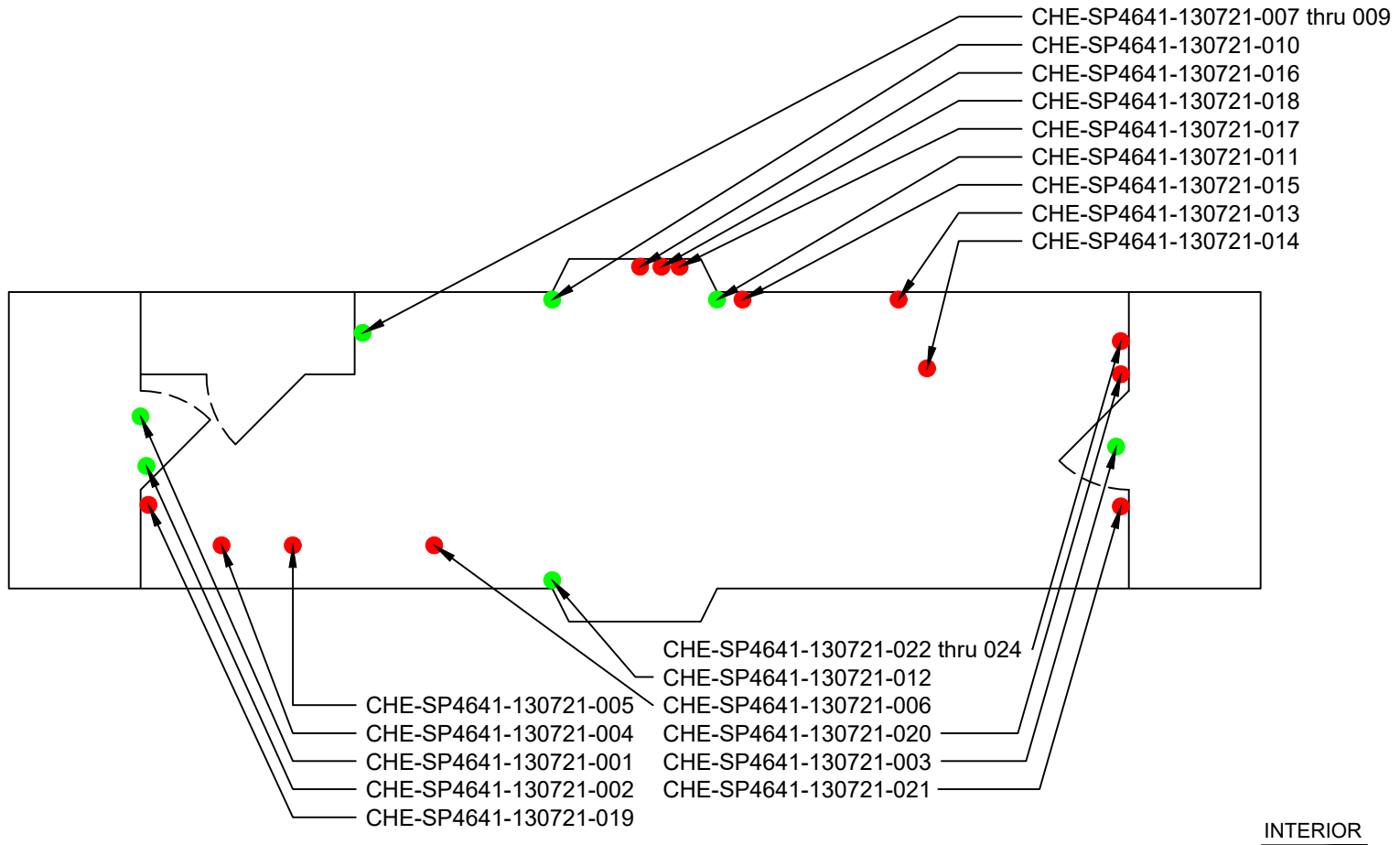
EARTH SERVICES
& ABATEMENT

SP 4641
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: JULY-2021



NOTE:
 THIS DRAWING MUST BE
 PRINTED IN COLOR TO
 SHOW ALL INFORMATION
 ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
 & ABATEMENT**

SP 4641
 CHEYENNE YARD
 East Union Pacific Ave.
 CHEYENNE, WY

DRAWN BY: J. KULM

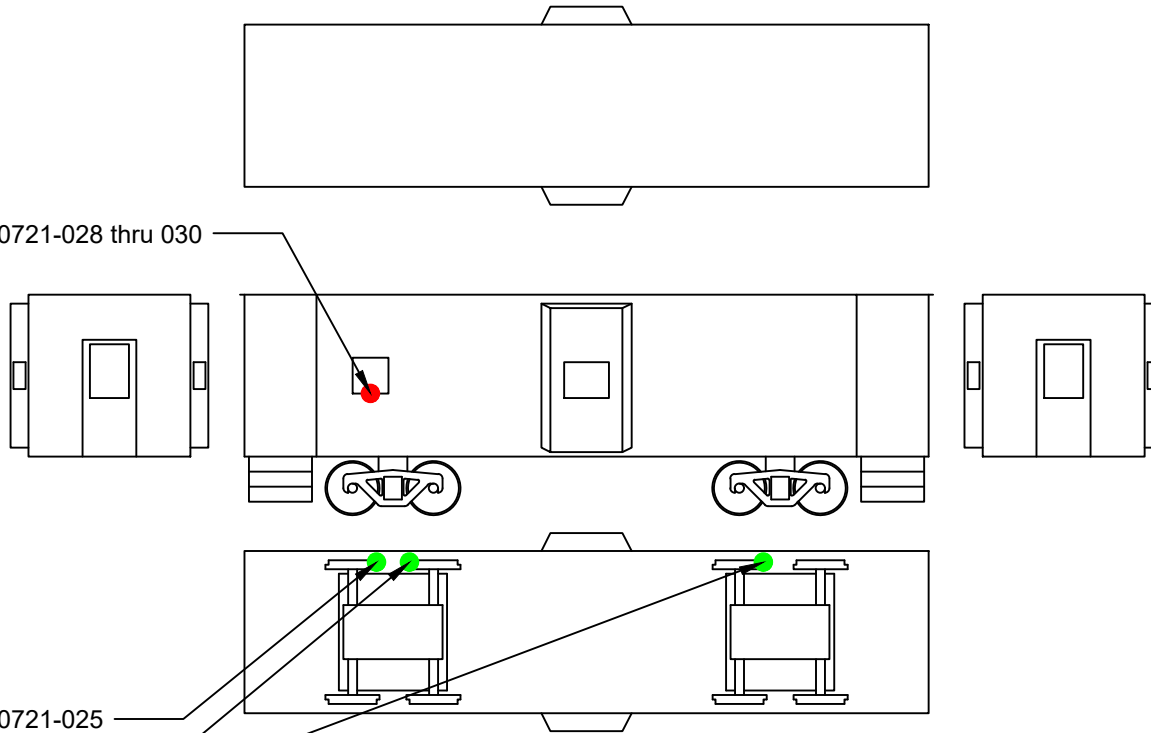
DATE: JULY-2021

**FIGURE 4 - ACM SAMPLE LOCATIONS
 LEGEND**

- - NON-ACM SAMPLE LOCATIONS (≤1% ASBESTOS)
- - ACM SAMPLE LOCATIONS (>1% ASBESTOS)



CHE-SP4641-130721-028 thru 030



CHE-SP4641-130721-025
CHE-SP4641-130721-026
CHE-SP4641-130721-027

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

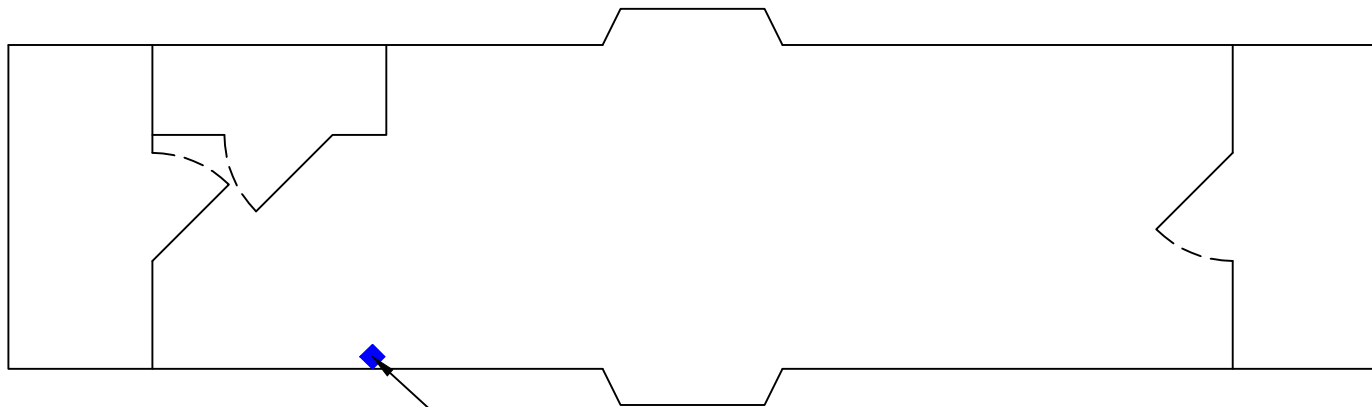
SP 4641
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-SP4641-130721-001L

INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®




**EARTH SERVICES
& ABATEMENT**

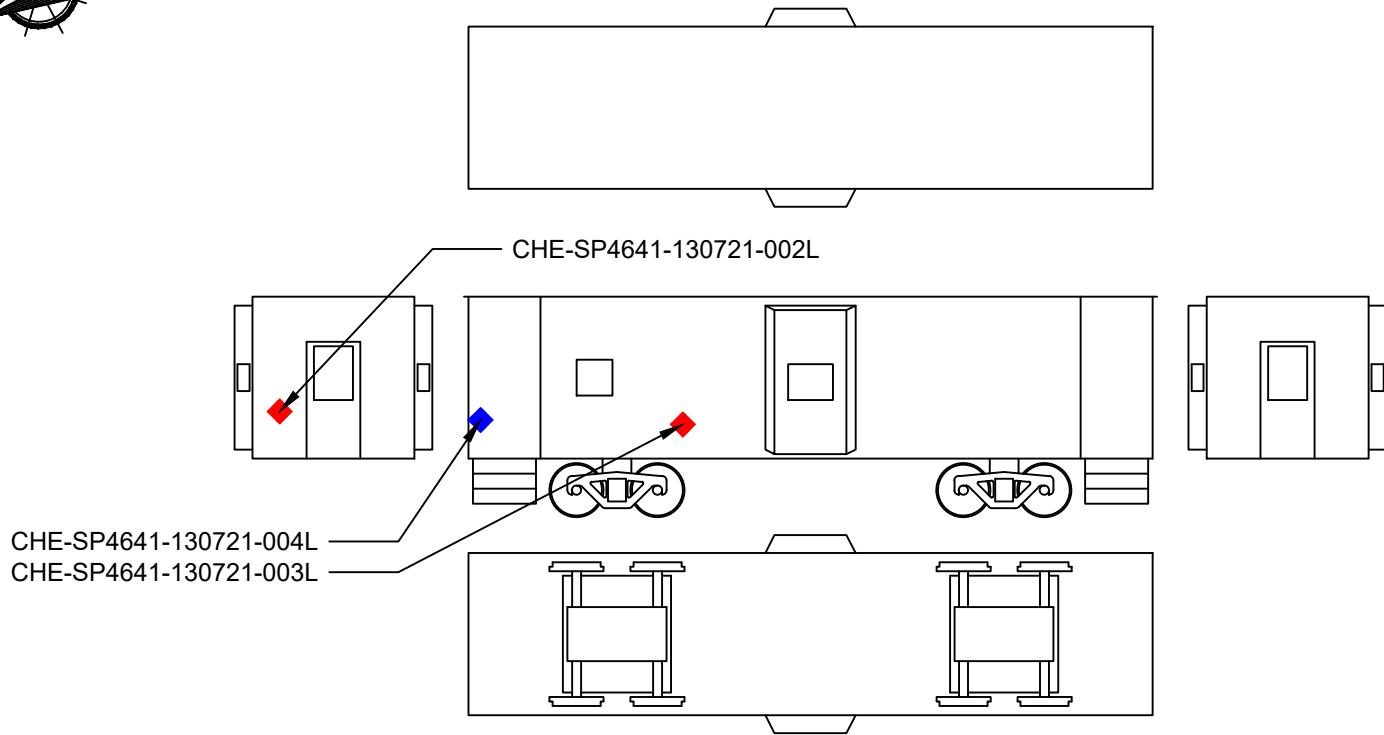
SP 4641
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**


SP 4641
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

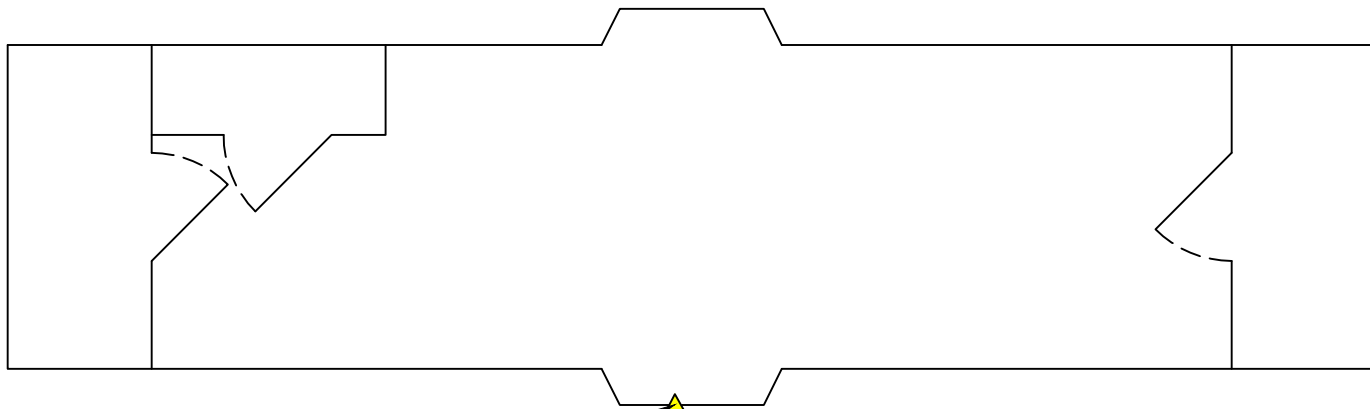
DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 7 - LBP SAMPLE LOCATIONS

LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



CHE-SP4641-130721-001P

INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





EARTH SERVICES
& ABATEMENT

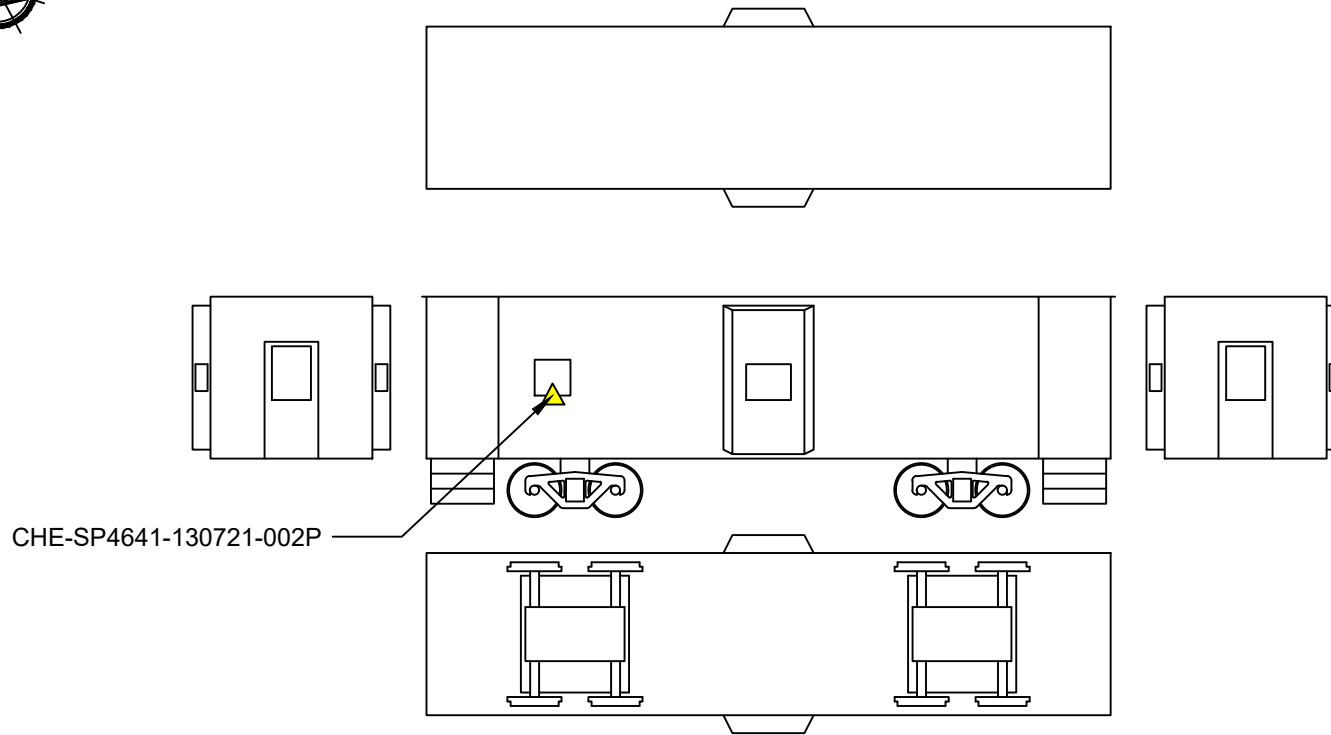
SP 4641
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 8 - PCB SAMPLE LOCATIONS
LEGEND

-  - NON-PCB SAMPLE LOCATIONS (<50 PPM)
-  - PCB SAMPLE LOCATIONS (≥50 PPM)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

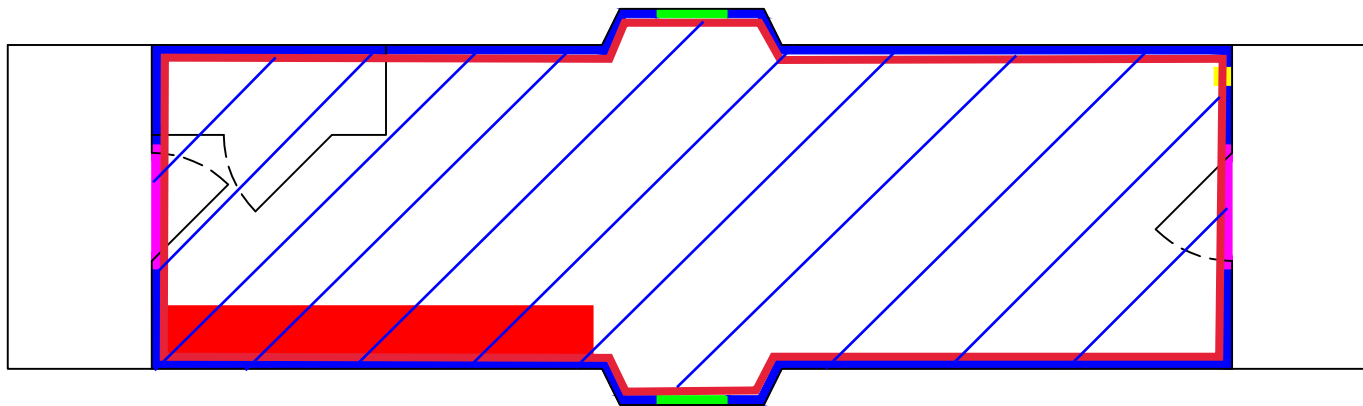
SP 4641
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 9 - PCB SAMPLE LOCATIONS
LEGEND

-  - NON-PCB SAMPLE LOCATIONS (<50 PPM)
-  - PCB SAMPLE LOCATIONS (≥50 PPM)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®








**EARTH SERVICES
& ABATEMENT**

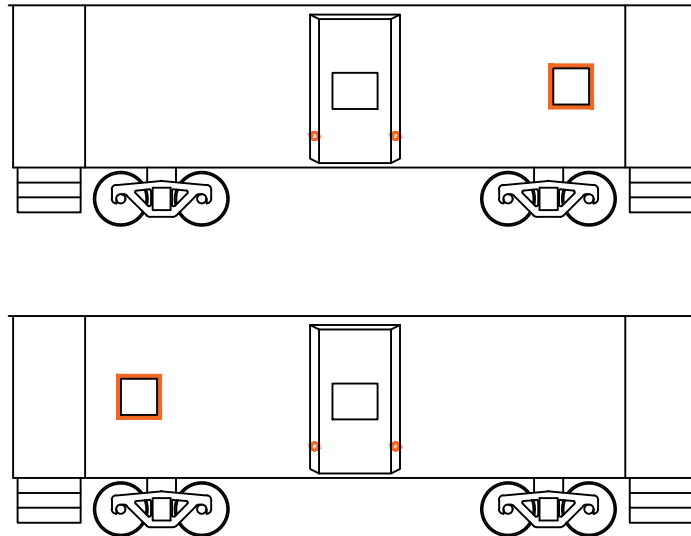
SP 4641
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 10 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

-  - ACM WHITE/GREEN COATING
-  - ACM WHITE WALL COATING
-  - ACM WHITE WINDOW CAULK
-  - ACM GRAY DOOR SEALANT
-  - ACM GRAY OIL TANK SEALANT



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY

EXTERIOR



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

SP 4641
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: JULY-2021

FIGURE 11 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM WHITE WINDOW CAULK

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>SP 4641</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129231
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

Rolling Stock #SP 4641

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-SP4641-130721-001	LAYER 1 Flooring, Green, Homogeneous No Mastic Present	None Detected	Non-Fibrous Material	100%
	LAYER 2 Wood, Brown, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	95% 5%
CHE-SP4641-130721-002	LAYER 1 Flooring, Green, Homogeneous No Mastic Present	None Detected	Non-Fibrous Material	100%
	LAYER 2 Wood, Brown, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	95% 5%
CHE-SP4641-130721-003	LAYER 1 Flooring, Green, Homogeneous No Mastic Present	None Detected	Non-Fibrous Material	100%
	LAYER 2 Wood, Brown, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	95% 5%
CHE-SP4641-130721-004	Coating, Green/ Gray, Homogeneous	Chrysotile 10%	Non-Fibrous Material	90%
CHE-SP4641-130721-005	Coating, *Not analyzed per client request			
CHE-SP4641-130721-006	Coating, *Not analyzed per client request			
CHE-SP4641-130721-007	Bakelite, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-SP4641-130721-008	Bakelite, Black, Homogeneous	None Detected	Non-Fibrous Material	100%

Jovahnnny Dominguez Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129231
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

Rolling Stock #SP 4641

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-SP4641-130721-009	Bakelite, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-SP4641-130721-010	Vibration Damper, Black/ Brown, Homogeneous	None Detected	Synthetic Fiber	15%
CHE-SP4641-130721-011	Vibration Damper, Black/ Brown, Homogeneous	None Detected	Synthetic Fiber	15%
CHE-SP4641-130721-012	Vibration Damper, Black/ Brown, Homogeneous	None Detected	Synthetic Fiber	15%
CHE-SP4641-130721-013	Coating, Gray, Homogeneous	Chrysotile 10%	Non-Fibrous Material	90%
CHE-SP4641-130721-014	Coating, *Not analyzed per client request			
CHE-SP4641-130721-015	Coating, *Not analyzed per client request			
CHE-SP4641-130721-016	Window Caulk, White, Homogeneous	Chrysotile 10%	Non-Fibrous Material	90%
CHE-SP4641-130721-017	Window Caulk, *Not analyzed per client request			
CHE-SP4641-130721-018	Window Caulk, *Not analyzed per client request			
CHE-SP4641-130721-019	Door Sealant, Gray, Homogeneous	Chrysotile 10%	Non-Fibrous Material	90%
CHE-SP4641-130721-020	Door Sealant, *Not analyzed per client request			

Jovahnnny Dominguez Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21129231
Project #: 215WY001
Date Received: 20-Jul-2021
Date Analyzed: 22-Jul-2021
Date Reported: 23-Jul-2021

Rolling Stock #SP 4641

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-SP4641-130721-022	Sealant, Gray, Homogeneous	Chrysotile 10%	Non-Fibrous Material 90%
CHE-SP4641-130721-023	Sealant, *Not analyzed per client request		
CHE-SP4641-130721-024	Sealant, *Not analyzed per client request		
CHE-SP4641-130721-025	Brakes, Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP4641-130721-026	Brakes, Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP4641-130721-027	Brakes, Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP4641-130721-028	Window Caulk, Gray, Homogeneous	Chrysotile 10%	Non-Fibrous Material 90%
CHE-SP4641-130721-029	Window Caulk, *Not analyzed per client request		
CHE-SP4641-130721-030	Window Caulk, *Not analyzed per client request		

Jovahnnny Dominguez Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



J3 Order # 29231

Submitter Name: Joseph Kulm	Bill to: SAME
Company: Earth Services & Abatement	Address: _____
Address: 6700 E. 50th Ave.	_____
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001 - Rolling Stock # SP 4641

Project Information

Project Name: 2020 Assigned Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - Rolling Stock # SP 4641	Telephone - Office/Cell 402.578.6858
Reports - Email Address: Amanda.Wozab@ESASite.com; Joseph.Kulm@ESASite.com	
Invoice - Email Address: Same as above	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/> Text: <input type="checkbox"/>

Special Instructions: 1) 400 Point Count, GR when applicable; at >1% AND ≤5% 2) PC,GR >1% AND ≤1.49%; no positive stop

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 30	Positive Stop: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
---------------------------------------	--

Signatures

Relinquished By:	Date: 7/19	Time: _____
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

IH CHAIN OF CUSTODY

Project Name/Number 215WY001 - Rolling Stock # SP 4641

Page 2 of 2

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME
CHE-SP4641-130721-001	Flooring, Green	
CHE-SP4641-130721-002	" "	
CHE-SP4641-130721-003	" "	
CHE-SP4641-130721-004	Water Tank Coating, White/Green	
CHE-SP4641-130721-005	" "	
CHE-SP4641-130721-006	" "	
CHE-SP4641-130721-007	Bakelite, Black	
CHE-SP4641-130721-008	" "	
CHE-SP4641-130721-009	" "	
CHE-SP4641-130721-010	Vibration Dampener, Black	
CHE-SP4641-130721-011	" "	
CHE-SP4641-130721-012	" "	
CHE-SP4641-130721-013	Wall/Ceiling Coating, White	
CHE-SP4641-130721-014	" "	
CHE-SP4641-130721-015	" "	
CHE-SP4641-130721-016	Lg. Window Caulking, White	
CHE-SP4641-130721-017	" "	
CHE-SP4641-130721-018	" "	
CHE-SP4641-130721-019	Door Sealant, Tan	
CHE-SP4641-130721-020	" "	
CHE-SP4641-130721-022	Oil Tank Sealant, Tan	
CHE-SP4641-130721-023	" "	
CHE-SP4641-130721-024	" "	
CHE-SP4641-130721-025	Brakes, Black	
CHE-SP4641-130721-026	" "	
CHE-SP4641-130721-027	" "	
CHE-SP4641-130721-028	Retrofitted Window Caulking, White	
CHE-SP4641-130721-029	" "	
CHE-SP4641-130721-030	" "	
Comments/Special Instructions: 1) 400 Point Count (25%), GR when applicable; at >1% AND ≤5% 2) 400 Point Count/GR >1% AND ≤1.49%; no positive stop		



EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204
Tel/Fax: (303) 740-5700 / (303) 741-1400
<http://www.EMSL.com / denverlab@emsl.com>

EMSL Order: 222105228
Customer ID: ESAB42
Customer PO:
Project ID:

Attention: Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Ave.
Commerce City, CO 80022

Phone: (303) 991-1280
Fax:
Received Date: 07/20/2021 1:30 PM
Analysis Date: 07/23/2021
Collected Date:

Project: 215WY001

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
CHE-SP4641-130721-0 21	DOOR SEALANT, TAN	Tan Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile

222105228-0001
Inseparable paint / coating layer included in analysis

Analyst(s)
Molly Elkins (1)

Henry Printz, TEM/PCM Laboratory Supervisor
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 07/23/2021 12:54:58



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

222105228

EMSL Analytical, Inc.
1010 Yuma Street

Denver, CO 80204

PHONE: (303) 740-5700

FAX: (303) 741-1400

Company Name : Earth Services & Abatement		EMSL Customer ID:	
Street: 6700 E 50th Ave		City: Commerce City	State/Province: CO
Zip/Postal Code: 80022	Country: US	Telephone #: 303-991-1280	Fax #:
Report To (Name): Joseph Kulm, Amanda Wozab		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: joseph.kulm@esasite.com		Purchase Order:	
Project Name/Number: 215WY001		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken: WY		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

EMSL-Bill to: Same Different - If Bill to is Different note instructions in Comments**

Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* - Please Check

3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input checked="" type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part <input type="checkbox"/> 763 NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)
PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NYS 198.8 SOF-V <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5	Soil/Rock/Vermiculite <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<1%) <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%) <input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM Qualitative via Filtration Prep <input type="checkbox"/> TEM Qualitative via Drop Mount Prep <input type="checkbox"/> Cincinnati Method EPA 600/R-04/004 - PLM/TEM (BC only)
<input checked="" type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking

Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: Joseph Kulm

Samplers Signature:

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
CHE-SP4641-130721-021	Door Sealant, Tan		

Client Sample # (s): CHE-SP4641-130721-021 - CHE-SP4641-130721-021 Total # of Samples: 1

Relinquished (Client): *Robert Snyders* Date: 7-20-21 Time:

Received (Lab): LM Date: 7/20 1:30 Time:

Comments/Special Instructions:

- 1) Point Count 400 w/ Gravimetric if PLM results are positive and ≤5%
- 2) No positive stop if 1) results are ≤1.49%

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022


Order #: JP211028581
Project #: 215WY001
Receipt Date: 21-Jul-2021
Analysis Date: 22-Jul-2021
Report Date: 23-Jul-2021

2020 Assigned Inspections-Rolling Stock # SP 4641

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-SP4641-130721-001L	Green	3700	0.37%
CHE-SP4641-130721-002L	Orange	62000	6.2%
CHE-SP4641-130721-003L	Dark Red	16000	1.6%
CHE-SP4641-130721-004L	White	240	0.024%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Shervin Aghaabbasi


Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 287 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-9%

IH CHAIN OF CUSTODY



28581
(Customer Use Only)

Submitter Name: Joseph Kulm	Bill to: SAME
Company: Earth Services & Abatement	Address: _____
Address: 6700 E. 50th Ave.	City/State: _____ Zip: _____
City/State: Commerce City, CO Zip: 80022	PO #: 215WY001 Rolling Stock # SP 4641

Project Information

Project Name: 2020 Assigned Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 Rolling Stock # SP 4641	Telephone – Office/Cell 402.578.6858
Reports - Email Address: Amanda.Wozab@ESASite.com; Joseph.Kulm@ESASite.com	
Invoice - Email Address: Same as above	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/> Text: <input type="checkbox"/>
Special Instructions:	

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	--------------------------------	--------------------------------	---	--------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 4	Positive Stop: <input type="checkbox"/> YES <input type="checkbox"/> NO
--------------------------------------	---

Signatures

Relinquished By:	Date: 7/19	Time: _____
Received By:	Date: 7/20/21	Time: 10:30
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)



Monday, August 17, 2021

Amanda Wozab
Earth Services & Abatement
6700 E. 50th Ave.
Commerce City, CO 80022

Re: ALS Workorder: 2107403
Project Name: Rolling Stock # SP 4641
Project Number: 205WY001

Dear Ms. Wozab:

Two solid samples were received from Earth Services & Abatement, on 7/21/2021. The samples were scheduled for the following analysis:

PCBs

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager



2107403

PCB:

The samples were analyzed using GC/ECD (electron capture detectors) according to the current revision of SOP 409 based on SW-846 Method 8082.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2107403

Client Name: Earth Services & Abatement

Client Project Name: Rolling Stock # SP 4641

Client Project Number: 205WY001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CHE-SP4641-130721-001P	2107403-1		SOLID	13-Jul-21	
CHE-SP4641-130721-002P	2107403-2		SOLID	13-Jul-21	



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody



Form 2026

PROJECT NAME Rolling Stock # SP 4641		SAMPLER Joseph Kulm		DATE		PAGE 1 of 1									
PROJECT No. 205WY001		SITE ID		TURNAROUND 5 Day		DISPOSAL By Lab or Return to Client									
COMPANY NAME Earth Services & Abatement		EDD FORMAT		PCB by 8082											
SEND REPORT TO Robert Szynskie		PURCHASE ORDER													
ADDRESS 6700 E. 50th Ave.		BILL TO COMPANY Earth Services & Abatement													
CITY / STATE / ZIP Commerce City, CO 80022		INVOICE ATTN TO Robert Szynskie													
PHONE 303-991-1280		ADDRESS 6700 E. 50th Ave.													
FAX 303-991-1282		CITY / STATE / ZIP Commerce City, CO 80022													
E-MAIL Amanda.Wozab@esasite.com Robert.Szynskie@esasite.com		PHONE 303-991-1280													
		FAX 303-991-1282													
Lab ID		Field ID		Matrix		Sample Date		Sample Time		# Bottles		Pres.		QC	
1		CHE-SP4641-130721-001P		NS		7/13/2021				1				X	
2		CHE-SP4641-130721-002P		NS		7/13/2021				1					

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
	<input type="checkbox"/> LEVEL II (Standard QC)
	<input type="checkbox"/> LEVEL III (Std QC + forms)
	<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Joseph Kulm</i>	Joseph Kulm	7/19	
RECEIVED BY	<i>Josh Eckert</i>	Josh Eckert	7/21/21	0945
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: EARTH SERVICES & ABATEMENT Workorder No: 2107403

Project Manager: KMO Initials: JPE Date: 07/21/2021

		N/A	YES	NO
1.	Are airbills / shipping documents present and/or removable? Tracking number: 2815 9831 3879		X	
2.	Are custody seals on shipping containers intact?	X		
3.	Are custody seals on sample containers intact?	X		
4.	Is there a COC (chain-of-custody) present?		X	
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6.	Are short-hold samples present?			X
7.	Are all samples within holding times for the requested analyses?		X	
8.	Were all sample containers received intact? (not broken or leaking)		X	
9.	Is there sufficient sample for the requested analyses?		X	
10.	Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		X	
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13.	Were the samples shipped on ice?			X
14.	Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #5	RAD ONLY		X
Cooler #: <u>1</u> Temperature (°C): <u>AMB</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>11</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? YES / NA All client bottle ID's vs ALS lab ID's double-checked by JE

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 7/21/21

Client: Earth Services & Abatement
Project: 205WY001 Rolling Stock # SP 4641
Sample ID: CHE-SP4641-130721-001P
Legal Location:
Collection Date: 7/13/2021

Date: 17-Aug-21
Work Order: 2107403
Lab ID: 2107403-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 7/30/2021	PrepBy: CPC
AROCLOR-1016	ND		2.8	MG/KG	6	8/6/2021 12:40
AROCLOR-1221	ND		5.5	MG/KG	6	8/6/2021 12:40
AROCLOR-1232	ND		2.8	MG/KG	6	8/6/2021 12:40
AROCLOR-1242	ND		2.8	MG/KG	6	8/6/2021 12:40
AROCLOR-1248	ND		2.8	MG/KG	6	8/6/2021 12:40
AROCLOR-1254	ND		2.8	MG/KG	6	8/6/2021 12:40
AROCLOR-1260	ND		2.8	MG/KG	6	8/6/2021 12:40
Surr: TETRACHLORO-M-XYLENE	93		69-129	%REC	6	8/6/2021 12:40
Surr: DECACHLOROBIPHENYL	88		55-135	%REC	6	8/6/2021 12:40

Client: Earth Services & Abatement
Project: 205WY001 Rolling Stock # SP 4641
Sample ID: CHE-SP4641-130721-002P
Legal Location:
Collection Date: 7/13/2021

Date: 17-Aug-21
Work Order: 2107403
Lab ID: 2107403-2
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 7/30/2021	PrepBy: CPC
AROCLOR-1016	ND		15	MG/KG	6	8/6/2021 12:58
AROCLOR-1221	ND		30	MG/KG	6	8/6/2021 12:58
AROCLOR-1232	ND		15	MG/KG	6	8/6/2021 12:58
AROCLOR-1242	ND		15	MG/KG	6	8/6/2021 12:58
AROCLOR-1248	ND		15	MG/KG	6	8/6/2021 12:58
AROCLOR-1254	ND		15	MG/KG	6	8/6/2021 12:58
AROCLOR-1260	ND		15	MG/KG	6	8/6/2021 12:58
Surr: TETRACHLORO-M-XYLENE	90		69-129	%REC	6	8/6/2021 12:58
Surr: DECACHLOROBIPHENYL	93		55-135	%REC	6	8/6/2021 12:58

Client: Earth Services & Abatement
Project: 205WY001 Rolling Stock # SP 4641
Sample ID: CHE-SP4641-130721-002P
Legal Location:
Collection Date: 7/13/2021

Date: 17-Aug-21
Work Order: 2107403
Lab ID: 2107403-2
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 8/17/2021 1:23:44

Client: Earth Services & Abatement
 Work Order: 2107403
 Project: 205WY001 Rolling Stock # SP 4641

QC BATCH REPORT

Batch ID: EX210730-3-1 Instrument ID: Pest-1 Method: SW8082

LCS		Sample ID: EX210730-3			Units: MG/KG			Analysis Date: 8/6/2021 14:13			
Client ID:		Run ID: PT210806-11			Prep Date: 7/30/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.133	0.0333	0.133		99	80-120				50	
AROCLOR-1260	0.137	0.0333	0.133		103	80-125				50	
Surr: TETRACHLORO-M-XYLENE	0.0152		0.0167		91	69-129					
Surr: DECACHLOROBIPHENYL	0.0187		0.0167		112	55-135					

LCSD		Sample ID: EX210730-3			Units: MG/KG			Analysis Date: 8/6/2021 14:32			
Client ID:		Run ID: PT210806-11			Prep Date: 7/30/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.125	0.0333	0.133		94	80-120		0.133	6	50	
AROCLOR-1260	0.131	0.0333	0.133		99	80-125		0.137	4	50	
Surr: TETRACHLORO-M-XYLENE	0.015		0.0167		90	69-129			1		
Surr: DECACHLOROBIPHENYL	0.0178		0.0167		107	55-135			5		

MB		Sample ID: EX210730-3			Units: MG/KG			Analysis Date: 8/6/2021 11:25				
Client ID:		Run ID: PT210806-11			Prep Date: 7/30/2021			DF: 1				
Analyte	Result	ReportLimit										Qual
AROCLOR-1016	ND	0.033										
AROCLOR-1221	ND	0.067										
AROCLOR-1232	ND	0.033										
AROCLOR-1242	ND	0.033										
AROCLOR-1248	ND	0.033										
AROCLOR-1254	ND	0.033										
AROCLOR-1260	ND	0.033										
Surr: TETRACHLORO-M-XYLENE	0.0158				95	69-129						
Surr: DECACHLOROBIPHENYL	0.0178				107	55-135						

The following samples were analyzed in this batch: 2107403-1 2107403-2

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>08/10/2021</u>
Rolling Stock Type	<u>Caboose</u>
Rolling Stock No	<u>SP 4641</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	SP 4641	SP 4641
Exposure Area	Water tank, base trim and interior walls	Interior walls and ceiling throughout
Asbestos Containing Material	White/Green Coating	White wall coating
Sample Number	CHE-SP4641-130721-004 thru 006	CHE-SP4641-130721-013 thru 015
Size	NA	NA
Quantity	1,040 SF	972 SF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	1	1
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	1	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	1
Exposure Value	13.25	13.25
Rating	4	4

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority

Asset Number	SP 4641	SP 4641
Exposure Area	Interior windows and large side windows	Between door and walls, interior
Asbestos Containing Material	White window caulk	Gray door sealant
Sample Number	CHE-SP4641-130721-016 thru 018	CHE-SP4641-130721-019 thru 021
Size	NA	NA
Quantity	32 LF	26 LF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	4	2
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	1	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	1
Exposure Value	16.25	14.25
Rating	4	4

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	SP 4641	SP 4641
Exposure Area	Interior oil fill penetration <input type="checkbox"/>	Exterior retro-fitted windows and vent <input type="checkbox"/>
Asbestos Containing Material	Gray oil tank sealant <input type="checkbox"/>	White window caulk <input type="checkbox"/>
Sample Number	CHE-SP4641-130721-022 thru 024 <input type="checkbox"/>	CHE-SP4641-130721-028 thru 030 <input type="checkbox"/>
Size	NA	NA
Quantity	1 LF	16 LF
MATERIAL CONDITION (MC)	3	2
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area		
BUILDING AGE (BA)	1	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old		
MATERIAL TYPE		
Pipe Covering (PC)	NA	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper		
Ceiling Plasters or Fireproofing (CP)	NA	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture		
WATER DAMAGE (WD)	0	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread		
ROOF CHARACTERISTICS (RC)	-0.5	-0.5
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up		
EXPOSED SURFACE AREA (ESA)	4	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed		
ACCESSIBILITY (AC)	4	3
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high		
ACTIVITY AND MOVEMENT (A/M)	2	1
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently		
WORK ENVIRONMENT (WE)	0.5	0.5
-0.5 =Sedentary 0.5 =Non-sedentary		
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration		
AIR - PLENUM / AIR STREAM (AP)	1	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists		
VELOCITY (if Air Plenum = 1) (VEL)	-0.25	0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling		
FLOW (if Air Plenum = 1) (FL)	NA	0.25
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow		
FRIABILITY (F)	2	1
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure		
ASBESTOS CONTENT (ASB)	1	1
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos		
Exposure Value	30.5	13
Rating	3	4



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

September 9th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock SP 7077, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar SP 7077 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on August 17th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 08/17/2021

Inspection End Date 08/17/2021

Report Date 09/08/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type

Rolling Stock No SP 7077 Car Name

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave Mile Post Unknown

City Cheyenne Latitude 41.130087°

State WY Longitude -104.814657°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 13

Total Number of Materials Containing <= 1% Asbestos. 1

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details. The inspector collected clear silicone caulk samples, however, the laboratory identified black tar that was not visible to the inspection in samples CHE-SP7077-170821-004 thru 005. The brown paper, canvas wrap and brown insulation identified in samples CHE-SP7077-170821-010 thru 012 are not considered suspect materials for asbestos and are therefore not included in the summary table. The inspector collected flooring samples, however, the laboratory identified a subfloor that was not visible to the inspection in samples CHE-SP7077-170821-028 thru 030. The wallpaper identified in samples CHE-SP7077-170821-049 thru 051 is not considered suspect material for asbestos and are therefore not included in the summary table.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
08/17/2021	CHE-SP7077-170821-001 thru 003	Silver/black coating	Exterior roof patches	6%, Chrysotile	N/A	Yes	10 sq. ft.	3
08/17/2021	CHE-SP7077-170821-004 thru 005	Black tar	Exterior roof seams	8%, Chrysotile	Category I	No	80 LF	4
08/17/2021	CHE-SP7077-170821-004 thru 006	Clear silicone caulk	Exterior roof seams	Not Detected	N/A	N/A	80 LF	N/A
08/17/2021	CHE-SP7077-170821-007 thru 009	White sealant	Roof patches, back end	Not Detected	N/A	N/A	40 sq. ft.	N/A
08/17/2021	CHE-SP7077-170821-010 thru 012	Gray Insulation	Interior walls, ceiling and floor	40%, Chrysotile	N/A	Yes	3240 sq. ft.	1
08/17/2021	CHE-SP7077-170821-013 thru 015	Thin black/gray coating	Exterior roof	Not Detected	N/A	N/A	810 sq. ft.	N/A

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
08/17/2021	CHE-SP7077-170821-01 6 thru 018	White pipe wrap	Undercarriage and plenum space	30%, Chrysotile	Category II	No	410 LF	3
08/17/2021	CHE-SP7077-170821-01 9 thru 021	Gray sealant	Undercarriage, where pipe removed	2.2%, Chrysotile	Category II	No	2 LF	4
08/17/2021	CHE-SP7077-170821-02 2 thru 024	Red cementous material	Flooring throughout	0.75%, Chrysotile	N/A	N/A	810 sq. ft.	N/A
08/17/2021	CHE-SP7077-170821-02 5 thru 027	Black/brown electrical wire coating	Interior walls and ceiling throughout	Not Detected	N/A	N/A	200 LF	N/A
08/17/2021	CHE-SP7077-170821-02 8 thru 030	Red Vinyl flooring	Back deck floor	2.41%, Chrysotile	N/A	Yes	40 sq. ft.	3
08/17/2021	CHE-SP7077-170821-02 8 thru 030	Yellow mastic, associated with red flooring	Back deck floor	Not Detected	N/A	N/A	40 sq. ft.	N/A
08/17/2021	CHE-SP7077-170821-02 8 thru 030	Black/gray subflooring	Back deck floor	1.75%, Chrysotile	N/A	Yes	40 sq. ft.	3
08/17/2021	CHE-SP7077-170821-03 1 thru 033	Black wall coating	Interior A/C area	6%, Chrysotile	Category II	No	150 sq. ft.	4
08/17/2021	CHE-SP7077-170821-03 4 thru 036	Black bakelite	Front electric closet	1.59%, Chrysotile	Category I	No	4 sq. ft.	4
08/17/2021	CHE-SP7077-170821-03 7 thru 039	Gray fireboard	Behind electrical components	20%, Chrysotile	Category I	No	8 sq. ft.	3
08/17/2021	CHE-SP7077-170821-04 0 thru 042	White Insulation	Electric closet walls and door, front end of car	65%, Chrysotile	N/A	Yes	64 sq. ft.	1

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
08/17/2021	CHE-SP7077-170821-04 3 thru 045	White exhaust pipe wrap	Front furnance exhaust pipe	30%, Chrysotile	N/A	Yes	15 sq. ft.	1
08/17/2021	CHE-SP7077-170821-04 6 thru 048	Gray heater block	Front furnance	10%, Chrysotile	N/A	Yes	8 sq. ft.	2
08/17/2021	CHE-SP7077-170821-04 9 thru 051	Silver coating	Interior windows	Not Detected	N/A	N/A	400 sq. ft.	N/A

Lead-Based Paint Results

Lead Present³ Yes Total Number of Positive Components.³ 4

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
08/17/2021	CHE-SP7077-170821-001L	Black/gray	Roof	0.025 %	Poor
08/17/2021	CHE-SP7077-170821-002L	Beige	Interior walls, and ceiling	1.7 %	Poor
08/17/2021	CHE-SP7077-170821-003L	Red	Interior floors	0.59 %	Poor
08/17/2021	CHE-SP7077-170821-004L	Yellow	Exterior	4.3 %	Fair
08/17/2021	CHE-SP7077-170821-005L	Light red	Exterior	4.3 %	Fair

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 09/08/2021

BUILDING AMERICA™

Rolling Stock Type

Rolling Stock No SP 7077

Polychlorinated Biphenyls Results

PCBs Present⁴ No Total Number of Positive Components.⁴ 0

Notes

PCBs Samples

Sample Date	Sample ID	Description	Location	PCBs Result	Quantity
08/17/2021	CHE-SP7077-170821-001P	Clear silicone caulk	Exterior roof seams	Not Detected	80 LF

Mold Results

Suspect Mold Present No

Notes

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077



View of exterior, looking north-northwest



View of exterior, looking west-southwest



View of exterior, looking northeast



View of car interior



View of car interior



View of car interior



BUILDING AMERICA™

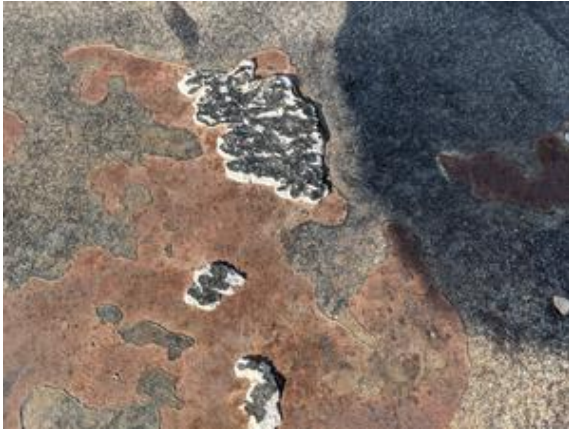
Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077



CHE-SP7077-170821-001 thru 003, 6% Asbestos, Silver/black coating



CHE-SP7077-170821-001 thru 003, 6% Asbestos, Silver/black coating



CHE-SP7077-170821-004 thru 005, 8% Asbestos, Black tar



CHE-SP7077-170821-004 thru 005, 8% Asbestos, Black tar



CHE-SP7077-170821-004 thru 006, Asbestos Not Detected, Clear silicone caulk



CHE-SP7077-170821-004 thru 006, Asbestos Not Detected, Clear silicone caulk



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type _____

Rolling Stock No SP 7077



CHE-SP7077-170821-007 thru 009, Asbestos Not Detected, White sealant



CHE-SP7077-170821-007 thru 009, Asbestos Not Detected, White sealant



CHE-SP7077-170821-010 thru 012, 40% Asbestos, Gray Insulation



CHE-SP7077-170821-010 thru 012, 40% Asbestos, Gray Insulation



CHE-SP7077-170821-013 thru 015, Asbestos Not Detected, Thin black/gray coating



CHE-SP7077-170821-013 thru 015, Asbestos Not Detected, Thin black/gray coating



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077



CHE-SP7077-170821-016 thru 018, 30% Asbestos, White pipe wrap



CHE-SP7077-170821-016 thru 018, 30% Asbestos, White pipe wrap



CHE-SP7077-170821-019 thru 021, 2.2% Asbestos, Gray sealant



CHE-SP7077-170821-019 thru 021, 2.2% Asbestos, Gray sealant



CHE-SP7077-170821-022 thru 024, 0.75% Asbestos, Red cementitious material



CHE-SP7077-170821-022 thru 024, 0.75% Asbestos, Red cementitious material



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077



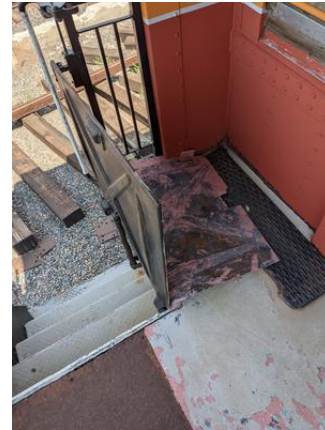
CHE-SP7077-170821-025 thru 027, Asbestos Not Detected, Black/brown electrical wire coating



CHE-SP7077-170821-025 thru 027, Asbestos Not Detected, Black/brown electrical wire coating



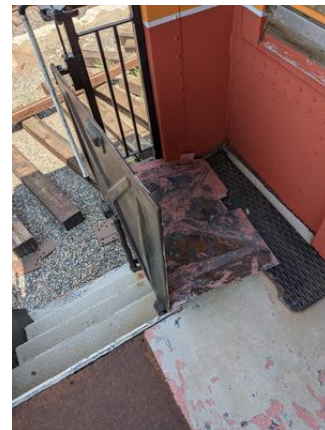
CHE-SP7077-170821-028 thru 030, 2.41% Asbestos, Red Vinyl flooring



CHE-SP7077-170821-028 thru 030, 2.41% Asbestos, Red Vinyl flooring



CHE-SP7077-170821-028 thru 030, Asbestos Not Detected, Yellow mastic, associated with red flooring



CHE-SP7077-170821-028 thru 030, Asbestos Not Detected, Yellow mastic, associated with red flooring



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

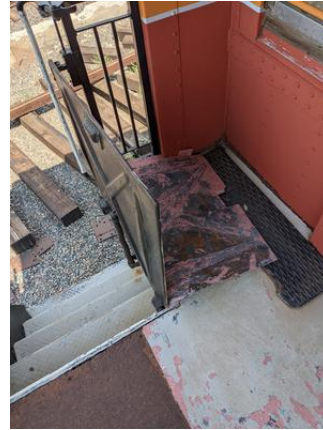
Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077



CHE-SP7077-170821-028 thru 030, 1.75% Asbestos, Black/gray subflooring



CHE-SP7077-170821-028 thru 030, 1.75% Asbestos, Black/gray subflooring



CHE-SP7077-170821-031 thru 033, 6% Asbestos, Black wall coating



CHE-SP7077-170821-031 thru 033, 6% Asbestos, Black wall coating



CHE-SP7077-170821-034 thru 036, 1.59% Asbestos, Black bakelite



CHE-SP7077-170821-034 thru 036, 1.59% Asbestos, Black bakelite



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077



CHE-SP7077-170821-037 thru 039, 20% Asbestos, Gray fireboard



CHE-SP7077-170821-037 thru 039, 20% Asbestos, Gray fireboard



CHE-SP7077-170821-040 thru 042, 65% Asbestos, White Insulation



CHE-SP7077-170821-040 thru 042, 65% Asbestos, White Insulation



CHE-SP7077-170821-043 thru 045, 30% Asbestos, White exhaust pipe wrap



CHE-SP7077-170821-043 thru 045, 30% Asbestos, White exhaust pipe wrap



BUILDING AMERICA™

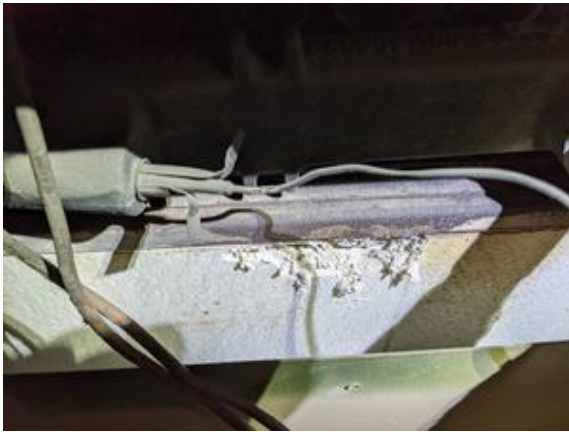
Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077



