

ANALYTICAL REPORT

Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-100174-1

Client Project/Site: CTO20F0164 Hotel Pier (PN: 60640529)

For:

AECOM Technical Services Inc.
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813

Attn: John Fong



Authorized for release by:
1/13/2021 3:27:42 PM

Kristine Allen, Client Service Manager
(253)248-4970

Kristine.Allen@Eurofinset.com

Designee for

Elaine Walker, Project Manager II
(253)248-4972

m.elaine.walker@eurofinset.com

..... LINKS

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The
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.





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Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: CTO20F0164 Hotel Pier (PN: 60640529)

Job ID: 580-100174-1

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Job ID: 580-100174-1

Laboratory: Eurofins TestAmerica, Seattle

Narrative

Job Narrative 580-100174-1

Comments

No additional comments.

Receipt

The samples were received on 12/31/2020 9:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8° C.

Subcontract Work

Method Fuel Fingerprint ASTM D2887: This method will be subcontracted to Apex Laboratory-Tigard, OR. The subcontract laboratory certification is different from that of the facility issuing the final report.

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: CTO20F0164 Hotel Pier (PN: 60640529)

Job ID: 580-100174-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: CTO20F0164 Hotel Pier (PN: 60640529)

Job ID: 580-100174-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
580-100174-1	JS038	Waste	12/23/20 10:10	12/31/20 09:30	
580-100174-2	JS039	Waste	12/16/20 10:56	12/31/20 09:30	
580-100174-3	JS040	Waste	12/23/20 10:44	12/31/20 09:30	
580-100174-4	JS041	Waste	12/14/20 10:30	12/31/20 09:30	
580-100174-5	JS042	Waste	12/14/20 11:05	12/31/20 09:30	
580-100174-6	JS043	Waste	12/14/20 11:40	12/31/20 09:30	
580-100174-7	JS044	Waste	12/14/20 11:50	12/31/20 09:30	
580-100174-8	JS045	Waste	12/15/20 00:01	12/31/20 09:30	

January 13, 2021

Elaine M. Walker
Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424

Dear Ms. Walker:

Included are the results from the characterization of the product samples for your CTO20F0164 Hotel Pier (PN: 60640529), Job# 580-100174-1, Project# 58015701 project. The samples JS038, JS039, JS040, JS041, JS042, JS043, JS044, and JS045 were submitted in good condition to Apex Forensics on January 5, 2021. The samples were assigned work order number A1A0133 and placed in a refrigerator maintained at 6°C until removed for sample processing. The focus of this investigation was to provide identification and characterization of the samples using the American Society for Testing and Materials (ASTM) Method D2887-14.

The ASTM Method 2887-14 was completed in order to determine the boiling range and chemical composition of the fuel or fuels present in the samples JS038, JS039, JS040, JS041, JS042, JS043, JS044, and JS045. An aliquot of each sample was diluted with carbon disulfide and analyzed using an Agilent 6890 Gas Chromatograph (GC) fitted with a Flame Ionization Detector (FID). The GC/FID traces generated for the samples are enclosed. GC/FID traces of the method blank associated with the analytical batch as well as reference standards are also provided.

The GC/FID traces of the samples yielded detailed information on the boiling range and general chemical composition of the material that elutes under the ASTM Method 2887-14 GC/FID conditions between 36°C and 545°C. Detailed summaries characterizing the material identified in the samples JS038, JS039, JS040, JS041, JS042, JS043, JS044, and JS045 are enclosed.

Please contact us if additional consultation is needed by our firm in the interpretation of the analytical results provided or if you would like to arrange for long term storage of the samples. We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Respectfully,



Kurt Johnson, Senior Chemist
Director of Forensic Services
Apex Laboratories, LLC
Enclosures

Date of Report: 01/13/21
Date Received: 01/05/21
Project: CTO20F0164 Hotel Pier (PN: 60640529), Job# 580-100174-1, Project# 58015701
Date Extracted: 01/07/21
Date Analyzed: 01/07/21

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE
FOR FORENSIC EVALUATION
BY CAPILLARY GAS CHROMATOGRAPHY
USING A FLAME IONIZATION DETECTOR (FID)
BY ASTM METHOD D2887-14**

Sample ID

GC Characterization

JS038
A1A0133-01

The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.

The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from n -C₈ to n -C₂₄ showing a maximum near n -C₁₃. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 235°C.

Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.

The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide.

Date of Report: 01/13/21
Date Received: 01/05/21
Project: CTO20F0164 Hotel Pier (PN: 60640529), Job# 580-100174-1, Project# 58015701
Date Extracted: 01/07/21
Date Analyzed: 01/07/21

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE
FOR FORENSIC EVALUATION
BY CAPILLARY GAS CHROMATOGRAPHY
USING A FLAME IONIZATION DETECTOR (FID)
BY ASTM METHOD D2887-14**

Sample ID

GC Characterization

JS039
A1A0133-02

The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.

The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from n -C₈ to n -C₂₄ showing a maximum near n -C₁₂. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 216°C.

Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.

The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide.

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Date Extracted: 01/07/21
Date Analyzed: 01/07/21

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE
FOR FORENSIC EVALUATION
BY CAPILLARY GAS CHROMATOGRAPHY
USING A FLAME IONIZATION DETECTOR (FID)
BY ASTM METHOD D2887-14**

Sample ID

GC Characterization

JS040
A1A0133-03

The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.

The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from n -C₈ to n -C₂₄ showing a maximum near n -C₁₂. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 216°C.

Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.

The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide.

Date of Report: 01/13/21
Date Received: 01/05/21
Project: CTO20F0164 Hotel Pier (PN: 60640529), Job# 580-100174-1, Project# 58015701
Date Extracted: 01/07/21
Date Analyzed: 01/07/21

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE
FOR FORENSIC EVALUATION
BY CAPILLARY GAS CHROMATOGRAPHY
USING A FLAME IONIZATION DETECTOR (FID)
BY ASTM METHOD D2887-14**

Sample ID

GC Characterization

JS041
A1A0133-04

The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.

The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from n -C₈ to n -C₂₄ showing a maximum near n -C₁₃. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 235°C.

Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.

The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide.

Date of Report: 01/13/21
Date Received: 01/05/21
Project: CTO20F0164 Hotel Pier (PN: 60640529), Job# 580-100174-1, Project# 58015701
Date Extracted: 01/07/21
Date Analyzed: 01/07/21

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE
FOR FORENSIC EVALUATION
BY CAPILLARY GAS CHROMATOGRAPHY
USING A FLAME IONIZATION DETECTOR (FID)
BY ASTM METHOD D2887-14**

Sample ID

GC Characterization

JS042
A1A0133-05

The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.

The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from *n*-C₉ to *n*-C₂₄ showing a maximum near *n*-C₁₃. This correlates with a temperature range of approximately 151°C to 391°C with a maximum near 235°C.

Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone significant evaporative weathering.

The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide.

Date of Report: 01/13/21
Date Received: 01/05/21
Project: CTO20F0164 Hotel Pier (PN: 60640529), Job# 580-100174-1, Project# 58015701
Date Extracted: 01/07/21
Date Analyzed: 01/07/21

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE
FOR FORENSIC EVALUATION
BY CAPILLARY GAS CHROMATOGRAPHY
USING A FLAME IONIZATION DETECTOR (FID)
BY ASTM METHOD D2887-14**

Sample ID

GC Characterization

JS043
A1A0133-06

The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.

The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from n -C₈ to n -C₂₄ showing a maximum near n -C₁₃. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 235°C.

Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.

The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide.

Date of Report: 01/13/21
Date Received: 01/05/21
Project: CTO20F0164 Hotel Pier (PN: 60640529), Job# 580-100174-1, Project# 58015701
Date Extracted: 01/07/21
Date Analyzed: 01/07/21

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE
FOR FORENSIC EVALUATION
BY CAPILLARY GAS CHROMATOGRAPHY
USING A FLAME IONIZATION DETECTOR (FID)
BY ASTM METHOD D2887-14**

Sample ID

GC Characterization

JS044
A1A0133-07

The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.

The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from $n\text{-C}_{10}$ to $n\text{-C}_{24}$ showing a maximum near $n\text{-C}_{13}$. This correlates with a temperature range of approximately 174°C to 391°C with a maximum near 235°C.

Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone significant evaporative weathering.

The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide.

