

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Terri Choy
AECOM

1001 Bishop Street
Honolulu HI 96813

Generated 1/24/2023 1:00 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-121933-1

Eurofins Seattle

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Definitions/Glossary

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-121933-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

CASE NARRATIVE
Client: AECOM
Project: Red Hill - AFFF Assessment Sampling
Report Number: 580-121933-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

Eight samples were received on 1/6/2023 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.5° C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

GLYCOLS

Samples AF-RHMW06-WGN01LF-2301W1 (580-121933-1), AF-RHMW04-WGN01LF-2301W1 (580-121933-2), AF-RHMW16-WGN01LF-2301W1 (580-121933-3), AF-RHMW12A-WGN01LF-2301W1 (580-121933-4), AF-RHMW12A-WGFD01LF-2301W1 (580-121933-5), AF-HDMW225303-WGN01LF-2301W1 (580-121933-6), AF-RHMW10-WGN01LF-2301W1 (580-121933-7) and AF-RHMW10-WGFD01LF-2301W1 (580-121933-8) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 01/12/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-121933-1

Client Sample ID: AF-RHMW06-WGN01LF-2301W1 **Lab Sample ID: 580-121933-1**

No Detections.

Client Sample ID: AF-RHMW04-WGN01LF-2301W1 **Lab Sample ID: 580-121933-2**

No Detections.

Client Sample ID: AF-RHMW16-WGN01LF-2301W1 **Lab Sample ID: 580-121933-3**

No Detections.

Client Sample ID: AF-RHMW12A-WGN01LF-2301W1 **Lab Sample ID: 580-121933-4**

No Detections.

Client Sample ID: AF-RHMW12A-WGFD01LF-2301W1 **Lab Sample ID: 580-121933-5**

No Detections.

Client Sample ID: AF-HDMW225303-WGN01LF-2301W1 **Lab Sample ID: 580-121933-6**

No Detections.

Client Sample ID: AF-RHMW10-WGN01LF-2301W1 **Lab Sample ID: 580-121933-7**

No Detections.

Client Sample ID: AF-RHMW10-WGFD01LF-2301W1 **Lab Sample ID: 580-121933-8**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-121933-1

Client Sample ID: AF-RHMW06-WGN01LF-2301W1

Lab Sample ID: 580-121933-1

Date Collected: 01/04/23 10:35

Matrix: Water

Date Received: 01/06/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			01/12/23 07:30	1

Client Sample ID: AF-RHMW04-WGN01LF-2301W1

Lab Sample ID: 580-121933-2

Date Collected: 01/04/23 12:05

Matrix: Water

Date Received: 01/06/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			01/12/23 09:49	1

Client Sample ID: AF-RHMW16-WGN01LF-2301W1

Lab Sample ID: 580-121933-3

Date Collected: 01/04/23 12:10

Matrix: Water

Date Received: 01/06/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			01/12/23 07:53	1

Client Sample ID: AF-RHMW12A-WGN01LF-2301W1

Lab Sample ID: 580-121933-4

Date Collected: 01/04/23 09:40

Matrix: Water

Date Received: 01/06/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	1.1	mg/L			01/12/23 08:16	1

Client Sample ID: AF-RHMW12A-WGFD01LF-2301W1

Lab Sample ID: 580-121933-5

Date Collected: 01/04/23 09:40

Matrix: Water

Date Received: 01/06/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	1.1	mg/L			01/12/23 08:40	1

Client Sample ID: AF-HDMW225303-WGN01LF-2301W1

Lab Sample ID: 580-121933-6

Date Collected: 01/03/23 10:35

Matrix: Water

Date Received: 01/06/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	1.1	mg/L			01/12/23 09:03	1

Client Sample ID: AF-RHMW10-WGN01LF-2301W1

Lab Sample ID: 580-121933-7

Date Collected: 01/03/23 13:35

Matrix: Water

Date Received: 01/06/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	1.1	mg/L			01/12/23 09:26	1

Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-121933-1

Client Sample ID: AF-RHMW10-WGFD01LF-2301W1

Lab Sample ID: 580-121933-8

Date Collected: 01/03/23 13:35

Matrix: Water

Date Received: 01/06/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			01/12/23 16:45	1

Default Detection Limits

Client: AECOM

Job ID: 580-121933-1

Project/Site: Red Hill - AFFF Assessment Sampling

Method: 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	LOQ	DL	Units
2-(2-Butoxyethoxy)ethanol	5.0	1.1	mg/L

QC Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-121933-1

Method: 8015C GLY - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 680-758737/23
Matrix: Water
Analysis Batch: 758737

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			01/11/23 23:45	1

Lab Sample ID: LCS 680-758737/19
Matrix: Water
Analysis Batch: 758737

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	20.0	21.1		mg/L		105	50 - 150

Lab Sample ID: LCSD 680-758737/20
Matrix: Water
Analysis Batch: 758737

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	20.0	18.6		mg/L		93	50 - 150	13	50

Lab Sample ID: MB 680-758764/23
Matrix: Water
Analysis Batch: 758764

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			01/11/23 23:45	1

Lab Sample ID: LCS 680-758764/19
Matrix: Water
Analysis Batch: 758764

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	20.0	21.1		mg/L		105	50 - 150

Lab Sample ID: LCSD 680-758764/20
Matrix: Water
Analysis Batch: 758764

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	20.0	18.6		mg/L		93	50 - 150	13	50

Lab Sample ID: 580-121933-2 MS
Matrix: Water
Analysis Batch: 758764

Client Sample ID: AF-RHMW04-WGN01LF-2301W1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	3.0	U	40.0	31.6		mg/L		79	50 - 150

Lab Sample ID: 580-121933-2 MSD
Matrix: Water
Analysis Batch: 758764

Client Sample ID: AF-RHMW04-WGN01LF-2301W1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	3.0	U	40.0	32.0		mg/L		80	50 - 150	2	50

QC Sample Results

Client: AECOM
 Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-121933-1

Method: 8015C GLY - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 680-758860/60
Matrix: Water
Analysis Batch: 758860

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			01/12/23 14:25	1

Lab Sample ID: LCS 680-758860/56
Matrix: Water
Analysis Batch: 758860

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	20.0	16.4		mg/L		82	50 - 150

Lab Sample ID: LCSD 680-758860/57
Matrix: Water
Analysis Batch: 758860

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	20.0	17.6		mg/L		88	50 - 150	7	50

Lab Sample ID: 580-121933-8 MS
Matrix: Water
Analysis Batch: 758860

Client Sample ID: AF-RHMW10-WGFD01LF-2301W1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	3.0	U	40.0	42.4		mg/L		106	50 - 150

Lab Sample ID: 580-121933-8 MSD
Matrix: Water
Analysis Batch: 758860

Client Sample ID: AF-RHMW10-WGFD01LF-2301W1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	3.0	U	40.0	41.5		mg/L		104	50 - 150	2	50

QC Association Summary

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-121933-1

GC Semi VOA

Analysis Batch: 758737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-758737/23	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-758737/19	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-758737/20	Lab Control Sample Dup	Total/NA	Water	8015C GLY	

Analysis Batch: 758764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-121933-1	AF-RHMMW06-WGN01LF-2301W1	Total/NA	Water	8015C GLY	
580-121933-2	AF-RHMMW04-WGN01LF-2301W1	Total/NA	Water	8015C GLY	
580-121933-3	AF-RHMMW16-WGN01LF-2301W1	Total/NA	Water	8015C GLY	
580-121933-4	AF-RHMMW12A-WGN01LF-2301W1	Total/NA	Water	8015C GLY	
580-121933-5	AF-RHMMW12A-WGFD01LF-2301W1	Total/NA	Water	8015C GLY	
580-121933-6	AF-HDMW225303-WGN01LF-2301W1	Total/NA	Water	8015C GLY	
580-121933-7	AF-RHMMW10-WGN01LF-2301W1	Total/NA	Water	8015C GLY	
MB 680-758764/23	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-758764/19	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-758764/20	Lab Control Sample Dup	Total/NA	Water	8015C GLY	
580-121933-2 MS	AF-RHMMW04-WGN01LF-2301W1	Total/NA	Water	8015C GLY	
580-121933-2 MSD	AF-RHMMW04-WGN01LF-2301W1	Total/NA	Water	8015C GLY	

Analysis Batch: 758860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-121933-8	AF-RHMMW10-WGFD01LF-2301W1	Total/NA	Water	8015C GLY	
MB 680-758860/60	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-758860/56	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-758860/57	Lab Control Sample Dup	Total/NA	Water	8015C GLY	
580-121933-8 MS	AF-RHMMW10-WGFD01LF-2301W1	Total/NA	Water	8015C GLY	
580-121933-8 MSD	AF-RHMMW10-WGFD01LF-2301W1	Total/NA	Water	8015C GLY	

Lab Chronicle

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-121933-1

Client Sample ID: AF-RHMW06-WGN01LF-2301W1

Lab Sample ID: 580-121933-1

Date Collected: 01/04/23 10:35

Matrix: Water

Date Received: 01/06/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	758764	JCK	EET SAV	01/12/23 07:30

Client Sample ID: AF-RHMW04-WGN01LF-2301W1

Lab Sample ID: 580-121933-2

Date Collected: 01/04/23 12:05

Matrix: Water

Date Received: 01/06/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	758764	JCK	EET SAV	01/12/23 09:49

Client Sample ID: AF-RHMW16-WGN01LF-2301W1

Lab Sample ID: 580-121933-3

Date Collected: 01/04/23 12:10

Matrix: Water

Date Received: 01/06/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	758764	JCK	EET SAV	01/12/23 07:53

Client Sample ID: AF-RHMW12A-WGN01LF-2301W1

Lab Sample ID: 580-121933-4

Date Collected: 01/04/23 09:40

Matrix: Water

Date Received: 01/06/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	758764	JCK	EET SAV	01/12/23 08:16

Client Sample ID: AF-RHMW12A-WGFD01LF-2301W1

Lab Sample ID: 580-121933-5

Date Collected: 01/04/23 09:40

Matrix: Water

Date Received: 01/06/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	758764	JCK	EET SAV	01/12/23 08:40

Client Sample ID: AF-HDMW225303-WGN01LF-2301W1

Lab Sample ID: 580-121933-6

Date Collected: 01/03/23 10:35

Matrix: Water

Date Received: 01/06/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	758764	JCK	EET SAV	01/12/23 09:03

Client Sample ID: AF-RHMW10-WGN01LF-2301W1

Lab Sample ID: 580-121933-7

Date Collected: 01/03/23 13:35

Matrix: Water

Date Received: 01/06/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	758764	JCK	EET SAV	01/12/23 09:26

Lab Chronicle

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-121933-1

Client Sample ID: AF-RHMW10-WGFD01LF-2301W1

Lab Sample ID: 580-121933-8

Date Collected: 01/03/23 13:35

Matrix: Water

Date Received: 01/06/23 10:30

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Analysis	8015C GLY		1	758860	JCK	EET SAV	01/12/23 16:45

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-121933-1

Laboratory: Eurofins Savannah

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C GLY		Water	2-(2-Butoxyethoxy)ethanol

Method Summary

Client: AECOM

Job ID: 580-121933-1

Project/Site: Red Hill - AFFF Assessment Sampling

Method	Method Description	Protocol	Laboratory
8015C GLY	Glycols- Direct Injection (GC/FID)	SW846	EET SAV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: AECOM

Job ID: 580-121933-1

Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-121933-1	AF-RHMW06-WGN01LF-2301W1	Water	01/04/23 10:35	01/06/23 10:30
580-121933-2	AF-RHMW04-WGN01LF-2301W1	Water	01/04/23 12:05	01/06/23 10:30
580-121933-3	AF-RHMW16-WGN01LF-2301W1	Water	01/04/23 12:10	01/06/23 10:30
580-121933-4	AF-RHMW12A-WGN01LF-2301W1	Water	01/04/23 09:40	01/06/23 10:30
580-121933-5	AF-RHMW12A-WGFD01LF-2301W1	Water	01/04/23 09:40	01/06/23 10:30
580-121933-6	AF-HDMW225303-WGN01LF-2301W1	Water	01/03/23 10:35	01/06/23 10:30
580-121933-7	AF-RHMW10-WGN01LF-2301W1	Water	01/03/23 13:35	01/06/23 10:30
580-121933-8	AF-RHMW10-WGFD01LF-2301W1	Water	01/03/23 13:35	01/06/23 10:30

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 758737Lab Sample ID: IC 680-758737/12 Client Sample ID: _____Date Analyzed: 01/11/23 19:18 Lab File ID: GA11012.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol, 2-propoxy	3.12	Peak assignment corrected	SWK1	01/11/23 19:39
4-Hydroxy-4-methyl-2-pentanone	3.72	Peak assignment corrected	SWK1	01/11/23 19:39
2-Butoxyethanol	4.03	Peak assignment corrected	SWK1	01/11/23 19:39
n-Heptyl Alcohol	4.51	Peak assignment corrected	SWK1	01/11/23 19:39
Dipropylene Glycol Methyl Ether	5.47	Peak assignment corrected	SWK1	01/11/23 19:39
Propylene glycol	6.34	Peak assignment corrected	SWK1	01/11/23 19:39
Ethylene glycol	6.78	Peak assignment corrected	SWK1	01/11/23 19:39
2-(2-Butoxyethoxy)ethanol	8.76	Peak assignment corrected	SWK1	01/11/23 19:39
2,2'-Oxybisethanol	9.74	Peak assignment corrected	SWK1	01/11/23 19:39
Triethylene Glycol	10.75	Baseline Smoothing	SWK1	01/11/23 19:39
Tetraethylene Glycol	12.02	Peak assignment corrected	SWK1	01/11/23 19:39

Lab Sample ID: IC 680-758737/13 Client Sample ID: _____Date Analyzed: 01/11/23 19:41 Lab File ID: GA11013.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	10.75	Baseline Smoothing	SWK1	01/11/23 20:18

Lab Sample ID: IC 680-758737/14 Client Sample ID: _____Date Analyzed: 01/11/23 20:04 Lab File ID: GA11014.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	10.75	Baseline Smoothing	SWK1	01/11/23 20:51

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 758737Lab Sample ID: ICIS 680-758737/15 Client Sample ID: _____Date Analyzed: 01/11/23 20:28 Lab File ID: GA11015.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol, 2-propoxy	3.12	Baseline Smoothing	SWK1	01/11/23 20:52
Triethylene Glycol	10.75	Baseline Smoothing	SWK1	01/11/23 20:52

Lab Sample ID: IC 680-758737/16 Client Sample ID: _____Date Analyzed: 01/11/23 20:51 Lab File ID: GA11016.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	10.75	Baseline Smoothing	SWK1	01/11/23 21:35

Lab Sample ID: IC 680-758737/17 Client Sample ID: _____Date Analyzed: 01/11/23 21:14 Lab File ID: GA11017.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	10.75	Baseline Smoothing	SWK1	01/11/23 21:35

Lab Sample ID: ICV 680-758737/18 CCV Client Sample ID: _____Date Analyzed: 01/11/23 21:37 Lab File ID: GA11018.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	10.75	Baseline Smoothing	SWK1	01/11/23 22:02

Lab Sample ID: CCV 680-758737/37 Client Sample ID: _____Date Analyzed: 01/12/23 05:11 Lab File ID: GA11037.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.43	Peak assignment corrected	SWK1	01/12/23 11:40

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 758764

Lab Sample ID: CCVIS 680-758764/37 Client Sample ID: _____

Date Analyzed: 01/12/23 05:11 Lab File ID: GA11037.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.43	Peak assignment corrected	SWK1	01/12/23 11:40

Lab Sample ID: 580-121933-4 Client Sample ID: AF-RHMW12A-WGN01LF-2301W1

Date Analyzed: 01/12/23 08:16 Lab File ID: GA11045.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-(2-Butoxyethoxy)ethanol		Invalid Compound ID	SWK1	01/12/23 11:45

Lab Sample ID: 580-121933-5 Client Sample ID: AF-RHMW12A-WGFD01LF-2301W1

Date Analyzed: 01/12/23 08:40 Lab File ID: GA11046.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-(2-Butoxyethoxy)ethanol		Invalid Compound ID	SWK1	01/12/23 11:45

Lab Sample ID: 580-121933-6 Client Sample ID: AF-HDMW225303-WGN01LF-2301W1

Date Analyzed: 01/12/23 09:03 Lab File ID: GA11047.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-(2-Butoxyethoxy)ethanol		Invalid Compound ID	SWK1	01/12/23 11:45

Lab Sample ID: 580-121933-7 Client Sample ID: AF-RHMW10-WGN01LF-2301W1

Date Analyzed: 01/12/23 09:26 Lab File ID: GA11048.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-(2-Butoxyethoxy)ethanol		Invalid Compound ID	SWK1	01/12/23 11:45

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 758860

Lab Sample ID: CCV 680-758860/70 Client Sample ID: _____

Date Analyzed: 01/12/23 18:18 Lab File ID: GA11070.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.46	Baseline Smoothing	SWK1	01/13/23 11:26
Ethylene glycol	6.81	Baseline Smoothing	SWK1	01/13/23 11:26

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SG_Gly_CAL_00052	06/30/23		o2si, Lot 480919			(Purchased Reagent)	2,2'-Oxybisethanol	2000 ug/mL
							2-(2-Butoxyethoxy)ethanol	2000 ug/mL
							2-Butoxyethanol	2000 ug/mL
							4-Hydroxy-4-methyl-2-pentanone	2000 ug/mL
							Dipropylene Glycol Methyl Ether	2000 ug/mL
							Ethanol, 2-propoxy	2000 ug/mL
							Ethylene glycol	2000 ug/mL
							Propylene glycol	2000 ug/mL
SG_GLY_ISTD_00105	07/11/23		Agilent, Lot 0006720623			(Purchased Reagent)	n-Heptyl Alcohol	5000 ug/mL
SG_GlyICV_00052	06/30/23		o2si, Lot 454407			(Purchased Reagent)	2-(2-Butoxyethoxy)ethanol	2000 ug/mL

Reagent

SG_Gly_CAL_00052



ISO/IEC 17025 Accredited
Chemical Testing Lab
Cert. No. 3031.01



ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Rev 0

Certificate of Analysis

Page 1 of 3

Catalog No.	Lot No.	Storage	Solvent	Date Received	Exp. Date
G34-120070-04	480919	≤ -10 °C	P/T Methanol		2-May-2024

Description:

ISO 17034 -Custom Volatiles Mix,105-12, 2000 & 4,000 mg/L, 1 mL

Container:

1 ml Ampule, Amber Glass

Certified Values:

The certified value is based on gravimetric and volumetric preparation of this Certified Reference Material (CRM). This CRM has been confirmed by GC/MS, GC, HPLC, UPLC/HRAM-MS, UV/VIS, Enzymatic, and/or wet chemistry techniques using internally developed method(s) against independent source(s). The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2. The purity of neat materials not traceable to an ISO 17034:2016 accredited Reference Material Provider is traceable to internal analysis by GC, GC/MS, HPLC, Enzymatic, or wet chemistry techniques and compared to a National Metrological Institute such as NIST where feasible.