CHE-SP7077-170821-046 thru 048, 10% Asbestos, Gray heater block



CHE-SP7077-170821-046 thru 048, 10% Asbestos, Gray heater block



CHE-SP7077-170821-049 thru 051, Asbestos Not Detected, Silver coating



CHE-SP7077-170821-049 thru 051, Asbestos Not Detected, Silver coating



CHE-SP7077-170821-001L, 0.025% Lead, Black/gray



CHE-SP7077-170821-001L, 0.025% Lead, Black/gray



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077



CHE-SP7077-170821-002L, 1.7% Lead, Beige



CHE-SP7077-170821-002L, 1.7% Lead, Beige



CHE-SP7077-170821-003L, 0.59% Lead, Red



CHE-SP7077-170821-003L, 0.59% Lead, Red



CHE-SP7077-170821-004L, 4.3% Lead, Yellow



CHE-SP7077-170821-004L, 4.3% Lead, Yellow



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type

Rolling Stock No SP 7077



CHE-SP7077-170821-005L, 4.3% Lead, Light red



CHE-SP7077-170821-005L, 4.3% Lead, Light red



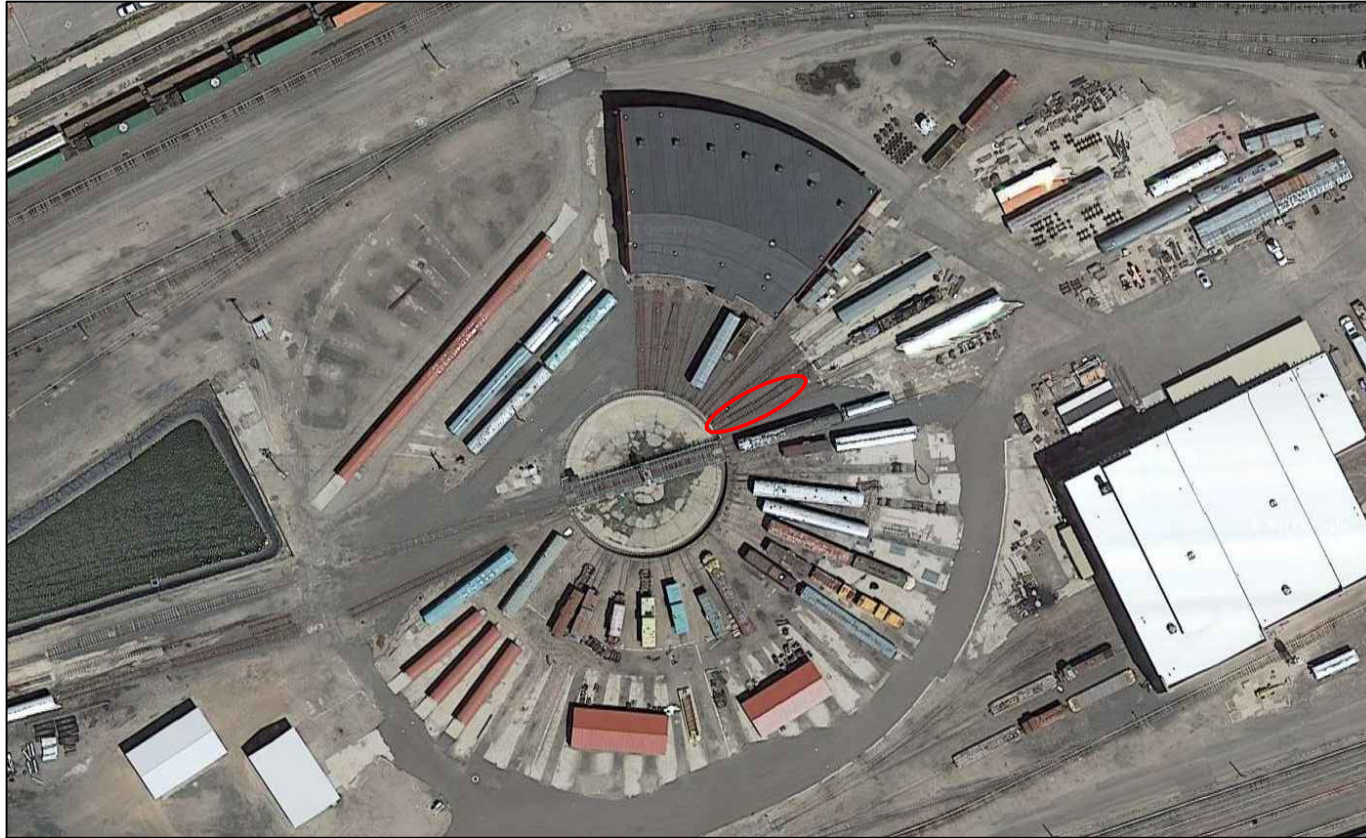
CHE-SP7077-170821-001P, PCB Not Detected, Clear silicone caulk



CHE-SP7077-170821-001P, PCB Not Detected, Clear silicone caulk

Appendix 1 - Figures

Report Date	<u>09/08/2021</u>
Rolling Stock Type	<u></u>
Rolling Stock No	<u>SP 7077</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

SP 7077
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

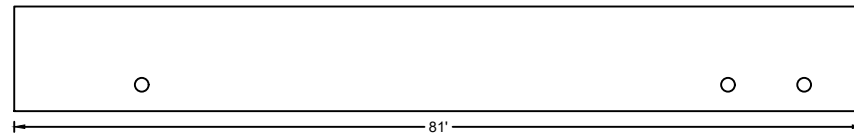
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

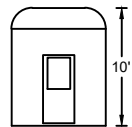
DATE: AUG-2021



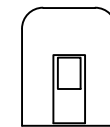
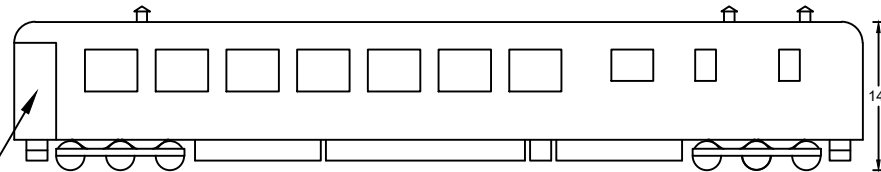
ROOF



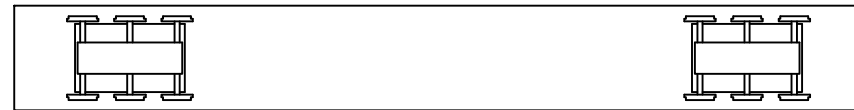
BACK



AFT DECK



FRONT



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



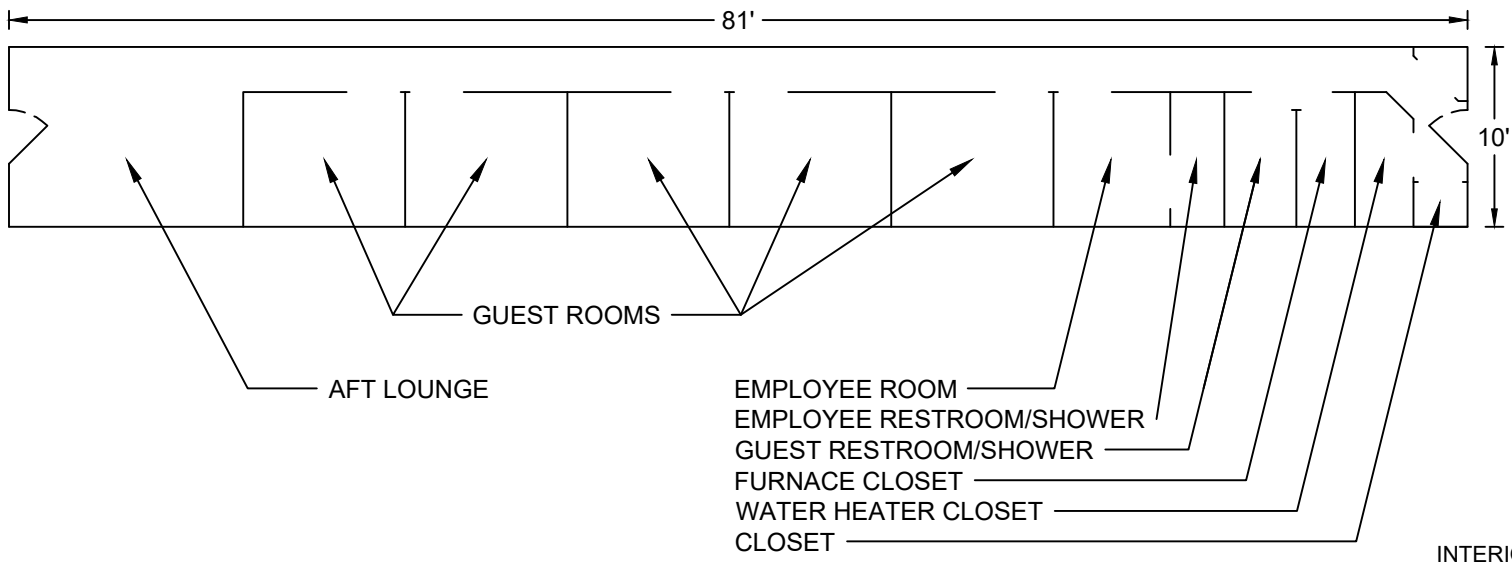
EARTH SERVICES
& ABATEMENT

SP 7077
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: AUG-2021



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY

INTERIOR



BUILDING AMERICA®



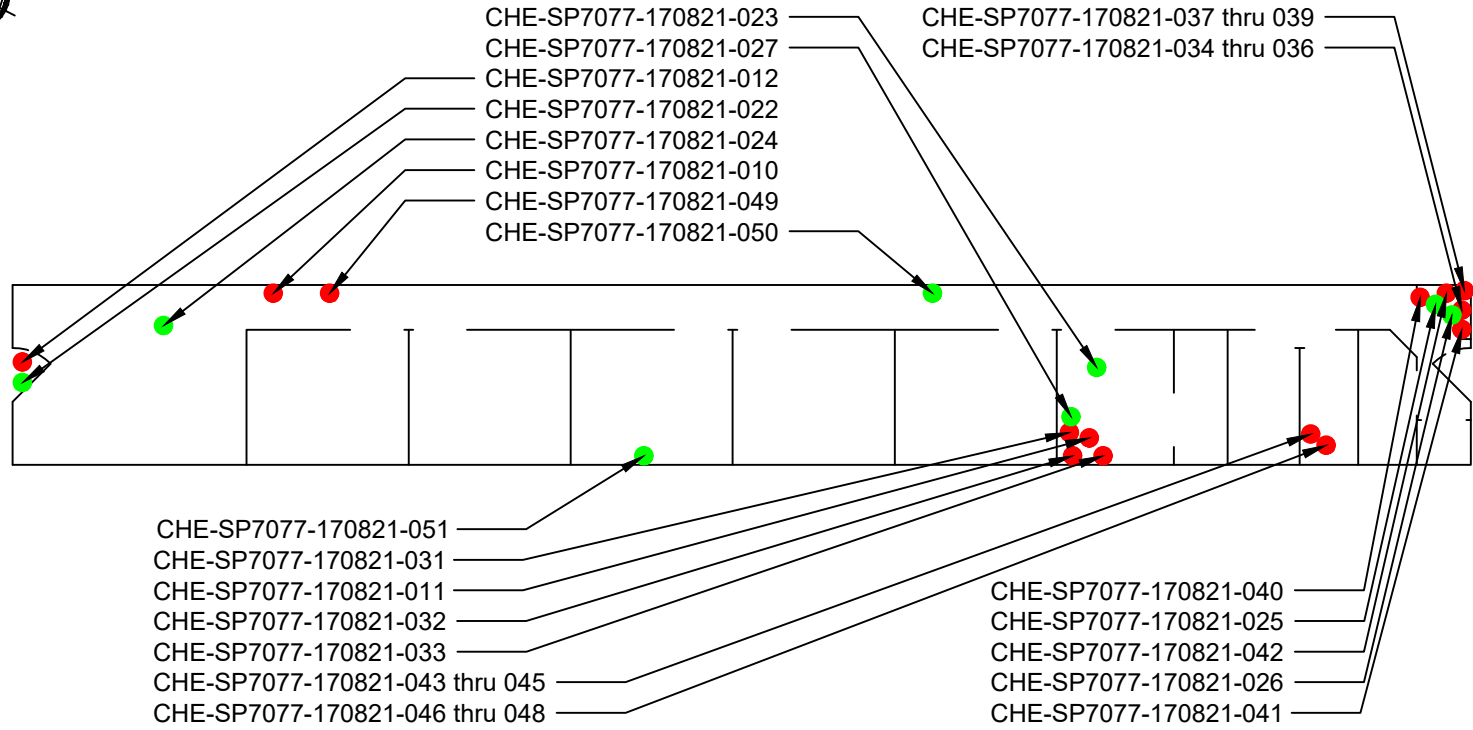
**EARTH SERVICES
& ABATEMENT**

SP 7077
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: AUG-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

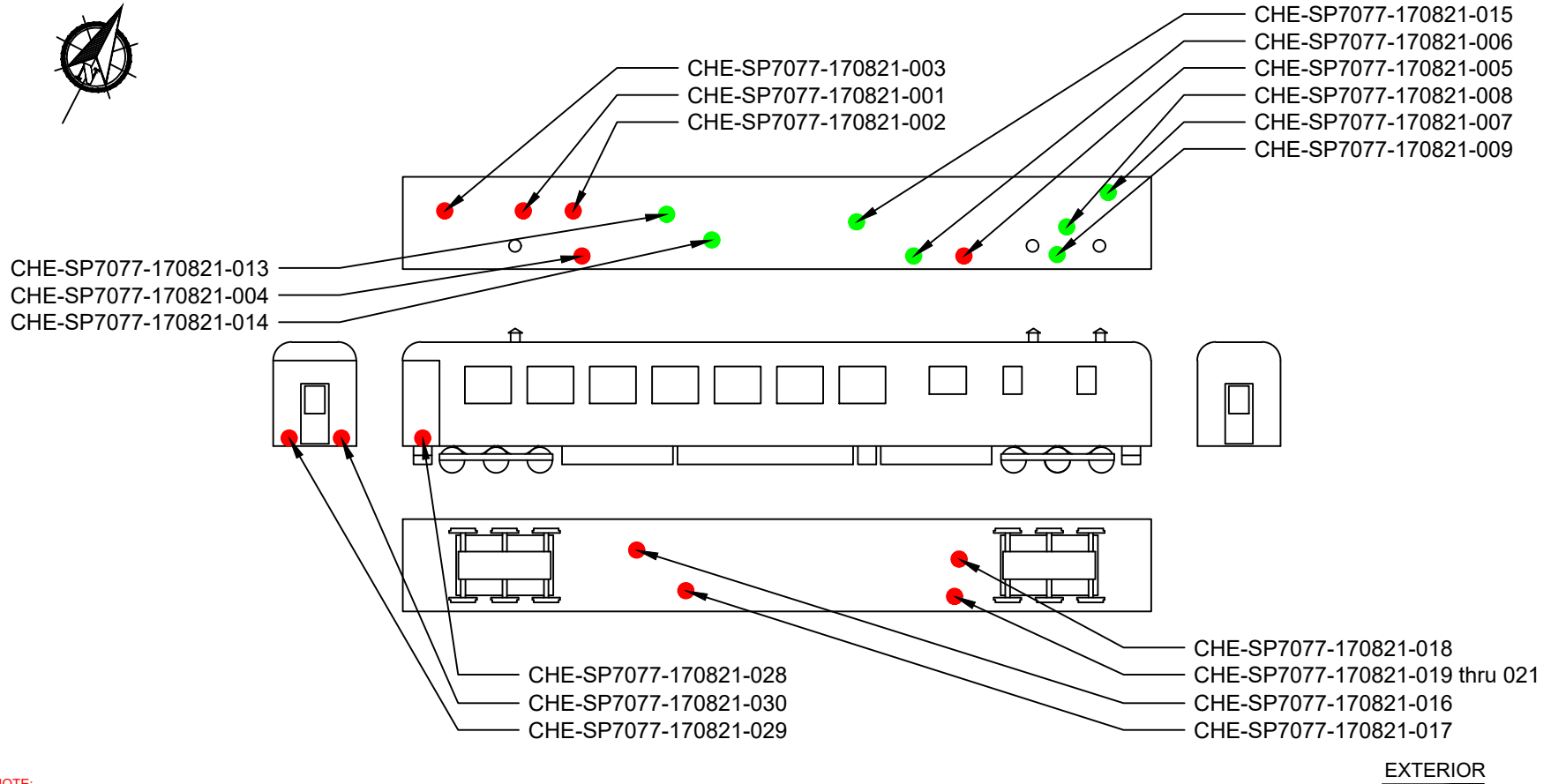
SP 7077
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

**FIGURE 4 - ACM SAMPLE LOCATIONS
LEGEND**

- - NON-ACM SAMPLE LOCATIONS (≤1% ASBESTOS)
- - ACM SAMPLE LOCATIONS (>1% ASBESTOS)



NOTE:
 THIS DRAWING MUST BE
 PRINTED IN COLOR TO
 SHOW ALL INFORMATION
 ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
 & ABATEMENT**

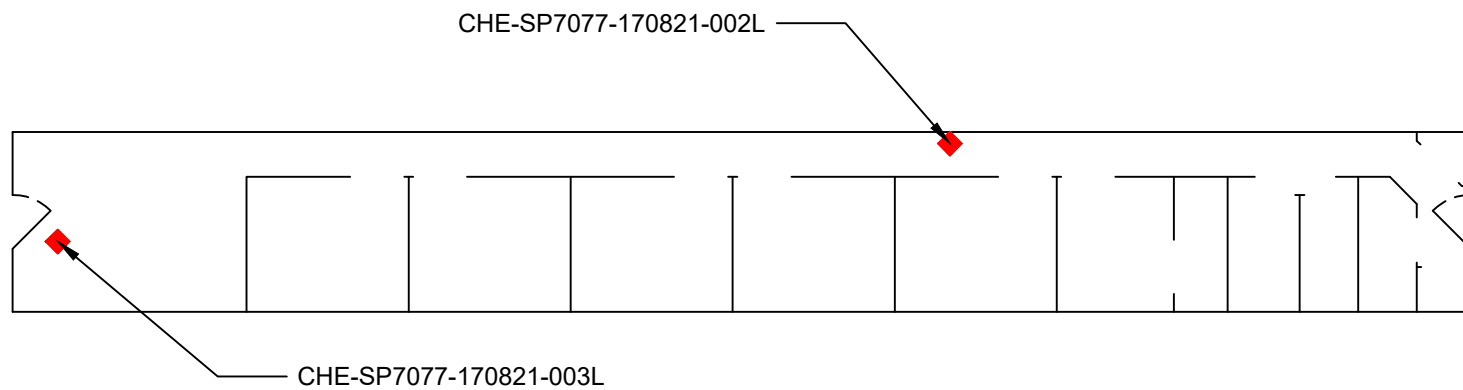
SP 7077
 CHEYENNE YARD
 East Union Pacific Ave.
 CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

**FIGURE 5 - ACM SAMPLE LOCATIONS
 LEGEND**

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

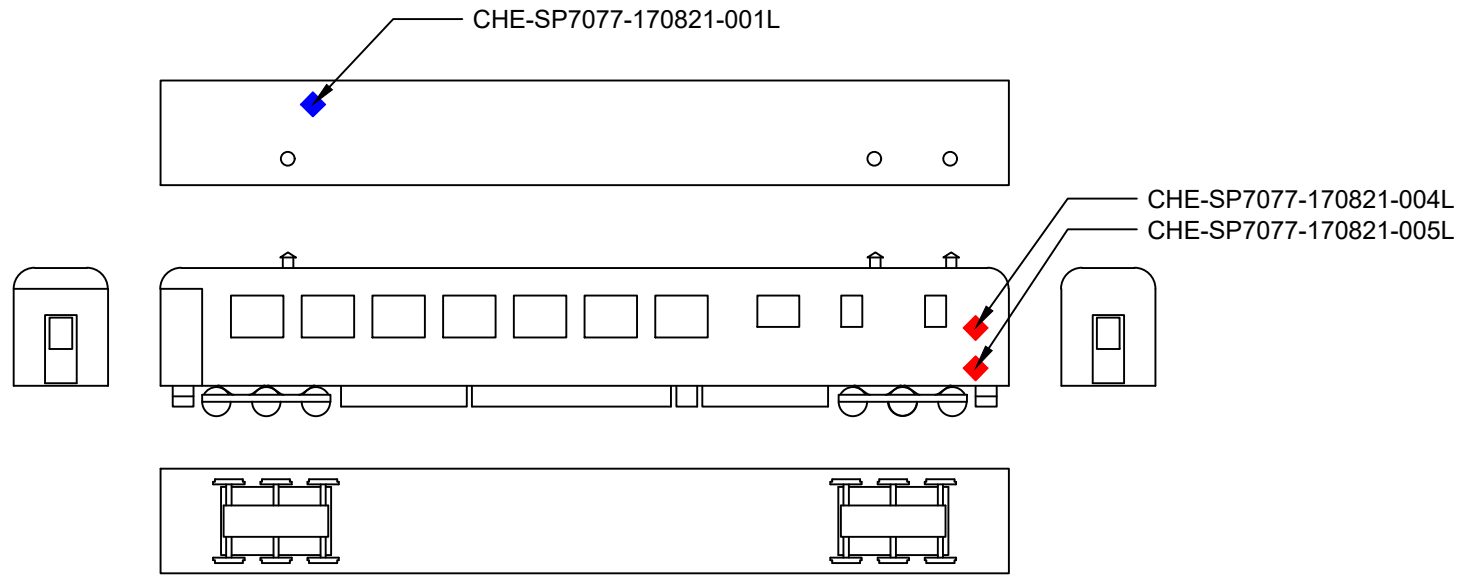
SP 7077
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

**FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND**

- NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
- LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®




**EARTH SERVICES
& ABATEMENT**

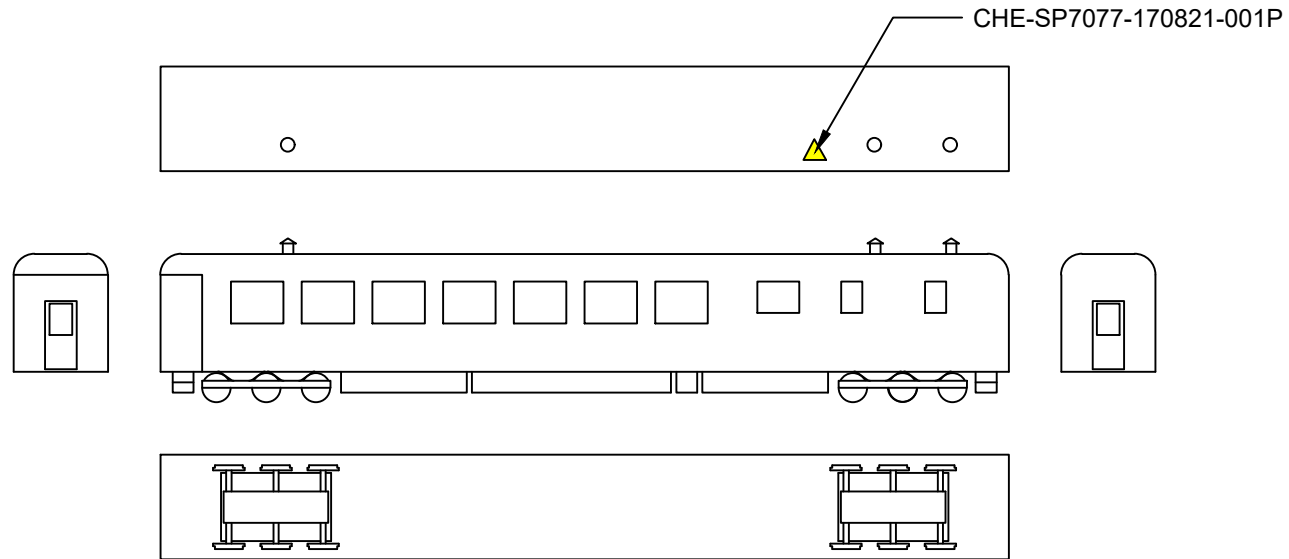
SP 7077
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 7 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

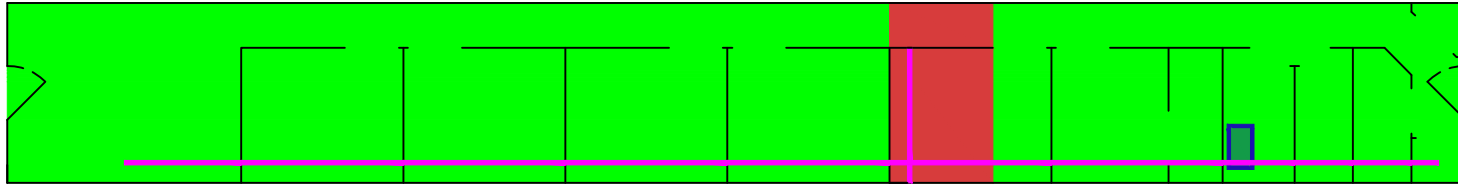
SP 7077
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

**FIGURE 8 - PCB SAMPLE LOCATIONS
LEGEND**

- NON-PCB SAMPLE LOCATIONS (<50 PPM)
- PCB SAMPLE LOCATIONS (≥50 PPM)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®








**EARTH SERVICES
& ABATEMENT**

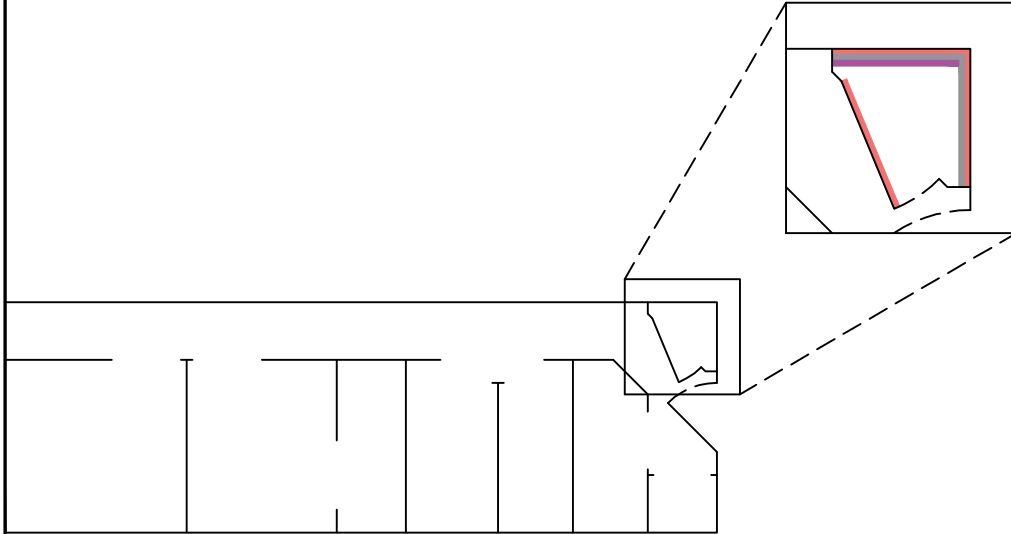
SP 7077
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