Date of Report: 01/13/21
Date Received: 01/05/21
Project: CTO20F0164 Hotel Pier (PN: 60640529), Job# 580-100174-1, Project# 58015701
Date Extracted: 01/07/21
Date Analyzed: 01/07/21

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE
FOR FORENSIC EVALUATION
BY CAPILLARY GAS CHROMATOGRAPHY
USING A FLAME IONIZATION DETECTOR (FID)
BY ASTM METHOD D2887-14**

Sample ID

GC Characterization

JS045
A1A0133-08

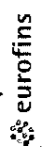
The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.

The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from n -C₈ to n -C₂₄ showing a maximum near n -C₁₃. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 235°C.

Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.

The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide.

AI1A0133



Chain of Custody Record

Eurofins TestAmerica, Seattle

5755 8th Street East
Tacoma, WA 98424
Phone: 253-922-2310 Fax: 253-922-5047

Client Information (Sub Contract Lab) Client Contact: Walker, Elaine M Shipping/Receiving: m.elaine.walker@eurofins.com Company: Apex Laboratories LLC Address: 6700 SW Sandburg St., City: Tigard State, Zip: OR, 97223 Phone: Email: Project Name: CTO20F0164 Hotel Pier (PN: 60640529) Site:		Lab PM: Walker, Elaine M E-Mail: m.elaine.walker@eurofins.com Carrier Tracking No(s): State of Origin: Hawaii Page: 1 of 1 Job #: 580-100174-1 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AshNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)						
Due Date Requested: 1/8/2021 TAT Requested (days): PO #: WO #: Project #: 58015701 SSOW#:		Accreditations Required (See note): Dept. of Defense ELAP - ANAB; NELAP - Oregon Analysis Requested Total Number of Containers:						
Sample Identification - Client ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, W=wastebottl, ST=Status, A=AK)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fuel Fingerprint ASTM D2887)	Special Instructions/Note:
JS038	12/23/20	10:10 Hawaiian	Waste	Waste	X	X	\$290 plus 17% surcharge	
JS039	12/16/20	10:56 Hawaiian	Waste	Waste	X	X	\$290 plus 17% surcharge	
JS040	12/23/20	10:44 Hawaiian	Waste	Waste	X	X	\$290 plus 17% surcharge	
JS041	12/14/20	10:30 Hawaiian	Waste	Waste	X	X	\$290 plus 17% surcharge	
JS042	12/14/20	11:05 Hawaiian	Waste	Waste	X	X	\$290 plus 17% surcharge	
JS043	12/14/20	11:40 Hawaiian	Waste	Waste	X	X	\$290 plus 17% surcharge	
JS044	12/14/20	11:50 Hawaiian	Waste	Waste	X	X	\$290 plus 17% surcharge	
JS045	12/15/20	00:01 Hawaiian	Waste	Waste	X	X	\$290 plus 17% surcharge	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification
 Unconfirmed
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Special Instructions/QC Requirements:

Primary Deliverable Rank: 4

Empty Kit Relinquished by: _____ Date: _____ Method of Shipment:

Relinquished by: Tom B... Date/Time: 1/4/21 Company: TA-SEA
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Requested by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: 1/5/21 11:20 Company: HPEV
 Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks:



APEX LABS COOLER RECEIPT FORM

Client: Eurogens TestAmerica, Seattle Element WO#: A1 A0133

Project/Project #: CT020EQ 164 Hotel Pier (PN: 60640529)

Delivery Info:

Date/time received: 1/5/21 @ 1126 By: 80

Delivered by: Apex ___ Client ___ ESS ___ FedEx UPS ___ Swift ___ Senvoy ___ SDS ___ Other ___

Cooler Inspection Date/time inspected: 1/5/21 @ 1126 By: 80

Chain of Custody included? Yes No ___ Custody seals? Yes No ___

Signed/dated by client? Yes No ___

Signed/dated by Apex? Yes No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.5</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>N</u>						
Ice type: (Gel/Real/Other)	<u>gel</u>						
Condition:	<u>good</u>						

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes No ___

Out of temperature samples form initiated? Yes No ___

Sample Inspection: Date/time inspected: 1/5/21 @ 1518 By: AKC

All samples intact? Yes No ___ Comments: _____

Bottle labels/COCs agree? Yes ___ No Comments: IDs on Conts. read J5038, J5039, J5040, J5041, J5042, J5043, J5044, J5045.

COC/container discrepancies form initiated? Yes ___ No

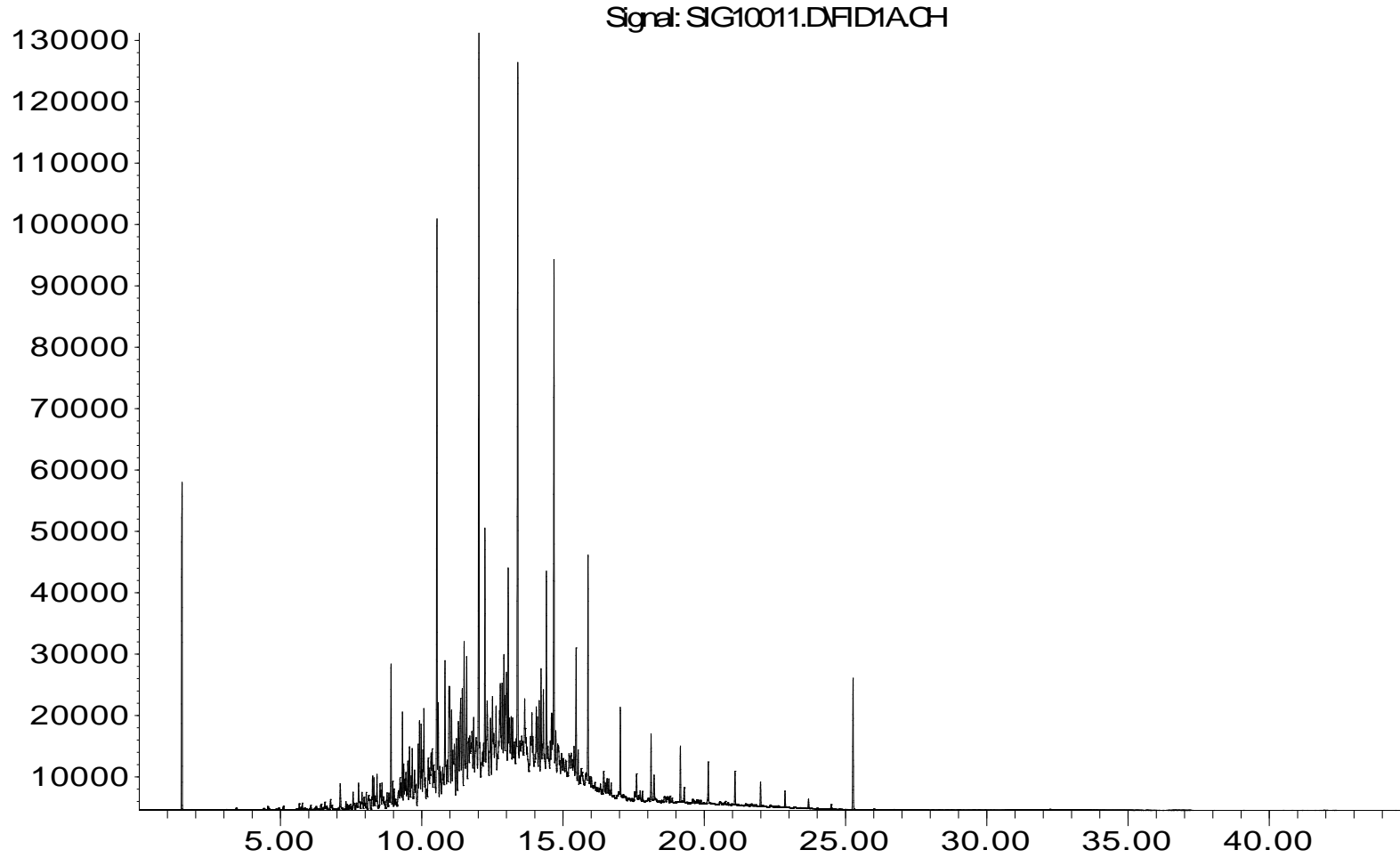
Containers/volumes received appropriate for analysis? Yes No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No ___ NA

Comments: _____

Liquid Sample: JS038 (A1A0133-01)
Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
Sequence Date: January 7, 2021