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration
2-butoxyethanol	111-76-2	99.6	311.9.2P	1986 ± 100 mg/L
diethylene glycol butyl ether	112-34-5	99.8	2323.7.2P	2008 ± 100 mg/L
propyl cellosolve	2807-30-9	99.9	1570.7.2P	1980 ± 100 mg/L
dipropylene glycol monomethyl ether	34590-94-8	99.7	2333.7.2P	2014 ± 100 mg/L
ethylene glycol	107-21-1	100	307.201.1P	1968 ± 99 mg/L
di(ethylene glycol)	111-46-6	99.5	309.7.2P	1994 ± 100 mg/L
tri(ethylene glycol)	112-27-6	99.9	310.7.2.1.1P	1974 ± 110 mg/L
4-Hydroxy-4-methyl-2-pentanone	123-42-2	98	2334.286.1P	1991 ± 110 mg/L
1,2-propanediol	57-55-6	99.5	306.9.3P	1998 ± 100 mg/L
tetraethylene glycol	112-60-7	98	3754.7.1P	3959 ± 200 mg/L

Intended Uses:

This CRM is intended for use as a calibration standard or a quality control standard for chromatography equipment such as GC, GC/MS, HPLC, and HPLC/MS. It may also be used for various USEPA, NIOSH and ASTM methods.

Recommended storage container for ampuled products after opening is a 12 mm x 32 mm amber vial with screw cap Teflon lined silicon septum. The modeled % change per day can be calculated using the following:

Certificate of Analysis

Page 2 of 3

Catalog No. G34-120070-04

Lot No. 480919

Expiration Date 2 -May-2024

$$\% \text{ Change} = 116192x^{-2.578} + 40.383e^{-0.03y}$$

where x = boiling point of the most volatile analyte in the mix (in degrees K)

y = boiling point of the solvent (in degrees K)

This model assumes the container is stored at -10 °C and is unopened during storage. The user should determine what the acceptable error for their process is and calculate the maximum number of days the opened ampule should be stored.

Method of Preparation:

This standard was prepared gravimetrically using balances calibrated with National Institute of Standards and Technology (NIST) traceable weights (NIST Test Numbers 822/273070-06, 822/275141-07, 822/278993-10). Only calibrated Class A volumetric glassware and/or calibrated syringes were used to prepare this standard. Raw materials may have been checked for stoichiometry and purity prior to use. This standard has been analyzed against an independent source.

Packaging and Storage:

The solution should be stored according to the following storage requirements: ≤ -10 °C

Once the product is opened, it should be transferred to a vial with minimum head space if the product was received in a sealed ampule.

Glassware Calibration:

Only Class A glassware and/or calibrated syringes are used in the manufacture and quality control of standards. All glassware is calibrated using NIST traceable weights.

Weights and Balance Calibration:

Weights used to perform daily checks on balances are calibrated annually by the State of South Carolina Department of Agriculture Metrology Laboratory and are traceable to NIST. Balances are checked daily in accordance to procedure O2-LB-G-002. Balances are calibrated annually by an ISO/IEC 17025:2017 accredited metrology service.

Homogeneity:

Homogeneity has been established in accordance with internal procedure O2-QS-011 and has a maximum uncertainty of 0.1%. This is consistent with the intended use of this CRM. The homogeneity of this product has been confirmed by procedures consistent with ISO/IEC 17025:2017 and ISO 17034:2016. The homogeneity of this CRM is valid for sample sub-sizes that the end user can quantitatively reproduce.

Hazardous Information:

Refer to MSDS.

Calculation of Uncertainty:

The following equations are used to calculate the value of the expanded uncertainty:

$u = ku_c$ u = Expanded Uncertainty, k = the coverage factor at the 95% confidence level, k = 2, u_c = the combined uncertainty

$u_c = (u_{\text{char}}^2 + u_{\text{tran}}^2 + u_{\text{homo}}^2 + u_{\text{ls}}^2)^{1/2}$ where u_i are the individual uncertainty components for manufacturing, transportation, homogeneity, and shelf life. While no significant uncertainty was detected in the replicates, a minimum contribution to

Manufactured By:

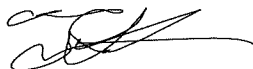


Brian Stokes

3 -May-2022

Production Chemist I

Certified By:



Tyler Sherman

14 -Jun-2022

Quality Control Chemist I

Released By:



Susan Mathews

14 -Jun-2022

Quality Control Team Lead

7290B Investment Drive • North Charleston, SC 29418
Phone: 866.272.0932 • Fax: 866.509.5146 www.o2si.com

Certificate of Analysis

Catalog No. G34-120070-04

Lot No. 480919

Expiration Date 2 -May-2024

uncertainty was added for homogeneity and long term stability as described in ISO Guide 35:2017.

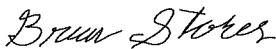
Expiration Information:

The stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. These tests include the effect of temperature and packaging on the product. Studies on the short term instability have determined no contribution to instability as observed on the concentration under controlled transportation conditions. This standard is guaranteed until 2-May-2024

Quality Standard Documentation:

- ISO/IEC 17025:2017 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 3031.01
- ISO 17034:2016 "General Requirements for the Competence of Reference Material Producers" - Reference Material Production - Accredited A2LA Certificate Number 3031.02

Manufactured By:



Brian Stokes

3 -May-2022

Production Chemist I

Certified By:



Tyler Sherman

14 -Jun-2022

Quality Control Chemist I

7290B Investment Drive • North Charleston, SC 29418
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Released By:



Susan Mathews

14 -Jun-2022

Quality Control Team Lead

Reagent

SG_GLY_ISTD_00105

Reference Material Certificate
Product Information Sheet

Product Name: Custom Standard

Lot Number: 0006720623

Product Number: CUS-6046

Lot Issue Date: 15-Dec-2022

Storage Conditions: Store at Room Temperature (15° to 30°C).

Expiration Date: 31-Jan-2025

Component Name	CERTIFIED VALUES		CAS#	Analyte Lot
	Concentration	Expanded Uncertainty		
n-heptanol	5001	± 25 µg/mL	000111-70-6	RM04540

Matrix: methanol (methyl alcohol)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

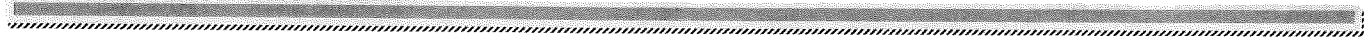
Expiration of Certification:

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.



Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.



Sample lot approver:

Monica Bourgeois
QMS Representative



RM was produced in accordance with the TUV/SUD registered ISO 9001:2015 Quality Management System. Cert# 951215321

Page: 2 of 2

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025

ISO 17034 Cert
No. AR-1936

Reagent

SG_GlyICV_00052



ISO/IEC 17025 Accredited
Chemical Testing Lab
Cert. No. 3031.01



ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Rev 0

Certificate of Analysis

Page 1 of 3

Catalog No.	Lot No.	Storage	Solvent	Date Received	Exp. Date
G34-120070-04-SS	454407	≤ -10 °C	P/T Methanol		1-Jul-2023

Description:

ISO 17034 -Custom Volatiles Mix, 105-12, Second Source, 2000 & 4,000 mg/L, 1 mL

Container:

1 ml Ampule, Amber Glass

Certified Values:

The certified value is based on gravimetric and volumetric preparation of this Certified Reference Material (CRM). This CRM has been confirmed by GC/MS, GC, HPLC, UPLC/HRAM-MS, UV/VIS, Enzymatic, and/or wet chemistry techniques using internally developed method(s) against independent source(s). The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2. The purity of neat materials not traceable to an ISO 17034:2016 accredited Reference Material Provider is traceable to internal analysis by GC, GC/MS, HPLC, Enzymatic, or wet chemistry techniques and compared to a National Metrological Institute such as NIST where feasible.

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration
2-butoxyethanol	111-76-2	99.5	311.7.1.1S	1994 ± 100 mg/L
diethylene glycol butyl ether	112-34-5	99.8	2323.7.2.1S	1992 ± 100 mg/L
2-propoxyethanol	2807-30-9	99.5	1570.7.1S	1998 ± 110 mg/L
dipropylene glycol monomethyl ether	34590-94-8	99.7	2333.7.2.1S	1998 ± 100 mg/L
ethylene glycol	107-21-1	100	307.201.1.1S	2016 ± 100 mg/L
di(ethylene glycol)	111-46-6	99.9	309.7.1.1S	1998 ± 100 mg/L
tri(ethylene glycol)	112-27-6	99.9	310.7.3.1S	2010 ± 100 mg/L
4-Hydroxy-4-methyl-2-pentanone	123-42-2	98	2334.286.1.1S	2003 ± 110 mg/L
1,2-propanediol	57-55-6	99.6	306.370.1.1S	2004 ± 110 mg/L
tetraethylene glycol	112-60-7	98	3754.7.1.1S	4049 ± 200 mg/L

Intended Uses:

This CRM is intended for use as a calibration standard or a quality control standard for chromatography equipment such as GC, GC/MS, HPLC, and HPLC/MS. It may also be used for various USEPA, NIOSH and ASTM methods.

Recommended storage container for ampuled products after opening is a 12 mm x 32 mm amber vial with screw cap Teflon lined silicon septum. The modeled % change per day can be calculated using the following:

Certificate of Analysis

Page 2 of 2

Catalog No. G34-120070-04-SS

Lot No. 454407

Expiration Date 1 -Jul-2023

$$\% \text{ Change} = 116192x^{-2.578} + 40.383e^{-0.03y}$$

where x = boiling point of the most volatile analyte in the mix (in degrees K)
y = boiling point of the solvent (in degrees K)

This model assumes the container is stored at -10 °C and is unopened during storage. The user should determine what the acceptable error for their process is and calculate the maximum number of days the opened ampule should be stored.

Method of Preparation:

This standard was prepared gravimetrically using balances calibrated with National Institute of Standards and Technology (NIST) traceable weights (NIST Test Numbers 822/273070-06, 822/275141-07, 822/278993-10). Only calibrated Class A volumetric glassware and/or calibrated syringes were used to prepare this standard. Raw materials may have been checked for stoichiometry and purity prior to use. This standard has been analyzed against an independent source.

Packaging and Storage:

The solution should be stored according to the following storage requirements: ≤ -10 °C
Once the product is opened, it should be transferred to a vial with minimum head space if the product was received in a sealed ampule.

Glassware Calibration:

Only Class A glassware and/or calibrated syringes are used in the manufacture and quality control of standards. All glassware is calibrated using NIST traceable weights.

Weights and Balance Calibration:

Weights used to perform daily checks on balances are calibrated annually by the State of South Carolina Department of Agriculture Metrology Laboratory and are traceable to NIST. Balances are checked daily in accordance to procedure O2-LB-G-002. Balances are calibrated annually by an ISO/IEC 17025:2017 accredited metrology service.

Homogeneity:

Homogeneity has been established in accordance with internal procedure O2-QS-011 and has a maximum uncertainty of 0.1%. This is consistent with the intended use of this CRM. The homogeneity of this product has been confirmed by procedures consistent with ISO/IEC 17025:2017 and ISO 17034:2016. The homogeneity of this CRM is valid for sample sub-sizes that the end user can quantitatively reproduce.

Hazardous Information:

Refer to MSDS.

Calculation of Uncertainty:

The following equations are used to calculate the value of the expanded uncertainty:
 $u = ku_c$ u = Expanded Uncertainty, k = the coverage factor at the 95% confidence level, k = 2, u_c = the combined uncertainty
 $u_c = (u_{\text{char}}^2 + u_{\text{tran}}^2 + u_{\text{homo}}^2 + u_{\text{its}}^2)^{1/2}$ where u_i are the individual uncertainty components for manufacturing, transportation, homogeneity, and shelf life. While no significant uncertainty was detected in the replicates, a minimum contribution to

Manufactured By:



Jared Ball
1 -Jul-2021

Production Chemist I

Certified By:



Claire Desrochers
7 -Jul-2021

Quality Control Chemist I

Released By:



Susan Mathews
8 -Jul-2021

Quality Control Team Lead

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Certificate of Analysis

Catalog No. G34-120070-04-SS

Lot No. 454407

Expiration Date 1-Jul-2023

uncertainty was added for homogeneity and long term stability as described in ISO Guide 35:2017.

Expiration Information:

The stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. These tests include the effect of temperature and packaging on the product. Studies on the short term instability have determined no contribution to instability as observed on the concentration under controlled transportation conditions. This standard is guaranteed until 1-Jul-2023

Quality Standard Documentation:

- ISO/IEC 17025:2017 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 3031.01
- ISO 17034:2016 "General Requirements for the Competence of Reference Material Producers" - Reference Material Production - Accredited A2LA Certificate Number 3031.02

Manufactured By:



Jared Ball
1-Jul-2021

Production Chemist I

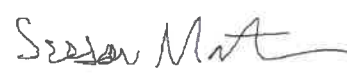
Certified By:



Claire Desrochers
7-Jul-2021

Quality Control Chemist I

Released By:



Susan Mathews
8-Jul-2021

Quality Control Team Lead

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Method 8015C - DAI Glycols

Glycols -Direct Injection (GC/FID) -
Method 8015C

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GA11019.D
 Lab ID: LCS 680-758737/19 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy) ethanol	20.0	21.1	105	50-150	

Column to be used to flag recovery and RPD values
 FORM III 8015C GLY

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GA11019.D
 Lab ID: LCS 680-758764/19 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy) ethanol	20.0	21.1	105	50-150	

Column to be used to flag recovery and RPD values
 FORM III 8015C GLY

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GA11056.D
 Lab ID: LCS 680-758860/56 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy) ethanol	20.0	16.4	82	50-150	

Column to be used to flag recovery and RPD values
 FORM III 8015C GLY

FORM III
GC SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GA11020.D
 Lab ID: LCSD 680-758737/20 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy) ethanol	20.0	18.6	93	13	50	50-150	

Column to be used to flag recovery and RPD values
 FORM III 8015C GLY

FORM III
GC SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GA11020.D
 Lab ID: LCSD 680-758764/20 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy) ethanol	20.0	18.6	93	13	50	50-150	

Column to be used to flag recovery and RPD values
 FORM III 8015C GLY

FORM III
GC SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GA11057.D
 Lab ID: LCSD 680-758860/57 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy) ethanol	20.0	17.6	88	7	50	50-150	

Column to be used to flag recovery and RPD values
 FORM III 8015C GLY

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GA11050.D
 Lab ID: 580-121933-2 MS Client ID: AF-RHMW04-WGN01LF-2301W1 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy) ethanol	40.0	3.0 U	31.6	79	50-150	

Column to be used to flag recovery and RPD values
 FORM III 8015C GLY

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GA11067.D
 Lab ID: 580-121933-8 MS Client ID: AF-RHMW10-WGFD01LF-2301W1 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy) ethanol	40.0	3.0 U	42.4	106	50-150	

Column to be used to flag recovery and RPD values
 FORM III 8015C GLY

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GA11051.D
 Lab ID: 580-121933-2 MSD Client ID: AF-RHMW04-WGN01LF-2301W1 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy) ethanol	40.0	32.0	80	2	50	50-150	

Column to be used to flag recovery and RPD values
 FORM III 8015C GLY

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GA11068.D
 Lab ID: 580-121933-8 MSD Client ID: AF-RHMW10-WGFD01LF-2301W1 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy) ethanol	40.0	41.5	104	2	50	50-150	

Column to be used to flag recovery and RPD values
 FORM III 8015C GLY

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: MB 680-758737/23
 Matrix: Water Date Extracted: _____
 Lab File ID: (1) GA11023.D Lab File ID: (2) _____
 Date Analyzed: (1) 01/11/2023 23:45 Date Analyzed: (2) _____
 Instrument ID: (1) CVGG2 Instrument ID: (2) _____
 GC Column: (1) J&W DB WAX ID: 0.45 (mm) GC Column: (2) _____ ID: _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 680-758737/19	01/11/2023 22:13	
	LCSD 680-758737/20	01/11/2023 22:36	
AF-RHMW06-WGN01LF-2301W1	580-121933-1	01/12/2023 07:30	
AF-RHMW16-WGN01LF-2301W1	580-121933-3	01/12/2023 07:53	
AF-RHMW12A-WGN01LF-2301W1	580-121933-4	01/12/2023 08:16	
AF-RHMW12A-WGFD01LF-2301W1	580-121933-5	01/12/2023 08:40	
AF-HDMW225303-WGN01LF-2301W1	580-121933-6	01/12/2023 09:03	
AF-RHMW10-WGN01LF-2301W1	580-121933-7	01/12/2023 09:26	
AF-RHMW04-WGN01LF-2301W1	580-121933-2	01/12/2023 09:49	

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: MB 680-758764/23
 Matrix: Water Date Extracted: _____
 Lab File ID: (1) GA11023.D Lab File ID: (2) _____
 Date Analyzed: (1) 01/11/2023 23:45 Date Analyzed: (2) _____
 Instrument ID: (1) CVGG2 Instrument ID: (2) _____
 GC Column: (1) J&W DB WAX ID: 0.45 (mm) GC Column: (2) _____ ID: _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 680-758764/19	01/11/2023 22:13	
	LCSD 680-758764/20	01/11/2023 22:36	
AF-RHMW04-WGN01LF-2301W1 MS	580-121933-2 MS	01/12/2023 10:13	
AF-RHMW04-WGN01LF-2301W1 MSD	580-121933-2 MSD	01/12/2023 10:36	

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: MB 680-758860/60
 Matrix: Water Date Extracted: _____
 Lab File ID: (1) GA11060.D Lab File ID: (2) _____
 Date Analyzed: (1) 01/12/2023 14:25 Date Analyzed: (2) _____
 Instrument ID: (1) CVGG2 Instrument ID: (2) _____
 GC Column: (1) J&W DB WAX ID: 0.45 (mm) GC Column: (2) _____ ID: _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 680-758860/56	01/12/2023 12:52	
	LCSD 680-758860/57	01/12/2023 13:15	
AF-RHMW10-WGFD01LF-2301W 1	580-121933-8	01/12/2023 16:45	
AF-RHMW10-WGFD01LF-2301W 1 MS	580-121933-8 MS	01/12/2023 17:08	
AF-RHMW10-WGFD01LF-2301W 1 MSD	580-121933-8 MSD	01/12/2023 17:31	

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Sample No.: ICIS 680-758737/15 Date Analyzed: 01/11/2023 20:28
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm)
 Lab File ID (Standard): GA11015.D Heated Purge: (Y/N) N
 Calibration ID: 89052

	nHPA		#	RT #	#	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	4703166	4.50				
UPPER LIMIT	9406332	5.00				
LOWER LIMIT	2351583	4.00				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 680-758737/18 CCV		4949602	4.51			
LCS 680-758737/19		4295899	4.51			
LCSD 680-758737/20		5004426	4.51			
MB 680-758737/23		5210595	4.51			
CCV 680-758737/37		5390984	4.50			

nHPA = n-Heptyl Alcohol

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Sample No.: CCVIS 680-758764/37 Date Analyzed: 01/12/2023 05:11
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm)
 Lab File ID (Standard): GA11037.D Heated Purge: (Y/N) N
 Calibration ID: 89052