-  — ACM GRAY INSULATION
-  — ACM WHITE PIPE WRAP
-  — ACM BLACK WALL COATING
-  — ACM WHITE EXHAUST PIPE WRAP
-  — ACM GRAY HEATER BLOCK



INTERIOR - ELECTRICAL CLOSET

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**




SP 7077
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

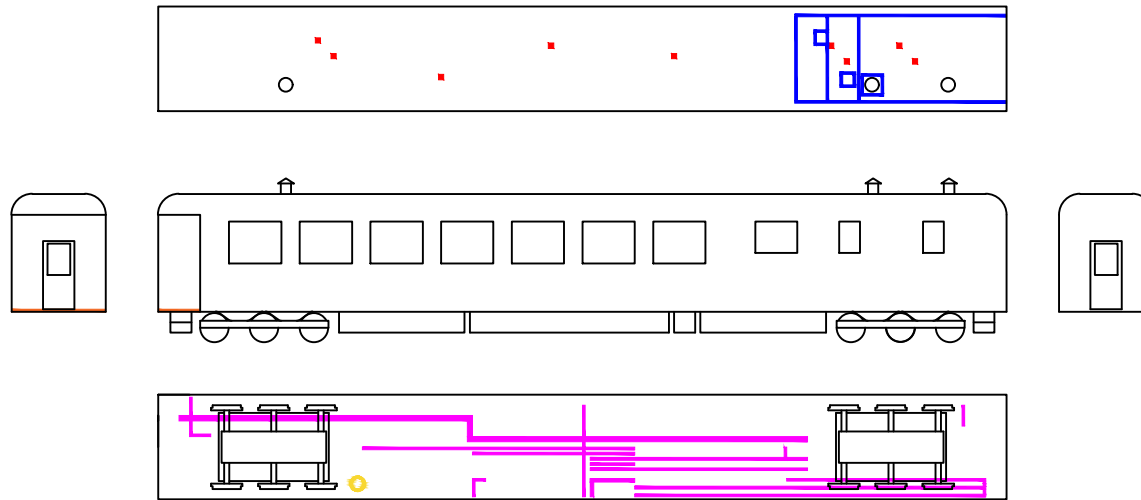
DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 10 - ACM LOCATIONS (>1% ASBESTOS)

LEGEND

-  — ACM BLACK BAKELITE
-  — ACM GRAY FIREBOARD
-  — ACM WHITE INSULATION



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®








**EARTH SERVICES
& ABATEMENT**

SP 7077
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 11 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

-  - ACM SILVER/BLACK COATING
-  - ACM BLACK TAR
-  - ACM WHITE PIPE WRAP
-  - ACM GRAY SEALANT
-  - ACM RED VINYL FLOORING & BLACK/GRAY SUBFLOORING

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date 09/08/2021
Rolling Stock Type _____
Rolling Stock No SP 7077

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21130144
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7077 - WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-SP7077-170821-001	Coating, Silver/ Gray, Homogeneous	Chrysotile 6%	Non-Fibrous Material 94%
CHE-SP7077-170821-002	Coating, *Not analyzed per client request		
CHE-SP7077-170821-003	Coating, *Not analyzed per client request		
CHE-SP7077-170821-004	LAYER 1 Caulk, Clear, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Tar, Black, Homogeneous	Chrysotile 8%	Non-Fibrous Material 92%
CHE-SP7077-170821-005	LAYER 1 Caulk, Clear, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Tar, *Not analyzed per client request		
CHE-SP7077-170821-006	Caulk, Clear, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP7077-170821-007	Sealant, White, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP7077-170821-008	Sealant, White, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP7077-170821-009	Sealant, White, Homogeneous	None Detected	Non-Fibrous Material 100%

Arnold Flores Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21130144
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7077 - WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-SP7077-170821-010	LAYER 1 Paper, Brown, Homogeneous	None Detected	Cellulose Fiber 100%
	LAYER 2 Canvas Wrap, White, Homogeneous	None Detected	Cellulose Fiber 95% Non-Fibrous Material 5%
	LAYER 3 Insulation, Brown, Homogeneous	None Detected	Hair 100%
	LAYER 4 Insulation, Gray, Homogeneous	Chrysotile 40%	Cellulose Fiber 20% Non-Fibrous Material 40%
CHE-SP7077-170821-011	Insulation, *Not analyzed per client request		
CHE-SP7077-170821-012	LAYER 1 Insulation, Brown, Homogeneous	None Detected	Hair 100%
	LAYER 2 Insulation, *Not analyzed per client request		
CHE-SP7077-170821-013	Coating, Gray/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP7077-170821-014	Coating, Gray/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP7077-170821-015	Coating, Gray/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP7077-170821-016	Pipe Wrap, White, Homogeneous	Chrysotile 30%	Non-Fibrous Material 70%
CHE-SP7077-170821-017	Pipe Wrap, *Not analyzed per client request		

Arnold Flores

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21130144
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7077 - WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-SP7077-170821-018	Pipe Wrap, *Not analyzed per client request		
CHE-SP7077-170821-019	Sealant, Silver, Homogeneous	Chrysotile 6%	Non-Fibrous Material 94%
CHE-SP7077-170821-020	Sealant, *Not analyzed per client request		
CHE-SP7077-170821-022	Cementitious Flooring, Red, Homogeneous Original PLM Result: <1% Chrysotile	Chrysotile <0.25%	Non-Fibrous Material 100.00%
400 pt. POINT COUNT			
CHE-SP7077-170821-023	Cementitious Flooring, Red, Homogeneous Original PLM Result: <1% Chrysotile	Chrysotile 0.25%	Non-Fibrous Material 99.75%
400 pt. POINT COUNT			
CHE-SP7077-170821-024	Cementitious Flooring, Red, Homogeneous Original PLM Result: <1% Chrysotile	Chrysotile 0.75%	Non-Fibrous Material 99.25%
400 pt. POINT COUNT			
CHE-SP7077-170821-025	Wire Wrap, Black/ Brown, Homogeneous	None Detected	Cellulose Fiber 80% Non-Fibrous Material 20%
CHE-SP7077-170821-026	Wire Wrap, Black/ Brown, Homogeneous	None Detected	Cellulose Fiber 80% Non-Fibrous Material 20%
CHE-SP7077-170821-027	Wire Wrap, Black/ Brown, Homogeneous	None Detected	Cellulose Fiber 80% Non-Fibrous Material 20%

Arnold Flores

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21130144
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7077 - WY Rollingstock Inspections


Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-SP7077-170821-028	LAYER 1 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Flooring, Red, Homogeneous Original PLM Result: 3% Chrysotile No Mastic Present	Chrysotile 2.41%	Non-Fibrous Material 97.59%
400 pt. POINT COUNT	LAYER 3 Subflooring, Black/ Gray, Homogeneous Original PLM Result: 3% Chrysotile	Chrysotile 1.75%	Non-Fibrous Material 98.25%
400 pt. POINT COUNT			

Gravimetric Reduction Prep - Layer 2

CHE-SP7077-170821-029	LAYER 1 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Flooring, *Not analyzed per client request		
	LAYER 3 Subflooring, *Not analyzed per client request		
CHE-SP7077-170821-030	LAYER 1 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Flooring, *Not analyzed per client request		
	LAYER 3 Subflooring, *Not analyzed per client request		
CHE-SP7077-170821-031	Coating, Green/ Black, Homogeneous	Chrysotile 6%	Non-Fibrous Material 94%
CHE-SP7077-170821-032	Coating, *Not analyzed per client request		

Arnold Flores

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21130144
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7077 - WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Asbestos %	Non-Asbestos Constituents	Non-Asbestos %
CHE-SP7077-170821-033	Coating, *Not analyzed per client request				
CHE-SP7077-170821-034	Bakelite, Black, Homogeneous Original PLM Result: 2% Chrysotile	Chrysotile	1.59%	Cellulose Fiber Non-Fibrous Material	10% 88.41%
400 pt. POINT COUNT					
Gravimetric Reduction Prep					
CHE-SP7077-170821-035	Bakelite, *Not analyzed per client request				
CHE-SP7077-170821-036	Bakelite, *Not analyzed per client request				
CHE-SP7077-170821-037	Fireboard, Gray, Homogeneous	Chrysotile	20%	Non-Fibrous Material	80%
CHE-SP7077-170821-038	Fireboard, *Not analyzed per client request				
CHE-SP7077-170821-039	Fireboard, *Not analyzed per client request				
CHE-SP7077-170821-040	Insulation, White, Homogeneous	Chrysotile	30%	Non-Fibrous Material	70%
CHE-SP7077-170821-042	Insulation, *Not analyzed per client request				
CHE-SP7077-170821-043	Wrap, White, Homogeneous	Chrysotile	30%	Non-Fibrous Material	70%
CHE-SP7077-170821-044	Wrap, *Not analyzed per client request				

Arnold Flores

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21130144
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7077 - WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-SP7077-170821-045	Wrap, *Not analyzed per client request		
CHE-SP7077-170821-046	Heater Block, Gray, Homogeneous	Chrysotile 10%	Non-Fibrous Material 90%
CHE-SP7077-170821-047	Heater Block, *Not analyzed per client request		
CHE-SP7077-170821-048	Heater Block, *Not analyzed per client request		
CHE-SP7077-170821-049	LAYER 1 Coating, Silver, Homogeneous	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
	LAYER 2 Wallpaper, Brown, Homogeneous	None Detected	Synthetic Fiber 70% Cellulose Fiber 30%
CHE-SP7077-170821-050	LAYER 1 Coating, Silver, Homogeneous	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
	LAYER 2 Wallpaper, Brown, Homogeneous	None Detected	Synthetic Fiber 70% Cellulose Fiber 30%
CHE-SP7077-170821-051	LAYER 1 Coating, Silver, Homogeneous	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
	LAYER 2 Wallpaper, Brown, Homogeneous	None Detected	Synthetic Fiber 70% Cellulose Fiber 30%

Arnold Flores

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



J3 Resources

Open Lab Fee

J3 Order # (Lab Use Only)
2014

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - SP 7077	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 49 **Positive Stop:** YES NO

Signatures

Relinquished By: <i>[Signature]</i>	Date: 8/20/21	Time:
Received By: <i>[Signature]</i>	Date: 8/24/21	Time: 4:48
Relinquished By:	Date:	Time:
Received By:	Date:	Time:

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.

**TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Project Name WY Rollinastock Inspections
 Project Number 215WY001 - SP

Page ___ of ___

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME/CONDITION
CHE-SP7077-170821-001	Silver/black coating	
CHE-SP7077-170821-002	Roof patches	
CHE-SP7077-170821-003		
CHE-SP7077-170821-004	Clear silicone caulk	
CHE-SP7077-170821--005	Roof seams	
CHE-SP7077-170821-006		
CHE-SP7077-170821-007	White sealant	
CHE-SP7077-170821-008	Roof patches	
CHE-SP7077-170821-009		
CHE-SP7077-170821-010	Insulation	
CHE-SP7077-170821-011	Interior walls, ceiling and floor	
CHE-SP7077-170821-012		
CHE-SP7077-170821-013	Thin black/gray coating	
CHE-SP7077-170821-014	Roof	
CHE-SP7077-170821-015		
CHE-SP7077-170821-016	Pipe Wrap	
CHE-SP7077-170821-017	Undercarriage and ceiling	
CHE-SP7077-170821-018		
CHE-SP7077-170821-019	Gray sealant	
CHE-SP7077-170821-020	Undercarriage, former pipe locations	
CHE-SP7077-170821-022	Cementous Flooring	
CHE-SP7077-170821-023	Floors throughout	
CHE-SP7077-170821-024		

Comments/Special instructions:

Project Name WY Rollingstock Inspections
 Project Number 215WY001 - SP

Page ___ of ___

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME/CONDITION
CHE-SP7077-170821-025	Electric Wires	
CHE-SP7077-170821-026	Interior walls and ceiling elect. area	
CHE-SP7077-170821-027		
CHE-SP7077-170821-028	Vinyl Flooring	
CHE-SP7077-170821-029	Aft deck	
CHE-SP7077-170821-030		
CHE-SP7077-170821-031	Black wall coating	
CHE-SP7077-170821-032	A/C area	
CHE-SP7077-170821-033		
CHE-SP7077-170821-034	Bakelite	
CHE-SP7077-170821-035	Elec. Area	
CHE-SP7077-170821-036		
CHE-SP7077-170821-037	Fireboard	
CHE-SP7077-170821-038	Behind Elec. components	
CHE-SP7077-170821-039		
CHE-SP7077-170821-040	Mag Block	
CHE-SP7077-170821-042	Walls and doors	
CHE-SP7077-170821-043	Exhaust Wrap	
CHE-SP7077-170821-044	Front furnace	
CHE-SP7077-170821-045		
CHE-SP7077-170821-046	Heater Block	
CHE-SP7077-170821-047	Front furnace	
CHE-SP7077-170821-048		

Comments/Special Instructions:



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS + TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

222106278

EMSL Analytical, Inc.
1010 Yuma Street

Denver, CO 80204
PHONE: (303) 740-5700
FAX: (303) 741-1400

Company : Earth Services & Abatement, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same If Bill to is Different note instructions in Comments**	
Street: 6700 E. 50th Ave.		Third Party Billing requires written authorization from third party	
City: Commerce City	State/Province: CO	Zip/Postal Code: 80022	Country: United States
Report To (Name): Amanda Wozab		Telephone #: 303-991-1280	
Email Address: See special instructions		Fax #: 303-991-1282	Purchase Order:
Project Name/Number: 215WY001, SP 7077		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: Wyoming		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	

Turnaround Time (TAT) Options* - Please Check

3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input checked="" type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input checked="" type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	TEM- Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique Other: <input type="checkbox"/>
---	--	---

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: Joseph Kulm Samplers Signature:

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
CHE-SP7077-170821-021	Gray sealant		8/17/2021, 1000 AM
CHE-SP7077-170821-041	Mag Block		8/17/2021, 1145 AM

Client Sample # (s): Total # of Samples:

Relinquished (Client): Robert Szynsk Date: 8-26-21 Time:

Received (Lab): NK Date: 8/26/21 Time: 4:45

Comments/Special Instructions: Do Gravimetric reduction and point count as needed. Send results to: robert.szynskie@esasite.com, amanda.wozab@esasite.com, patrick.mcgilvrey@esasite.com



EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204
Tel/Fax: (303) 740-5700 / (303) 741-1400
<http://www.EMSL.com/denverlab@emsl.com>

EMSL Order: 222106278
Customer ID: ESAB42
Customer PO:
Project ID:

Attention: Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Ave.
Commerce City, CO 80022

Phone: (303) 339-3051
Fax:
Received Date: 08/26/2021 4:45 PM
Analysis Date: 08/30/2021 - 09/01/2021
Collected Date: 08/17/2021

Project: 215WY001, SP 7077

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
CHE-SP7077-170821-0 21 <small>222106278-0001</small>	GRAY SEALANT	Gray/Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
CHE-SP7077-170821-0 41 <small>222106278-0002</small>	MAG BLOCK	Brown/White Fibrous Homogeneous		35% Non-fibrous (Other)	65% Chrysotile

Analyst(s) _____
Rodney Mosongo (2)
Stuart Printz (1)

Henry Printz, TEM/PCM Laboratory Supervisor
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 09/01/2021 16:14:21



EMSL Analytical, Inc.

1010 Yuma Street, Denver, CO 80204
Phone/Fax: (303) 740-5700 / (303) 741-1400
<http://www.EMSL.com> denverlab@emsl.com

EMSL Order: 222106278
CustomerID: ESAB42
CustomerPO:
ProjectID:

Attn: **Amanda Wozab**
Earth Services & Abatement, Inc.
6700 E. 50th Ave.
Commerce City, CO 80022

Phone: (303) 339-3051
Fax:
Received: 8/26/2021 04:45 PM
Analysis Date: 9/1/2021
Collected: 8/17/2021

Project: **215WY001, SP 7077**

Test Report: Polarized Light Microscopy (PLM) - Point Count Performed by EPA 600/R-93/116 Method with Gravimetric Reduction and 400 Point Count

SAMPLE ID	DESCRIPTION	APPEARANCE	(% Matrix Organic Acid)		NON- ASBESTOS % Fibrous	NON- ASBESTOS % NON-FIBROUS	ASBESTOS % TYPES
CHE-SP7077-170821-021 222106278-0001	GRAY SEALANT	Silver Fibrous	37.5	50.8		9.5 Non-fibrous (other)	2.2 Chrysotile
		Homogeneous					

Analyst(s)
Stuart Printz (1)

Henry Printz, TEM/PCM Laboratory Supervisor
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. EMSL suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. Estimation of uncertainty is available on request.
Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 09/01/2021 14:17:23

Eurofins J3 Resources, Inc.

3113 Red Bluff Road Pasadena, Texas 77503

Phone: (713) 290-0223 – Fax: (832) 831-5669

j3resources.com



J3 Resources

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022

Order #: JP211029243
Project #: 215WY001
Receipt Date: 26-Aug-2021
Analysis Date: 30-Aug-2021
Report Date: 30-Aug-2021

WY Rollingstock Inspections-SP 7077

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-SP7077-170821-001L	Black/Gray	250	0.025%
CHE-SP7077-170821-002L	Beige	17000	1.7%
CHE-SP7077-170821-003L	Red	5900	0.59%
CHE-SP7077-170821-004L	Yellow	43000	4.3%
CHE-SP7077-170821-005L	Light Red	43000	4.3%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Samantha Harrison

Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 224.2 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-14%

IH CHAIN OF CUSTODY



Open Lab Fee

J3 Client (Lab Use Only)
29243

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City , CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - SP 7077	Telephone – Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions:	

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 5 **Positive Stop:** YES NO

Signatures

Relinquished By:	Date: 5/20/21	Time:
Received By:	Date: 6/25/21	Time: 9:45am
Relinquished By:	Date:	Time:
Received By:	Date:	Time:

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
**TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)



Tuesday, September 07, 2021

Amanda Wozab
Earth Services & Abatement
6700 E. 50th Ave.
Commerce City, CO 80022

Re: ALS Workorder: 2108484
Project Name: Cheyenne RS
Project Number: 215WY001

Dear Ms. Wozab:

One solid sample was received from Earth Services & Abatement, on 8/24/2021. The sample was scheduled for the following analysis:

PCBs

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager



2108484

PCB:

The sample was analyzed using GC/ECD (electron capture detectors) according to the current revision of SOP 409 based on SW-846 Method 8082.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2108484

Client Name: Earth Services & Abatement

Client Project Name: Cheyenne RS

Client Project Number: 215WY001

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
CHE-SP7077-170821-001P; Clea	2108484-1		SOLID	17-Aug-21	10:00



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: EARTH SERVICE & ABATEMENT Workorder No: 2108484

Project Manager: KMO Initials: AXK Date: 2108479

		N/A	YES	NO
1.	Are airbills / shipping documents present and/or removable? Tracking number: 2828 6842 4540		X	
2.	Are custody seals on shipping containers intact?	X		
3.	Are custody seals on sample containers intact?	x		
4.	Is there a COC (chain-of-custody) present?		x	
5.	Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		x	
6.	Are short-hold samples present?			X
7.	Are all samples within holding times for the requested analyses?		x	
8.	Were all sample containers received intact? (not broken or leaking)		x	
9.	Is there sufficient sample for the requested analyses?		x	
10.	Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		x	
11.	Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	x		
13.	Were the samples shipped on ice?			X
14.	Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #5	RAD ONLY		X
Cooler #: <u>1</u> Temperature (°C): <u>AMB</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>9</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES (If no, see Form 008.)				

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? NA All client bottle ID's vs ALS lab ID's double-checked by AK

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: 8/26/21
 Project Manager Signature / Date: [Signature]

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-SP7077-170821-001P; Clear silicone caulk, roof
Legal Location:
Collection Date: 8/17/2021 10:00

Date: 07-Sep-21
Work Order: 2108484
Lab ID: 2108484-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBs			SW8082		Prep Date: 9/2/2021	PrepBy: CPC
AROCLOR-1016	ND		1.5	MG/KG	1	9/3/2021 14:30
AROCLOR-1221	ND		3	MG/KG	1	9/3/2021 14:30
AROCLOR-1232	ND		1.5	MG/KG	1	9/3/2021 14:30
AROCLOR-1242	ND		1.5	MG/KG	1	9/3/2021 14:30
AROCLOR-1248	ND		1.5	MG/KG	1	9/3/2021 14:30
AROCLOR-1254	ND		1.5	MG/KG	1	9/3/2021 14:30
AROCLOR-1260	ND		1.5	MG/KG	1	9/3/2021 14:30
Surr: TETRACHLORO-M-XYLENE	109		69-129	%REC	1	9/3/2021 14:30
Surr: DECACHLOROBIPHENYL	105		55-135	%REC	1	9/3/2021 14:30

Client: Earth Services & Abatement
Project: 215WY001 Cheyenne RS
Sample ID: CHE-SP7077-170821-001P; Clear silicone caulk, roof
Legal Location:
Collection Date: 8/17/2021 10:00

Date: 07-Sep-21
Work Order: 2108484
Lab ID: 2108484-1
Matrix: SOLID
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 9/7/2021 2:08:16

Client: Earth Services & Abatement
 Work Order: 2108484
 Project: 215WY001 Cheyenne RS

QC BATCH REPORT

Batch ID: **EX210902-3-2** Instrument ID: **Pest-1** Method: **SW8082**

LCS Sample ID: **EX210902-3** Units: **MG/KG** Analysis Date: **9/3/2021 13:53**

Client ID: Run ID: **PT210903-11** Prep Date: **9/2/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.128	0.0333	0.133		96	80-120				50	
AROCLOR-1260	0.13	0.0333	0.133		98	80-125				50	
Surr: TETRACHLORO-M-XYLENE	0.0165		0.0167		99	69-129					
Surr: DECACHLOROBIPHENYL	0.0156		0.0167		94	55-135					

LCSD Sample ID: **EX210902-3** Units: **MG/KG** Analysis Date: **9/3/2021 14:12**

Client ID: Run ID: **PT210903-11** Prep Date: **9/2/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	0.135	0.0333	0.133		102	80-120		0.128	6	50	
AROCLOR-1260	0.14	0.0333	0.133		105	80-125		0.13	7	50	
Surr: TETRACHLORO-M-XYLENE	0.0172		0.0167		103	69-129			4		
Surr: DECACHLOROBIPHENYL	0.0171		0.0167		103	55-135			9		

MB Sample ID: **EX210902-3** Units: **MG/KG** Analysis Date: **9/3/2021 13:34**

Client ID: Run ID: **PT210903-11** Prep Date: **9/2/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	ND	0.033									
AROCLOR-1221	ND	0.067									
AROCLOR-1232	ND	0.033									
AROCLOR-1242	ND	0.033									
AROCLOR-1248	ND	0.033									
AROCLOR-1254	ND	0.033									
AROCLOR-1260	ND	0.033									
Surr: TETRACHLORO-M-XYLENE	0.0188				113	69-129					
Surr: DECACHLOROBIPHENYL	0.0174				104	55-135					

The following samples were analyzed in this batch:

Appendix 3 - Modified Sawyer Algorithm

Report Date 09/08/2021
Rolling Stock Type _____
Rolling Stock No SP 7077

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	SP 7077	SP 7077
Exposure Area	Roof patches	Roof seams
Asbestos Containing Material	Silver/black coating	Black tar
Sample Number	CHE-SP7077-170821-001 thru 003	CHE-SP7077-170821-004 thru 005
Size	NA	NA
Quantity	10 SF	80 LF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	2	2
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Flipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	3	3
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	1	1
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	0.25	0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	0.25	0.25
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	2	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	1
Exposure Value	26	13
Rating	3	4

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	SP 7077	SP 7077
Exposure Area	Interior walls, ceiling and floor	Undercarriage and ceiling
Asbestos Containing Material	Gray Insulation	White pipe wrap
Sample Number	CHE-SP7077-170821-010 thru 012	CHE-SP7077-170821-016 thru 018
Size	NA	NA
Quantity	3800 SF	325 LF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	1	3
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Flipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	1
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	3	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	2	2
Exposure Value	79.5	28.5
Rating	1	3

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	SP 7077	SP 7077
Exposure Area	Undercarriage, where pipe removed	Back deck floor
Asbestos Containing Material	Gray sealant	Red Vinyl flooring
Sample Number	CHE-SP7077-170821-019 thru 021	CHE-SP7077-170821-028 thru 030
Size	NA	NA
Quantity	2 LF	40 SF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	1	2
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Flipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	0	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	0.25	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	1	2
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	1
Exposure Value	12	28.5
Rating	4	3

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	SP 7077	SP 7077
Exposure Area	Back deck floor	A/C Area
Asbestos Containing Material	Black/gray subflooring	Black wall coating
Sample Number	CHE-SP7077-170821-028 thru 030	CHE-SP7077-170821-031 thru 033
Size	NA	NA
Quantity	40 SF	150 SF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	2	1
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Flipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIBILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	2	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	1
Exposure Value	28.5	13.25
Rating	3	4

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priors

Asset Number	SP 7077	SP 7077
Exposure Area	Electric box	Behind electrical components
Asbestos Containing Material	Black bakelite	Gray fireboard
Sample Number	CHE-SP7077-170821-034 thru 036	CHE-SP7077-170821-037 thru 039
Size	NA	NA
Quantity	4 SF	8 SF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	2	1
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Flipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	1	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	2
Exposure Value	14.25	26.5
Rating	4	3

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	SP 7077	SP 7077
Exposure Area	Electrical area door and walls	Front furnance exhaust pipe
Asbestos Containing Material	White Insulation	White exhaust pipe wrap
Sample Number	CHE-SP7077-170821-040 thru 042	CHE-SP7077-170821-043 thru 045
Size	NA	NA
Quantity	30 SF	15 SF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	2	2
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	1	1
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Flipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	1
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	3	3
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	3	2
Exposure Value	137.25	85.5
Rating	1	1