Response_

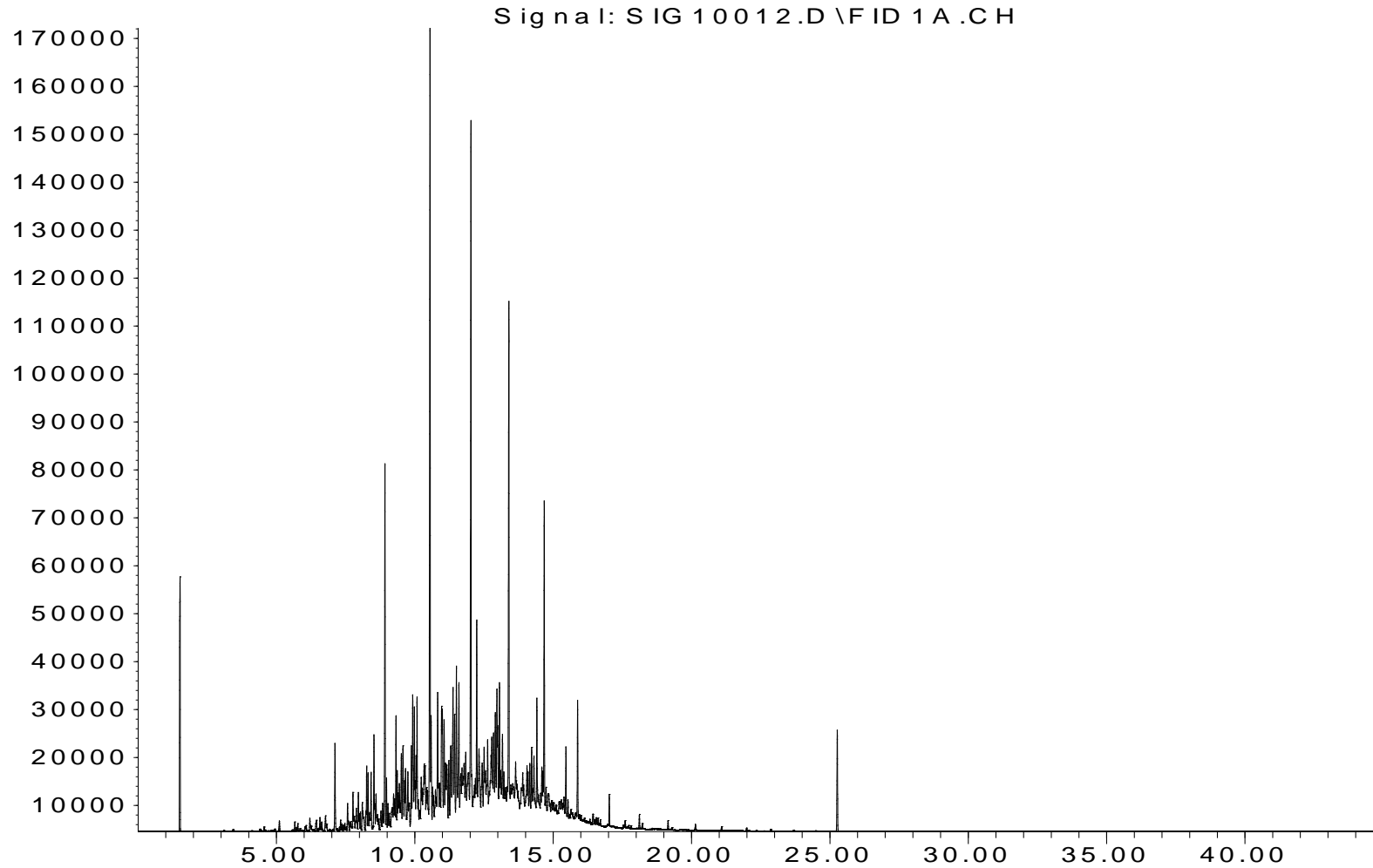


Time

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Liquid Sample: JS039 (A1A0133-02)
Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
Sequence Date: January 7, 2021

Response_

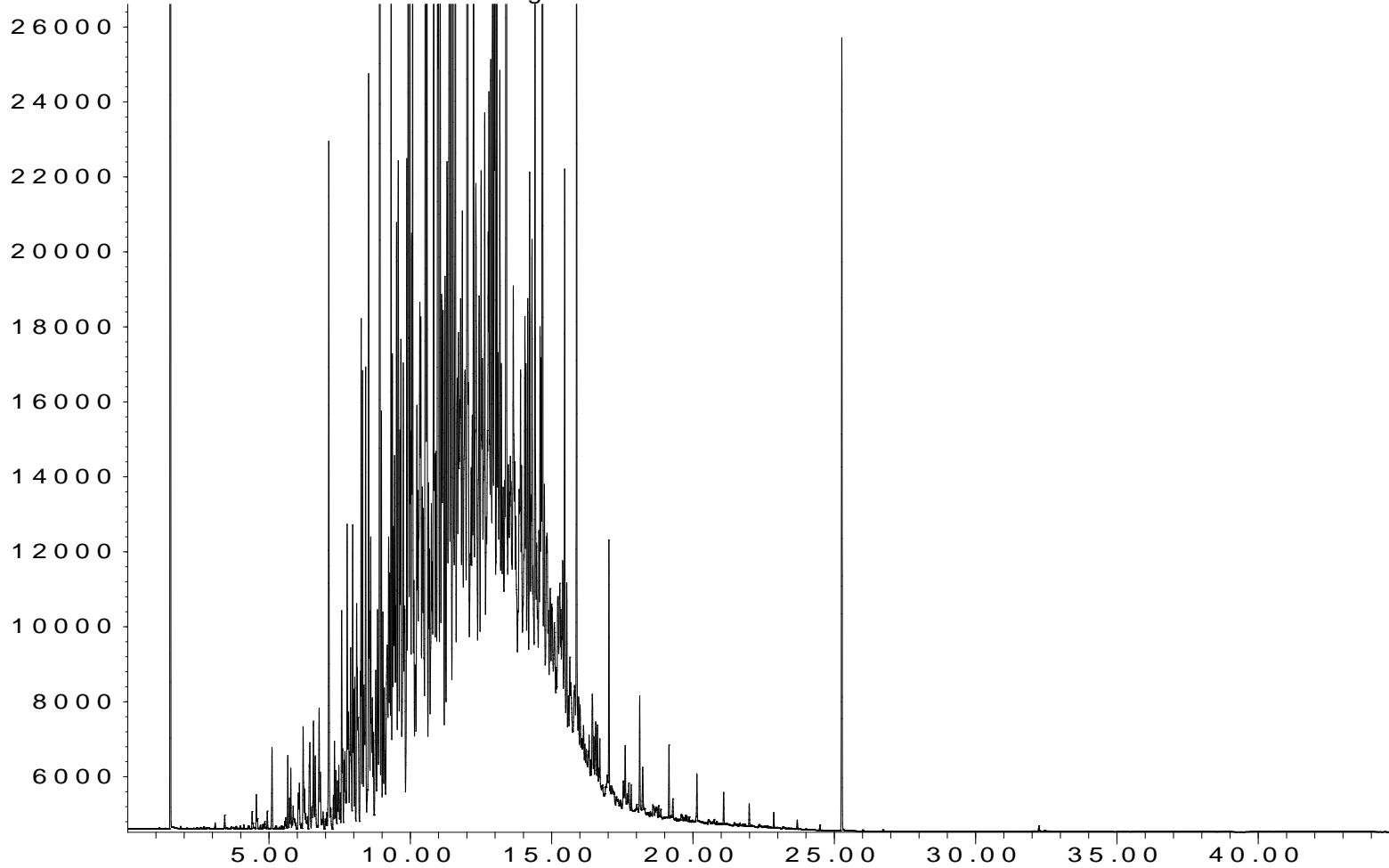


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Liquid Sample: JS039 (A1A0133-02) DETAIL
Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
Sequence Date: January 7, 2021