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		5390984	4.50				
UPPER LIMIT		10781968	5.00				
LOWER LIMIT		2695492	4.00				
LAB SAMPLE ID	CLIENT SAMPLE ID						
580-121933-1	AF-RHMW06-WGN01LF-2 301W1	4919613	4.51				
580-121933-3	AF-RHMW16-WGN01LF-2 301W1	5649202	4.51				
580-121933-4	AF-RHMW12A-WGN01LF- 2301W1	6267287	4.51				
580-121933-5	AF-RHMW12A-WGFD01LF -2301W1	5076077	4.51				
580-121933-6	AF-HDMW225303-WGN01 LF-2301W1	5075678	4.51				
580-121933-7	AF-RHMW10-WGN01LF-2 301W1	5368414	4.51				
580-121933-2	AF-RHMW04-WGN01LF-2 301W1	5592453	4.51				
580-121933-2 MS	AF-RHMW04-WGN01LF-2 301W1 MS	5523736	4.52				
580-121933-2 MSD	AF-RHMW04-WGN01LF-2 301W1 MSD	5768831	4.51				
CCV 680-758764/53		5075534	4.50				

nHPA = n-Heptyl Alcohol

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Sample No.: CCVIS 680-758860/53 Date Analyzed: 01/12/2023 11:42
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm)
 Lab File ID (Standard): GA11053.D Heated Purge: (Y/N) N
 Calibration ID: 89052

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		5075534	4.50				
UPPER LIMIT		10151068	5.00				
LOWER LIMIT		2537767	4.00				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 680-758860/56		5346079	4.51				
LCSD 680-758860/57		5174352	4.50				
MB 680-758860/60		4666923	4.50				
580-121933-8	AF-RHMW10-WGFD01LF-2301W1	5205875	4.50				
580-121933-8 MS	AF-RHMW10-WGFD01LF-2301W1 MS	5445801	4.50				
580-121933-8 MSD	AF-RHMW10-WGFD01LF-2301W1 MSD	4987322	4.50				
CCV 680-758860/70		4803638	4.50				

nHPA = n-Heptyl Alcohol

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: AF-RHMW06-WGN01LF-2301W1 Lab Sample ID: 580-121933-1
 Matrix: Water Lab File ID: GA11043.D
 Analysis Method: 8015C GLY Date Collected: 01/04/2023 10:35
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 07:30
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758764 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11043.D
 Lims ID: 580-121933-C-1
 Client ID: AF-RHMW06-WGN01LF-2301W1
 Sample Type: Client
 Inject. Date: 12-Jan-2023 07:30:25 ALS Bottle#: 0 Worklist Smp#: 43
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-043
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol
 4.507 4.504 0.003 4919613 50.0
 8 2-(2-Butoxyethoxy)ethanol 7
 8.769 8.761 0.008 2894 0.0503 7
 LOD = 0.5000

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11043.D

Injection Date: 12-Jan-2023 07:30:25

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-C-1

Lab Sample ID: 680-121933-1

Worklist Smp#: 43

Client ID: AF-RHMW06-WGN01LF-2301W1

Injection Vol: 1.0 ul

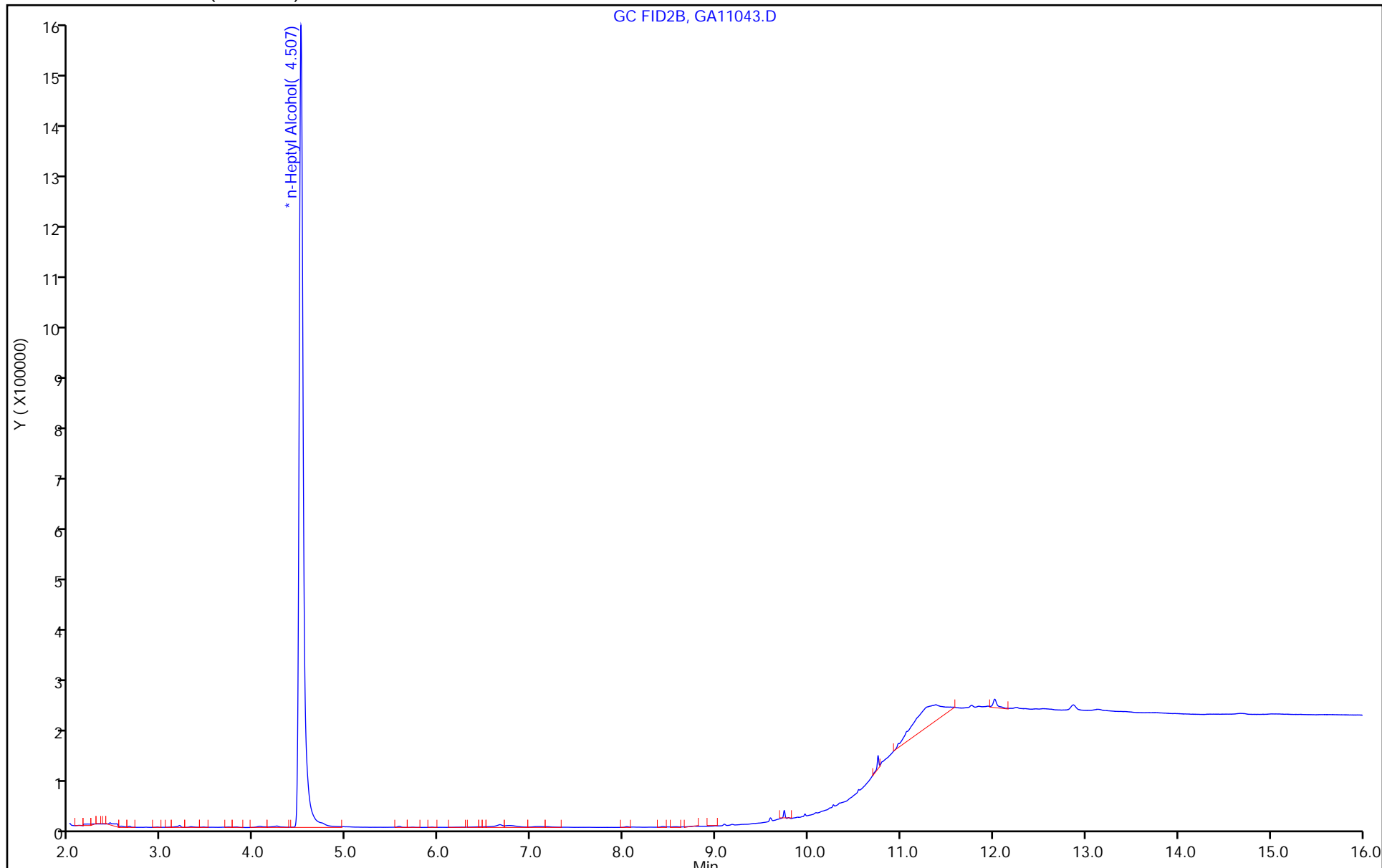
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: AF-RHMW04-WGN01LF-2301W1 Lab Sample ID: 580-121933-2
 Matrix: Water Lab File ID: GA11049.D
 Analysis Method: 8015C GLY Date Collected: 01/04/2023 12:05
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 09:49
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758764 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11049.D
 Lims ID: 580-121933-B-2
 Client ID: AF-RHMW04-WGN01LF-2301W1
 Sample Type: Client
 Inject. Date: 12-Jan-2023 09:49:43 ALS Bottle#: 0 Worklist Smp#: 49
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-049
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:45:28

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol
 4.507 4.504 0.003 5592453 50.0
 8 2-(2-Butoxyethoxy)ethanol 7
 8.758 8.761 -0.003 2715 0.0415 7
 LOD = 0.5000

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11049.D

Injection Date: 12-Jan-2023 09:49:43

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-B-2

Lab Sample ID: 680-121933-2

Worklist Smp#: 49

Client ID: AF-RHMW04-WGN01LF-2301W1

Injection Vol: 1.0 ul

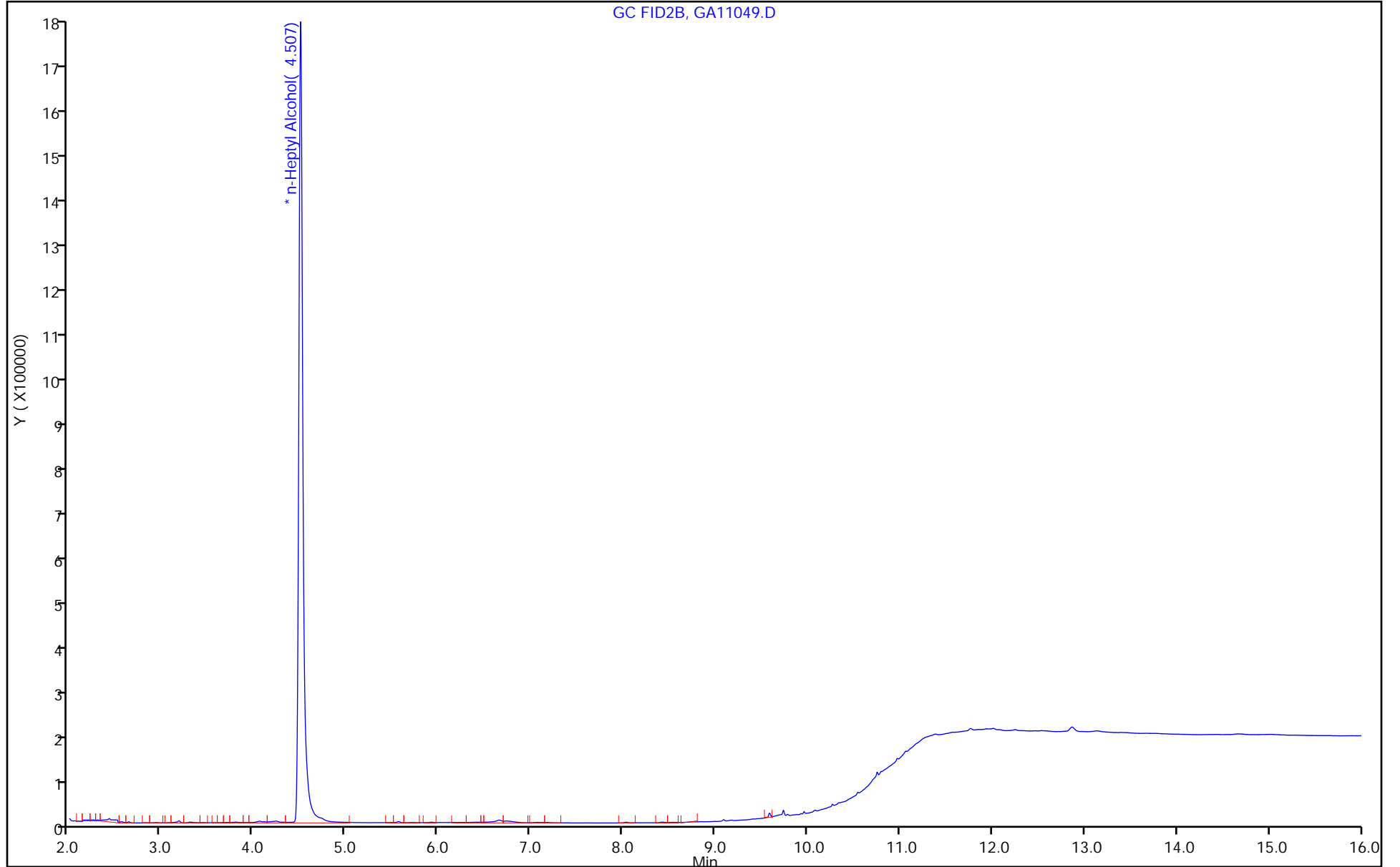
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: AF-RHWW16-WGN01LF-2301W1 Lab Sample ID: 580-121933-3
 Matrix: Water Lab File ID: GA11044.D
 Analysis Method: 8015C GLY Date Collected: 01/04/2023 12:10
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 07:53
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758764 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11044.D
 Lims ID: 580-121933-C-3
 Client ID: AF-RHMW16-WGN01LF-2301W1
 Sample Type: Client
 Inject. Date: 12-Jan-2023 07:53:35 ALS Bottle#: 0 Worklist Smp#: 44
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-044
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol
 4.509 4.504 0.005 5649202 50.0
 8 2-(2-Butoxyethoxy)ethanol 7
 8.773 8.761 0.012 2491 0.0377 7
 LOD = 0.5000

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11044.D

Injection Date: 12-Jan-2023 07:53:35

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-C-3

Lab Sample ID: 680-121933-3

Worklist Smp#: 44

Client ID: AF-RHMW16-WGN01LF-2301W1

Injection Vol: 1.0 ul

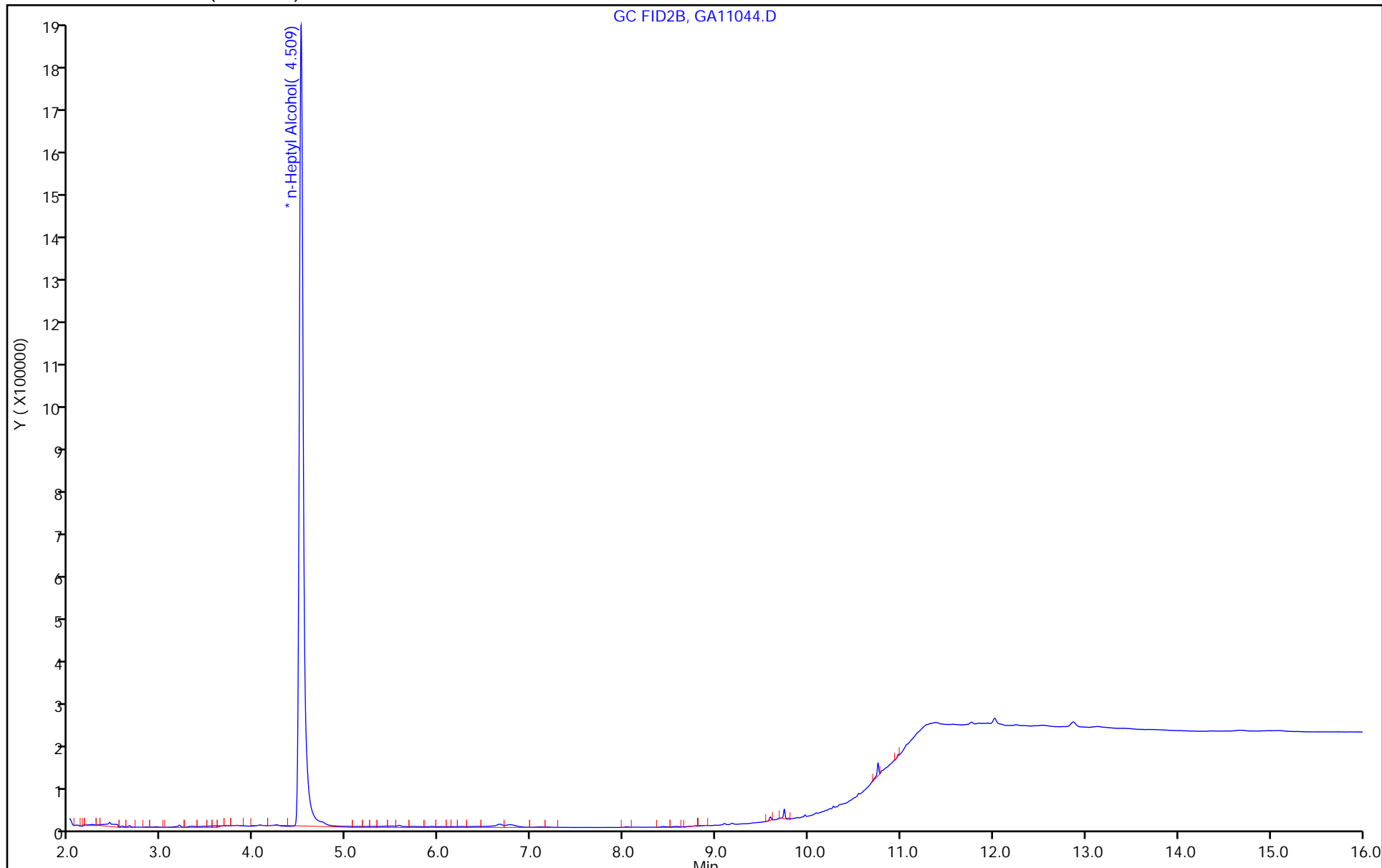
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: AF-RHMW12A-WGN01LF-2301W1 Lab Sample ID: 580-121933-4
 Matrix: Water Lab File ID: GA11045.D
 Analysis Method: 8015C GLY Date Collected: 01/04/2023 09:40
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 08:16
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758764 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11045.D
 Lims ID: 580-121933-B-4
 Client ID: AF-RHMW12A-WGN01LF-2301W1
 Sample Type: Client
 Inject. Date: 12-Jan-2023 08:16:45 ALS Bottle#: 0 Worklist Smp#: 45
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-045
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:45:03

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	--------------------	-------

* 4 n-Heptyl Alcohol
 4.509 4.504 0.005 6267287 50.0

Reagents:

SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11045.D

Injection Date: 12-Jan-2023 08:16:45

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-B-4

Lab Sample ID: 680-121933-4

Worklist Smp#: 45

Client ID: AF-RHMW12A-WGN01LF-2301W1

Injection Vol: 1.0 ul

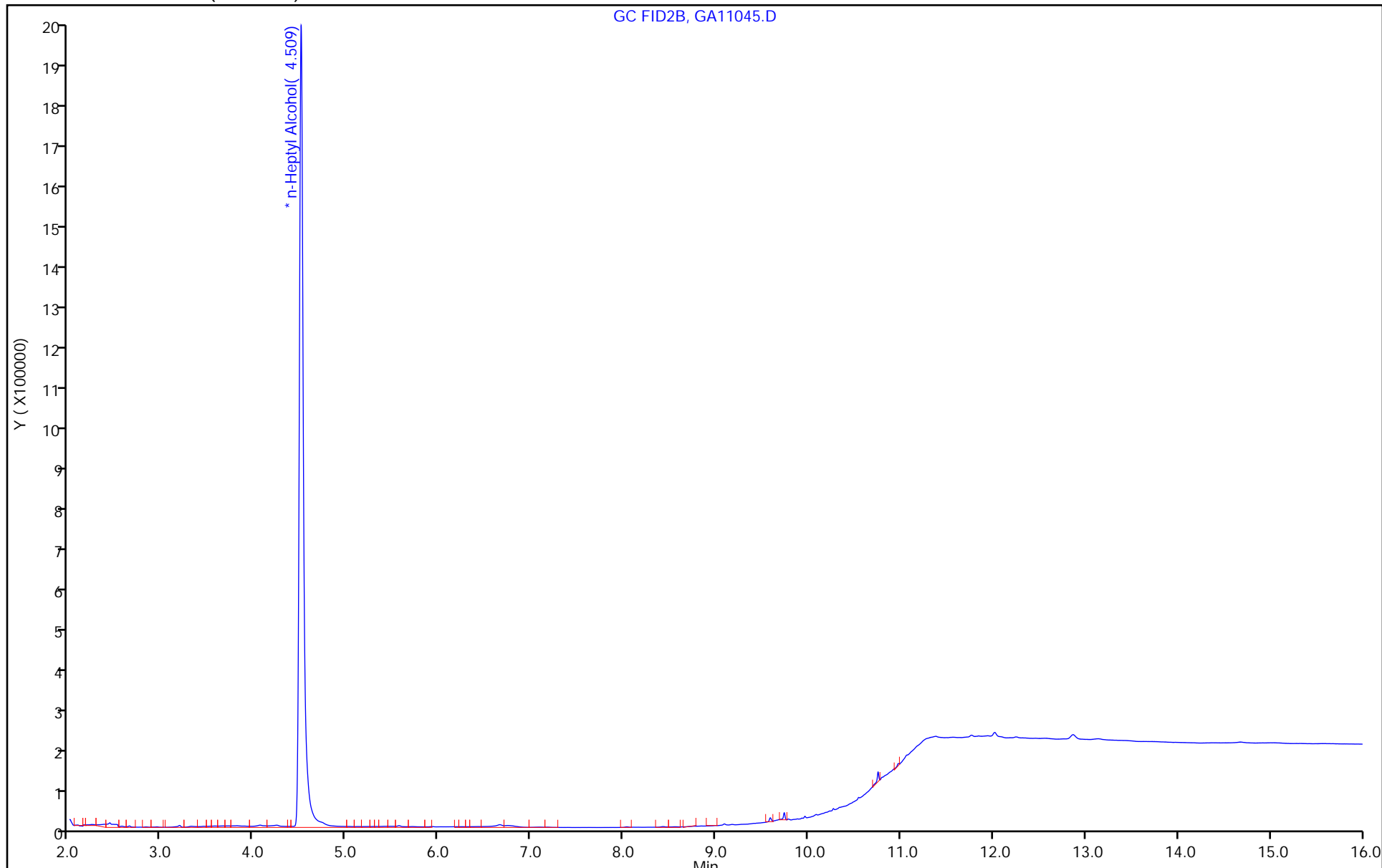
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Client Sample ID: AF-RHMW12A-WGFD01LF-2301W Lab Sample ID: 580-121933-5
1

Matrix: Water Lab File ID: GA11046.D

Analysis Method: 8015C GLY Date Collected: 01/04/2023 09:40

Extraction Method: _____ Date Extracted: _____

Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 08:40

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____

Analysis Batch No.: 758764 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11046.D
 Lims ID: 580-121933-C-5
 Client ID: AF-RHMW12A-WGFD01LF-2301W1
 Sample Type: Client
 Inject. Date: 12-Jan-2023 08:40:02 ALS Bottle#: 0 Worklist Smp#: 46
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-046
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:45:05

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	--------------------	-------

* 4 n-Heptyl Alcohol
 4.510 4.504 0.006 5076077 50.0

Reagents:

SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11046.D

Injection Date: 12-Jan-2023 08:40:02

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-C-5

Lab Sample ID: 680-121933-5

Worklist Smp#: 46

Client ID: AF-RHMW12A-WGFD01LF-2301W1

Injection Vol: 1.0 ul

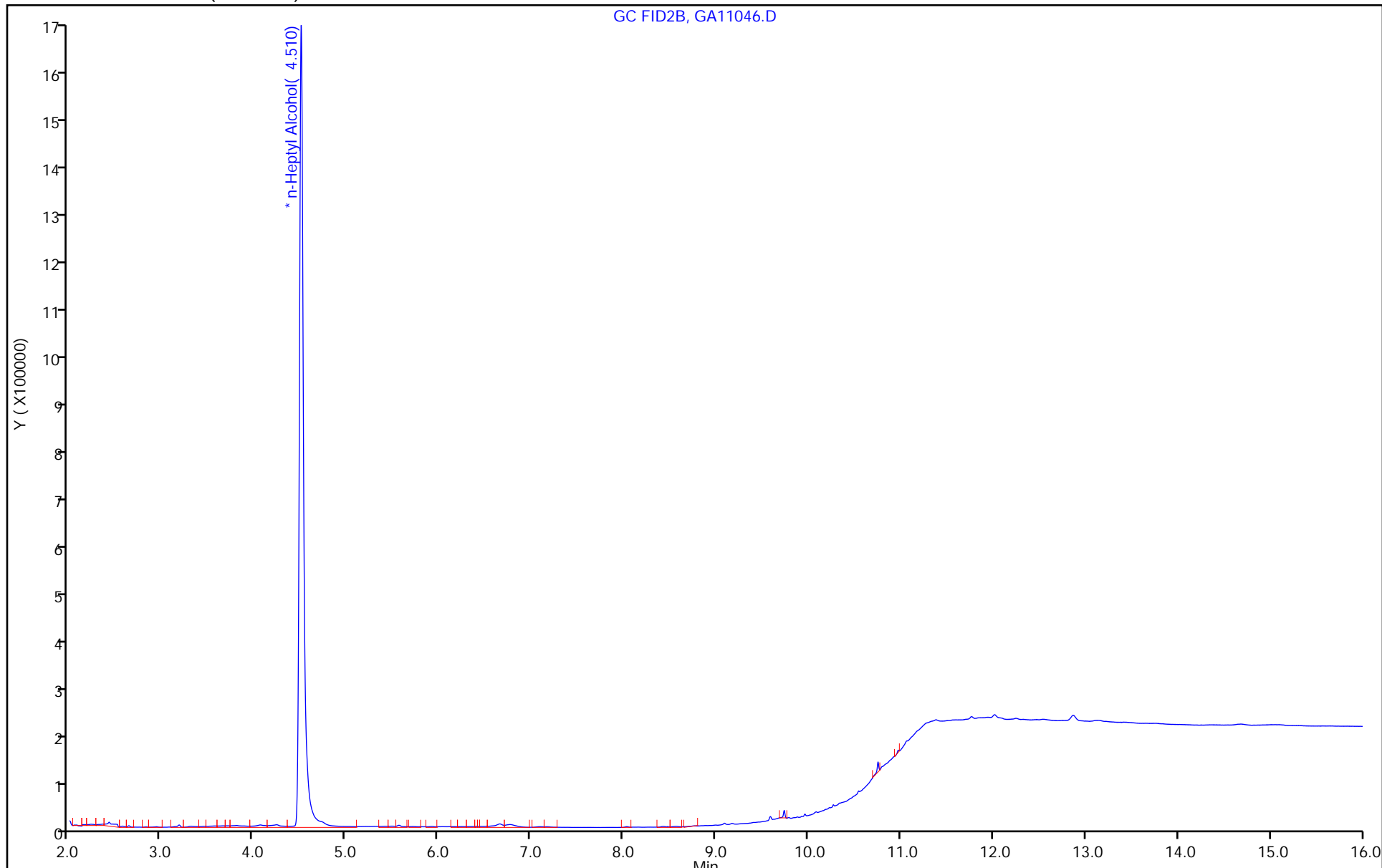
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
SDG No.: _____
Client Sample ID: AF-HDMW225303-WGN01LF-230 Lab Sample ID: 580-121933-6
1W1
Matrix: Water Lab File ID: GA11047.D
Analysis Method: 8015C GLY Date Collected: 01/03/2023 10:35
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 09:03
Con. Extract Vol.: 1(mL) Dilution Factor: 1
Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
Cleanup Factor: _____
Analysis Batch No.: 758764 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11047.D
 Lims ID: 580-121933-B-6
 Client ID: AF-HDMW225303-WGN01LF-2301W1
 Sample Type: Client
 Inject. Date: 12-Jan-2023 09:03:13 ALS Bottle#: 0 Worklist Smp#: 47
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-047
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:45:07

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol
 4.509 4.504 0.005 5075678 50.0

Reagents:

SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11047.D

Injection Date: 12-Jan-2023 09:03:13

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-B-6

Lab Sample ID: 680-121933-6

Worklist Smp#: 47

Client ID: AF-HDMW225303-WGN01LF-2301W1

Injection Vol: 1.0 ul

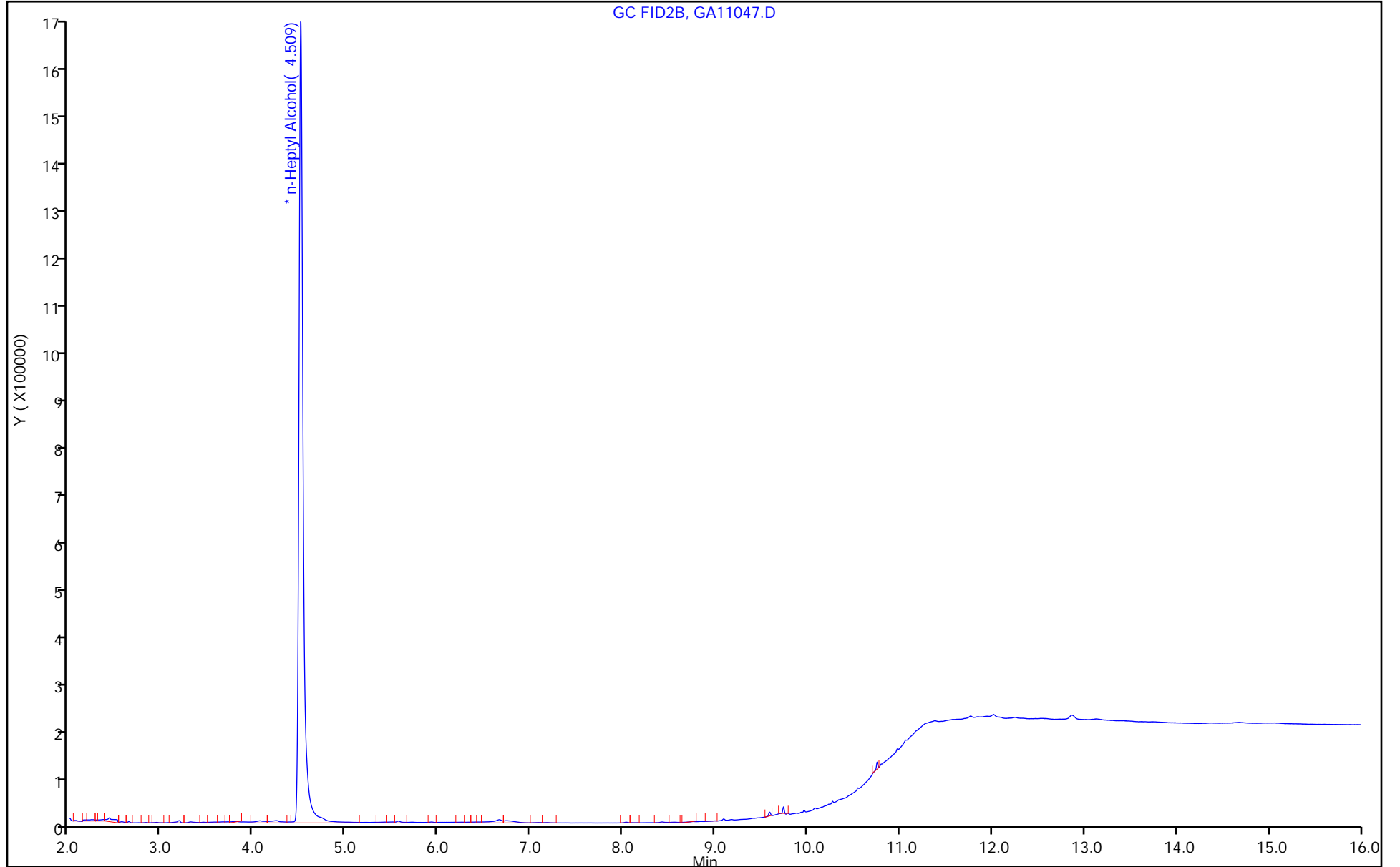
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



GC FID2B, GA11047.D

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: AF-RHWW10-WGN01LF-2301W1 Lab Sample ID: 580-121933-7
 Matrix: Water Lab File ID: GA11048.D
 Analysis Method: 8015C GLY Date Collected: 01/03/2023 13:35
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 09:26
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758764 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11048.D
 Lims ID: 580-121933-C-7
 Client ID: AF-RHMW10-WGN01LF-2301W1
 Sample Type: Client
 Inject. Date: 12-Jan-2023 09:26:25 ALS Bottle#: 0 Worklist Smp#: 48
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-048
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:45:09

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol
 4.509 4.504 0.005 5368414 50.0

Reagents:

SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11048.D

Injection Date: 12-Jan-2023 09:26:25

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-C-7

Lab Sample ID: 680-121933-7

Worklist Smp#: 48

Client ID: AF-RHMW10-WGN01LF-2301W1

Injection Vol: 1.0 ul

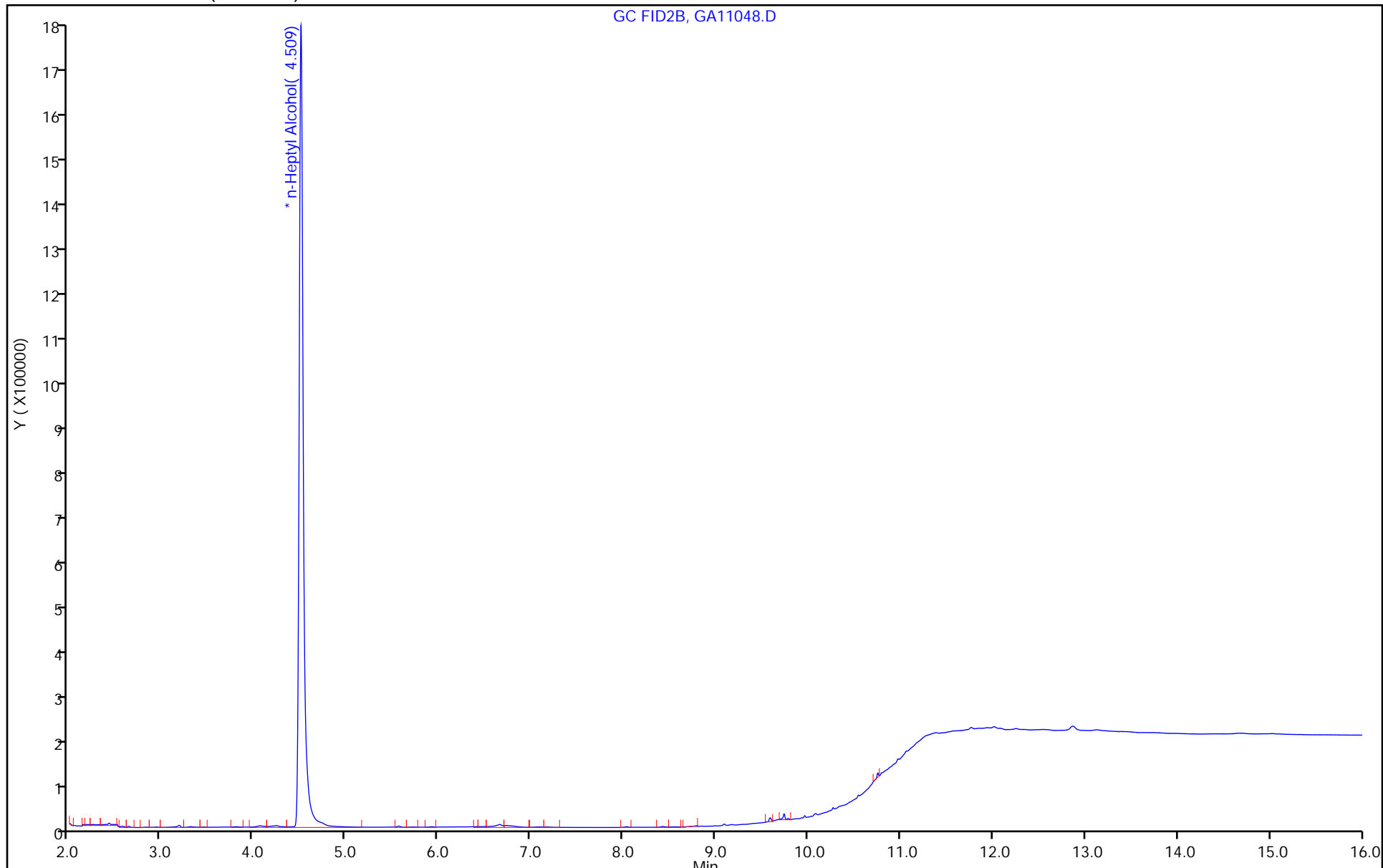
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: AF-RHWW10-WGFD01LF-2301W1 Lab Sample ID: 580-121933-8
 Matrix: Water Lab File ID: GA11066.D
 Analysis Method: 8015C GLY Date Collected: 01/03/2023 13:35
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 16:45
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758860 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11066.D
 Lims ID: 580-121933-B-8
 Client ID: AF-RHMW10-WGFD01LF-2301W1
 Sample Type: Client
 Inject. Date: 12-Jan-2023 16:45:07 ALS Bottle#: 0 Worklist Smp#: 66
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-066
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 13-Jan-2023 11:26:18 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1 Date: 13-Jan-2023 11:25:48

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol					
4.498	4.499	-0.001	5205875	50.0	
8 2-(2-Butoxyethoxy)ethanol					
8.759	8.754	0.005	2024	0.0332	7
LOD = 0.5000					
9 2,2'-Oxybisethanol					
9.740	9.739	0.001	20761	1.03	7M
LOD = 1.60					
10 Triethylene Glycol					
10.756	10.756	0.000	22315	1.16	7M
LOD = 1.40					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11066.D