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	SP 7077
Exposure Area	Front furnace
Asbestos Containing Material	Gray heater block
Sample Number	CHE-SP7077-170821-046 thru 048
Size	NA
Quantity	8 SF
MATERIAL CONDITION (MC)	2
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	
BUILDING AGE (BA)	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	
MATERIAL TYPE	
Pipe Covering (PC)	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper	
Ceiling Plasters or Fireproofing (CP)	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	
WATER DAMAGE (WD)	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	
ROOF CHARACTERISTICS (RC)	-0.5
-0.5 =Sloped or Flipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	
EXPOSED SURFACE AREA (ESA)	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	
ACCESSIBILITY (AC)	4
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	
ACTIVITY AND MOVEMENT (A/M)	2
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	
WORK ENVIRONMENT (WE)	0.5
-0.5 =Sedentary 0.5 =Non-sedentary	
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration	
AIR - PLENUM / AIR STREAM (AP)	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists	
VELOCITY (if Air Plenum = 1) (VEL)	-0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	
FLOW (if Air Plenum = 1) (FL)	NA
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow	
FRIABILITY (F)	3
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	
ASBESTOS CONTENT (ASB)	1
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	
Exposure Value	42.75
Rating	2



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

September 13th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock SP 7078, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar SP 7078 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on August 18th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 08/18/2021

Inspection End Date 08/18/2021

Report Date 09/08/2021

Inspection Company

Company Earth Services & Abatement License No. 16608

Address 6700 E 50TH AVE City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Railcar

Rolling Stock No SP 7078 Car Name SP 7078

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.133969°

State WY Longitude -104.803513°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatement	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatement	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 10

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details. Please also note that the brown insulation identified in samples CHE-SP7078-180821-007 thru 009 is not considered a suspect material for asbestos and therefore is not listed herein.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
08/18/2021	CHE-SP7078-180821-001 thru 003	Black/gray sealant	Roof seams and penetrations	8%, Chrysotile	Category II	No	260 LF	4
08/18/2021	CHE-SP7078-180821-004 thru 006	White sealant	Roof patches	Not Detected	N/A	N/A	60 sq. ft.	N/A
08/18/2021	CHE-SP7078-180821-007 thru 009	White/brown paper insulation	Walls, floors (base layer) and ceilings throughout	15%, Chrysotile	N/A	Yes	3900 sq. ft.	1
08/18/2021	CHE-SP7078-180821-010 thru 012	Red vinyl floor and brown mesh tape	Kitchen floor	Not Detected	N/A	N/A	100 sq. ft.	N/A
08/18/2021	CHE-SP7078-180821-013 thru 015	Gray 9"x9" floor tile and gray leveling compound	Kitchen floor, second highest layer	6%, Chrysotile	N/A	Yes	100 sq. ft.	2
08/18/2021	CHE-SP7078-180821-013 thru 015	Yellow mastic associated with gray 9"x9" floor tile	Kitchen floor, second highest layer	Not Detected	N/A	N/A	100 sq. ft.	N/A

¹ "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

² For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

³ "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

⁴ "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
08/18/2021	CHE-SP7078-180821-01 6 thru 018	Red cementous flooring	Interior floor throughout, second lowest layer in Kitchen	1.75%, Chrysotile	Category I	No	810 sq. ft.	4
08/18/2021	CHE-SP7078-180821-01 9 thru 021	White fiberboard	Interior electric and boiler components	65%, Chrysotile	Category I	No	20 sq. ft.	2
08/18/2021	CHE-SP7078-180821-02 2 thru 024	Red/Black wire coatings	Interior walls on wires	Not Detected	N/A	N/A	100 LF	N/A
08/18/2021	CHE-SP7078-180821-02 5 thru 027	Black fiberboard	Interior electrical area, behind components	6%, Chrysotile	N/A	Yes	6 sq. ft.	3
08/18/2021	CHE-SP7078-180821-02 8 thru 030	Black bakelite	Breaker board	15%, Chrysotile	N/A	Yes	2 sq. ft.	2
08/18/2021	CHE-SP7078-180821-03 1 thru 033	Gasket (layered silver coating and black felt)	Breaker board	Not Detected	N/A	N/A	1 LF	N/A
08/18/2021	CHE-SP7078-180821-03 4 thru 036	Silver coating	Interior windows	Not Detected	N/A	N/A	240 sq. ft.	N/A
08/18/2021	CHE-SP7078-180821-03 7 thru 039	Masonite board (layered compound, mastic and fiberboard)	Interior duct facade	Not Detected	N/A	N/A	160 sq. ft.	N/A
08/18/2021	CHE-SP7078-180821-04 0 thru 042	Beige pipe wrap	Interior A/C and gas lines	55%, Chrysotile	N/A	Yes	20 LF	1
08/18/2021	CHE-SP7078-180821-04 3 thru 045	Red/black vinyl flooring	Kitchen floor	1.92%, Chrysotile	N/A	Yes	100 sq. ft.	2

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
08/18/2021	CHE-SP7078-180821-046 thru 048	Vibration dampener and mastic	Undercarriage, generator	Not Detected	N/A	N/A	4 sq. ft.	N/A
08/18/2021	CHE-SP7078-180821-049 thru 051	White pipe wrap	Undercarriage	15%, Chrysotile	N/A	Yes	80 LF	2

Lead-Based Paint Results

Lead Present³ Yes Total Number of Positive Components.³ 4

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
08/18/2021	CHE-SP7078-180821-001L	Black	Roof	0.12 %	Poor
08/18/2021	CHE-SP7078-180821-002L	Beige	Interior walls of dinning area, halls, bunkroom, and restroom	0.13 %	Poor
08/18/2021	CHE-SP7078-180821-003L	Red	Interior floors throughout	0.7 %	Poor
08/18/2021	CHE-SP7078-180821-004L	Yellow	Exterior	4.1 %	Fair
08/18/2021	CHE-SP7078-180821-005L	Light red	Exterior	3.2 %	Fair
08/18/2021	CHE-SP7078-180821-006L	White	Interior Kitchen	0.73 %	Poor

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078

BUILDING AMERICA™

Polychlorinated Biphenyls Results

PCBs Present⁴ No Suspect Materials Total Number of Positive Components.⁴ 0

Notes

Mold Results

Suspect Mold Present No

Notes

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078



Railcar ID marker



View of exterior, looking southeast



View of exterior, looking south



View of car interior



View of car interior



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078



CHE-SP7078-180821-001 thru 003, 8% Asbestos, Black/gray sealant



CHE-SP7078-180821-001 thru 003, 8% Asbestos, Black/gray sealant



CHE-SP7078-180821-004 thru 006, Asbestos Not Detected, White sealant



CHE-SP7078-180821-004 thru 006, Asbestos Not Detected, White sealant



CHE-SP7078-180821-007 thru 009, 15% Asbestos, White/brown paper insulation



CHE-SP7078-180821-007 thru 009, 15% Asbestos, White/brown paper insulation



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078



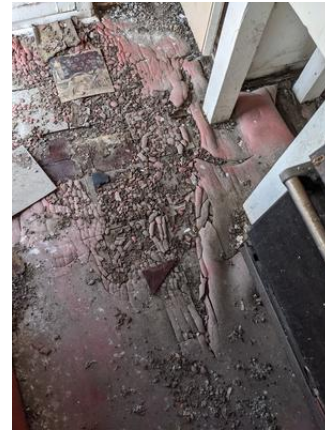
CHE-SP7078-180821-010 thru 012, Asbestos Not Detected, Red vinyl floor and brown mesh tape



CHE-SP7078-180821-010 thru 012, Asbestos Not Detected, Red vinyl floor and brown mesh tape



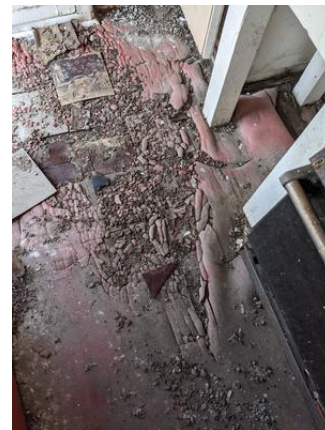
CHE-SP7078-180821-013 thru 015, 6% Asbestos, Gray 9"x9" floor tile and gray leveling compound



CHE-SP7078-180821-013 thru 015, 6% Asbestos, Gray 9"x9" floor tile and gray leveling compound



CHE-SP7078-180821-013 thru 015, Asbestos Not Detected, Yellow mastic associated with gray 9"x9" floor tile



CHE-SP7078-180821-013 thru 015, Asbestos Not Detected, Yellow mastic associated with gray 9"x9" floor tile



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

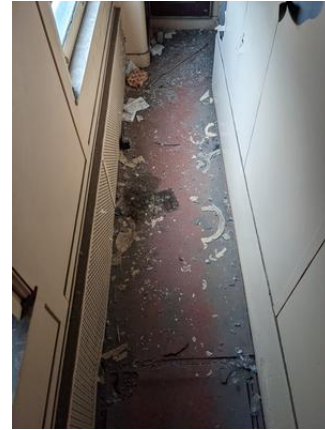
Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078



CHE-SP7078-180821-016 thru 018, 1.75% Asbestos, Red cementitious flooring



CHE-SP7078-180821-016 thru 018, 1.75% Asbestos, Red cementitious flooring



CHE-SP7078-180821-019 thru 021, 65% Asbestos, White fiberboard



CHE-SP7078-180821-019 thru 021, 65% Asbestos, White fiberboard



CHE-SP7078-180821-022 thru 024, Asbestos Not Detected, Red/Black wire coatings



CHE-SP7078-180821-022 thru 024, Asbestos Not Detected, Red/Black wire coatings



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078



CHE-SP7078-180821-025 thru 027, 6% Asbestos, Black fiberboard



CHE-SP7078-180821-025 thru 027, 6% Asbestos, Black fiberboard



CHE-SP7078-180821-028 thru 030, 15% Asbestos, Black bakelite



CHE-SP7078-180821-028 thru 030, 15% Asbestos, Black bakelite



CHE-SP7078-180821-031 thru 033, Asbestos Not Detected, Gasket (layered silver coating and black felt)



CHE-SP7078-180821-031 thru 033, Asbestos Not Detected, Gasket (layered silver coating and black felt)



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078



CHE-SP7078-180821-034 thru 036, Asbestos Not Detected, Silver coating



CHE-SP7078-180821-034 thru 036, Asbestos Not Detected, Silver coating



CHE-SP7078-180821-037 thru 039, Asbestos Not Detected, Masonite board (layered compound, mastic and fiberboard)



CHE-SP7078-180821-037 thru 039, Asbestos Not Detected, Masonite board (layered compound, mastic and fiberboard)



CHE-SP7078-180821-040 thru 042, 55% Asbestos, Beige pipe wrap



CHE-SP7078-180821-040 thru 042, 55% Asbestos, Beige pipe wrap



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

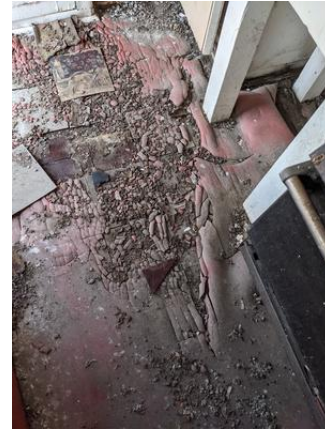
Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078



CHE-SP7078-180821-043 thru 045, 1.92% Asbestos, Red/black vinyl flooring



CHE-SP7078-180821-043 thru 045, 1.92% Asbestos, Red/black vinyl flooring



CHE-SP7078-180821-046 thru 048, Asbestos Not Detected, Vibration dampener and mastic



CHE-SP7078-180821-046 thru 048, Asbestos Not Detected, Vibration dampener and mastic



CHE-SP7078-180821-049 thru 051, 15% Asbestos, White pipe wrap



CHE-SP7078-180821-049 thru 051, 15% Asbestos, White pipe wrap



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078



CHE-SP7078-180821-001L, 0.12% Lead, Black



CHE-SP7078-180821-001L, 0.12% Lead, Black



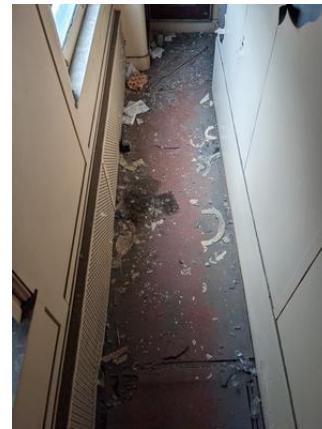
CHE-SP7078-180821-002L, 0.13% Lead, Beige



CHE-SP7078-180821-002L, 0.13% Lead, Beige



CHE-SP7078-180821-003L, 0.7% Lead, Red



CHE-SP7078-180821-003L, 0.7% Lead, Red



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/08/2021

Rolling Stock Type Railcar

Rolling Stock No SP 7078



CHE-SP7078-180821-004L, 4.1% Lead, Yellow



CHE-SP7078-180821-004L, 4.1% Lead, Yellow



CHE-SP7078-180821-005L, 3.2% Lead, Light red



CHE-SP7078-180821-005L, 3.2% Lead, Light red



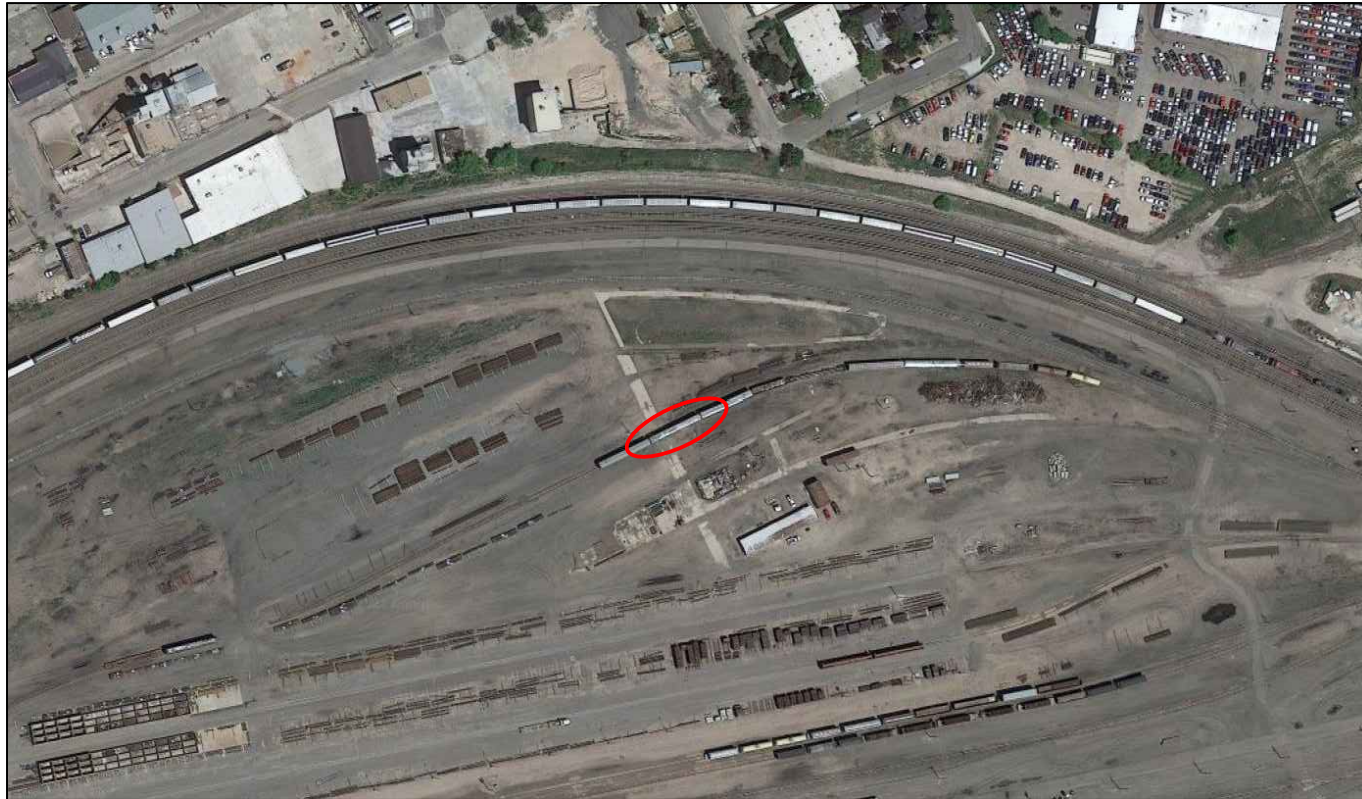
CHE-SP7078-180821-006L, 0.73% Lead, White



CHE-SP7078-180821-006L, 0.73% Lead, White

Appendix 1 - Figures

Report Date	<u>09/08/2021</u>
Rolling Stock Type	<u>Railcar</u>
Rolling Stock No	<u>SP 7078</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

SP 7078
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

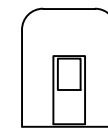
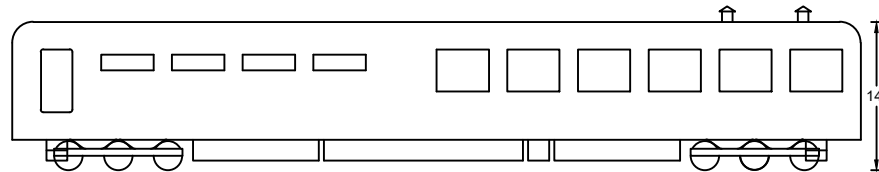
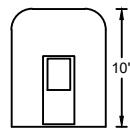
DATE: AUG-2021



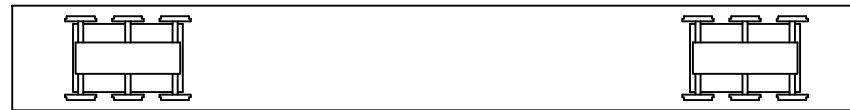
ROOF



REAR



FRONT



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



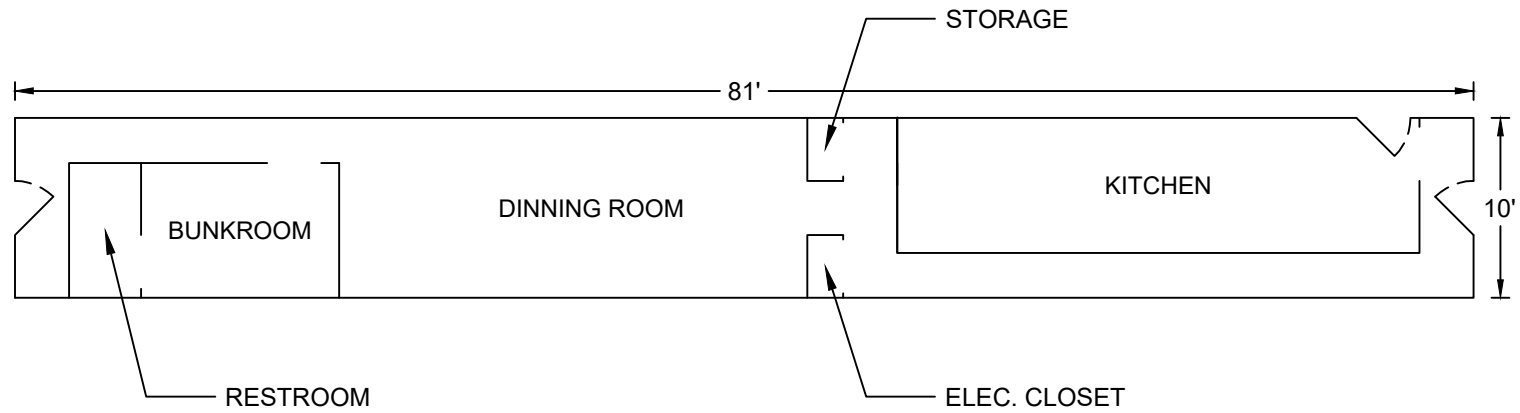
**EARTH SERVICES
& ABATEMENT**

SP 7078
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: AUG-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



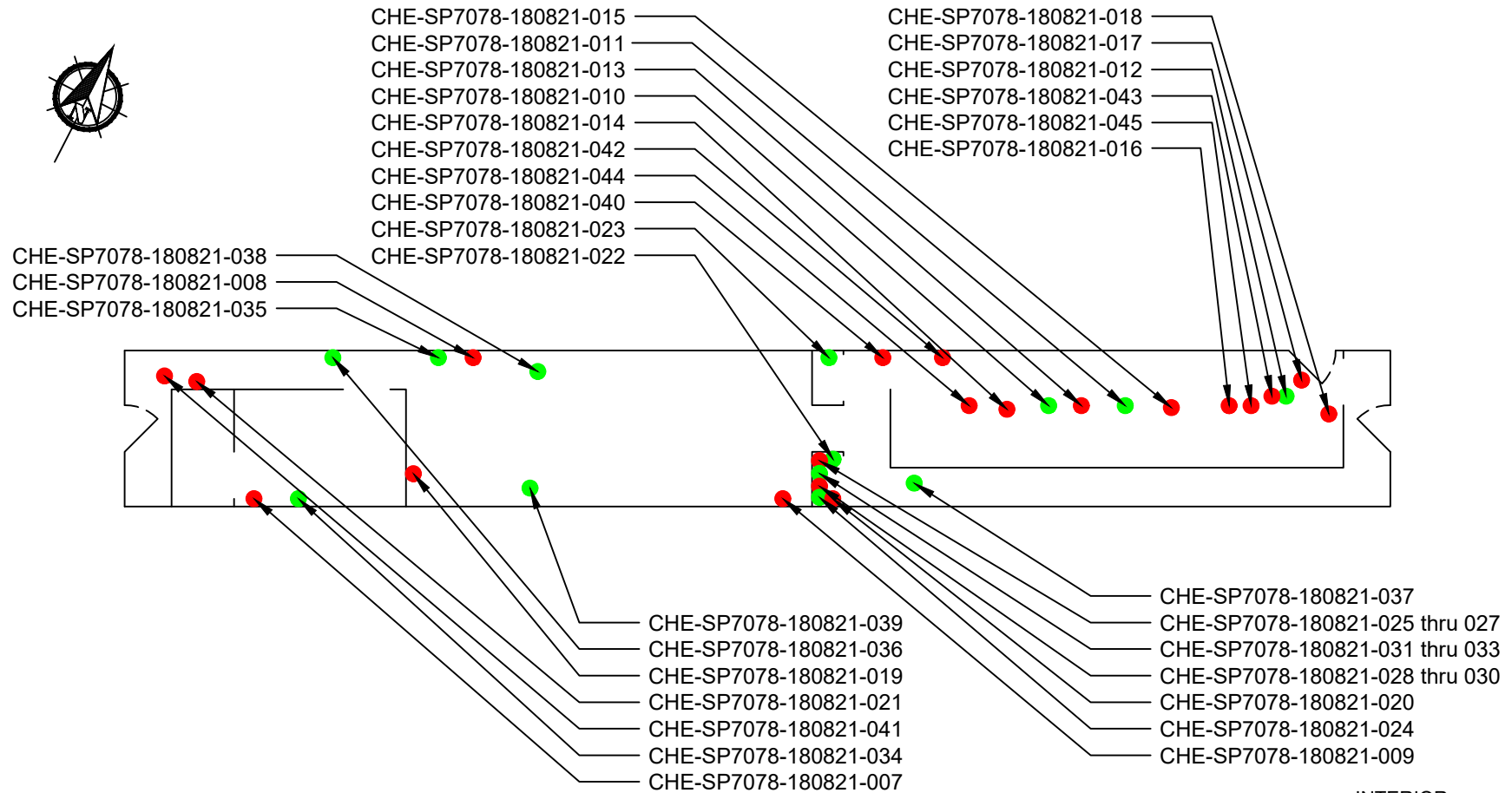
**EARTH SERVICES
& ABATEMENT**

SP 7078
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: AUG-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY

FIGURE 4 - ACM SAMPLE LOCATIONS

LEGEND

- - NON-ACM SAMPLE LOCATIONS (<=1% ASBESTOS)
- - ACM SAMPLE LOCATIONS (>1% ASBESTOS)



BUILDING AMERICA®

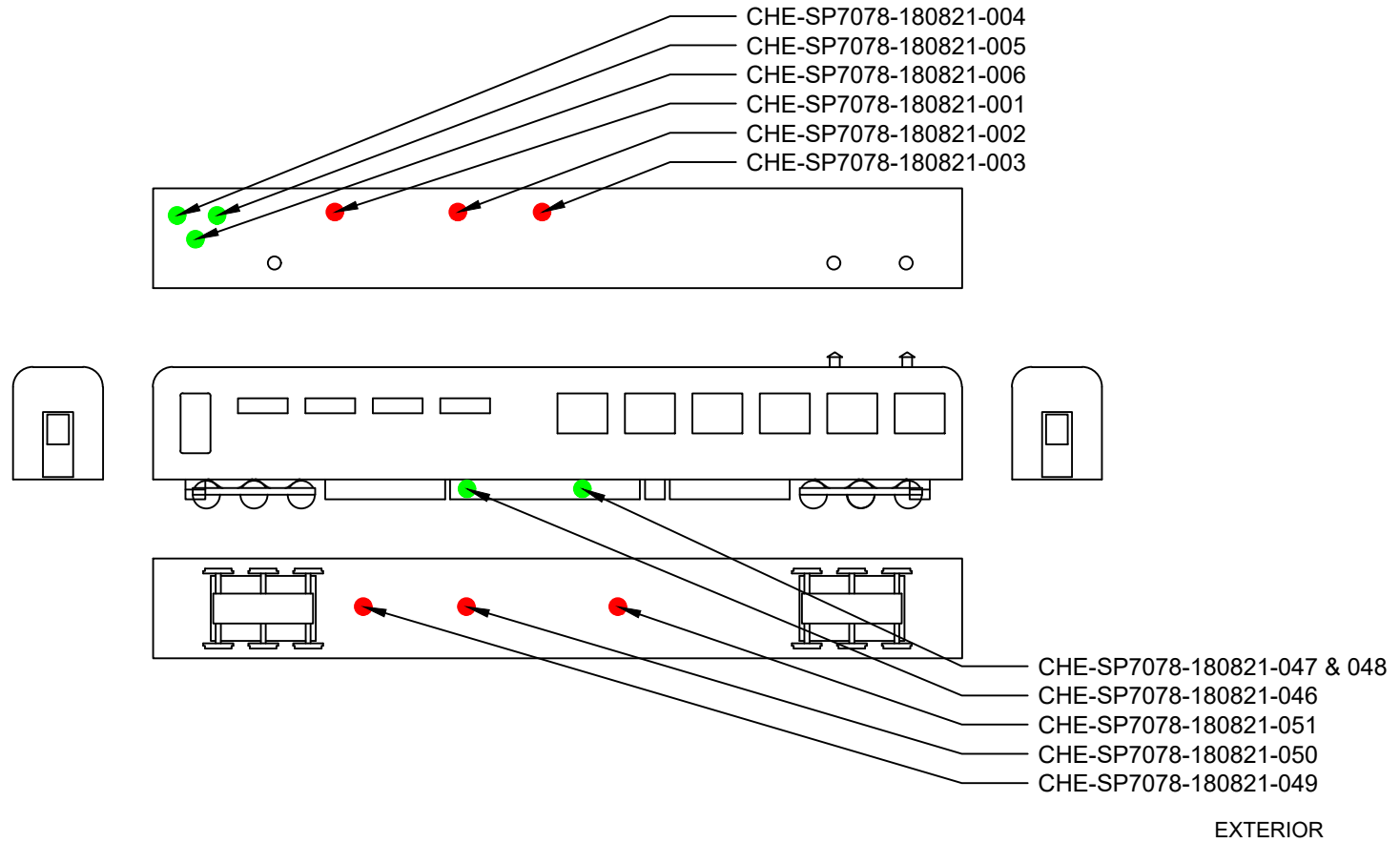


**EARTH SERVICES
& ABATEMENT**

SP 7078
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021



NOTE:
 THIS DRAWING MUST BE
 PRINTED IN COLOR TO
 SHOW ALL INFORMATION
 ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
 & ABATEMENT