Response_

Signal: SIG 10012.D\FID 1A.CH



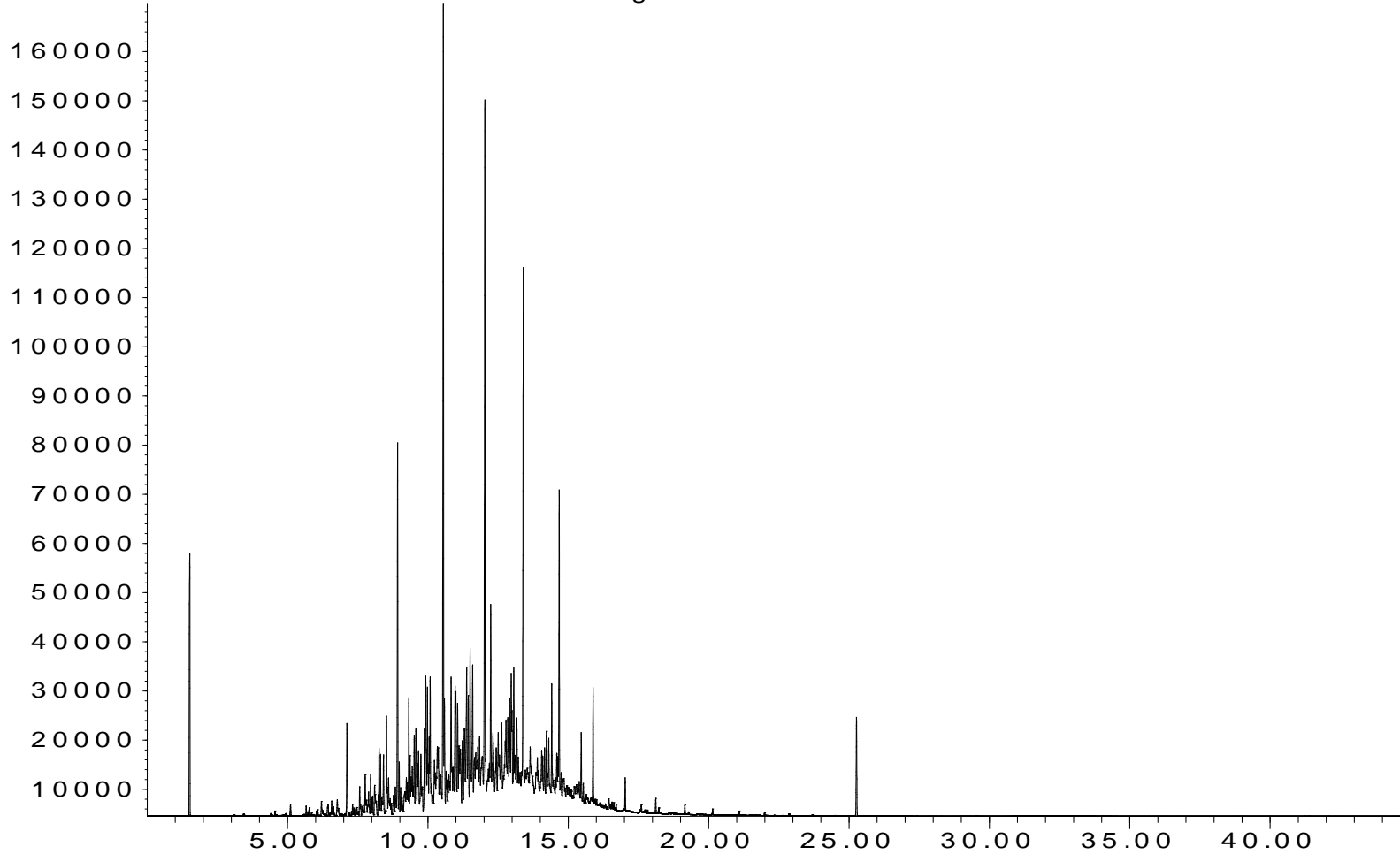
Time

- 1
- 2
- 3
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- 6
- 7
- 8

Liquid Sample: JS040 (A1A0133-03)
Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
Sequence Date: January 7, 2021

Response_

Signal: SIG10013.D\FID1A.CH



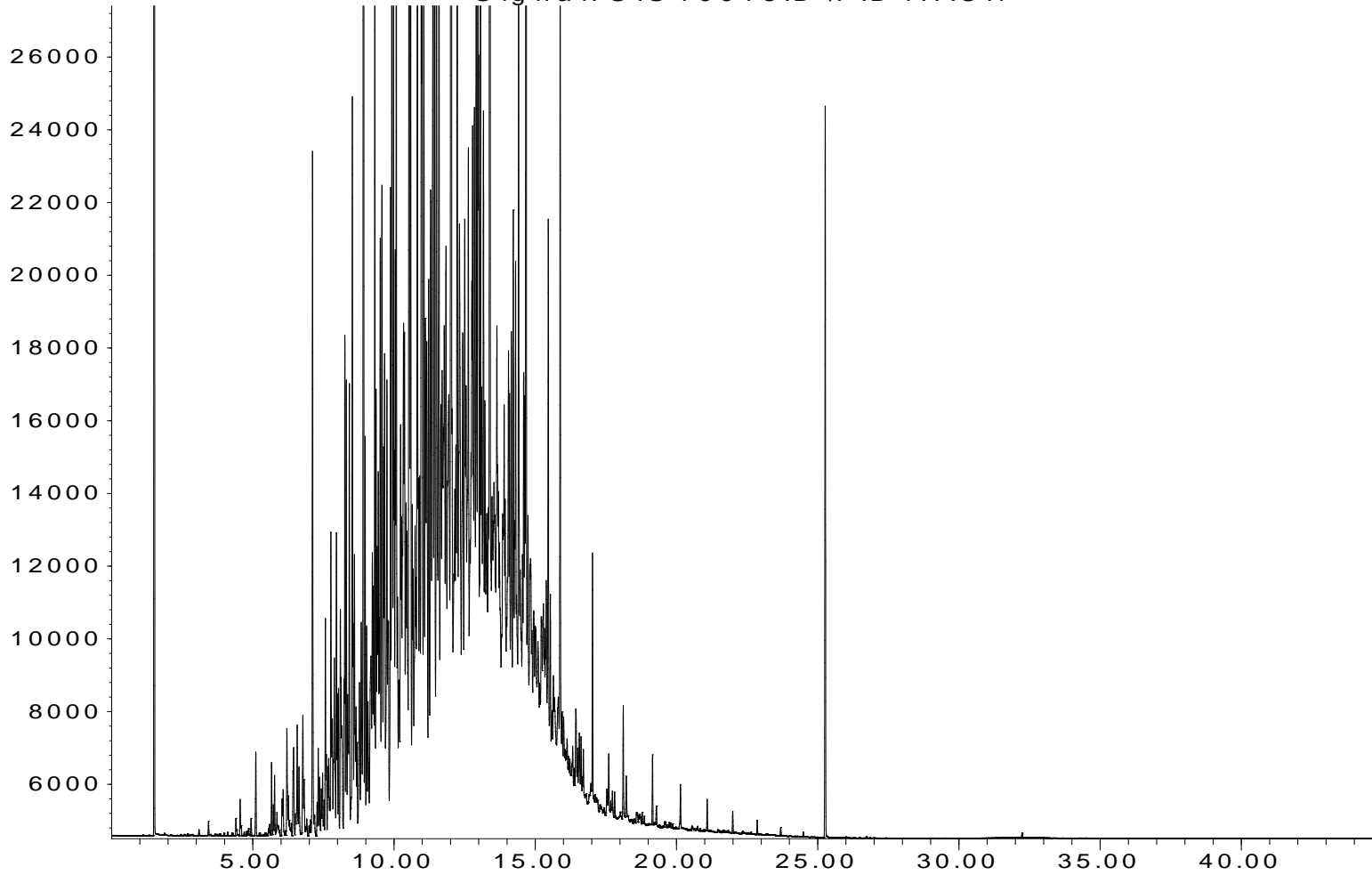
Time

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Liquid Sample: JS040 (A1A0133-03) DETAIL
Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
Sequence Date: January 7, 2021