Injection Date: 12-Jan-2023 16:45:07

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-B-8

Lab Sample ID: 680-121933-8

Worklist Smp#: 66

Client ID: AF-RHMW10-WGFD01LF-2301W1

Injection Vol: 1.0 ul

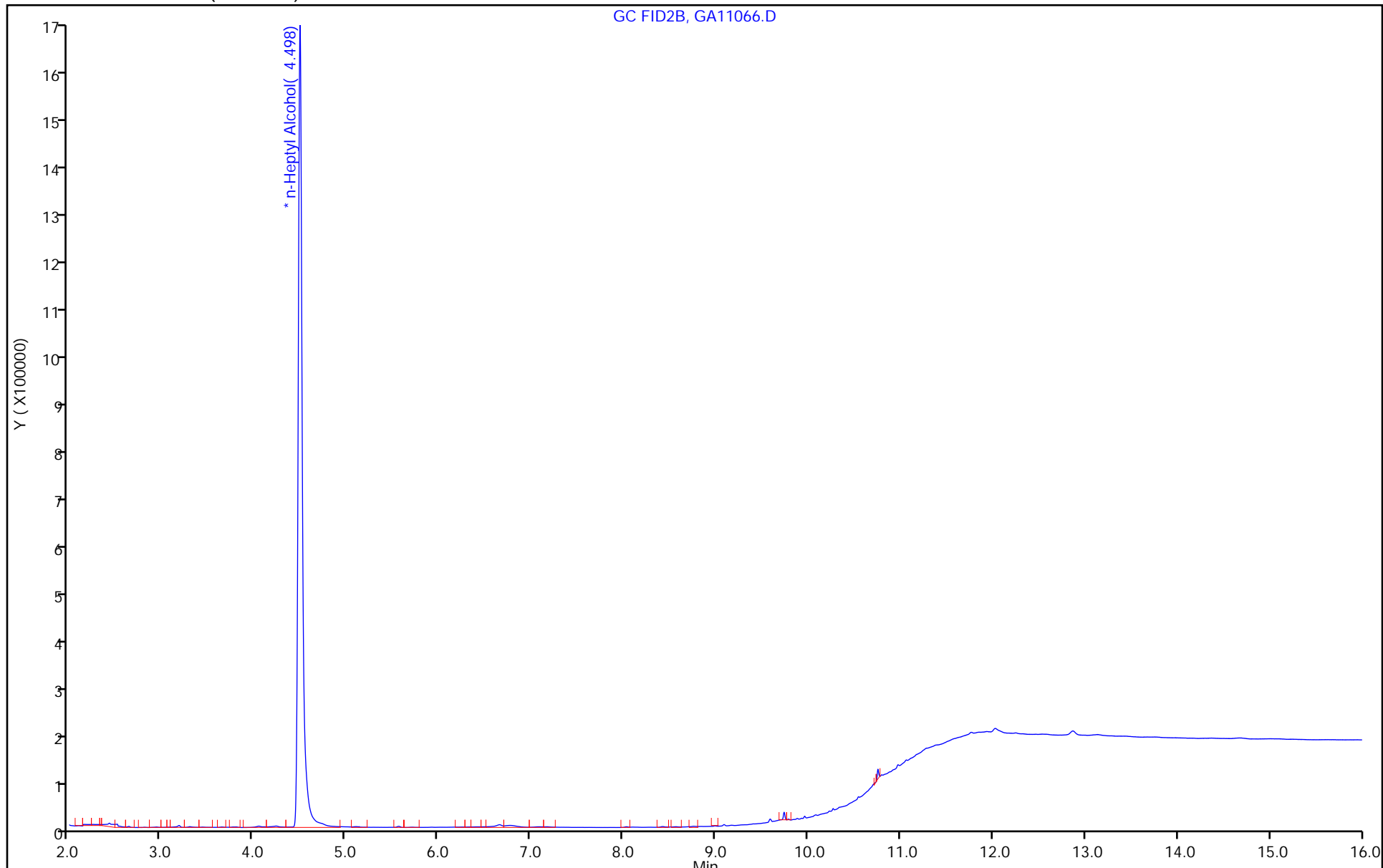
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM VI
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Savannah Job No.: 580-121933-1 Analy Batch No.: 758737
 SDG No.: _____
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm) Heated Purge: (Y/N) N
 Calibration Start Date: 01/11/2023 19:18 Calibration End Date: 01/11/2023 21:14 Calibration ID: 89052

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-758737/17	GA11017.D
Level 2	IC 680-758737/16	GA11016.D
Level 3	ICIS 680-758737/15	GA11015.D
Level 4	IC 680-758737/14	GA11014.D
Level 5	IC 680-758737/13	GA11013.D
Level 6	IC 680-758737/12	GA11012.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethanol, 2-propoxy	0.8508 0.7063	0.7418	0.7444	0.6966	0.6744	Ave		0.735 7			8.5		20.0				
4-Hydroxy-4-methyl-2-pentanone	0.8359 0.7007	0.7238	0.7293	0.6848	0.6479	Ave		0.720 4			8.9		20.0				
2-Butoxyethanol	0.9281 0.7580	0.8154	0.8079	0.7506	0.7326	Ave		0.798 8			8.9		20.0				
Dipropylene Glycol Methyl Ether	0.0293 0.0530	0.0542	0.0552	0.0522	0.0494	Qua	0.007 3	0.049 6	0.0000240					0.9970		0.9900	
Propylene glycol	0.2562 0.2577	0.2682	0.2578	0.2486	0.2415	Ave		0.255 0			3.6		20.0				
Ethylene glycol	0.2512 0.1973	0.2207	0.2010	0.1950	0.1860	Ave		0.208 6			11.4		20.0				
2-(2-Butoxyethoxy)ethanol	0.6768 0.5727	0.5884	0.5906	0.5554	0.5248	Ave		0.584 8			8.8		20.0				
2,2'-Oxybisethanol	0.2187 0.1909	0.1993	0.1896	0.1853	0.1774	Ave		0.193 5			7.4		20.0				
Triethylene Glycol	0.2060 0.1885	0.1866	0.1765	0.1788	0.1731	Ave		0.184 9			6.4		20.0				
Tetraethylene Glycol	0.2216 0.2007	0.2051	0.1991	0.1929	0.1852	Ave		0.200 8			6.1		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Savannah Job No.: 580-121933-1 Analy Batch No.: 758737

SDG No.: _____

Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2023 19:18 Calibration End Date: 01/11/2023 21:14 Calibration ID: 89052

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-758737/17	GA11017.D
Level 2	IC 680-758737/16	GA11016.D
Level 3	ICIS 680-758737/15	GA11015.D
Level 4	IC 680-758737/14	GA11014.D
Level 5	IC 680-758737/13	GA11013.D
Level 6	IC 680-758737/12	GA11012.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Ethanol, 2-propoxy	nHPA	Ave	412485 6162790	729297	1400382	3185611	4944627	5.00 100	10.0	20.0	50.0	80.0
4-Hydroxy-4-methyl-2-pentanone	nHPA	Ave	405244 6113873	711603	1371968	3131890	4750126	5.00 100	10.0	20.0	50.0	80.0
2-Butoxyethanol	nHPA	Ave	449925 6613883	801660	1519939	3432653	5370855	5.00 100	10.0	20.0	50.0	80.0
Dipropylene Glycol Methyl Ether	nHPA	Qua	14210 462643	53252	103939	238530	362014	5.00 100	10.0	20.0	50.0	80.0
Propylene glycol	nHPA	Ave	124185 2248919	263729	485048	1136780	1770636	5.00 100	10.0	20.0	50.0	80.0
Ethylene glycol	nHPA	Ave	121803 1721527	217023	378219	891870	1363409	5.00 100	10.0	20.0	50.0	80.0
2-(2-Butoxyethoxy)ethanol	nHPA	Ave	328114 4997206	578471	1111022	2540215	3847420	5.00 100	10.0	20.0	50.0	80.0
2,2'-Oxybisethanol	nHPA	Ave	106006 1665230	195926	356750	847316	1300421	5.00 100	10.0	20.0	50.0	80.0
Triethylene Glycol	nHPA	Ave	99849 1645092	183444	332049	817829	1268874	5.00 100	10.0	20.0	50.0	80.0
Tetraethylene Glycol	nHPA	Ave	214886 3503102	403210	748973	1764754	2715743	10.0 200	20.0	40.0	100	160

Curve Type Legend

Ave = Average ISTD
Qua = Quadratic ISTD

FORM VI
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Savannah Job No.: 580-121933-1 Analy Batch No.: 758737

SDG No.: _____

Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2023 19:18 Calibration End Date: 01/11/2023 21:14 Calibration ID: 89052

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-758737/17	GA11017.D
Level 2	IC 680-758737/16	GA11016.D
Level 3	ICIS 680-758737/15	GA11015.D
Level 4	IC 680-758737/14	GA11014.D
Level 5	IC 680-758737/13	GA11013.D
Level 6	IC 680-758737/12	GA11012.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Ethanol, 2-propoxy	15.6	0.8	1.2	-5.3	-8.3	-4.0	20	20	20	20	20	20
4-Hydroxy-4-methyl-2-pentanone	16.0	0.5	1.2	-4.9	-10.1	-2.7	20	20	20	20	20	20
2-Butoxyethanol	16.2	2.1	1.1	-6.0	-8.3	-5.1	20	20	20	20	20	20
Propylene glycol	0.4	5.2	1.1	-2.5	-5.3	1.1	20	20	20	20	20	20
Ethylene glycol	20.5 *	5.8	-3.6	-6.5	-10.8	-5.4	20	20	20	20	20	20
2-(2-Butoxyethoxy)ethanol	15.7	0.6	1.0	-5.0	-10.3	-2.1	20	20	20	20	20	20
2,2'-Oxybisethanol	13.0	3.0	-2.0	-4.3	-8.3	-1.4	20	20	20	20	20	20
Triethylene Glycol	11.4	0.9	-4.5	-3.3	-6.4	2.0	20	20	20	20	20	20
Tetraethylene Glycol	10.4	2.1	-0.9	-3.9	-7.8	0.0	20	20	20	20	20	20

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
 Lims ID: ic g6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 11-Jan-2023 19:18:12 ALS Bottle#: 0 Worklist Smp#: 12
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-012
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:14:36 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 11-Jan-2023 19:40:04

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						a
3.118	3.121	-0.003	6162790	100.0	96.0	a
2 4-Hydroxy-4-methyl-2-pentanone						a
3.718	3.724	-0.006	6113873	100.0	97.3	a
3 2-Butoxyethanol						a
4.031	4.031	0.000	6613883	100.0	94.9	a
* 4 n-Heptyl Alcohol						a
4.507	4.504	0.003	4362652	50.0	50.0	a
5 Dipropylene Glycol Methyl Ether						a
5.466	5.469	-0.003	462643	100.0	101.7	a
6 Propylene glycol						a
6.337	6.341	-0.004	2248919	100.0	101.1	a
7 Ethylene glycol						a
6.777	6.782	-0.005	1721527	100.0	94.6	a
8 2-(2-Butoxyethoxy)ethanol						a
8.758	8.758	0.000	4997206	100.0	97.9	a
9 2,2'-Oxybisethanol						a
9.738	9.737	0.001	1665230	100.0	98.6	a
10 Triethylene Glycol						Ma
10.754	10.753	0.001	1645092	100.0	102.0	M
11 Tetraethylene Glycol						a
12.017	12.016	0.001	3503102	200.0	200.0	a

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

SG_Gly_CAL_00052

Amount Added: 50.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D

Injection Date: 11-Jan-2023 19:18:12

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g6

Worklist Smp#: 12

Client ID:

Injection Vol: 1.0 ul

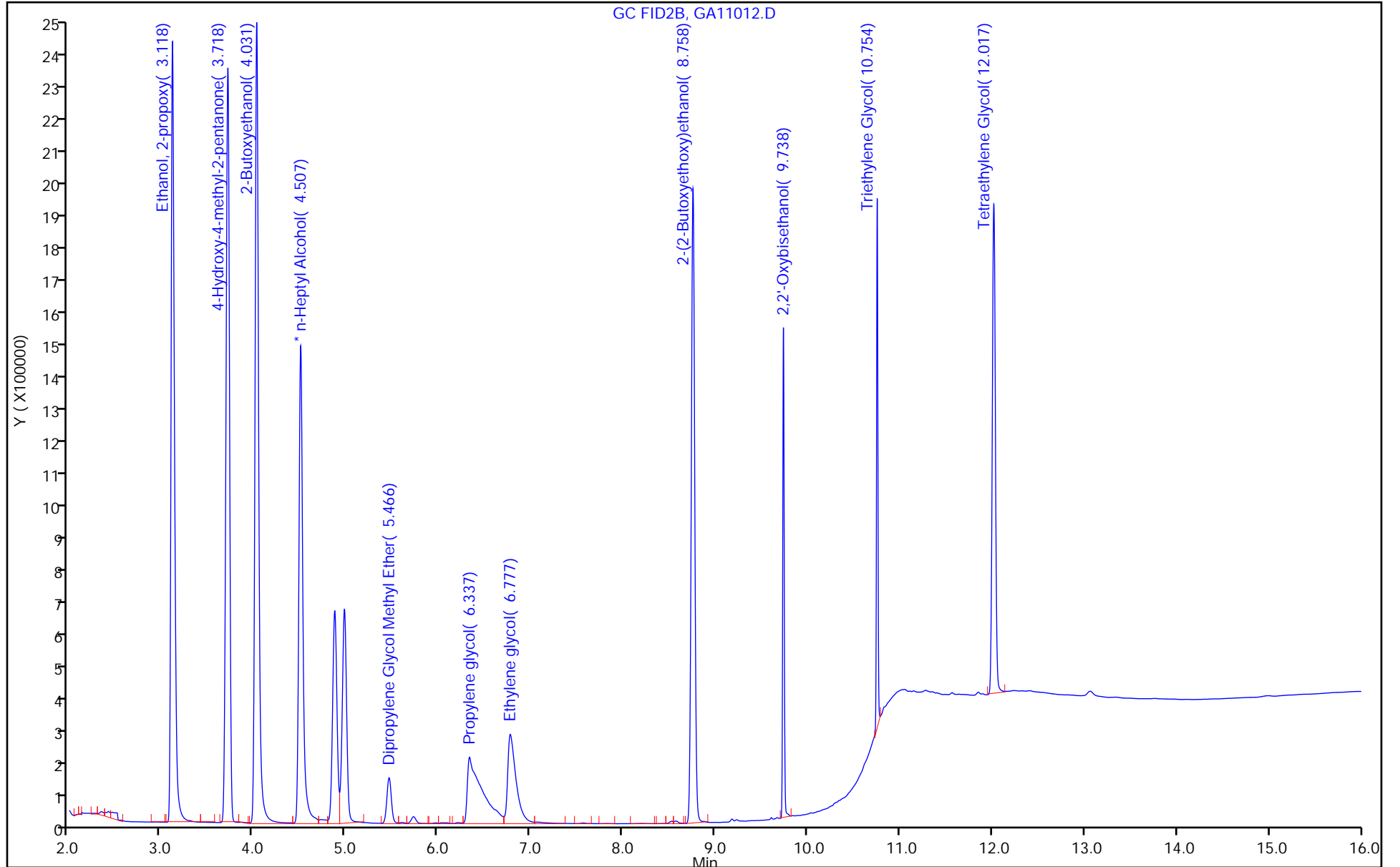
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

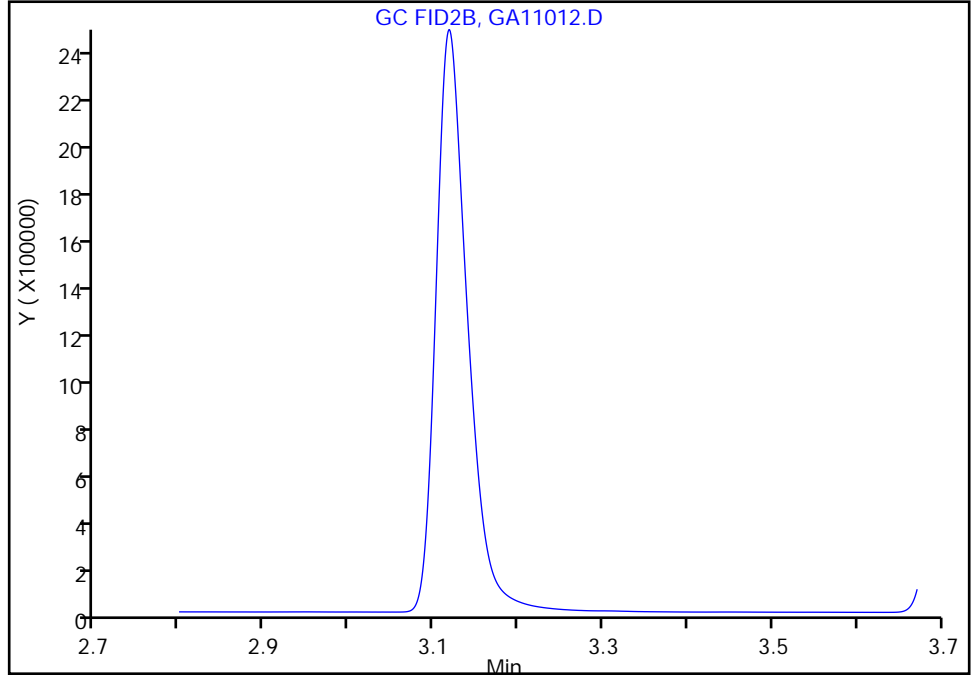
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
Injection Date: 11-Jan-2023 19:18:12 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

1 Ethanol, 2-propoxy, CAS: 2807-30-9

Signal: 1

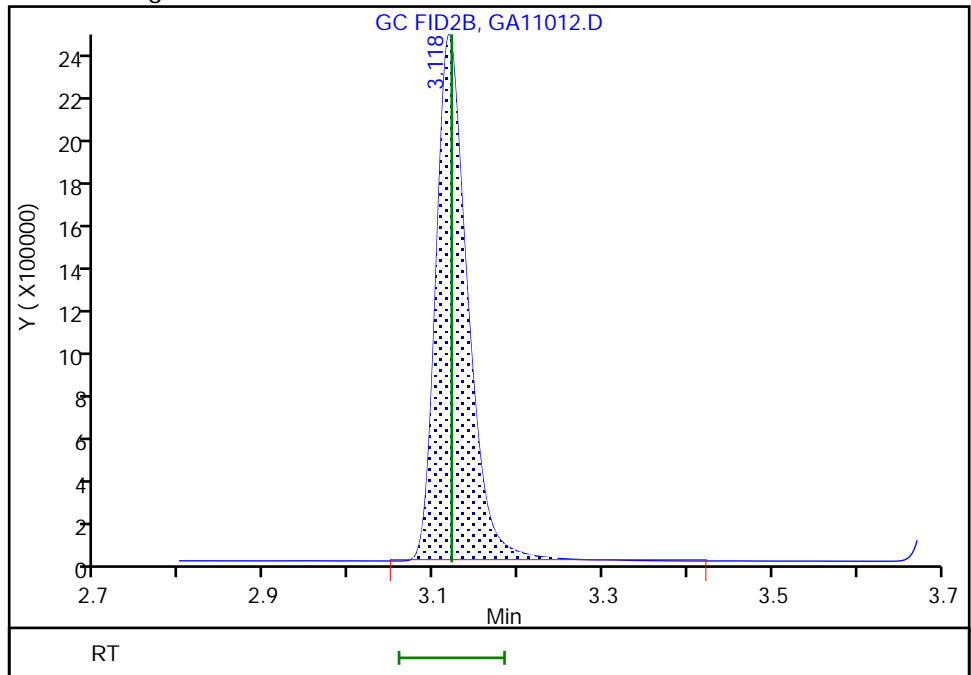
Not Detected
Expected RT: 3.12

Processing Integration Results



Manual Integration Results

RT: 3.12
Area: 6162790
Amount: 96.002889
Amount Units: ug/ml



Reviewer: SWK1, 11-Jan-2023 19:39:16
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah

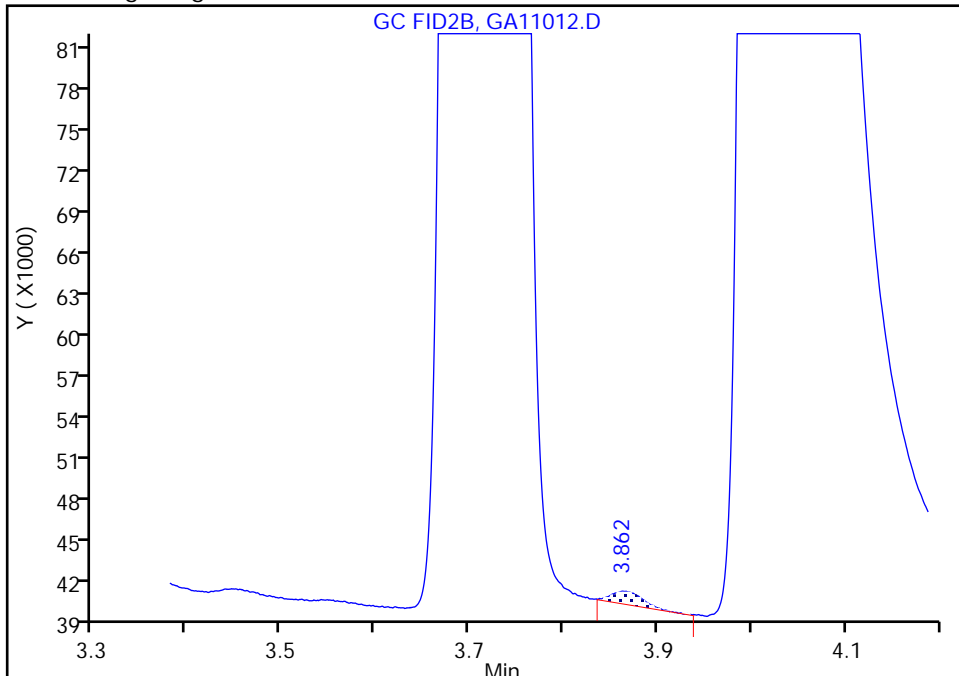
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
Injection Date: 11-Jan-2023 19:18:12 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

2 4-Hydroxy-4-methyl-2-pentanone, CAS: 123-42-2

Signal: 1

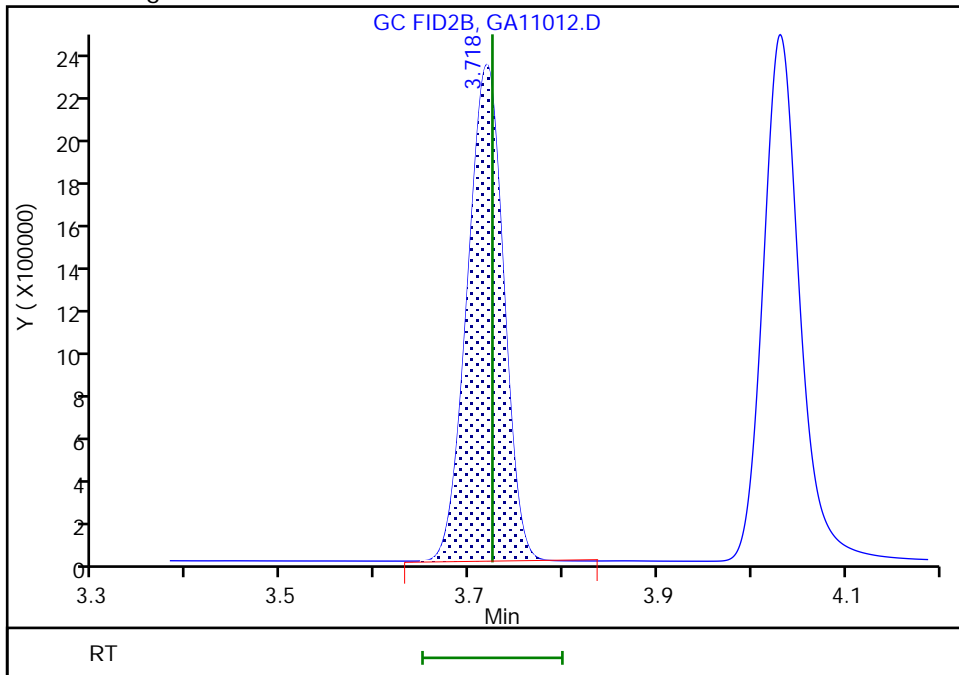
RT: 3.86
Area: 2360
Amount: 100.0000
Amount Units: ug/ml

Processing Integration Results



RT: 3.72
Area: 6113873
Amount: 97.266243
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 19:39:21
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah

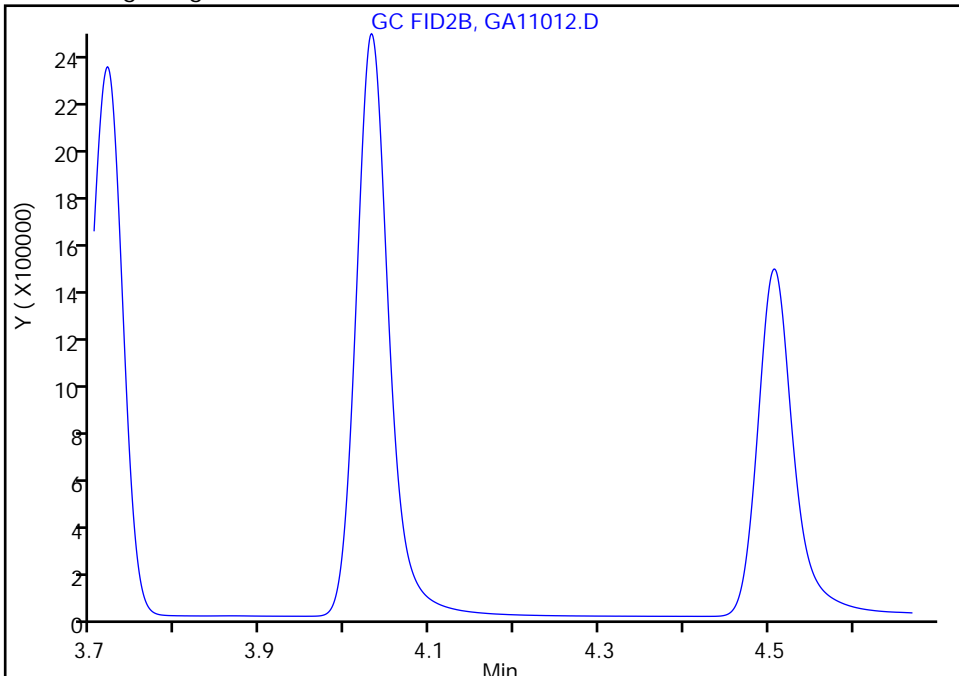
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
Injection Date: 11-Jan-2023 19:18:12 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

3 2-Butoxyethanol, CAS: 111-76-2

Signal: 1

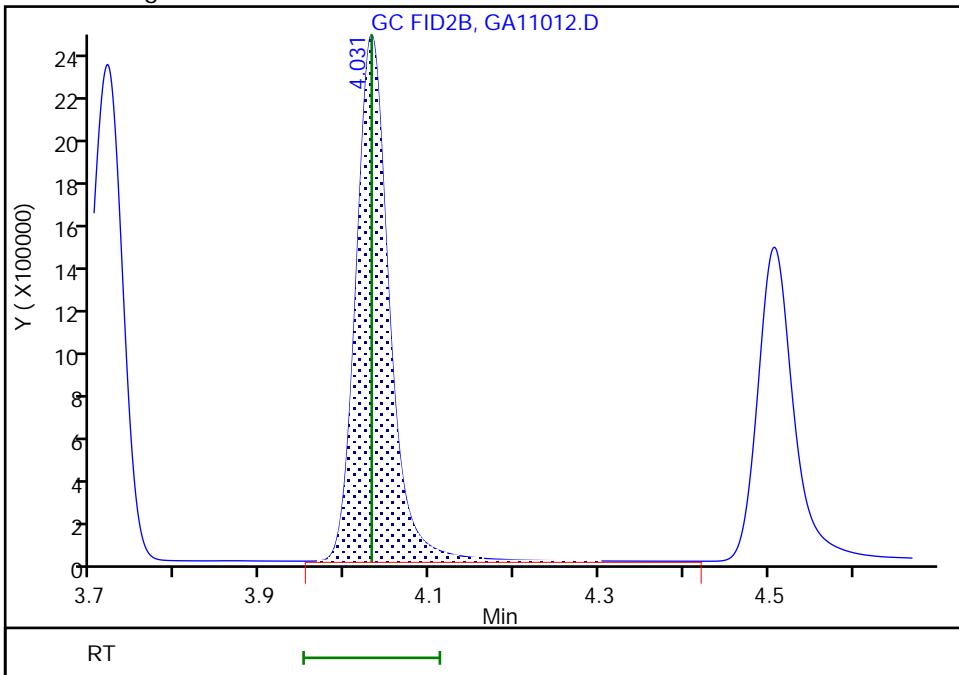
Not Detected
Expected RT: 4.03

Processing Integration Results



Manual Integration Results

RT: 4.03
Area: 6613883
Amount: 94.898661
Amount Units: ug/ml



Reviewer: SWK1, 11-Jan-2023 19:39:25
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah

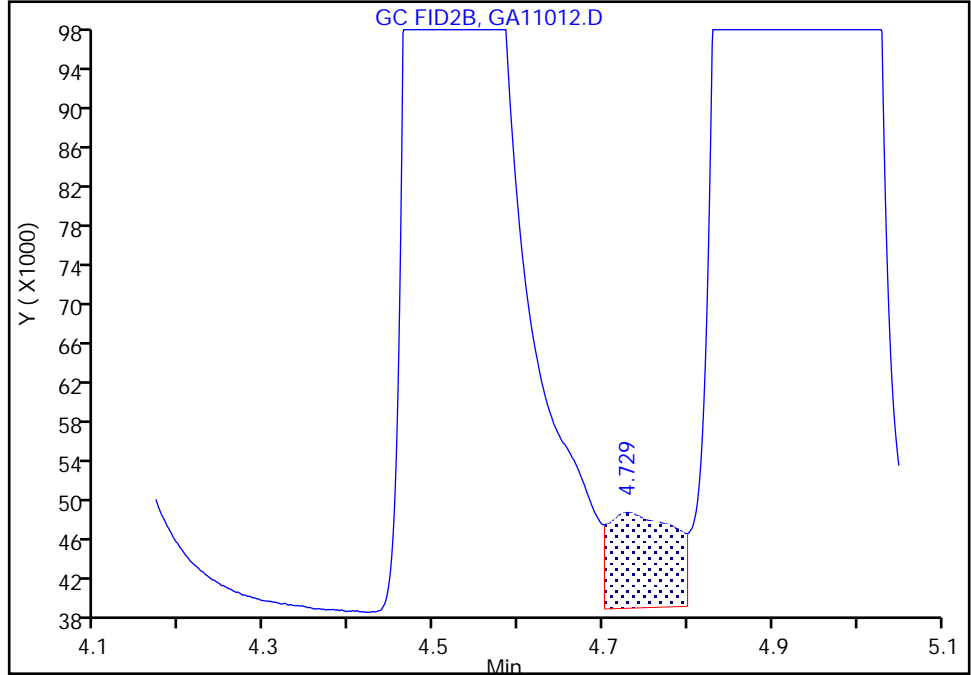
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
Injection Date: 11-Jan-2023 19:18:12 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

* 4 n-Heptyl Alcohol, CAS: 111-70-6

Signal: 1

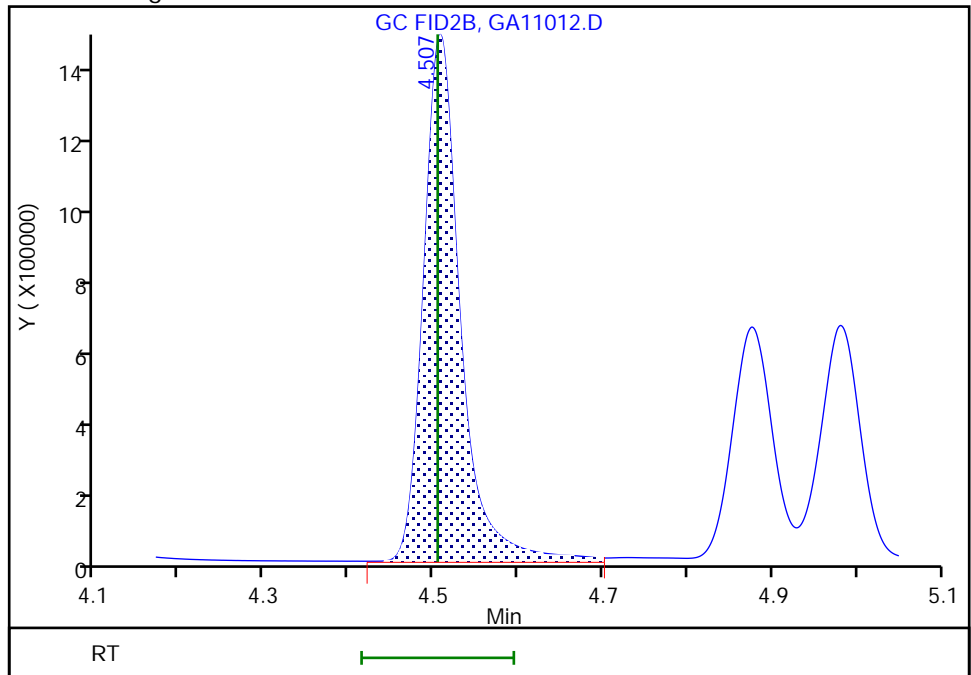
RT: 4.73
Area: 51629
Amount: 50.000000
Amount Units: ug/ml

Processing Integration Results



RT: 4.51
Area: 4362652
Amount: 50.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 19:39:29
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah

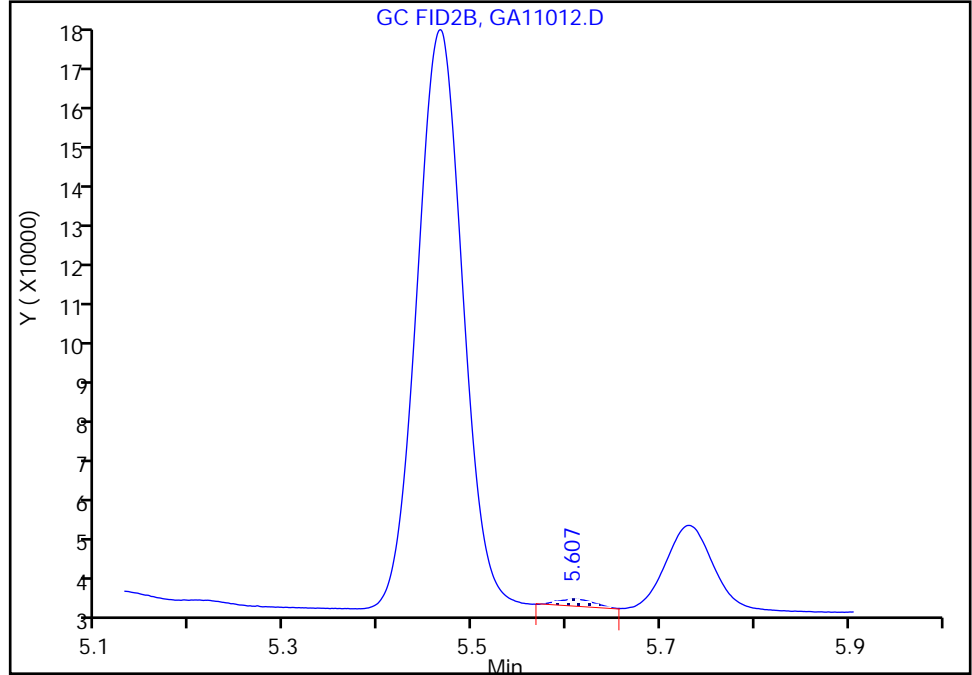
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
Injection Date: 11-Jan-2023 19:18:12 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

5 Dipropylene Glycol Methyl Ether, CAS: 34590-94-8

Signal: 1

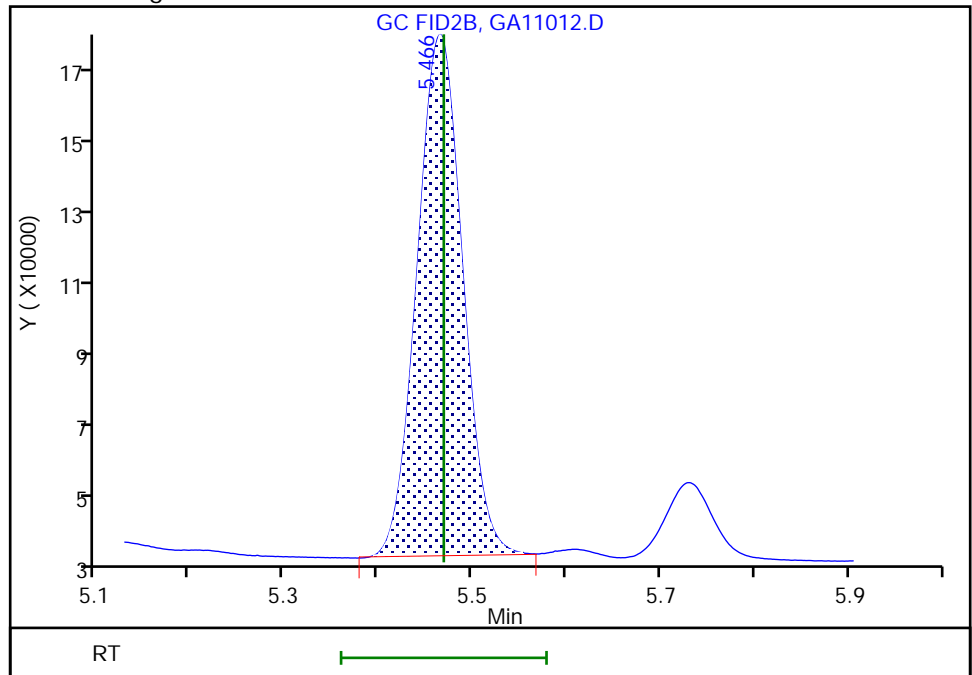
RT: 5.61
Area: 4631
Amount: 100.0000
Amount Units: ug/ml

Processing Integration Results



RT: 5.47
Area: 462643
Amount: 101.7486
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 19:39:33
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah

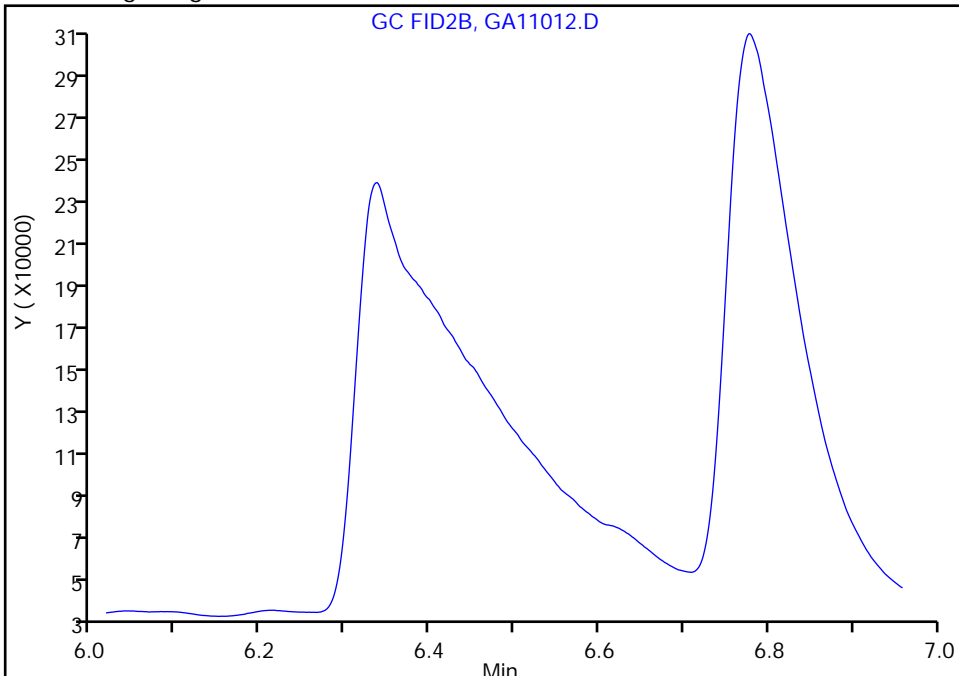
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
Injection Date: 11-Jan-2023 19:18:12 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

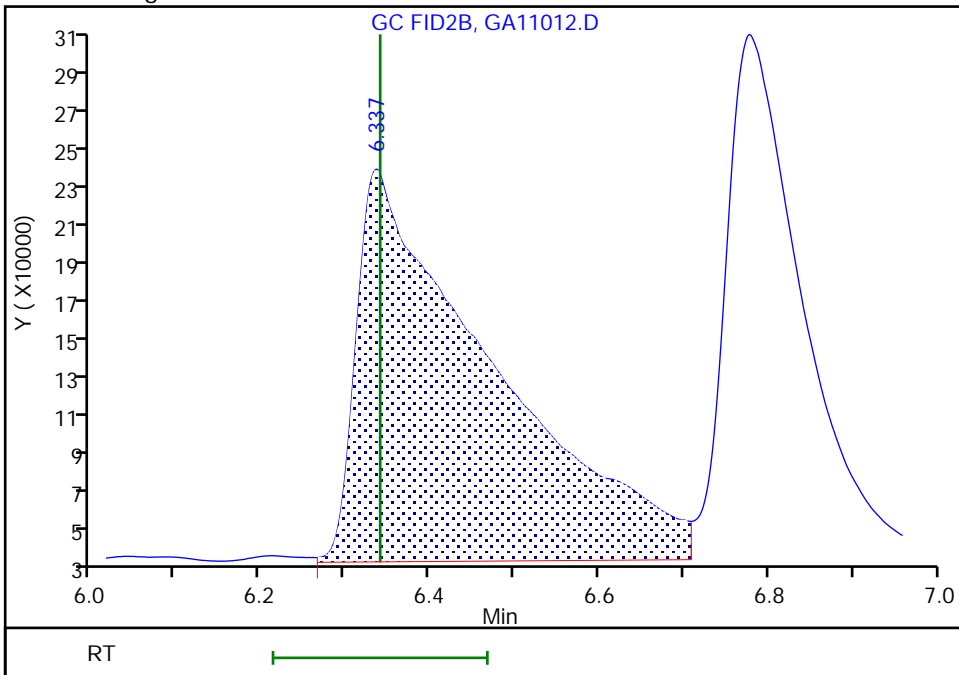
Not Detected
Expected RT: 6.34

Processing Integration Results



RT: 6.34
Area: 2248919
Amount: 101.0732
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 19:39:36
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah

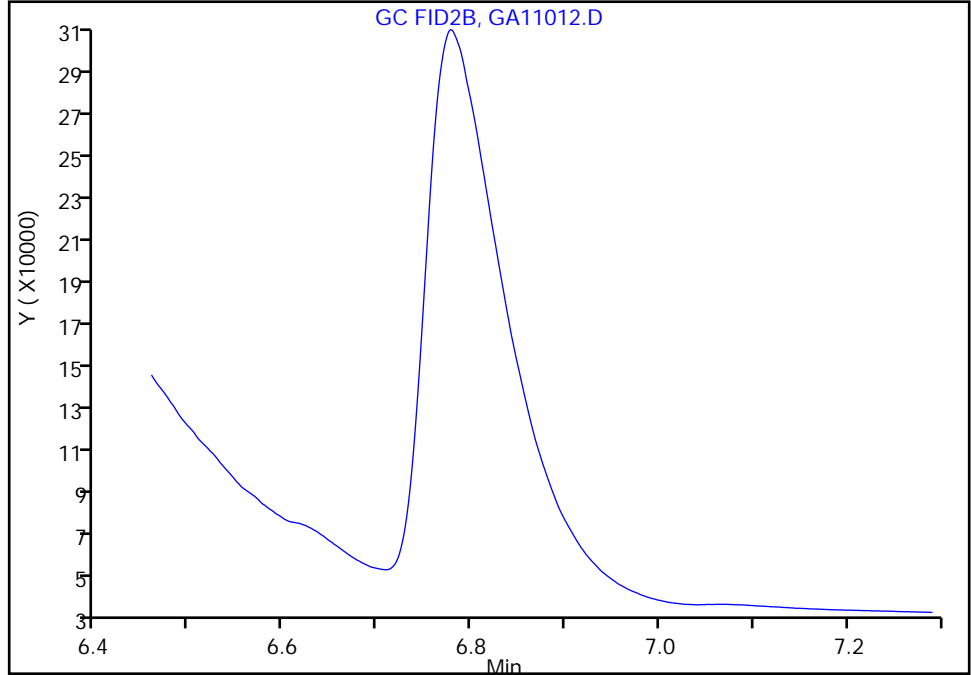
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
Injection Date: 11-Jan-2023 19:18:12 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

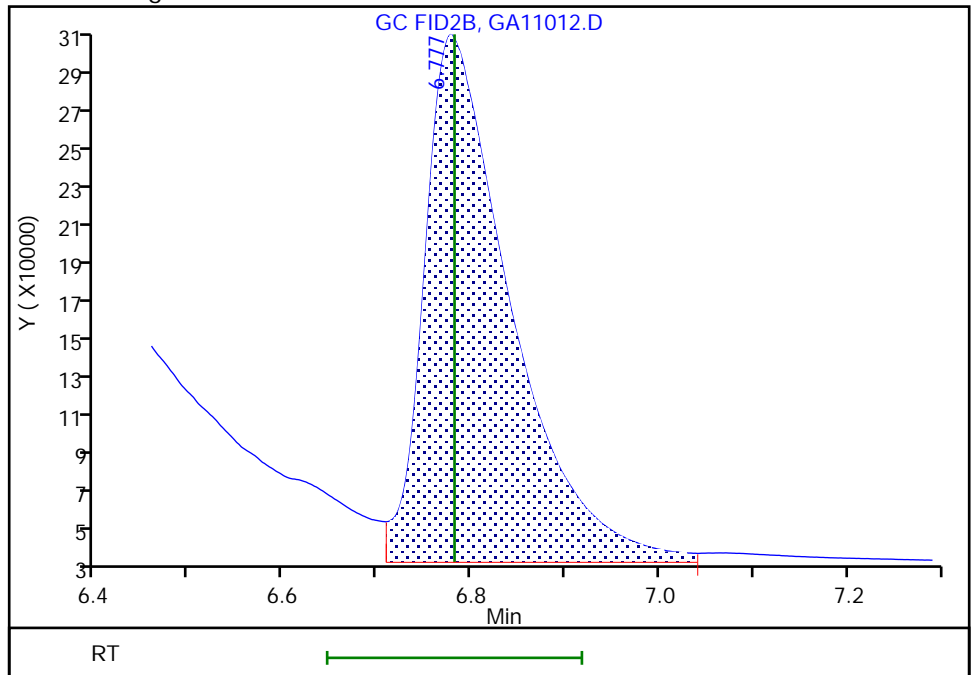
Not Detected
Expected RT: 6.78

Processing Integration Results



RT: 6.78
Area: 1721527
Amount: 94.605933
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 19:39:39
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah

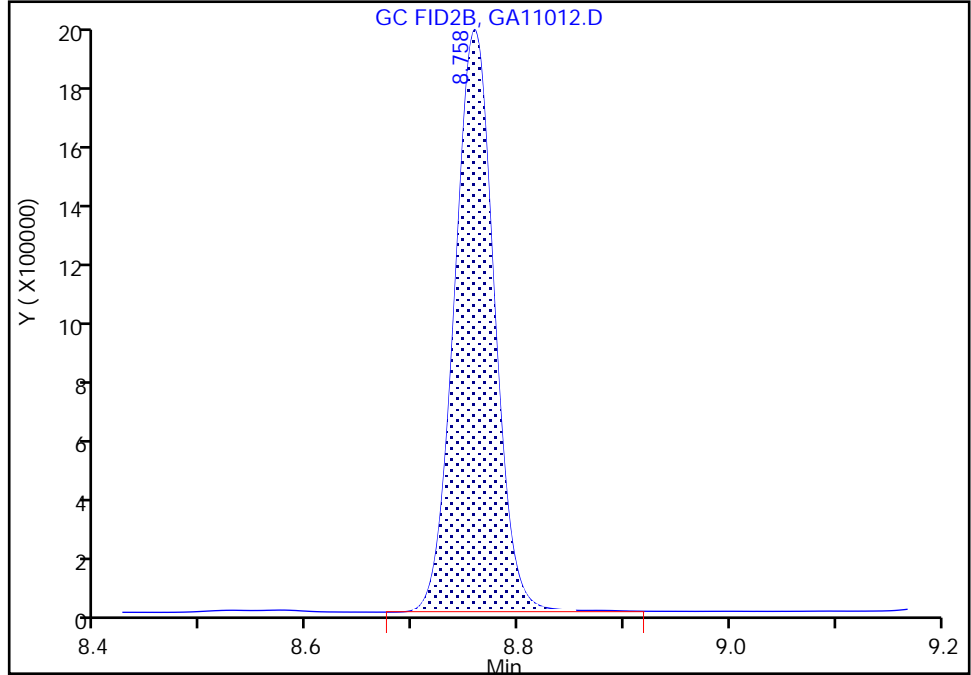
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
Injection Date: 11-Jan-2023 19:18:12 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

8 2-(2-Butoxyethoxy)ethanol, CAS: 112-34-5

Signal: 1

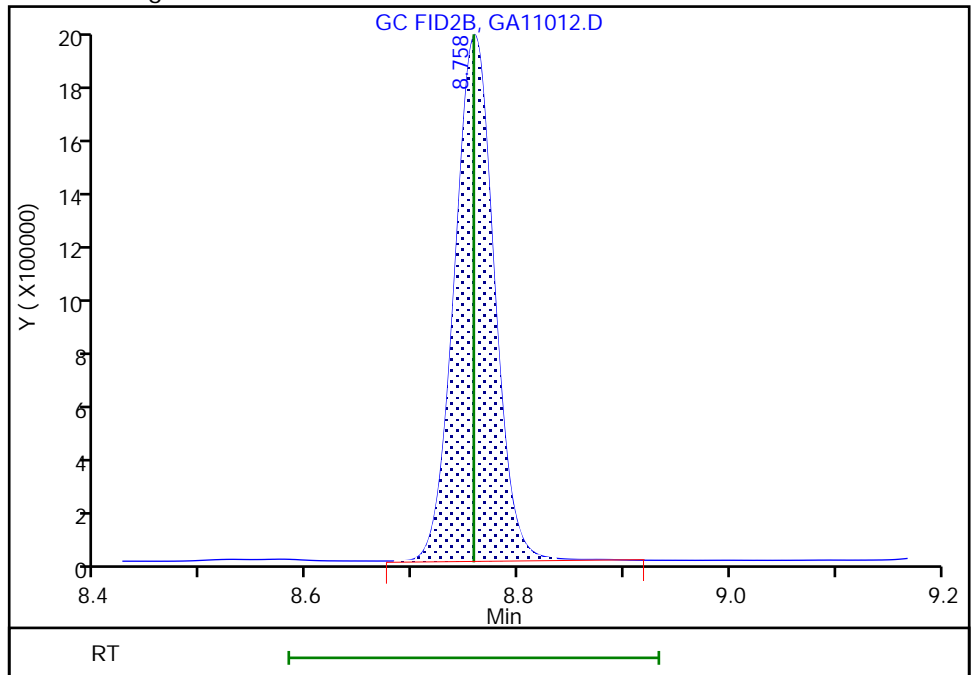
RT: 8.76
Area: 4997206
Amount: 100.0000
Amount Units: ug/ml

Processing Integration Results



RT: 8.76
Area: 4997206
Amount: 97.938084
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 19:39:43
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah

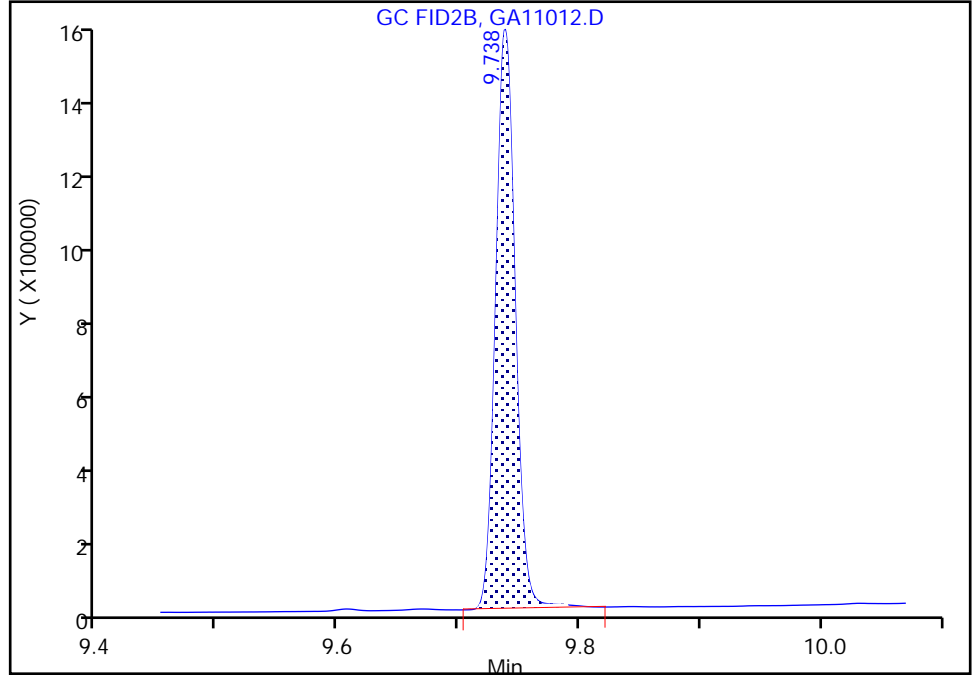
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
Injection Date: 11-Jan-2023 19:18:12 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

9 2,2'-Oxybisethanol, CAS: 111-46-6

Signal: 1

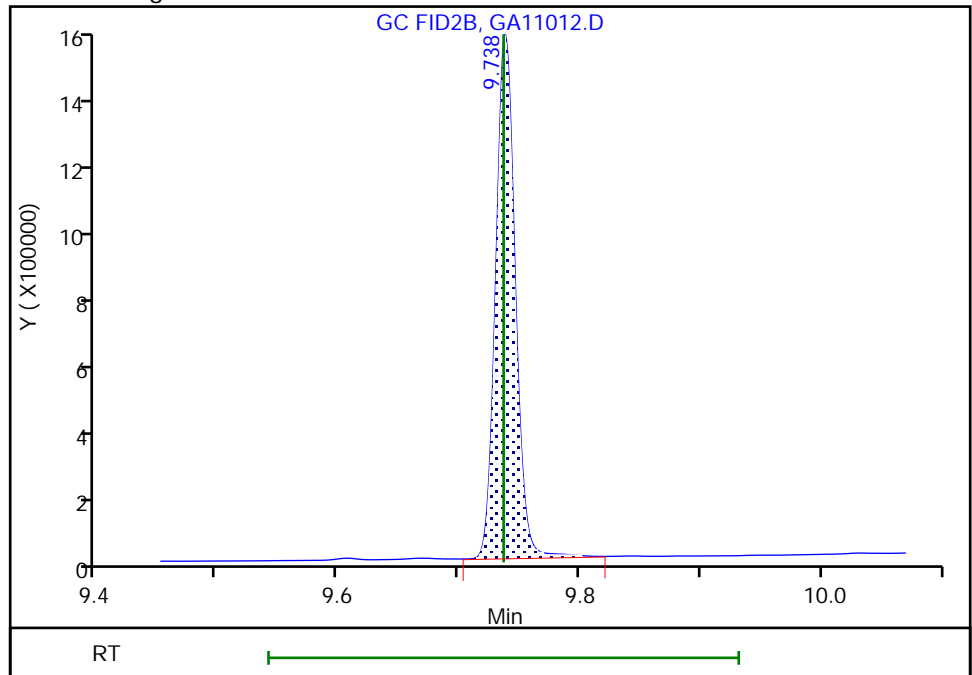
RT: 9.74
Area: 1665230
Amount: 100.0000
Amount Units: ug/ml

Processing Integration Results



RT: 9.74
Area: 1665230
Amount: 98.624633
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 19:39:45
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah

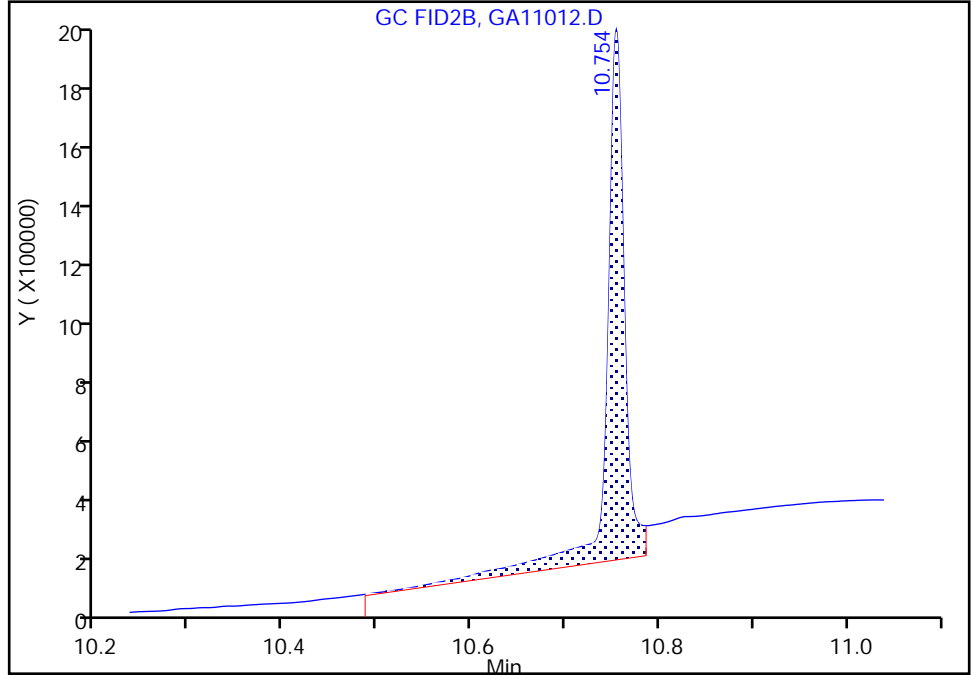
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
Injection Date: 11-Jan-2023 19:18:12 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