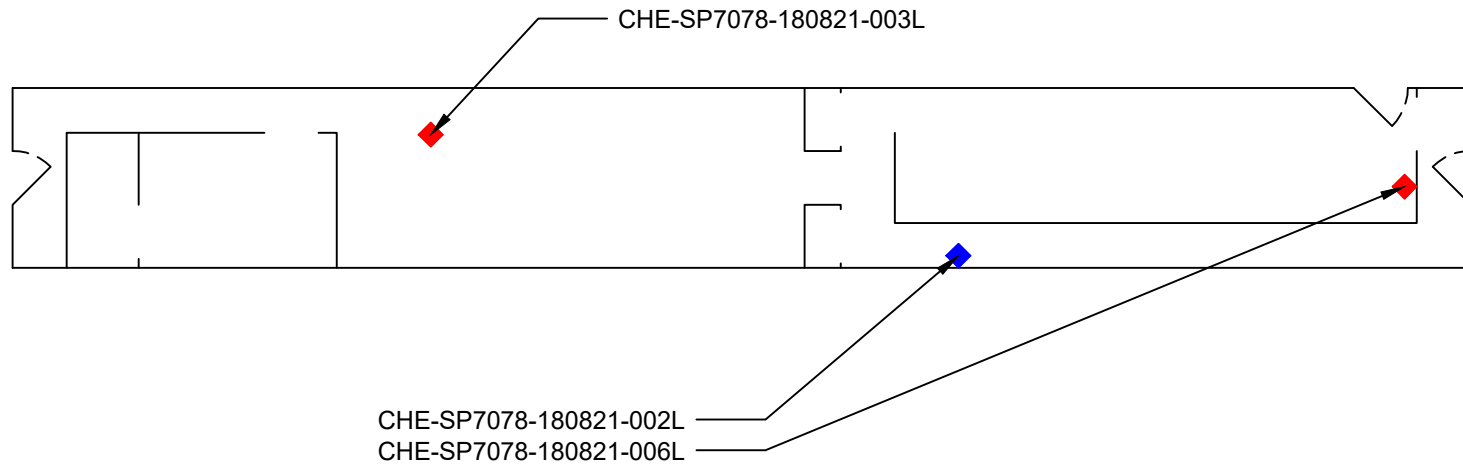
SP 7078
 CHEYENNE YARD
 East Union Pacific Ave.
 CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 5 - ACM SAMPLE LOCATIONS
LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®




**EARTH SERVICES
& ABATEMENT**

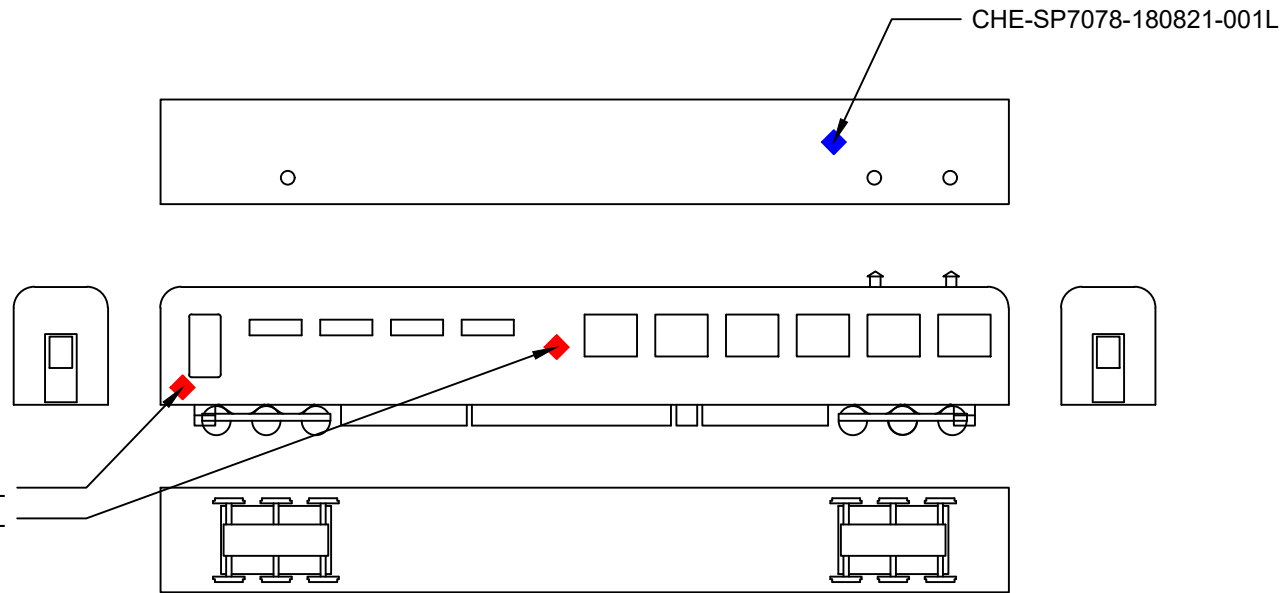
SP 7078
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**


SP 7078
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

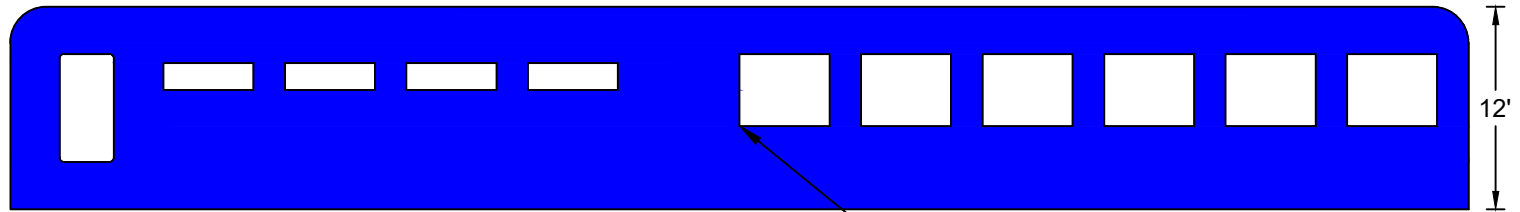
DRAWN BY: J. KULM

DATE: AUG-2021

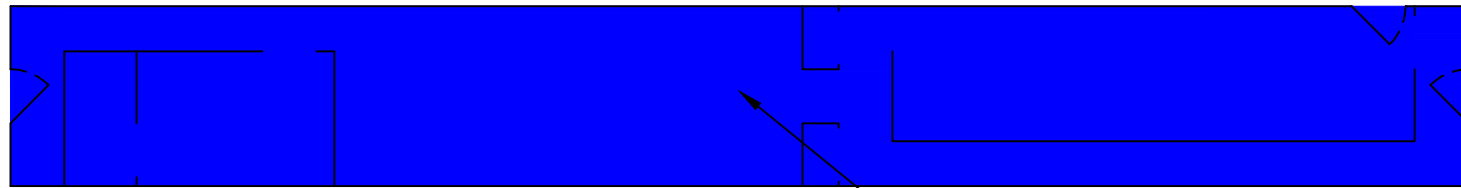
FIGURE 7 - LBP SAMPLE LOCATIONS

LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



INTERIOR WALLS



CEILING AND FLOOR (LOWEST LEVEL)

INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

SP 7078
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

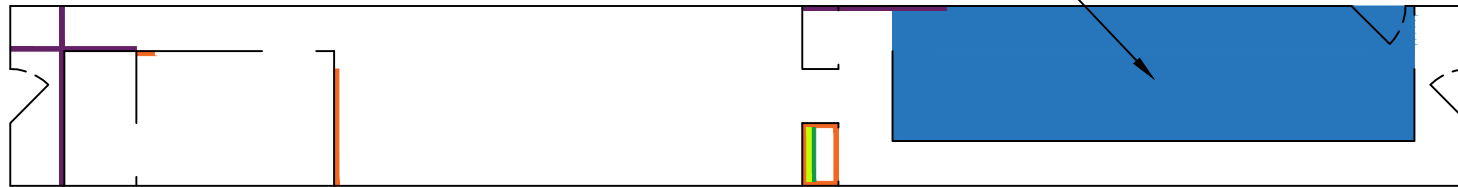
DATE: AUG-2021

FIGURE 8 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM WHITE / BROWN PAPER INSULATION



SECOND HIGHEST FLOORING MATERIAL



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®








**EARTH SERVICES
& ABATEMENT**

SP 7078
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

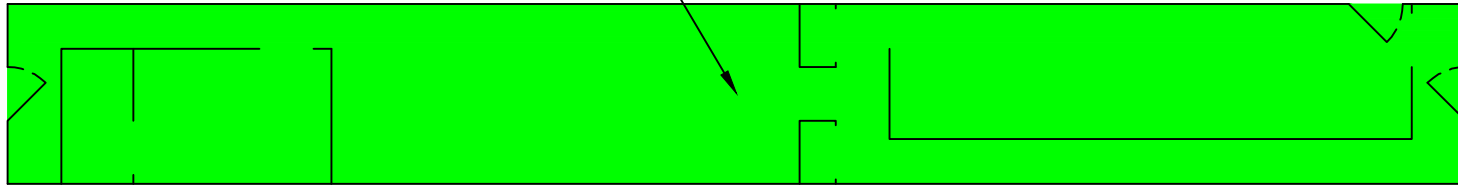
DATE: AUG-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

-  — ACM GRAY 9" X 9" FLOOR TILE AND GRAY LEVELING COMPOUND
-  — ACM WHITE FIBERBOARD
-  — ACM BLACK FIBERBOARD
-  — ACM BLACK BAKELITE
-  — ACM BEIGE PIPE WRAP



SECOND LOWEST FLOORING MATERIAL



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

SP 7078
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

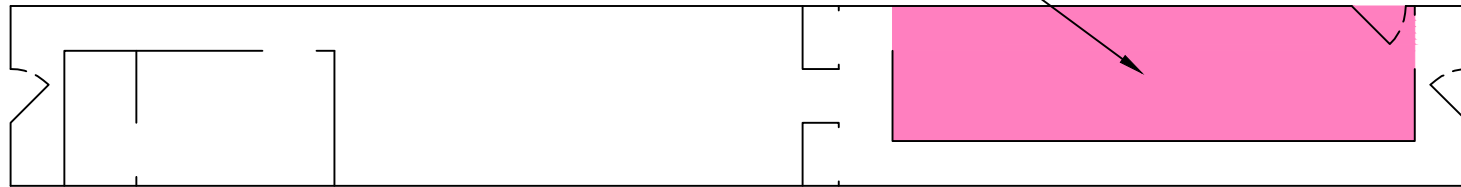
DATE: AUG-2021

FIGURE 10 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM RED CEMENTIOUS FLOORING



HIGHEST FLOORING MATERIAL



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

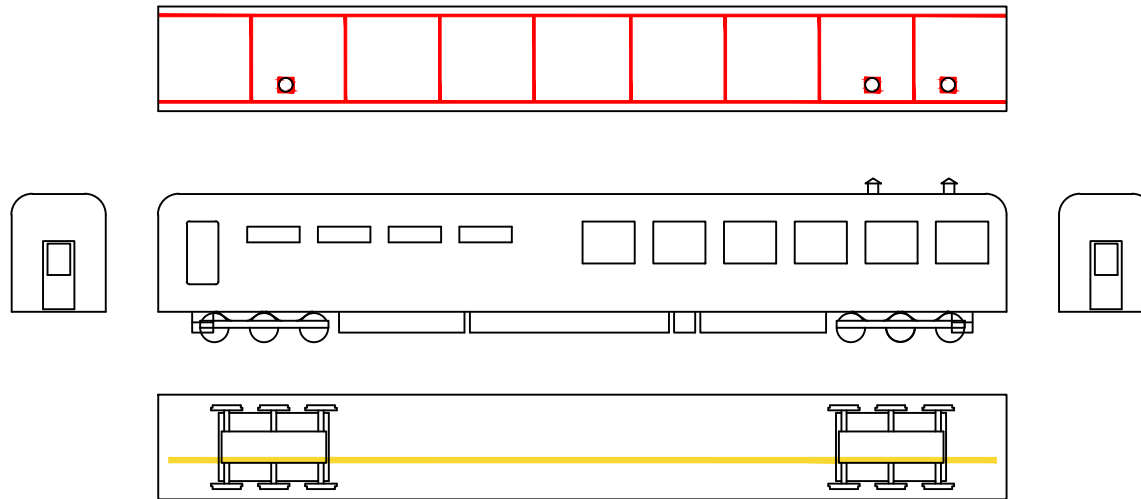
SP 7078
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 11 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

 — ACM RED / BLACK VINYL FLOORING



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**



SP 7078
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 12 - ACM LOCATIONS (>1% ASBESTOS)

LEGEND

-  — ACM BLACK / GRAY SEALANT
-  — ACM WHITE PIPE WRAP

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>09/08/2021</u>
Rolling Stock Type	<u>Railcar</u>
Rolling Stock No	<u>SP 7078</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21130143
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021


SP 7078 - WY Rollingstock Inspections-REVISED

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-SP7078-180821-001	Roof Sealant, Gray/ Black, Homogeneous	Chrysotile 8%	Non-Fibrous Material 92%
CHE-SP7078-180821-002	Roof Sealant, *Not analyzed per client request		
CHE-SP7078-180821-003	Roof Sealant, *Not analyzed per client request		
CHE-SP7078-180821-004	Roof Sealant, White/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP7078-180821-005	Roof Sealant, White/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP7078-180821-006	Roof Sealant, White/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP7078-180821-007	LAYER 1 Paper Wrap, White/ Brown, Homogeneous	Chrysotile 15%	Cellulose Fiber 85%
	LAYER 2 Insulation, Brown, Homogeneous	None Detected	Synthetic Fiber 100%
CHE-SP7078-180821-008	LAYER 1 Paper Wrap, *Not analyzed per client request		
	LAYER 2 Insulation, Brown, Homogeneous	None Detected	Synthetic Fiber 100%
CHE-SP7078-180821-009	LAYER 1 Paper Wrap, *Not analyzed per client request		
	LAYER 2 Insulation, Brown, Homogeneous	None Detected	Synthetic Fiber 100%

Revision:
 Corrected sample number.

Taylor Smylie

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21130143
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7078 - WY Rollingstock Inspections-REVISED

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-SP7078-180821-010	LAYER 1 Flooring, Red/ Brown, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 2 Mesh Tape, Brown, Homogeneous	None Detected	Synthetic Fiber	100%
CHE-SP7078-180821-011	LAYER 1 Flooring, Red/ Brown, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 2 Mesh Tape, Brown, Homogeneous	None Detected	Synthetic Fiber	100%
CHE-SP7078-180821-012	LAYER 1 Flooring, Red/ Brown, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 2 Mesh Tape, Brown, Homogeneous	None Detected	Synthetic Fiber	100%
CHE-SP7078-180821-013	LAYER 1 Floor Tile, Gray, Homogeneous	Chrysotile 6%	Non-Fibrous Material	94%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 3 Float, Gray, Homogeneous	Chrysotile 6%	Non-Fibrous Material	94%
CHE-SP7078-180821-014	LAYER 1 Floor Tile, *Not analyzed per client request			
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 3 Float, *Not analyzed per client request			

Taylor Smylie

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21130143
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7078 - WY Rollingstock Inspections-REVISED

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-SP7078-180821-015	LAYER 1 Floor Tile, *Not analyzed per client request		
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 3 Float, *Not analyzed per client request		
CHE-SP7078-180821-016	Flooring, Red, Homogeneous Original PLM Result: 2% Chrysotile 400 pt. POINT COUNT	Chrysotile 1.25%	Non-Fibrous Material 98.75%
CHE-SP7078-180821-017	Flooring, Red, Homogeneous Original PLM Result: 2% Chrysotile 400 pt. POINT COUNT	Chrysotile 1.75%	Non-Fibrous Material 98.25%
CHE-SP7078-180821-018	Flooring, *Not analyzed per client request		
CHE-SP7078-180821-019	Fiberboard, White/ Red, Homogeneous	Chrysotile 20%	Non-Fibrous Material 80%
CHE-SP7078-180821-020	Fiberboard, *Not analyzed per client request		
CHE-SP7078-180821-022	Wrap, Red/ Black, Homogeneous	None Detected	Synthetic Fiber 15% Non-Fibrous Material 85%
CHE-SP7078-180821-023	Wrap, Red/ Black, Homogeneous	None Detected	Synthetic Fiber 15% Non-Fibrous Material 85%
CHE-SP7078-180821-024	Wrap, Red/ Black, Homogeneous	None Detected	Synthetic Fiber 15% Non-Fibrous Material 85%

Taylor Smylie

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21130143
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7078 - WY Rollingstock Inspections-REVISED

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-SP7078-180821-025	Fiberboard, Black, Homogeneous	Chrysotile 6%	Non-Fibrous Material 94%
CHE-SP7078-180821-026	Fiberboard, *Not analyzed per client request		
CHE-SP7078-180821-027	Fiberboard, *Not analyzed per client request		
CHE-SP7078-180821-028	Cementitious Material, Black, Homogeneous	Chrysotile 15%	Non-Fibrous Material 85%
CHE-SP7078-180821-029	Cementitious Material, *Not analyzed per client request		
CHE-SP7078-180821-030	Cementitious Material, *Not analyzed per client request		
CHE-SP7078-180821-031	LAYER 1 Coating, Silver, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Felt, Black, Homogeneous	None Detected	Synthetic Fiber 15% Non-Fibrous Material 85%
CHE-SP7078-180821-032	LAYER 1 Coating, Silver, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Felt, Black, Homogeneous	None Detected	Synthetic Fiber 15% Non-Fibrous Material 85%
CHE-SP7078-180821-033	LAYER 1 Coating, Silver, Homogeneous	None Detected	Non-Fibrous Material 100%
	LAYER 2 Felt, Black, Homogeneous	None Detected	Synthetic Fiber 15% Non-Fibrous Material 85%

Taylor Smylie Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21130143
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7078 - WY Rollingstock Inspections-REVISED

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-SP7078-180821-034	Coating, Silver/ Brown, Homogeneous	None Detected	Synthetic Fiber Non-Fibrous Material	15% 85%
CHE-SP7078-180821-035	Coating, Silver/ Brown, Homogeneous	None Detected	Synthetic Fiber Non-Fibrous Material	15% 85%
CHE-SP7078-180821-036	Coating, Silver/ Brown, Homogeneous	None Detected	Synthetic Fiber Non-Fibrous Material	15% 85%
CHE-SP7078-180821-037	LAYER 1 Compound, Green, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 3 Fiberboard, Brown, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	20% 80%
CHE-SP7078-180821-038	LAYER 1 Compound, Green, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected	Non-Fibrous Material	100%
	LAYER 3 Fiberboard, Brown, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	20% 80%

Taylor Smylie

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21130143
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7078 - WY Rollingstock Inspections-REVISED

Sample ID #	Sample Description	Asbestos Constituents		Non-Asbestos Constituents	
CHE-SP7078-180821-039	LAYER 1 Compound, Green, Homogeneous	None Detected		Non-Fibrous Material	100%
	LAYER 2 Mastic, Yellow, Homogeneous	None Detected		Non-Fibrous Material	100%
	LAYER 3 Fiberboard, Brown, Homogeneous	None Detected		Cellulose Fiber Non-Fibrous Material	20% 80%
CHE-SP7078-180821-040	Mastic Wrap, Beige, Homogeneous	Chrysotile	10%	Synthetic Fiber Non-Fibrous Material	15% 75%
CHE-SP7078-180821-042	Mastic Wrap, *Not analyzed per client request				
CHE-SP7078-180821-043	Flooring, Red/ Black, Homogeneous Original PLM Result: 3% Chrysotile	Chrysotile	1.92%	Cellulose Fiber Non-Fibrous Material	5% 93.08%
Gravimetric Reduction Prep					
CHE-SP7078-180821-044	Flooring, *Not analyzed per client request				
CHE-SP7078-180821-045	Flooring, *Not analyzed per client request				
CHE-SP7078-180821-046	LAYER 1 Vibration Damper, Brown, Homogeneous	None Detected		Synthetic Fiber Non-Fibrous Material	15% 85%
	LAYER 2 Mastic, Brown, Homogeneous	None Detected		Non-Fibrous Material	100%

Taylor Smylie

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
EPA 600/M4-82-020; 600/R-93/116 - Point Count Method


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21130143
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 29-Aug-2021
Date Reported: 30-Aug-2021

SP 7078 - WY Rollingstock Inspections-REVISED

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-SP7078-180821-047	LAYER 1 Vibration Damper, Brown, Homogeneous	None Detected	Synthetic Fiber 15% Non-Fibrous Material 85%
	LAYER 2 Mastic, Brown, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP7078-180821-048	LAYER 1 Vibration Damper, Brown, Homogeneous	None Detected	Synthetic Fiber 15% Non-Fibrous Material 85%
	LAYER 2 Mastic, Brown, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-SP7078-180821-049	Mastic Wrap, White, Homogeneous	Chrysotile 15%	Non-Fibrous Material 85%
CHE-SP7078-180821-050	Mastic Wrap, *Not analyzed per client request		
CHE-SP7078-180821-051	Mastic Wrap, *Not analyzed per client request		

Taylor Smylie Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



J3 Resources

Open Lab Fee

J3 Order # (Lab.assy only)
180143

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City , CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - SP 7078	Telephone – Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 49 **Positive Stop:** YES NO

Signatures

Relinquished By:	Date: 5/20/21	Time:
Received By:	Date: 5/25/21	Time: 9:40am
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
**TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Project Name WY Rollinastock Inspections
Project Number 215WY001 - SP

Page ___ of ___

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME/CONDITION
CHE-SP7078-180821-001	Black/Gray sealant	
CHE-SP7078-180821-002	Roof seams and penetrations	
CHE-SP7078-180821-003		
CHE-SP7078-180821-004	White sealant	
CHE-SP7078-180821-005	Roof patches	
CHE-SP7078-180821-006		
CHE-SP7078-180821-007	Paper Insulation	
CHE-SP7078-180821-008	Wall, floor and ceiling	
CHE-SP7078-180821-009		
CHE-SP7078-180821-010	Red vinyl flooring	
CHE-SP7078-180821-011	Kitchen	
CHE-SP7078-180821-012		
CHE-SP7078-180821-013	Gray 9"x9" floor tile	
CHE-SP7078-180821-014	Kitchen	
CHE-SP7078-180821-015		
CHE-SP7078-180821-016	Cementious Flooring	
CHE-SP7078-180821-017	Interior throughout	
CHE-SP7078-180821-018		
CHE-SP7078-180821-019	White fiberboard	
CHE-SP7078-180821-020	Interior elec./boiler components	
CHE-SP7078-180821-022	Elec. Wiring	
CHE-SP7078-180821-023	Interior walls	
CHE-SP7078-180821-024		

Comments/Special Instructions:

Project Name WY Rollinastock Inspections
 Project Number 215WY001 - SP

Page ___ of ___

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME/CONDITION
CHE-SP7078-180821-025	Fireboard	
CHE-SP7078-180821-026	Interior elec. area behind components	
CHE-SP7078-180821-027		
CHE-SP7078-180821-028	Bakelite	
CHE-SP7078-180821-029	Interior elec. components	
CHE-SP7078-180821-030		
CHE-SP7078-180821-031	Gasket	
CHE-SP7078-180821-032	Interior elec. components	
CHE-SP7078-180821-033		
CHE-SP7078-180821-034	Silver coating	
CHE-SP7078-180821-035	Interior windows	
CHE-SP7078-180821-036		
CHE-SP7078-180821-037	Masonite	
CHE-SP7078-180821-038	Interior duct facade	
CHE-SP7078-180821-039		
CHE-SP7078-180821-040	Pipe wrap	
CHE-SP7078-180821-042	Interior A/C & Gas lines	
CHE-SP7078-180821-043	Red/black vinyl flooring	
CHE-SP7078-180821-044		
CHE-SP7078-180821-045		
CHE-SP7078-180821-046	Vibration Dampener	
CHE-SP7078-180821-047	Undercarriage generator	
CHE-SP7078-180821-048		

Comments/Special Instructions:



EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204
Tel/Fax: (303) 740-5700 / (303) 741-1400
<http://www.EMSL.com / denverlab@emsl.com>

EMSL Order: 222106277
Customer ID: ESAB42
Customer PO:
Project ID:

Attention: Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Ave.
Commerce City, CO 80022

Phone: (303) 339-3051
Fax:
Received Date: 08/26/2021 4:45 PM
Analysis Date: 08/30/2021
Collected Date: 08/18/2021

Project: 215WY001,SP 7078

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
CHE-SP7078-180821-0 21	WHITE FIBERBOARD	White Fibrous Homogeneous		35% Non-fibrous (Other)	65% Chrysotile
<i>222106277-0001</i>					
CHE-SP7078-180821-0 41	PIPE WRAP	White/Black Fibrous Homogeneous	25% Cellulose	20% Non-fibrous (Other)	55% Chrysotile
<i>222106277-0002</i>					

Analyst(s)
Rodney Mosongo (2)

Henry Printz, TEM/PCM Laboratory Supervisor
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 09/01/2021 10:50:28



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

222106277

EMSL Analytical, Inc.
1010 Yuma Street

Denver, CO 80204
PHONE: (303) 740-5700
FAX: (303) 741-1400

Company : Earth Services & Abatement, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
Street: 6700 E. 50th Ave.		Third Party Billing requires written authorization from third party	
City: Commerce City	State/Province: CO	Zip/Postal Code: 80022	Country: United States
Report To (Name): Amanda Wozab		Telephone #: 303-991-1280	
Email Address: See special instructions		Fax #: 303-991-1282	Purchase Order:
Project Name/Number: 215WY001, SP 7078		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: Wyoming		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	

Turnaround Time (TAT) Options* - Please Check

3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input checked="" type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input checked="" type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	TEM- Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique Other: <input type="checkbox"/>
---	--	---

Check For Positive Stop - Clearly Identify Homogenous Group

Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: Joseph Kulm

Samplers Signature: _____

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
CHE-SP7078-180821-021	White fiberboard		8/18/2021, 1000 AM
CHE-SP7078-180821-041	Pipe wrap		8/18/2021, 1145 AM

Client Sample # (s): _____ Total # of Samples: _____

Relinquished (Client): Robert Szynskie Date: 8-26-21 Time: _____

Received (Lab): N/A Date: 8/26/21 Time: 4:45

Comments/Special Instructions:
 Do Gravimetric reduction and point count as needed. Send results to: robert.szynskie@esasite.com, amanda.wozab@esasite.com; patrick.mcgilvrey@esasite.com

Eurofins J3 Resources, Inc.