Response_

Signal: SIG 10013.D\FID 1A.CH



Time

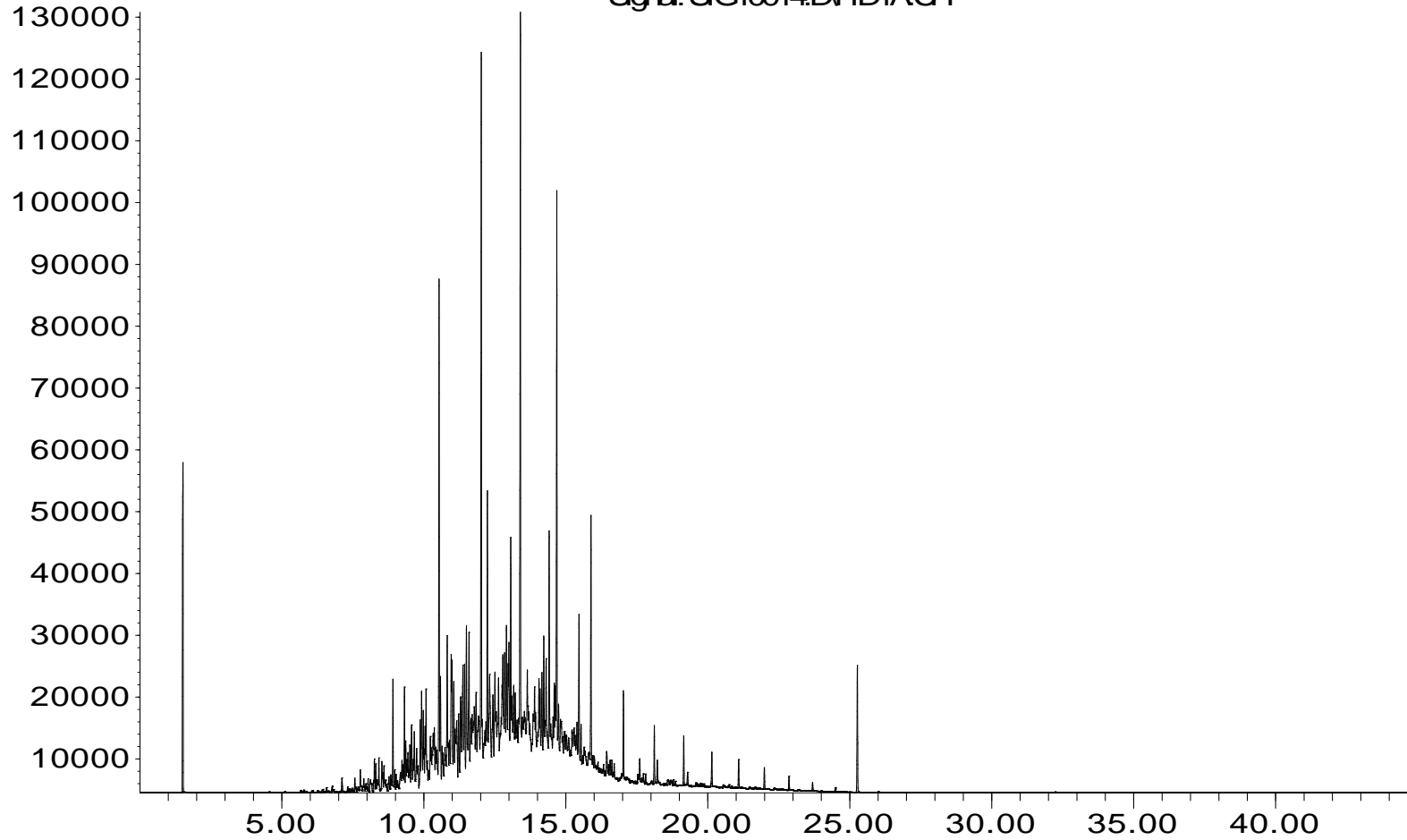
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Liquid Sample: JS041 (A1A0133-04)
Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
Sequence Date: January 7, 2021

Response_

Signal: SIG10014.D\FID1A.CH

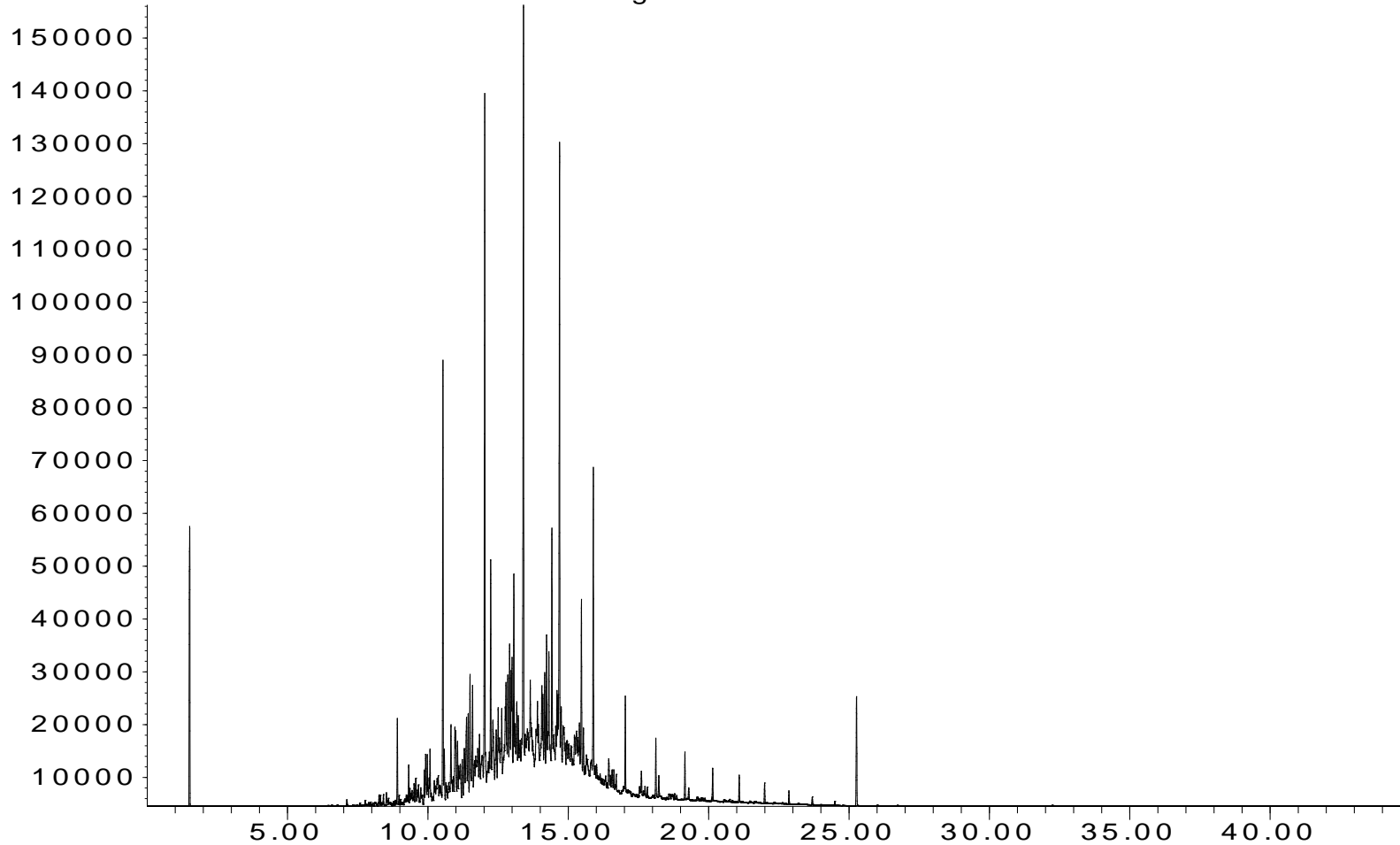


Time

Liquid Sample: JS042 (A1A0133-05)
Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
Sequence Date: January 7, 2021

Response_

Signal: SIG10015.D\FID1A.CH



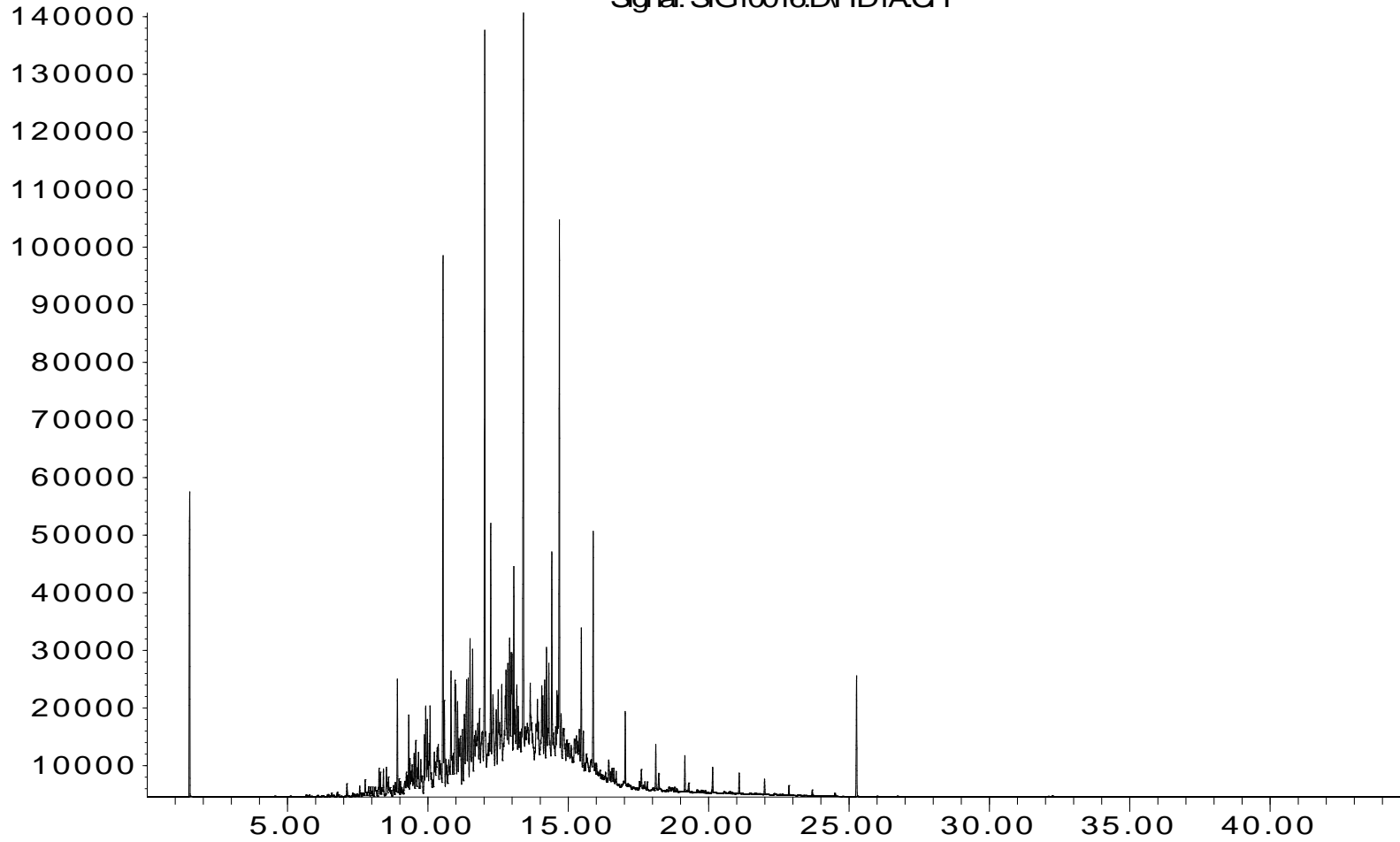
Time

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Liquid Sample: JS043 (A1A0133-06)
Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
Sequence Date: January 7, 2021

Response_

Signal: SIG10016.D\FID1A.CH

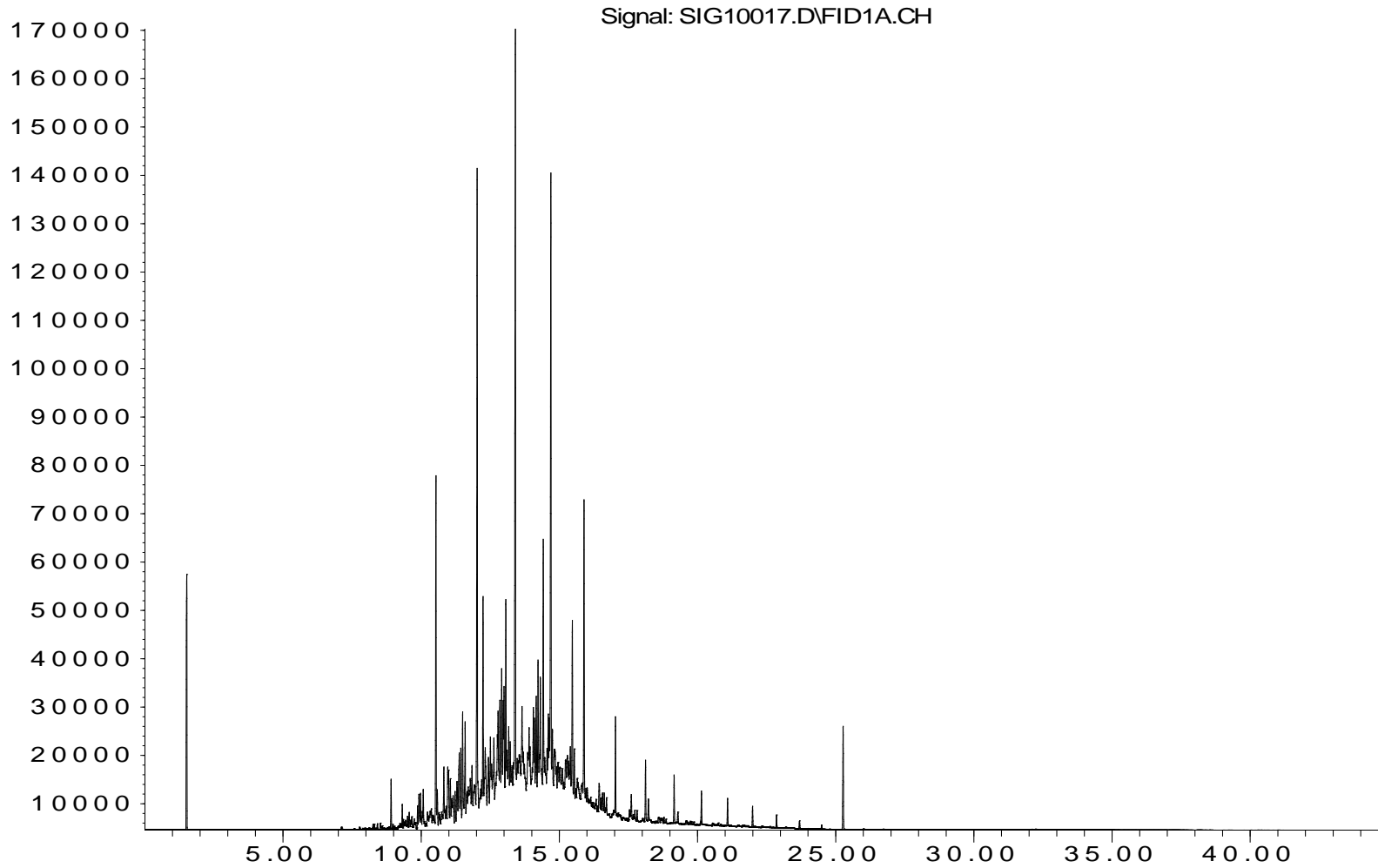


Time

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Liquid Sample: JS044 (A1A0133-07)
Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
Sequence Date: January 7, 2021