3113 Red Bluff Road Pasadena, Texas 77503

Phone: (713) 290-0223 – Fax: (832) 831-5669

j3resources.com



J3 Resources

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022

Order #: JP211029248
Project #: 215WY001
Receipt Date: 26-Aug-2021
Analysis Date: 30-Aug-2021
Report Date: 30-Aug-2021

WY Rollingstock Inspections-SP 7078

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-SP7078-180821-001L	Black	1200	0.12%
CHE-SP7078-180821-002L	Beige	1300	0.13%
CHE-SP7078-180821-003L	Red	7000	0.7%
CHE-SP7078-180821-004L	Yellow	41000	4.1%
CHE-SP7078-180821-005L	Light Red	32000	3.2%
CHE-SP7078-180821-006L	White	7300	0.73%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Samantha Harrison

Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 224.2 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-14%

IH CHAIN OF CUSTODY



Open Lab Fee

J3 Order # (Lab Use Only)
29248

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address: _____
Address: 6700 E 50th Ave	City/State: _____ Zip: _____
City/State: Commerce City , CO Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - SP 7078	Telephone – Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions:	

Turnaround Times – Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil – PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 6	Positive Stop: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
---	---

Signatures

Relinquished By:	Date: 8/20/21 Time: _____
Received By:	Date: 8/25/21 Time: 9:40am
Relinquished By: _____	Date: _____ Time: _____
Received By: _____	Date: _____ Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
 **TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>09/08/2021</u>
Rolling Stock Type	<u>Railcar</u>
Rolling Stock No	<u>SP 7078</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	SP 7078	SP 7078
Exposure Area	Roof seams and penetrations	Wall, floor and ceiling
Asbestos Containing Material	Black/gray sealant	White/brown paper insulation
Sample Number	CHE-SP7078-180821-001 thru 003	CHE-SP7078-180821-007 thru 009
Size	NA	NA
Quantity	30 SF	3800 SF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	2	2
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	3	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	1	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	0.25	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	1	3
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	2
Exposure Value	13	85.5
Rating	4	1

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	SP 7078	SP 7078
Exposure Area	Kitchen floor	Interior floor throughout
Asbestos Containing Material	Gray 9"x9" floor tile and gray leveling compound	Red cementous flooring
Sample Number	CHE-SP7078-180821-013 thru 015	CHE-SP7078-180821-016 thru 018
Size	NA	NA
Quantity	100 SF	800 SF
	3	3
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area		
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	3	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	1
Exposure Value	45.75	15.25
Rating	2	4

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	SP 7078	SP 7078
Exposure Area	Interior electric and boiler components	Interior electrical area, behind components
Asbestos Containing Material	White fiberboard	Black fiberboard
Sample Number	CHE-SP7078-180821-019 thru 021	CHE-SP7078-180821-025 thru 027
Size	NA	NA
Quantity	20 SF	6 SF
MATERIAL CONDITION (MC)	2	2
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area		
BUILDING AGE (BA)	1	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old		
MATERIAL TYPE		
Pipe Covering (PC)	NA	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper		
Ceiling Plasters or Fireproofing (CP)	NA	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture		
WATER DAMAGE (WD)	0	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread		
ROOF CHARACTERISTICS (RC)	-0.5	-0.5
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up		
EXPOSED SURFACE AREA (ESA)	4	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed		
ACCESSIBILITY (AC)	4	4
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high		
ACTIVITY AND MOVEMENT (A/M)	2	2
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently		
WORK ENVIRONMENT (WE)	0.5	0.5
-0.5 =Sedentary 0.5 =Non-sedentary		
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration		
AIR - PLENUM / AIR STREAM (AP)	1	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists		
VELOCITY (if Air Plenum = 1) (VEL)	-0.25	-0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling		
FLOW (if Air Plenum = 1) (FL)	NA	NA
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow		
FRIABILITY (F)	1	2
1 =Very hard to crumble under hand pressure 2 =Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure		
ASBESTOS CONTENT (ASB)	3	1
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos		
Exposure Value	42.75	28.5
Rating	2	3

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	SP 7078	SP 7078
Exposure Area	Braker board	Interior A/C and gas lines
Asbestos Containing Material	Black bakelite	Beige pipe wrap
Sample Number	CHE-SP7078-180821-028 thru 030	CHE-SP7078-180821-040 thru 042
Size	NA	NA
Quantity	2 SF	20 LF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	2	2
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	2	3
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	2	3
Exposure Value	57	128.25
Rating	2	1

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	SP 7078	SP 7078
Exposure Area	Kitchen floor	Undercarriage
Asbestos Containing Material	Red/black vinyl flooring	White pipe wrap
Sample Number	CHE-SP7078-180821-043 thru 045	CHE-SP7078-180821-049 thru 051
Size	NA	NA
Quantity	100 SF	80 LF
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	2	2
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	1
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	0.25
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	3	2
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	1	2
Exposure Value	42.75	56
Rating	2	2



EARTH SERVICES
& ABATEMENT

www.esasite.com

Specializing in environmental services and demolition

September 9th, 2021

Union Pacific Railroad Asbestos Program
c/o GHD
3807 South 148th Street
Omaha, NE 68144

RE: WY, Cheyenne, Rollingstock UP 928, Requested NESHAP Inspection
Earth Services & Abatement Project Number: 215WY001

To Whom It May Concern,

Please find our NESHAP report for the above-mentioned requested inspection. Earth Services & Abatement's Joseph Kulm inspected UPRR railcar UP 928 for suspect asbestos-, lead-, and PCB-containing materials. The inspection work took place on August 16th, 2021.

No previous reports were provided for review prior to inspection.

Refer to the report for a summary of this inspection, including inspection/lab results, inspection photographs, and schematics.

If you have any questions or need anything else for this project, please do not hesitate to contact us.

Conducted by,

Joseph Kulm
Inspector
Earth Services & Abatement

Reviewed by,

Robert Szynskie
Program Director
Earth Services & Abatement
Robert.szynskie@esasite.com
Cell – 720-206-9238



Rolling Stock Asbestos Inspection Report

BUILDING AMERICA™
Inspection Type

Initial Inspection

Reinspection

NESHAP Inspection

Inspection Start Date 08/16/2021

Inspection End Date 08/16/2021

Report Date 09/07/2021

Inspection Company

Company Earth Services & Abatemnet License No. 16608

Address 6700 E 50th Ave City Commerce City

State CO Zip 80022

Inspector Information

First Name Joseph Last Name Kulm

License Type AHERA License No. C6LEMQA0R3U License State

Asset Information

Rolling Stock Type Locomotive Shell

Rolling Stock No UP 928 Car Name UP 928

Yard Name Cheyenne Subdivision Unknown

Address East Union Pacific Ave. Mile Post Unknown

City Cheyenne Latitude 41.129636°

State WY Longitude -104.815026°

Zip Code 82001

Key Contacts

Name	Phone Number	Company	Role/Responsibility
Kulm,Joseph	303-991-1280	Earth Services & Abatemnet	Inspector
Szynskie,Robert	303-991-1280	Earth Services & Abatemnet	Program Director
Dickens,Edgar	307-214-3545	UPRR	Local Contact

Inspection Limitations

Significant efforts were made to conduct a comprehensive inspection of this railcar. However, the inspection was limited by the use of hand-tools and some additional suspect materials may be present in areas not reasonably accessible. If additional suspect materials are identified that have not been sampled herein, additional sampling may be required.



Rolling Stock Asbestos Inspection Report

Report Date 09/07/2021

Rolling Stock Type Locomotive Shell

Rolling Stock No UP 928

BUILDING AMERICA™

Asbestos Results

ACM Present¹ Yes Total Number of ACM Components.¹ 5

Total Number of Materials Containing <= 1% Asbestos. 0

Notes

Please note the material descriptions herein are more descriptive than that on the chain-of-custody in order to provide distinguishing material details. Please also note that the black wire identified in samples CHE-UP928-160821-004 thru 006 is not considered a suspect material for asbestos.

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
08/16/2021	CHE-UP928-160821-001 thru 003	White pipe wrap	On pipes throughout interior and underside	90%, Chrysotile	Category II	No	222 LF	2
08/16/2021	CHE-UP928-160821-004 thru 006	White/black electrical wire wrap	Wires throughout interior	Not Detected	N/A	N/A	100 LF	N/A
08/16/2021	CHE-UP928-160821-007 thru 009	Black Fireboard	Interior, behind electronic boxes	40%, Chrysotile	Category II	No	10 sq. ft.	3
08/16/2021	CHE-UP928-160821-010 thru 012	Gray/Brown Gaskets	Interior tanks and piping	Not Detected	N/A	N/A	12 LF	N/A
08/16/2021	CHE-UP928-160821-013 thru 015	Yellow/Black Penetration Gaskets	Exterior penetrations	Not Detected	N/A	N/A	8 LF	N/A
08/16/2021	CHE-UP928-160821-016 thru 018	Gray Bakelite	Interior breaker boxes	Not Detected	N/A	N/A	2 sq. ft.	N/A
08/16/2021	CHE-UP928-160821-019 thru 021	Black window gasket	Exterior round windows	Not Detected	N/A	N/A	20 LF	N/A

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Report Date 09/07/2021

Rolling Stock Type Locomotive Shell

Rolling Stock No UP 928

Asbestos Samples

Sample Date	Sample ID	Description	Location	Asbestos Result ²	ACM Category	Friable	Quantity	Modified Algorithm Number
08/16/2021	CHE-UP928-160821-022 thru 024	Black Headlight Bulb Insulators	Headlight area	Not Detected	N/A	N/A	1 sq. ft.	N/A
08/16/2021	CHE-UP928-160821-025 thru 027	Gray transite	Interior loose bracing pieces	20%, Chrysotile	Category I	No	3 sq. ft.	3
08/16/2021	CHE-UP928-160821-028 thru 030	Black gasket	Interior pipe connections	30%, Chrysotile	N/A	Yes	1 LF	2
08/16/2021	CHE-UP928-160821-031 thru 033	Gray Coating	Roof	10%, Chrysotile	Category II	No	620 sq. ft.	4
08/16/2021	CHE-UP928-160821-034 thru 036	Brown Gasket	Roof, A/C Access	Not Detected	N/A	N/A	16 LF	N/A
08/16/2021	CHE-UP928-160821-037 thru 039	Brown Vinyl Flooring (no mastic)	Floor in cabin	Not Detected	N/A	N/A	40 sq. ft.	N/A

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.

2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.

3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.

4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



Rolling Stock Asbestos Inspection Report

Report Date 09/07/2021

Rolling Stock Type Locomotive Shell

Rolling Stock No UP 928

BUILDING AMERICA™

Lead-Based Paint Results

Lead Present³ Yes _____ Total Number of Positive Components.³ 1 _____

Notes

Paint Samples

Sample Date	Sample ID	Description	Location	Lead Result	Condition
08/16/2021	CHE-UP928-160821-001L	Yellow	Exterior, except for back and roof	11 %	Poor
08/16/2021	CHE-UP928-160821-002L	Gray	Interior, plus exterior back and roof	0.21 %	Poor

Polychlorinated Biphenyls Results

PCBs Present⁴ No Suspect Material _____ Total Number of Positive Components.⁴ 0 _____

Notes

Mold Results

Suspect Mold Present _____ No _____

Notes

1 "ACM Present" is defined as material with >1% asbestos, except in California, where Asbestos-Containing Construction Material (ACCM) is defined as >0.1% asbestos.
 2 For samples collected in sets, only the highest result is reported. Some of the collected samples may not have been analyzed. See the attached laboratory report for additional details.
 3 "Lead Present" and "Positive" is defined as paint with ≥ 0.5% lead.
 4 "PCBs Present" and "Positive" is defined as caulk with ≥50 ppm PCBs.



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Asset Photos

Report Date 09/07/2021

Rolling Stock Type Locomotive Shell

Rolling Stock No UP 928



Railcar ID marker



View of railcar exterior, looking south



View of railcar exterior, looking east-southeast



View of interior of railcar



View of interior of railcar



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

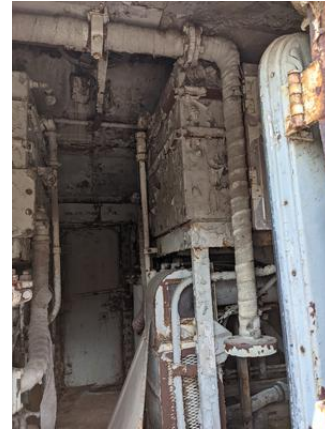
Report Date 09/07/2021

Rolling Stock Type Locomotive Shell

Rolling Stock No UP 928



CHE-UP928-160821-001 thru 003, 90% Asbestos, White pipe wrap



CHE-UP928-160821-001 thru 003, 90% Asbestos, White pipe wrap



CHE-UP928-160821-004 thru 006, Asbestos Not Detected, White/black electrical wire wrap



CHE-UP928-160821-004 thru 006, Asbestos Not Detected, White/black electrical wire wrap



CHE-UP928-160821-007 thru 009, 40% Asbestos, Black Fireboard



CHE-UP928-160821-007 thru 009, 40% Asbestos, Black Fireboard



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/07/2021

Rolling Stock Type Locomotive Shell

Rolling Stock No UP 928



CHE-UP928-160821-010 thru 012, Asbestos Not Detected, Gray/Brown Gaskets



CHE-UP928-160821-010 thru 012, Asbestos Not Detected, Gray/Brown Gaskets



CHE-UP928-160821-013 thru 015, Asbestos Not Detected, Yellow/Black Penetration Gaskets



CHE-UP928-160821-013 thru 015, Asbestos Not Detected, Yellow/Black Penetration Gaskets



CHE-UP928-160821-016 thru 018, Asbestos Not Detected, Gray Bakelite



CHE-UP928-160821-016 thru 018, Asbestos Not Detected, Gray Bakelite



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/07/2021

Rolling Stock Type Locomotive Shell

Rolling Stock No UP 928



CHE-UP928-160821-019 thru 021, Asbestos Not Detected, Black window gasket



CHE-UP928-160821-019 thru 021, Asbestos Not Detected, Black window gasket



CHE-UP928-160821-022 thru 024, Asbestos Not Detected, Black Headlight Bulb Insulators



CHE-UP928-160821-022 thru 024, Asbestos Not Detected, Black Headlight Bulb Insulators



CHE-UP928-160821-025 thru 027, 20% Asbestos, Gray transite



CHE-UP928-160821-025 thru 027, 20% Asbestos, Gray transite



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/07/2021

Rolling Stock Type Locomotive Shell

Rolling Stock No UP 928



CHE-UP928-160821-028 thru 030, 30% Asbestos, Black gasket



CHE-UP928-160821-028 thru 030, 30% Asbestos, Black gasket



CHE-UP928-160821-031 thru 033, 10% Asbestos, Gray Coating



CHE-UP928-160821-031 thru 033, 10% Asbestos, Gray Coating



CHE-UP928-160821-034 thru 036, Asbestos Not Detected, Brown Gasket



CHE-UP928-160821-034 thru 036, Asbestos Not Detected, Brown Gasket



BUILDING AMERICA™

Rolling Stock Asbestos Inspection Report

Sample Photos

Report Date 09/07/2021

Rolling Stock Type Locomotive Shell

Rolling Stock No UP 928



CHE-UP928-160821-037 thru 039, Asbestos Not Detected, Brown Vinyl Flooring (no mastic)



CHE-UP928-160821-037 thru 039, Asbestos Not Detected, Brown Vinyl Flooring (no mastic)



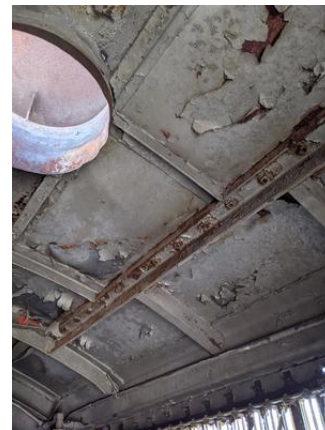
CHE-UP928-160821-001L, 11% Lead, Yellow



CHE-UP928-160821-001L, 11% Lead, Yellow



CHE-UP928-160821-002L, 0.21% Lead, Gray



CHE-UP928-160821-002L, 0.21% Lead, Gray

Appendix 1 - Figures

Report Date	<u>09/07/2021</u>
Rolling Stock Type	<u>Locomotive Shell</u>
Rolling Stock No	<u>UP 928</u>



NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT

UP 928
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

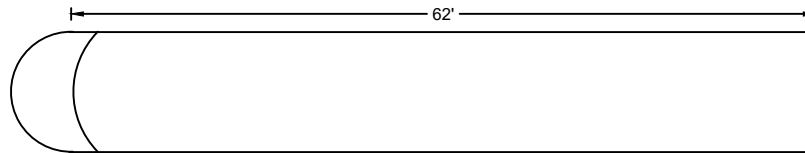
FIGURE 1 - AERIAL VIEW

DRAWN BY: J. KULM

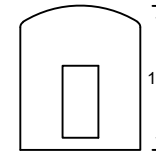
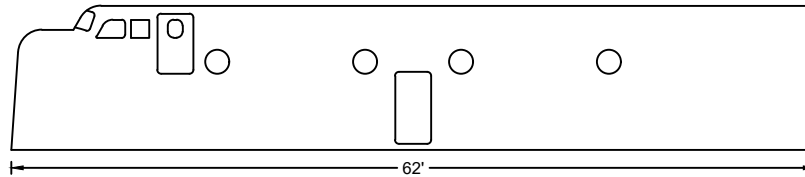
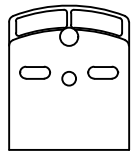
DATE: AUG-2021



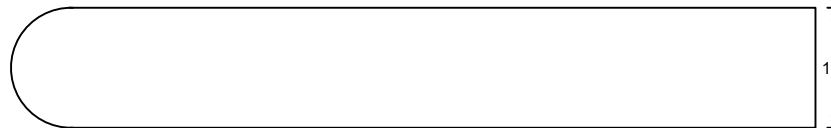
ROOF



FRONT



BACK



UNDERCARRIAGE

EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



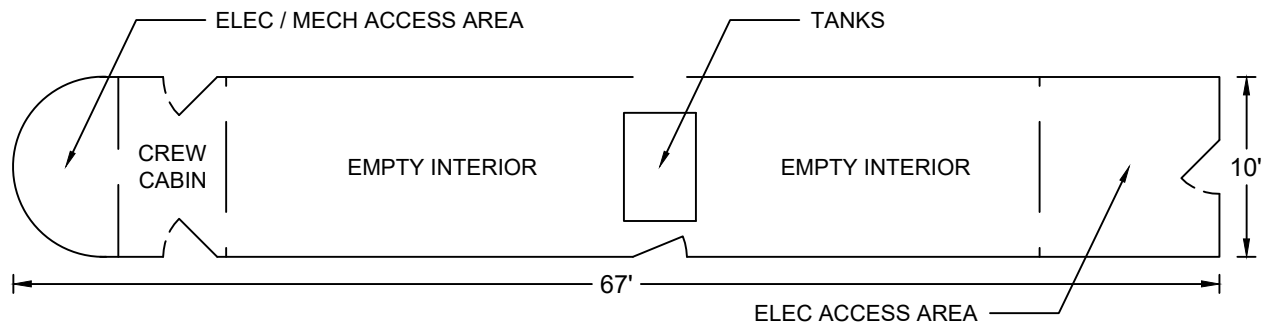
**EARTH SERVICES
& ABATEMENT**

UP 928
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 2 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: AUG-2021



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



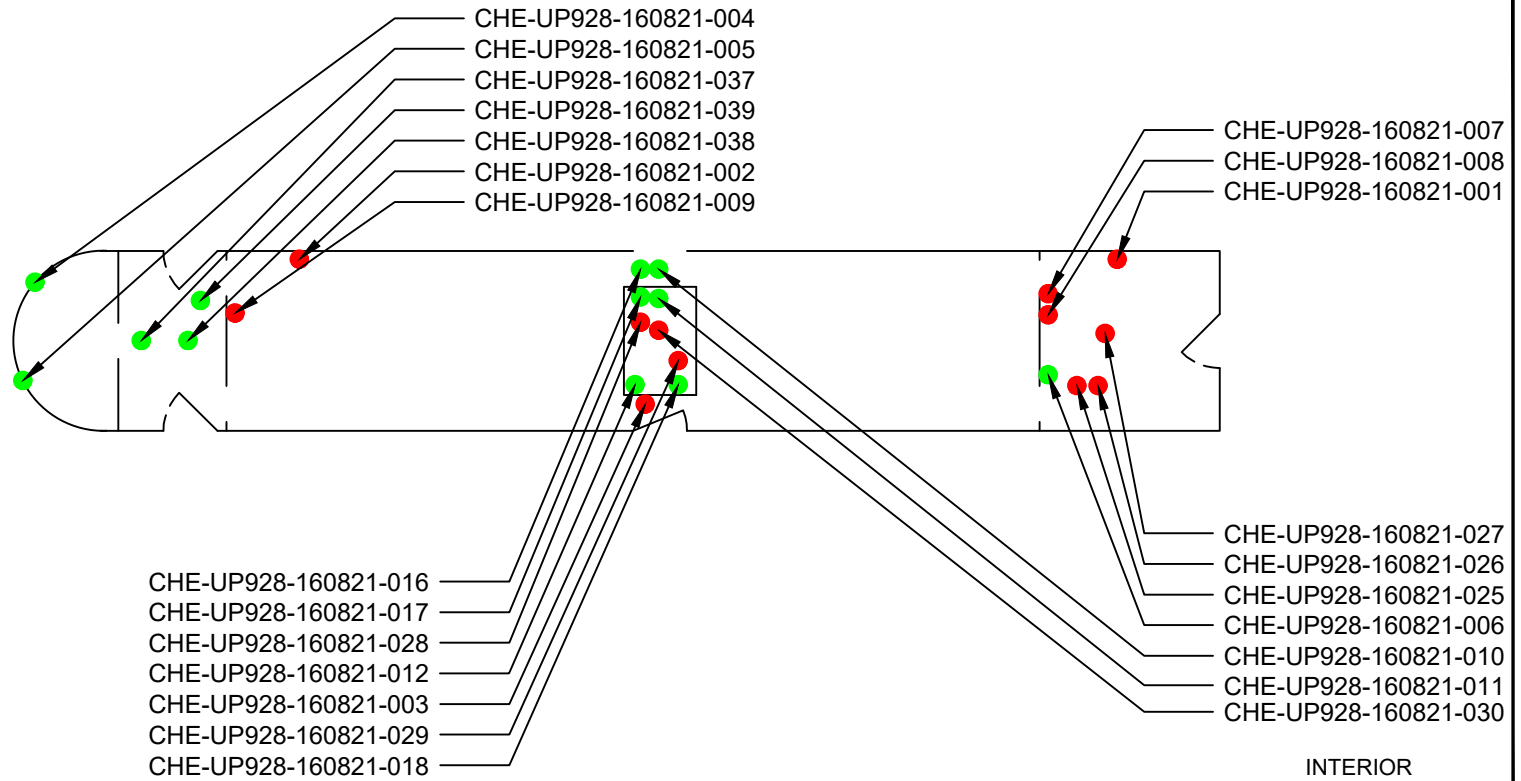
**EARTH SERVICES
& ABATEMENT**

UP 928
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

FIGURE 3 - RAILCAR LAYOUT

DRAWN BY: J. KULM

DATE: AUG-2021



NOTE:
 THIS DRAWING MUST BE
 PRINTED IN COLOR TO
 SHOW ALL INFORMATION
 ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
 & ABATEMENT

UP 928
 CHEYENNE YARD
 East Union Pacific Ave.
 CHEYENNE, WY

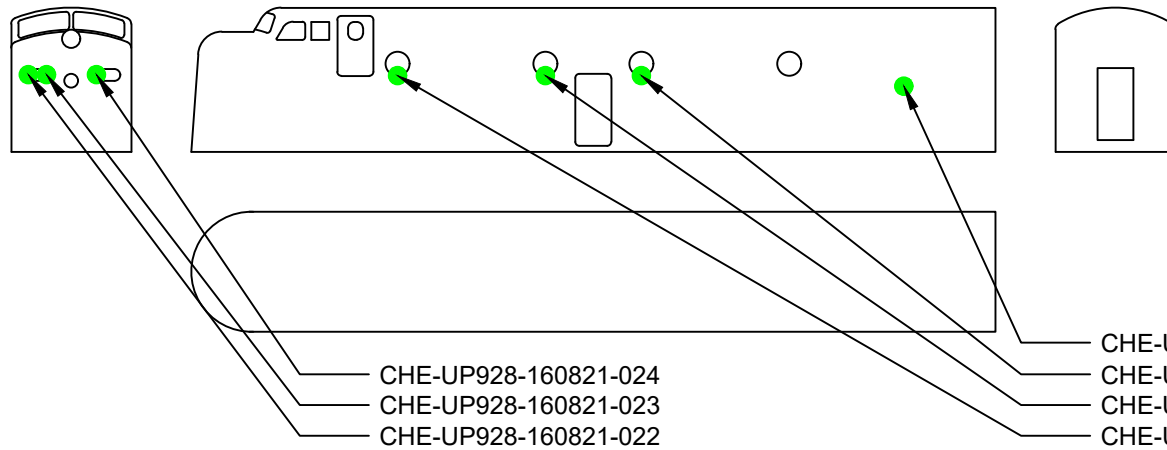
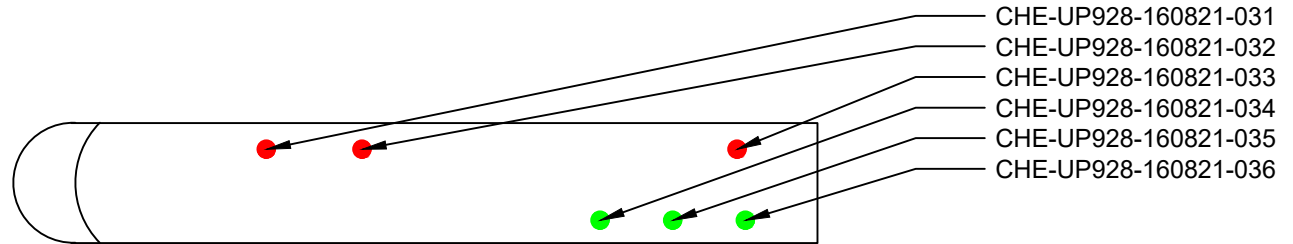
DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 4 - ACM SAMPLE LOCATIONS

LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT

UP 928
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

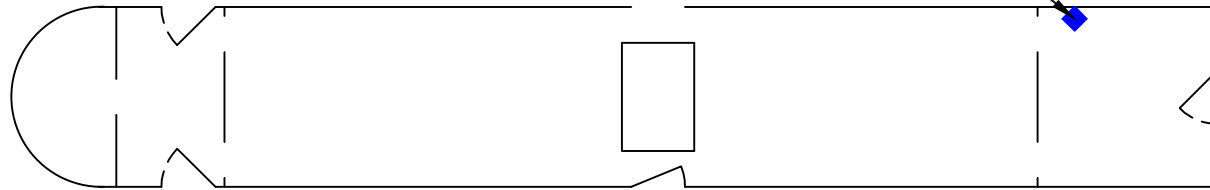
FIGURE 5 - ACM SAMPLE LOCATIONS

LEGEND

- - NON-ACM SAMPLE LOCATIONS ($\leq 1\%$ ASBESTOS)
- - ACM SAMPLE LOCATIONS ($> 1\%$ ASBESTOS)



CHE-UP928-160821-002L



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®





**EARTH SERVICES
& ABATEMENT**

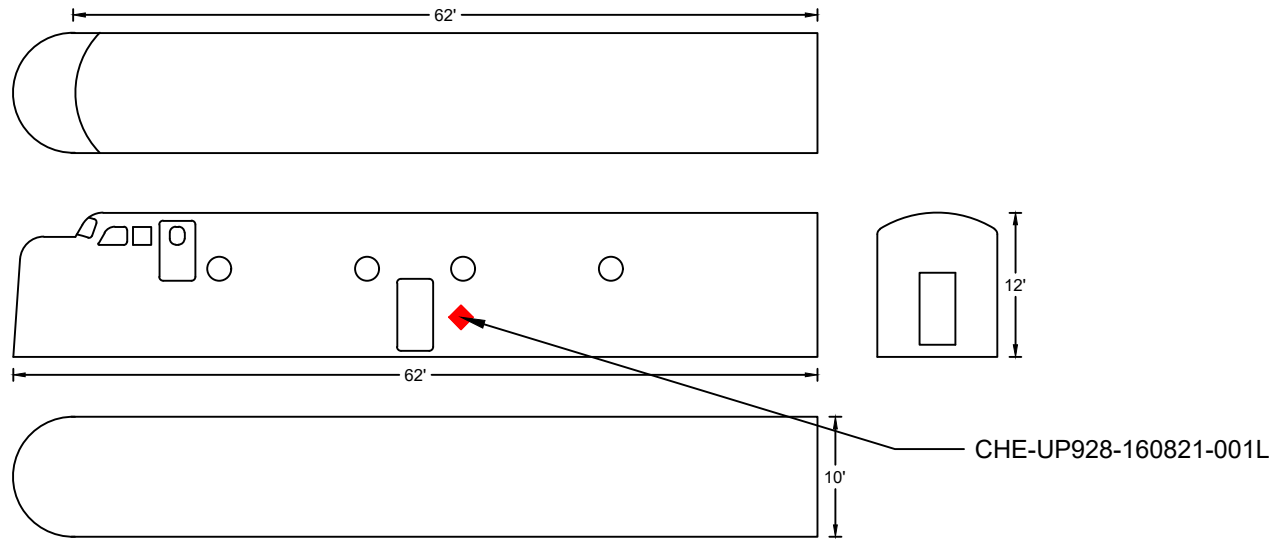
UP 928
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 6 - LBP SAMPLE LOCATIONS
LEGEND

-  - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
-  - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



**EARTH SERVICES
& ABATEMENT**

UP 928
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

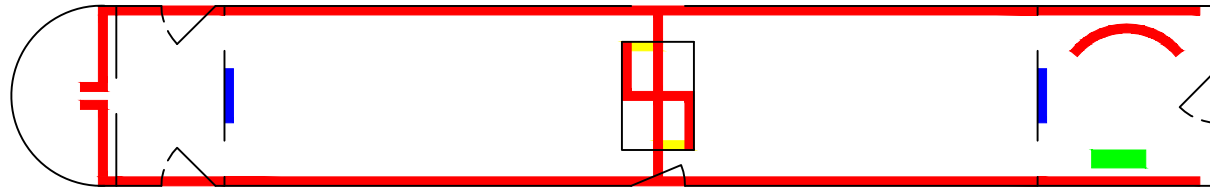
DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 7 - LBP SAMPLE LOCATIONS

LEGEND

- ◆ - NON-LBP SAMPLE LOCATIONS (<0.5% LEAD)
- ◆ - LBP SAMPLE LOCATIONS (≥0.5% LEAD)



INTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®







**EARTH SERVICES
& ABATEMENT**

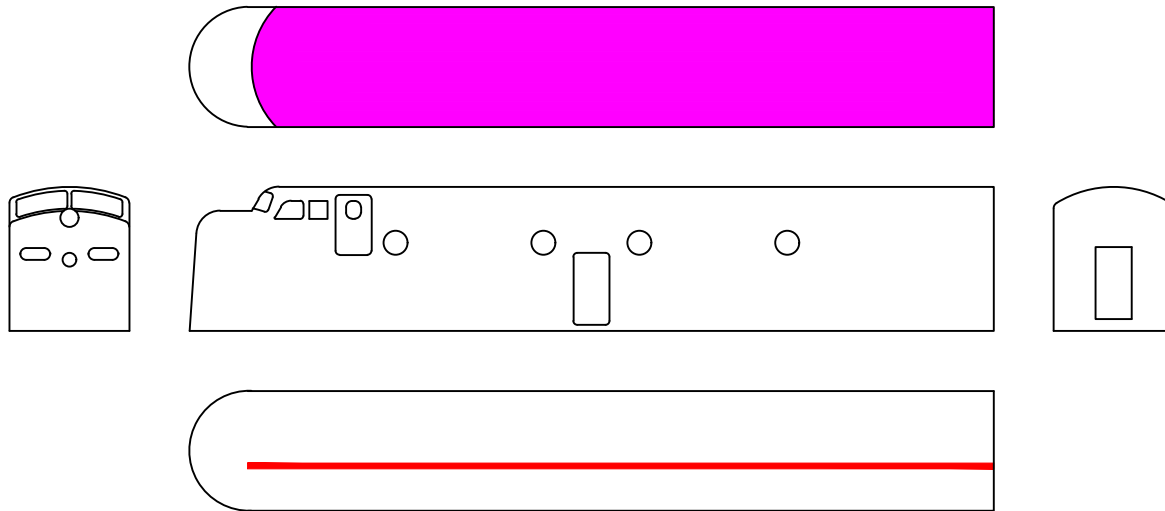
UP 928
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 8 - ACM LOCATIONS (>1% ASBESTOS)
LEGEND

-  - ACM WHITE PIPE WRAP
-  - ACM BLACK FIREBOARD
-  - ACM GRAY TRANSITE
-  - ACM BLACK GASKET



EXTERIOR

NOTE:
THIS DRAWING MUST BE
PRINTED IN COLOR TO
SHOW ALL INFORMATION
ACCURATELY



BUILDING AMERICA®



EARTH SERVICES
& ABATEMENT



UP 928
CHEYENNE YARD
East Union Pacific Ave.
CHEYENNE, WY

DRAWN BY: J. KULM

DATE: AUG-2021

FIGURE 9 - ACM LOCATIONS (>1% ASBESTOS)

LEGEND

-  - ACM WHITE PIPE WRAP
-  - ACM GRAY COATING

Appendix 2 - Lab Reports and Chain of Custody Receipts

Report Date	<u>09/07/2021</u>
Rolling Stock Type	<u>Locomotive Shell</u>
Rolling Stock No	<u>UP 928</u>

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116


Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022

Order #: JH21130148
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 27-Aug-2021
Date Reported: 30-Aug-2021

UP 928 - WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-UP928-160821-001	Pipe Wrap, Brown/ Gray, Homogeneous	Chrysotile 90%	Non-Fibrous Material 10%
CHE-UP928-160821-002	Pipe Wrap, *Not analyzed per client request		
CHE-UP928-160821-003	Pipe Wrap, *Not analyzed per client request		
CHE-UP928-160821-004	LAYER 1 Mastic Wrap, Black, Homogeneous	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
	LAYER 2 Wire, Black, Homogeneous	None Detected	Cellulose Fiber 70% Non-Fibrous Material 30%
CHE-UP928-160821-005	LAYER 1 Mastic Wrap, Black, Homogeneous	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
	LAYER 2 Wire, Black, Homogeneous	None Detected	Cellulose Fiber 70% Non-Fibrous Material 30%
CHE-UP928-160821-006	LAYER 1 Mastic Wrap, Black, Homogeneous	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
	LAYER 2 Wire, Black, Homogeneous	None Detected	Cellulose Fiber 70% Non-Fibrous Material 30%
CHE-UP928-160821-007	Fireboard, Black, Homogeneous	Chrysotile 40%	Non-Fibrous Material 60%
CHE-UP928-160821-008	Fireboard, *Not analyzed per client request		

Anh Phung Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21130148
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 27-Aug-2021
Date Reported: 30-Aug-2021

UP 928 - WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-UP928-160821-009	Fireboard, *Not analyzed per client request		
CHE-UP928-160821-010	Gasket, Gray/ Brown, Homogeneous	None Detected	Cellulose Fiber 80% Non-Fibrous Material 20%
CHE-UP928-160821-011	Gasket, Gray/ Brown, Homogeneous	None Detected	Cellulose Fiber 80% Non-Fibrous Material 20%
CHE-UP928-160821-012	Gasket, Gray/ Brown, Homogeneous	None Detected	Cellulose Fiber 80% Non-Fibrous Material 20%
CHE-UP928-160821-013	Penetration Gasket, Yellow/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-UP928-160821-014	Penetration Gasket, Yellow/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-UP928-160821-015	Penetration Gasket, Yellow/ Black, Homogeneous	None Detected	Non-Fibrous Material 100%
CHE-UP928-160821-016	Bakelite, Gray, Homogeneous	None Detected	Fibrous Glass 10% Non-Fibrous Material 90%
CHE-UP928-160821-017	Bakelite, Gray, Homogeneous	None Detected	Fibrous Glass 10% Non-Fibrous Material 90%
CHE-UP928-160821-018	Bakelite, Gray, Homogeneous	None Detected	Fibrous Glass 10% Non-Fibrous Material 90%

Anh Phung

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21130148
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 27-Aug-2021
Date Reported: 30-Aug-2021

UP 928 - WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	
CHE-UP928-160821-019	Window Gasket, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-UP928-160821-020	Window Gasket, Black, Homogeneous	None Detected	Non-Fibrous Material	100%
CHE-UP928-160821-022	Bulb Insulators, Black, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	20% 80%
CHE-UP928-160821-023	Bulb Insulators, Black, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	20% 80%
CHE-UP928-160821-024	Bulb Insulators, Black, Homogeneous	None Detected	Cellulose Fiber Non-Fibrous Material	20% 80%
CHE-UP928-160821-025	Transite, Gray, Homogeneous	Chrysotile	Non-Fibrous Material	20% 80%
CHE-UP928-160821-026	Transite, *Not analyzed per client request			
CHE-UP928-160821-027	Transite, *Not analyzed per client request			
CHE-UP928-160821-028	Gasket, Black, Homogeneous	Chrysotile	Non-Fibrous Material	30% 70%
CHE-UP928-160821-029	Gasket, *Not analyzed per client request			
CHE-UP928-160821-030	Gasket, *Not analyzed per client request			

Anh Phung

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)

Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Joseph Kulm
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City CO 80022


Order #: JH21130148
Project #: 215WY001
Date Received: 25-Aug-2021
Date Analyzed: 27-Aug-2021
Date Reported: 30-Aug-2021

UP 928 - WY Rollingstock Inspections

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents
CHE-UP928-160821-031	Coating, Gray, Homogeneous	Chrysotile 10%	Non-Fibrous Material 90%
CHE-UP928-160821-032	Coating, *Not analyzed per client request		
CHE-UP928-160821-033	Coating, *Not analyzed per client request		
CHE-UP928-160821-034	Gasket, Brown, Homogeneous	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
CHE-UP928-160821-035	Gasket, Brown, Homogeneous	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
CHE-UP928-160821-036	Gasket, Brown, Homogeneous	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
CHE-UP928-160821-037	Flooring, Brown, Homogeneous No Mastic Present	None Detected	Cellulose Fiber 30% Non-Fibrous Material 70%
CHE-UP928-160821-038	Flooring, Brown, Homogeneous No Mastic Present	None Detected	Cellulose Fiber 30% Non-Fibrous Material 70%
CHE-UP928-160821-039	Flooring, Brown, Homogeneous No Mastic Present	None Detected	Cellulose Fiber 30% Non-Fibrous Material 70%

Anh Phung

Analyst


 Scott Ward, Ph.D. Lab Director

These results apply to the sample(s) as received. This report is for the exclusive use of the addressed client and shall not be reproduced except in full, without written approval by Eurofins J3 Resources, Inc. (EJ3). Samples are analyzed according to the methods listed above and are subject to the inherent limitations of PLM and interference of matrix components. Reporting limit for the above method is a function of the quantity of sample analyzed, matrix interference, sample preparation, fiber size, and distribution. Asbestos may be detected in concentrations of <1% by area if sufficient material is analyzed. EJ3 recommends TEM confirmation of soils, vermiculite and non-friable organically bound materials (NOB) reported as None Detected or < 1% Asbestos by PLM. All samples received in good condition unless otherwise noted. This report shall not be used to claim product approval, certification, or endorsement by NVLAP, NIST, or any agency of the federal government.

IH CHAIN OF CUSTODY



J3 Resources

Open Lab Fee

J3 Order # (Lab Use Only)
120148

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - UP 928	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions: 400 point-count samples with detections up to 5% asbestos with GR, as needed	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Wwater <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 38 **Positive Stop:** YES NO

Signatures

Relinquished By:	Date: 8/29/21	Time:
Received By:	Date: 8/25/21	Time: 9:48
Relinquished By: _____	Date: _____	Time: _____
Received By: _____	Date: _____	Time: _____

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.
**TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Project Name WY Rollinastock Inspections
Project Number 215WY001 - UP

Page ___ of ___

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME/CONDITION
CHE-UP928-160821-001	White pipe wrap	
CHE-UP928-160821-002	Interior pipes	
CHE-UP928-160821-003		
CHE-UP928-160821-004	White/black elec. wire wrap	
CHE-UP928-160821-005	Interior lamps and wires throughout	
CHE-UP928-160821-006		
CHE-UP928-160821-007	Fireboard	
CHE-UP928-160821-008	Interior elec. boxes, rear section and behind cab	
CHE-UP928-160821-009		
CHE-UP928-160821-010	Gaskets	
CHE-UP928-160821-011	Interior tanks and piping	
CHE-UP928-160821-012		
CHE-UP928-160821-013	Penetration gasket	
CHE-UP928-160821-014	Exterior penetrations	
CHE-UP928-160821-015		
CHE-UP928-160821-016	Bakelite	
CHE-UP928-160821-017	Interior breaker boxes	
CHE-UP928-160821-018		
CHE-UP928-160821-019	Black window gasket	
CHE-UP928-160821-020	Exterior front and rear round windows	
CHE-UP928-160821-022	Bulb Insulators	
CHE-UP928-160821-023	Interior headlights	
CHE-UP928-160821-024		

Comments/Special Instructions:



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

222106279

EMSL Analytical, Inc.
1010 Yuma Street

Denver, CO 80204
PHONE: (303) 740-5700
FAX: (303) 741-1400

Company : Earth Services & Abatement, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same If Bill to is Different note instructions in Comments**	
Street: 6700 E. 50th Ave.		Third Party Billing requires written authorization from third party	
City: Commerce City	State/Province: CO	Zip/Postal Code: 80022	Country: United States
Report To (Name): Amanda Wozab		Telephone #: 303-991-1280	
Email Address: See special instructions		Fax #: 303-991-1282	Purchase Order:
Project Name/Number: 215WY001, UP 928		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: Wyoming		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	

Turnaround Time (TAT) Options* - Please Check

3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input checked="" type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input checked="" type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	TEM- Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique Other: <input type="checkbox"/>
---	--	---

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: Joseph Kulm Samplers Signature:

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
CHE-UP928-160821-021	Black window gasket		8/16/2021, 1000 AM

Client Sample # (s): - Total # of Samples:

Relinquished (Client): Robert Szynsk Date: 8-26-21 Time:

Received (Lab): NML Date: 8/26/21 Time: 4:45

Comments/Special Instructions:
Do Gravimetric reduction and point count as needed Send results to: robert.szynskie@esasite.com, amanda.wozab@esasite.com; patrick.mcgilvrey@esasite.com



EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204
Tel/Fax: (303) 740-5700 / (303) 741-1400
<http://www.EMSL.com> / denverlab@emsl.com

EMSL Order: 222106279
Customer ID: ESAB42
Customer PO:
Project ID:

Attention: Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Ave.
Commerce City, CO 80022

Phone: (303) 339-3051
Fax:
Received Date: 08/26/2021 4:45 PM
Analysis Date: 08/30/2021
Collected Date: 08/16/2021

Project: 215WY001, UP 928

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
CHE-UP928-160821-02 1	BLACK WINDOW GASKET	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

222106279-0001

Analyst(s)
Krystal Harris (1)

Henry Printz, TEM/PCM Laboratory Supervisor
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 08/30/2021 17:01:28

Eurofins J3 Resources, Inc.

3113 Red Bluff Road Pasadena, Texas 77503

Phone: (713) 290-0223 – Fax: (832) 831-5669

j3resources.com



J3 Resources

Lead in Paint Performed by
Flame AA – USEPA SW846 7420/3050B (Mod.)

Amanda Wozab
Earth Services & Abatement, Inc.
6700 E. 50th Avenue
Commerce City, CO 80022

Order #: JP211029247
Project #: 215WY001
Receipt Date: 26-Aug-2021
Analysis Date: 30-Aug-2021
Report Date: 30-Aug-2021

WY Rollingstock Inspections-UP 928

SAMPLE ID	PAINT COLOR	LEAD CONCENTRATION (mg/kg)	LEAD CONCENTRATION (%)
CHE-UP928-160821-001L	Yellow	110000	11%
CHE-UP928-160821-002L	Gray	2100	0.21%

Reporting Limit = 50.0 mg/kg N/A = Not Applicable
INS = Insufficient Sample Weight NS = Not Submitted

Analyst: Samantha Harrison

Scott Ward, Ph.D. Lab Director

This report relates only to the samples submitted. The analysis has been conducted according to the method(s) listed above. Blank corrections are not applied to data unless requested by the customer. This report is for the exclusive use of the addressed customer and shall not be reproduced except in full without written approval by Eurofins J3 Resources, Inc. (EJ3). EJ3 is an EPA NLLAP recognized lab by the AIHA-LAP, LLC ELLAP (Lab ID: 157714). Unless otherwise noted, all quality control samples performed within specifications established by the laboratory. The estimated accuracy is solely based on recovery data from internal laboratory control samples at the 95% confidence interval of the level of concern, derived from a 224.2 mg/kg lead in paint matrix reference material. The estimated accuracy does not account for uncertainty associated with the sampling process. Accuracy = +/-14%

IH CHAIN OF CUSTODY



Open Lab Fee

J3 Order # (Use only) **29247**

Submitter Name: Joseph Kulm	Bill to: Same
Company: Earth Services & Abatement, llc	Address:
Address: 6700 E 50th Ave	
City/State: Commerce City, CO	City/State: _____ Zip: _____
Zip: 80022	PO #: 215WY001

Project Information

Project Name: WY Rollingstock Inspections	Project Manager: Amanda Wozab
Project #: 215WY001 - UP 928	Telephone - Office/Cell: 402-578-6858
Reports - Email Address: amanda.wozab@esasite.com, joseph.kulm@esasite.com, robert.szynskie@esasite.com	
Invoice - Email Address: same	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
Special Instructions:	

Turnaround Times - Please Select One

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input checked="" type="checkbox"/>	5 Day <input type="checkbox"/>
--	---------------------------------------	---------------------------------------	--	---------------------------------------

ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

METALS

SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: 2 **Positive Stop:** YES NO

Signatures

Relinquished By:	Date: 3/20/21	Time:
Received By:	Date: 3/25/21	Time: 9:45a
Relinquished By:	Date:	Time:
Received By:	Date:	Time:

* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.

**TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

Appendix 3 - Modified Sawyer Algorithm

Report Date	<u>09/07/2021</u>
Rolling Stock Type	<u>Locomotive Shell</u>
Rolling Stock No	<u>UP 928</u>

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Priority Level Algorithm

Asset Number	UP 928	UP 928
Exposure Area	Interior on pipes throughout	Interior, behind electronic boxes
Asbestos Containing Material	White pipe wrap	Black Fireboard
Sample Number	CHE-UP928-160821-001 thru 003	CHE-UP928-160821-007 thru 009
Size	NA	NA
Quantity	222 LF	10 SF
	3	1
MATERIAL CONDITION (MC) 0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area		
BUILDING AGE (BA) 1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	1	1
MATERIAL TYPE		
Pipe Covering (PC) 1 =MAG/CAL Silicate -1 =Air Cell / paper	NA	NA
Ceiling Plasters or Fireproofing (CP) -1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	NA	NA
WATER DAMAGE (WD) 0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	0	0
ROOF CHARACTERISTICS (RC) -0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	-0.5	-0.5
EXPOSED SURFACE AREA (ESA) 0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	4	4
ACCESSIBILITY (AC) 0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	4	4
ACTIVITY AND MOVEMENT (A/M) 0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	2	2
WORK ENVIRONMENT (WE) -0.5 =Sedentary 0.5 =Non-sedentary	0.5	0.5
SOUND AND MECHANICAL VIBRATIONS (SMV) 0.5 =Frequent or Constant -0.5 =No recognizable vibration	0.5	0.5
AIR - PLENUM / AIR STREAM (AP) 0 =No air plenum or air flow 1 =Air plenum or air flow exists	1	1
VELOCITY (if Air Plenum = 1) (VEL) 0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	-0.25	-0.25
FLOW (if Air Plenum = 1) (FL) -0.25 =Constant, steady stream 0.25 =Impact, gusty flow	NA	NA
FRIABILITY (F) 1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	1	1
ASBESTOS CONTENT (ASB) 0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	3	2
Exposure Value	45.75	26.5
Rating	2	3

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	UP 928	UP 928
Exposure Area	Interior loose bracing pieces	Interior pipe connections
Asbestos Containing Material	Gray transite	Black gasket
Sample Number	CHE-UP928-160821-025 thru 027	CHE-UP928-160821-028 thru 030
Size	NA	NA
Quantity	3 SF	1 LF
MATERIAL CONDITION (MC)	1	1
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area		
BUILDING AGE (BA)	1	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old		
MATERIAL TYPE		
Pipe Covering (PC)	NA	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper		
Ceiling Plasters or Fireproofing (CP)	NA	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture		
WATER DAMAGE (WD)	0	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread		
ROOF CHARACTERISTICS (RC)	-0.5	-0.5
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up		
EXPOSED SURFACE AREA (ESA)	4	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed		
ACCESSIBILITY (AC)	4	4
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high		
ACTIVITY AND MOVEMENT (A/M)	2	2
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently		
WORK ENVIRONMENT (WE)	0.5	0.5
-0.5 =Sedentary 0.5 =Non-sedentary		
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration		
AIR - PLENUM / AIR STREAM (AP)	1	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists		
VELOCITY (if Air Plenum = 1) (VEL)	-0.25	-0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling		
FLOW (if Air Plenum = 1) (FL)	NA	NA
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow		
FRIABILITY (F)	1	2
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure		
ASBESTOS CONTENT (ASB)	2	2
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos		
Exposure Value	26.5	53
Rating	3	2

SAWYER ALGORITHM PRIORITY

Asbestos Potential Exposure and Prio

Asset Number	UP 928
Exposure Area	Roof
Asbestos Containing Material	Gray Coating
Sample Number	CHE-UP928-160821-031 thru 033
Size	NA
Quantity	620 SF
MATERIAL CONDITION (MC)	1
0 =No damage, excellent condition 1 =Very minor damage, no visible debris 2 =Damage is evident, small area 3 =Damage is easily seen, some debris 4 =Damage is widespread, debris is common 5 =Most or all material is damaged, hanging, and / or found as debris throughout the area	
BUILDING AGE (BA)	1
1 =>30 years old 0 =15 - 30 years old -1 =<15 years old	
MATERIAL TYPE	
Pipe Covering (PC)	NA
1 =MAG/CAL Silicate -1 =Air Cell / paper	
Ceiling Plasters or Fireproofing (CP)	NA
-1 =Cementitious (Monocoat) 0 =Standard 1 ="Cotton Candy" texture	
WATER DAMAGE (WD)	0
0 =No water damage 1 =Small amount of damage can be seen; damage is localized rather than widespread 2 =Good deal of water damage; widespread	
ROOF CHARACTERISTICS (RC)	-0.5
-0.5 =Sloped or Hipped -0.5 =Metal or Concrete 0.5 =Flat or Built-up	
EXPOSED SURFACE AREA (ESA)	4
0 =Material behind a permanent enclosure 2 =Material behind a lay-in ceiling or in open tunnel 4 =Material is exposed	
ACCESSIBILITY (AC)	3
0 =Totally inaccessible 1 =Can only reach with hands, ie. pipe chase 2 =An open tunnel or above a drop ceiling 3 =Exposed overall, but can't reach, ie. >10' high 4 =Material is out in the open and <10' high	
ACTIVITY AND MOVEMENT (A/M)	1
0 =No occupants enter the area 1 =Area is accessed infrequently 2 =Area is accessed frequently	
WORK ENVIRONMENT (WE)	0.5
-0.5 =Sedentary 0.5 =Non-sedentary	
SOUND AND MECHANICAL VIBRATIONS (SMV)	0.5
0.5 =Frequent or Constant -0.5 =No recognizable vibration	
AIR - PLENUM / AIR STREAM (AP)	1
0 =No air plenum or air flow 1 =Air plenum or air flow exists	
VELOCITY (if Air Plenum = 1) (VEL)	0.25
0.25 =Recognizable by human feeling -0.25 =Non-recognizable by human feeling	
FLOW (if Air Plenum = 1) (FL)	0.25
-0.25 =Constant, steady stream 0.25 =Impact, gusty flow	
FIABILITY (F)	1
1 =Very hard to crumble under hand pressure 2 = Will crumble under a little hand pressure 3 =Extremely easy to crumble under light pressure	
ASBESTOS CONTENT (ASB)	1
0 =None <1% 1 =1% to 10% Asbestos 2 =11% to 50% Asbestos 3 =51% to 100% Asbestos	
Exposure Value	12
Rating	4