Response_



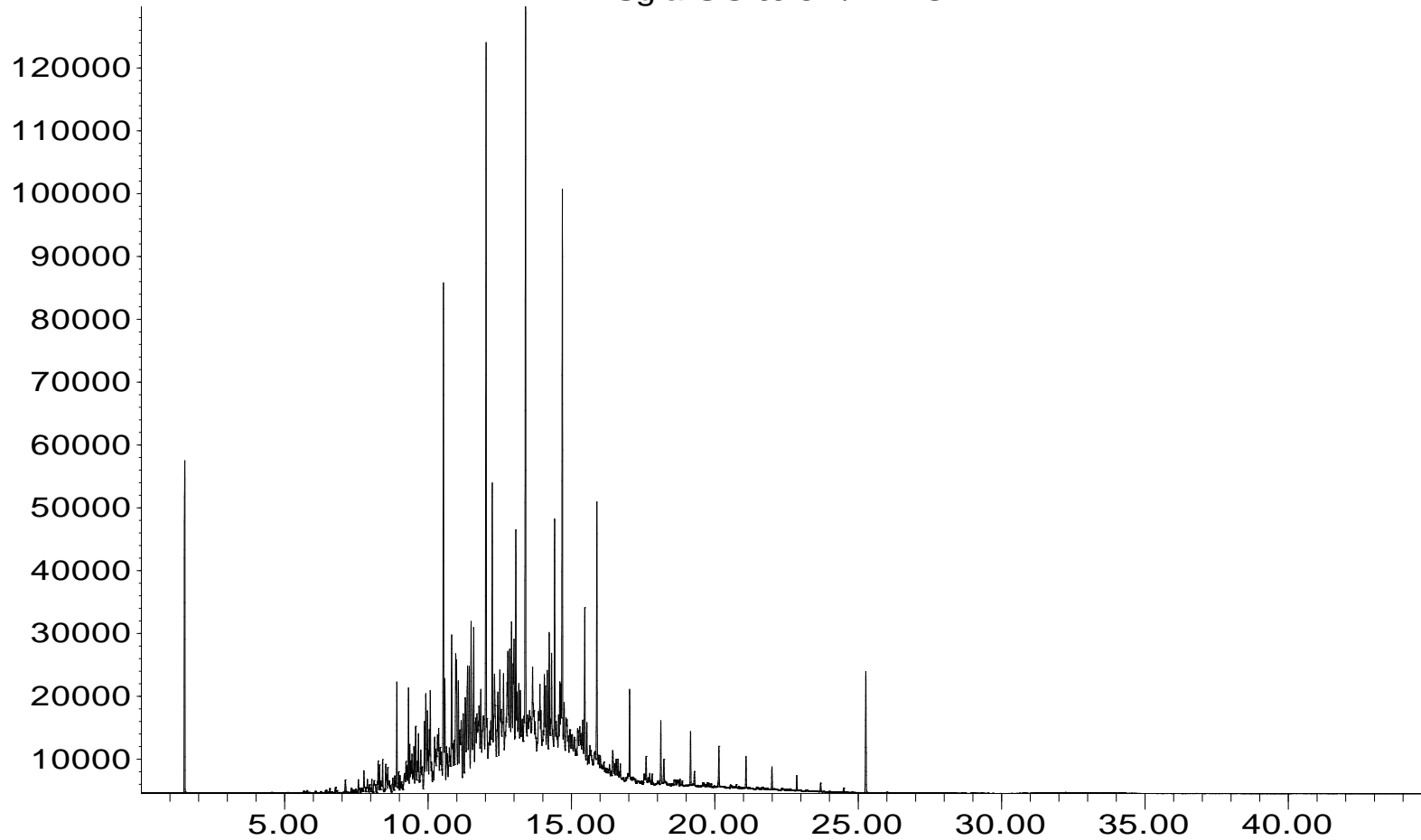
Time

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Liquid Sample: JS045 (A1A0133-08)
Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
Sequence Date: January 7, 2021

Response_

Signal: SIG10018.D\FID1A.CH



Time

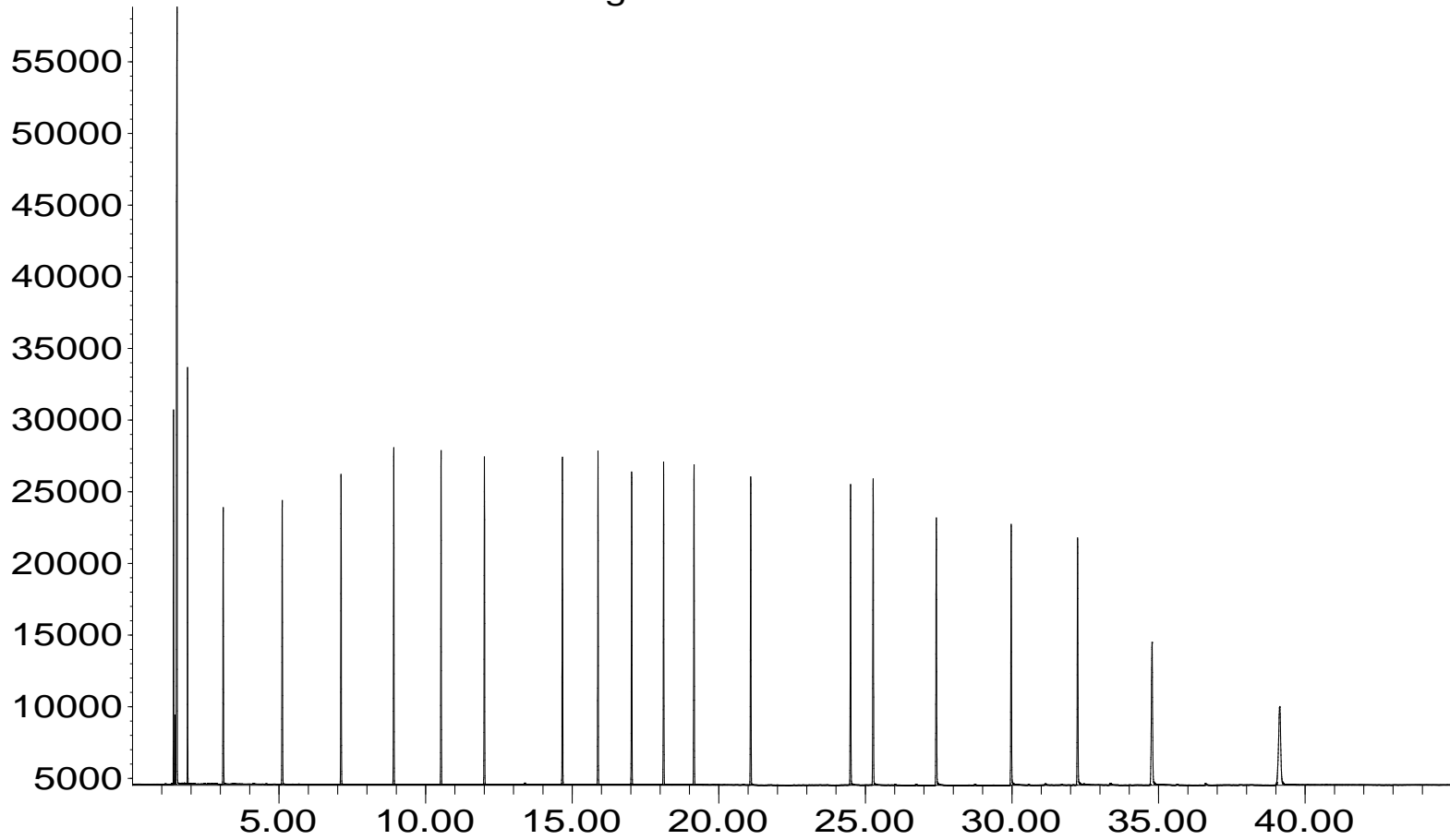
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

ASTM Reference Sample: 2887 Alk A
Eurofins TestAmerica - Hotel Pier Project
Sequence Date: January 7, 2021

Response_

Signal: SIG10003.D\FID1A.CH



Time

- 1
- 2
- 3
- 4
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- 8

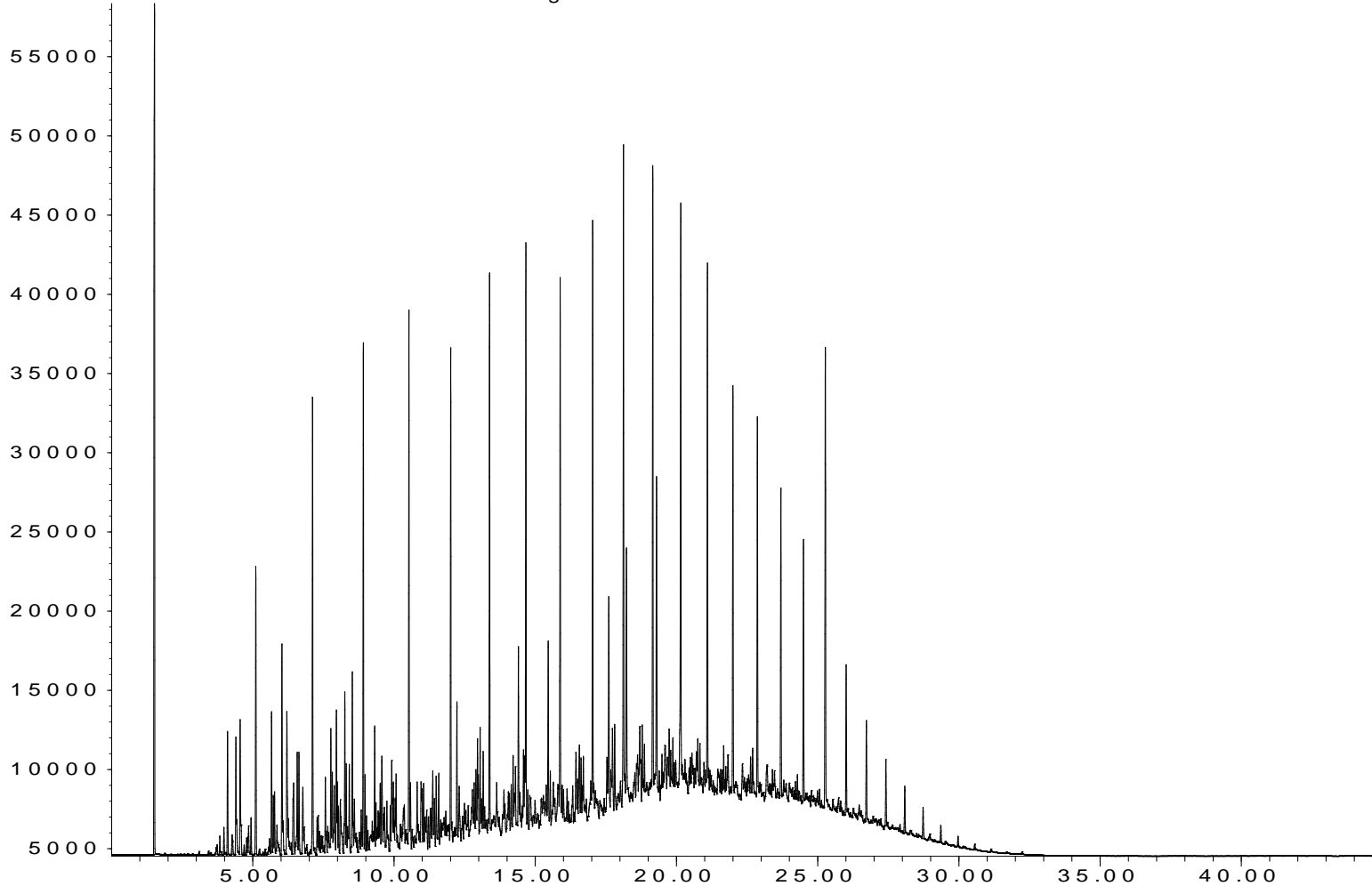
ASTM Reference Sample: 2887 Gas/Oil A

Eurofins TestAmerica - Hotel Pier Project

Sequence Date: January 7, 2021

Response_

Signal: SIG 10004.D\FID1A.CH

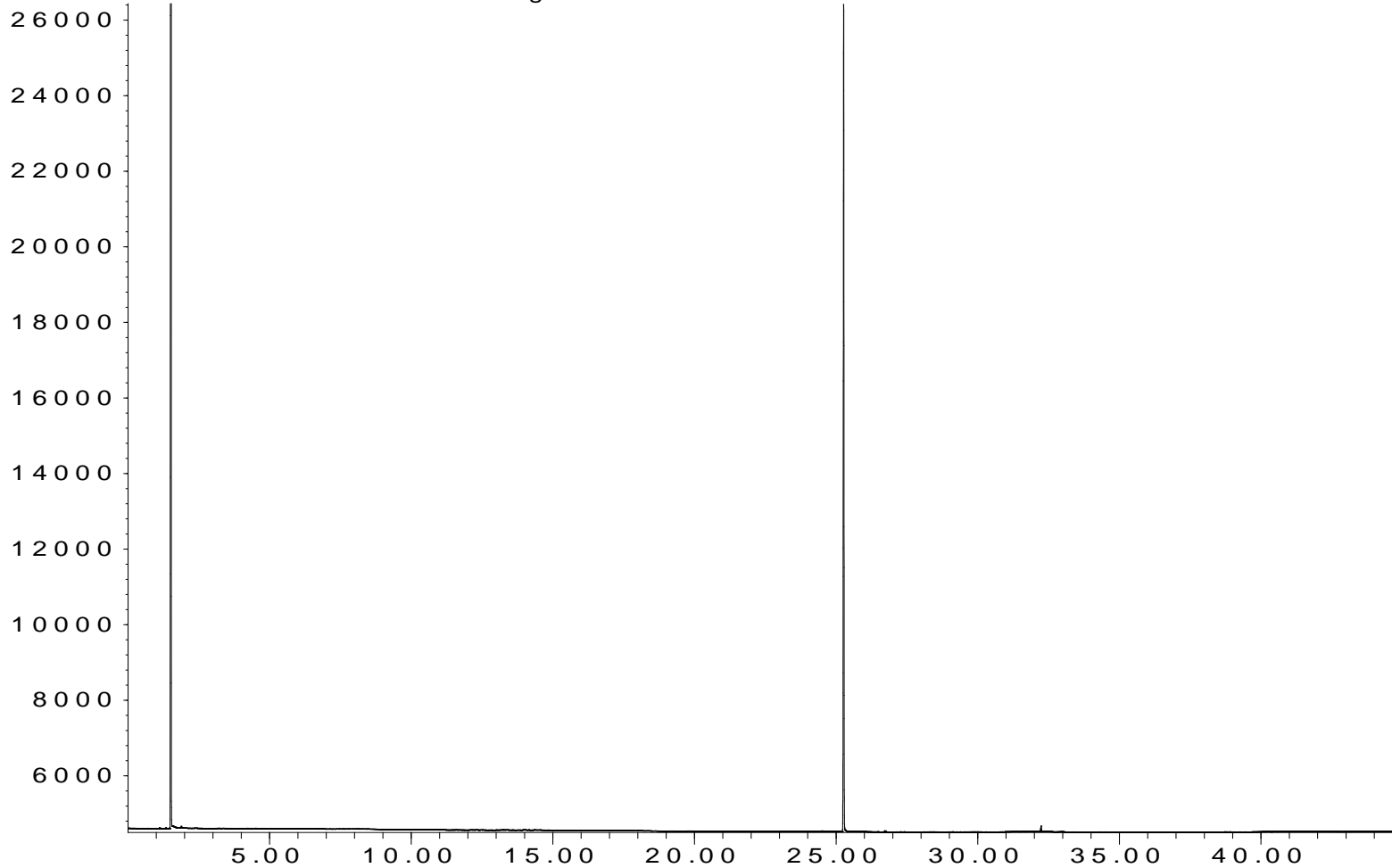


Time

QC Sample: Method Blank
Eurofins TestAmerica - Hotel Pier Project
Sequence Date: January 7, 2021

Response_

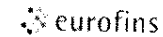
Signal: SIG 10006.D\FID 1A.CH



Time

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Chain of Custody Record



Environmental Testing
TestAmerica

Tacoma, WA 98424-1317
phone 253.922.2310 fax 253.922.5047

Regulatory Program: DW NPDES RCRA Other: CERCLA

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Robin Boyd	Site Contact: Dustin Goto	Date: 12/30/20	COC No:
AECOM 1001 Bishop Street Suite 1600 Honolulu, HI 96813 808356-356-5304 (xxx) xxx-xxxx FAX Project Name: CTO20F0164 Hotel Pier (PN: 60640529) Site: Hotel Pier, JBPPH P O # 128642	Tel/Fax: 1-540-254-1292	Lab Contact: Elaine Walker	Carrier: FedEx	1 of 1 COCs
Analysis Turnaround Time			Loc: 580 100174	
<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below <input type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day			Sampler: <u>Alethea Pamos</u> For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TPH-DROILO by 8015C	PCBs by 8082A	Fuel Fingerprints
J5038-manhole #4	12/23/20	10:10	G aqueous		1					X
J5039 (sewer lift 16)	12/16/20	10:56	G aqueous		1					X
J5040 (sewer lift 16)	12/23/20	10:44	G aqueous		1					X
J5041 (excavation #1)	12/14/20	10:30	G aqueous		1					X
J5042 (Hotel Pier 4)	12/14/20	11:05	G aqueous		1					X
J5043 (Hotel Pier 5)	12/14/20	11:40	G aqueous		1					X
J5044 (Hotel Pier 6)	12/14/20	11:50	G aqueous		1					X
J5045 (6x Pit)	12/15/20		G Bulk	Dipic	1					X



580-100174 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazardous Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments: Please send invoices to USAPImaging@aecom.com.

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.:
Relinquished by: <u>J. Jeffrey New</u>	Company: <u>NAUFAC HI</u>	Date/Time: <u>12/30/20 02:55</u>	Received by: <u>Alethea Pamos</u>
Relinquished by: <u>Alethea Pamos</u>	Company: <u>AECOM</u>	Date/Time: <u>12/30/20 14:20</u>	Received by: <u>[Signature]</u>
Relinquished by:	Company:	Date/Time:	Received by:

Therm ID: 1R8 Cor: 4.8 Unc: 5.0
Cooler Dsc: SR
Packing: _____ FedEx: P.O.
Cust. Seal: Yes No
Blue Ice, Wet, Dry, None Other: _____

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 580-100174-1

Login Number: 100174

List Source: Eurofins TestAmerica, Seattle

List Number: 1

Creator: Hobbs, Kenneth F

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	