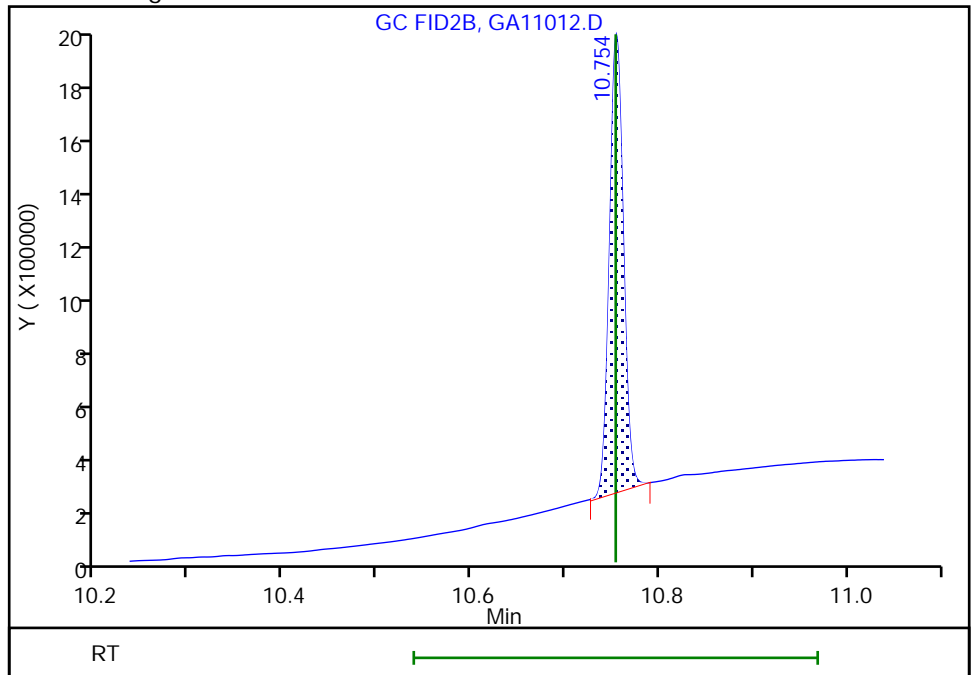
RT: 10.75
Area: 2203486
Amount: 100.0000
Amount Units: ug/ml

Processing Integration Results



RT: 10.75
Area: 1645092
Amount: 101.9619
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 19:39:58
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
Page 92 of 231

Eurofins Savannah

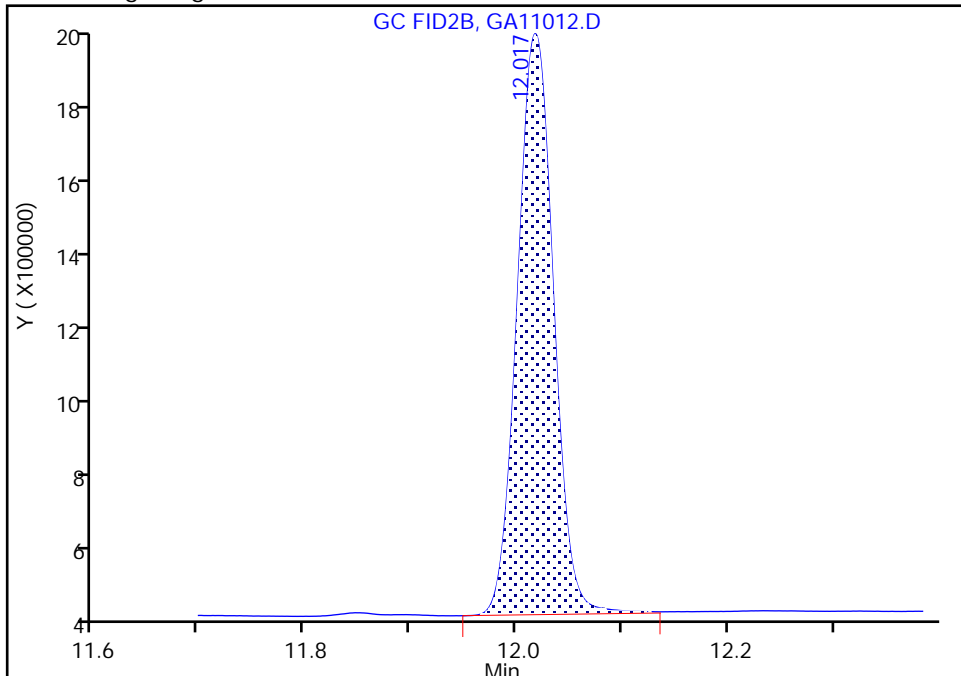
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11012.D
Injection Date: 11-Jan-2023 19:18:12 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

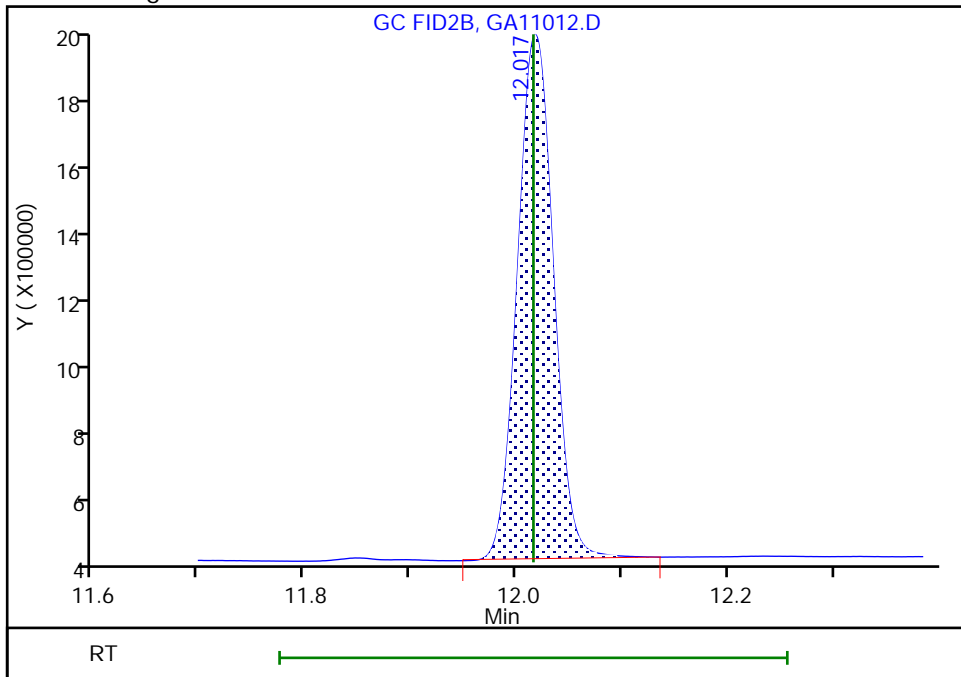
RT: 12.02
Area: 3503102
Amount: 200.0000
Amount Units: ug/ml

Processing Integration Results



RT: 12.02
Area: 3503102
Amount: 199.9711
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 19:39:53
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11013.D
 Lims ID: ic g5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 11-Jan-2023 19:41:27 ALS Bottle#: 0 Worklist Smp#: 13
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-013
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:14:38 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 12:14:09

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.115	3.121	-0.006	4944627	80.0	73.3	
2 4-Hydroxy-4-methyl-2-pentanone						
3.711	3.724	-0.013	4750126	80.0	72.0	
3 2-Butoxyethanol						
4.030	4.031	-0.001	5370855	80.0	73.4	
* 4 n-Heptyl Alcohol						
4.509	4.504	0.005	4582147	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.466	5.469	-0.003	362014	80.0	76.7	
6 Propylene glycol						
6.338	6.341	-0.003	1770636	80.0	75.8	
7 Ethylene glycol						
6.783	6.782	0.001	1363409	80.0	71.3	
8 2-(2-Butoxyethoxy)ethanol						
8.761	8.758	0.003	3847420	80.0	71.8	
9 2,2'-Oxybisethanol						
9.738	9.737	0.001	1300421	80.0	73.3	
10 Triethylene Glycol						M
10.754	10.753	0.001	1268874	80.0	74.9	M
11 Tetraethylene Glycol						
12.018	12.016	0.002	2715743	160.0	147.6	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00052

Amount Added: 40.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11013.D

Injection Date: 11-Jan-2023 19:41:27

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g5

Worklist Smp#: 13

Client ID:

Injection Vol: 1.0 ul

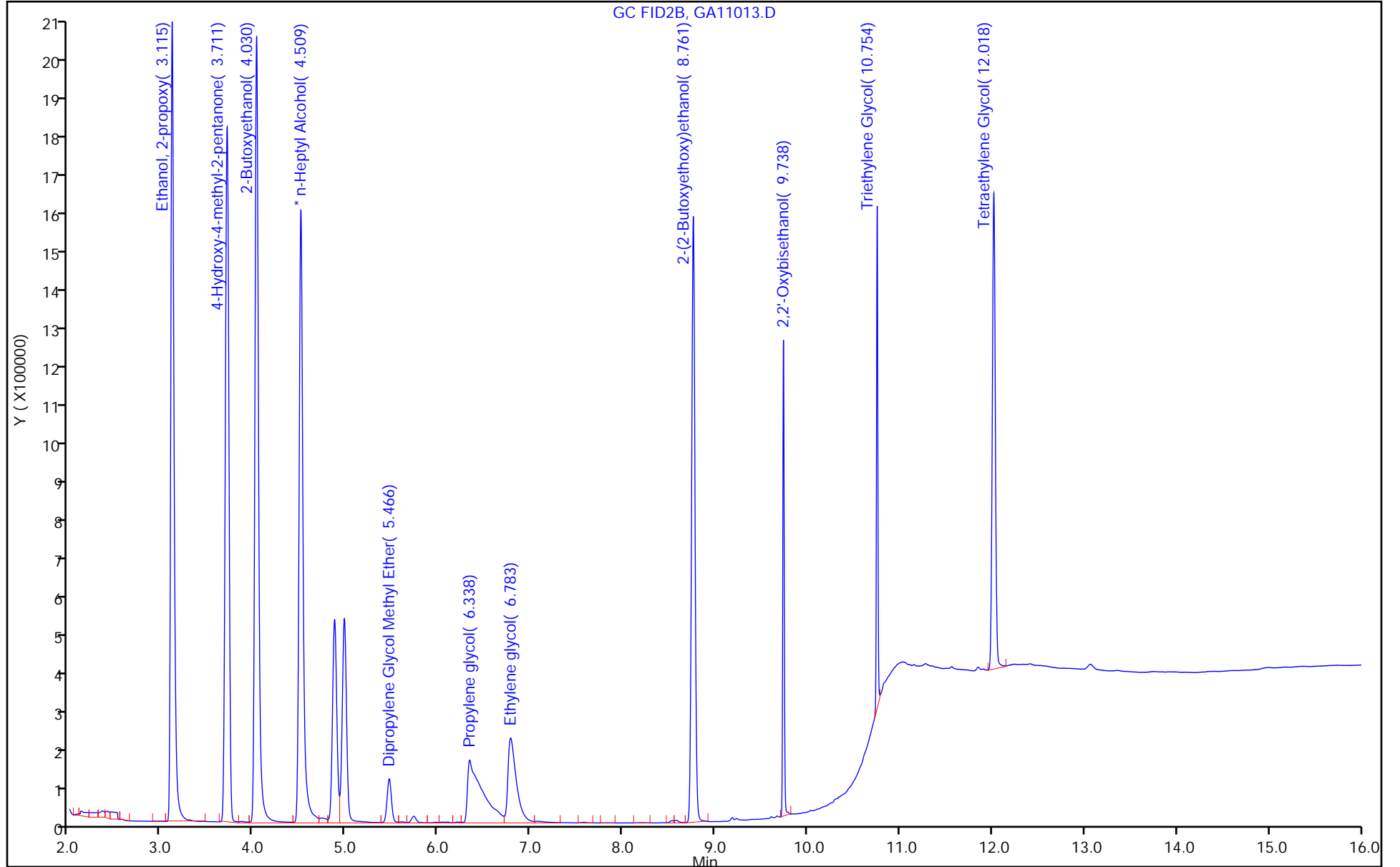
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

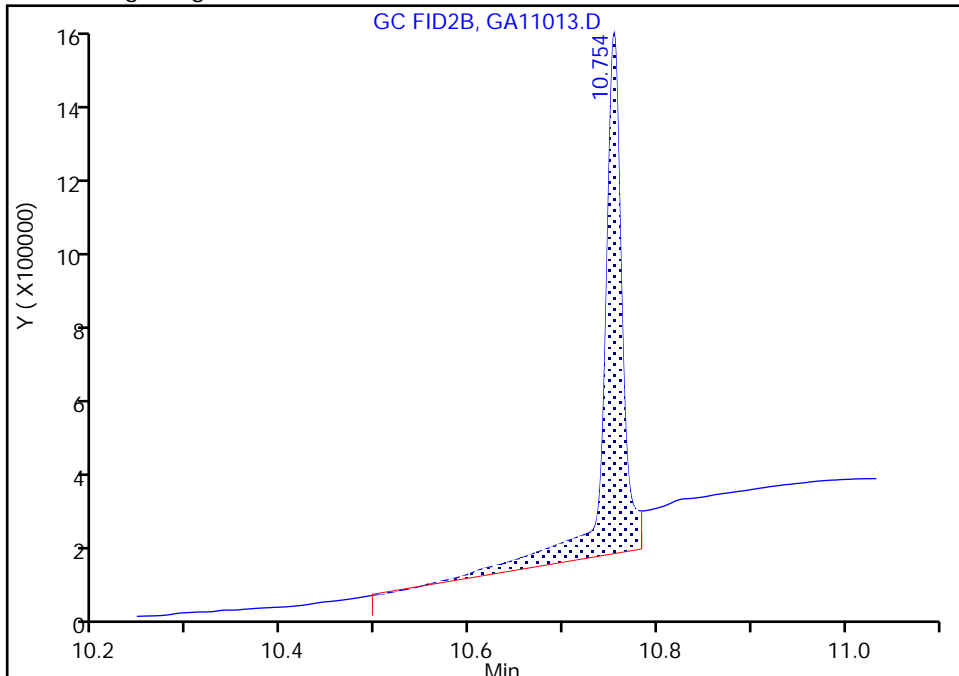
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11013.D
Injection Date: 11-Jan-2023 19:41:27 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

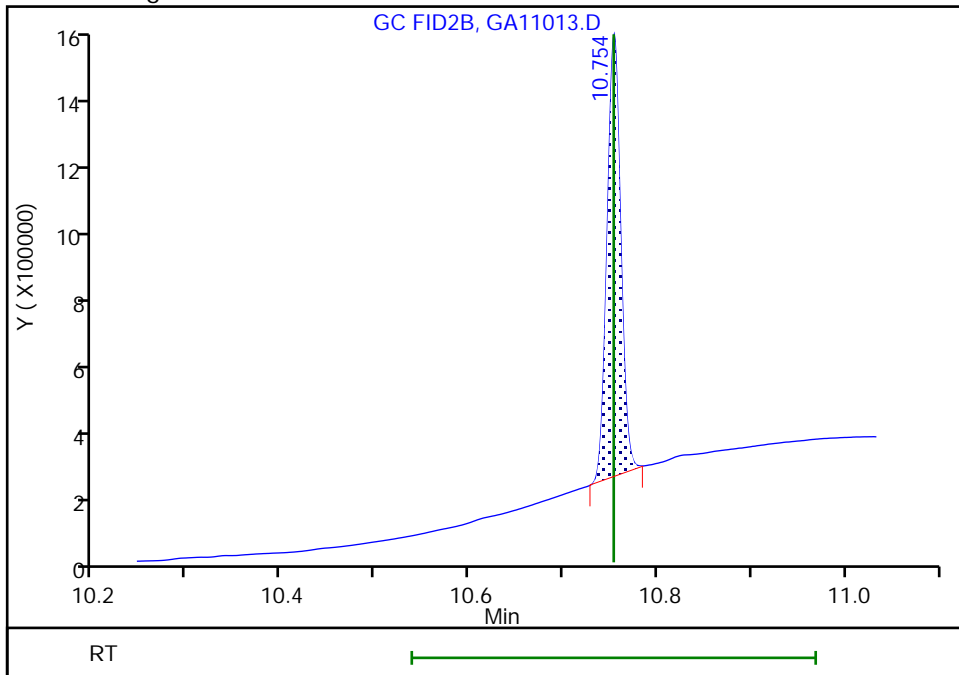
RT: 10.75
Area: 1827634
Amount: 91.099228
Amount Units: ug/ml

Processing Integration Results



RT: 10.75
Area: 1268874
Amount: 74.876909
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 20:18:06
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11014.D
 Lims ID: ic g4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 11-Jan-2023 20:04:42 ALS Bottle#: 0 Worklist Smp#: 14
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-014
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:14:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 11-Jan-2023 20:52:01

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.119	3.119	0.000	3185611	50.0	47.3	
2 4-Hydroxy-4-methyl-2-pentanone						
3.717	3.717	0.000	3131890	50.0	47.5	
3 2-Butoxyethanol						
4.031	4.031	0.000	3432653	50.0	47.0	
* 4 n-Heptyl Alcohol						
4.508	4.508	0.000	4573349	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.466	5.466	0.000	238530	50.0	51.2	
6 Propylene glycol						
6.335	6.335	0.000	1136780	50.0	48.7	
7 Ethylene glycol						
6.780	6.780	0.000	891870	50.0	46.8	
8 2-(2-Butoxyethoxy)ethanol						
8.761	8.761	0.000	2540215	50.0	47.5	
9 2,2'-Oxybisethanol						
9.738	9.738	0.000	847316	50.0	47.9	
10 Triethylene Glycol						
10.753	10.753	0.000	817829	50.0	48.4	M
11 Tetraethylene Glycol						
12.017	12.017	0.000	1764754	100.0	96.1	M

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00052

Amount Added: 25.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11014.D

Injection Date: 11-Jan-2023 20:04:42

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g4

Worklist Smp#: 14

Client ID:

Injection Vol: 1.0 ul

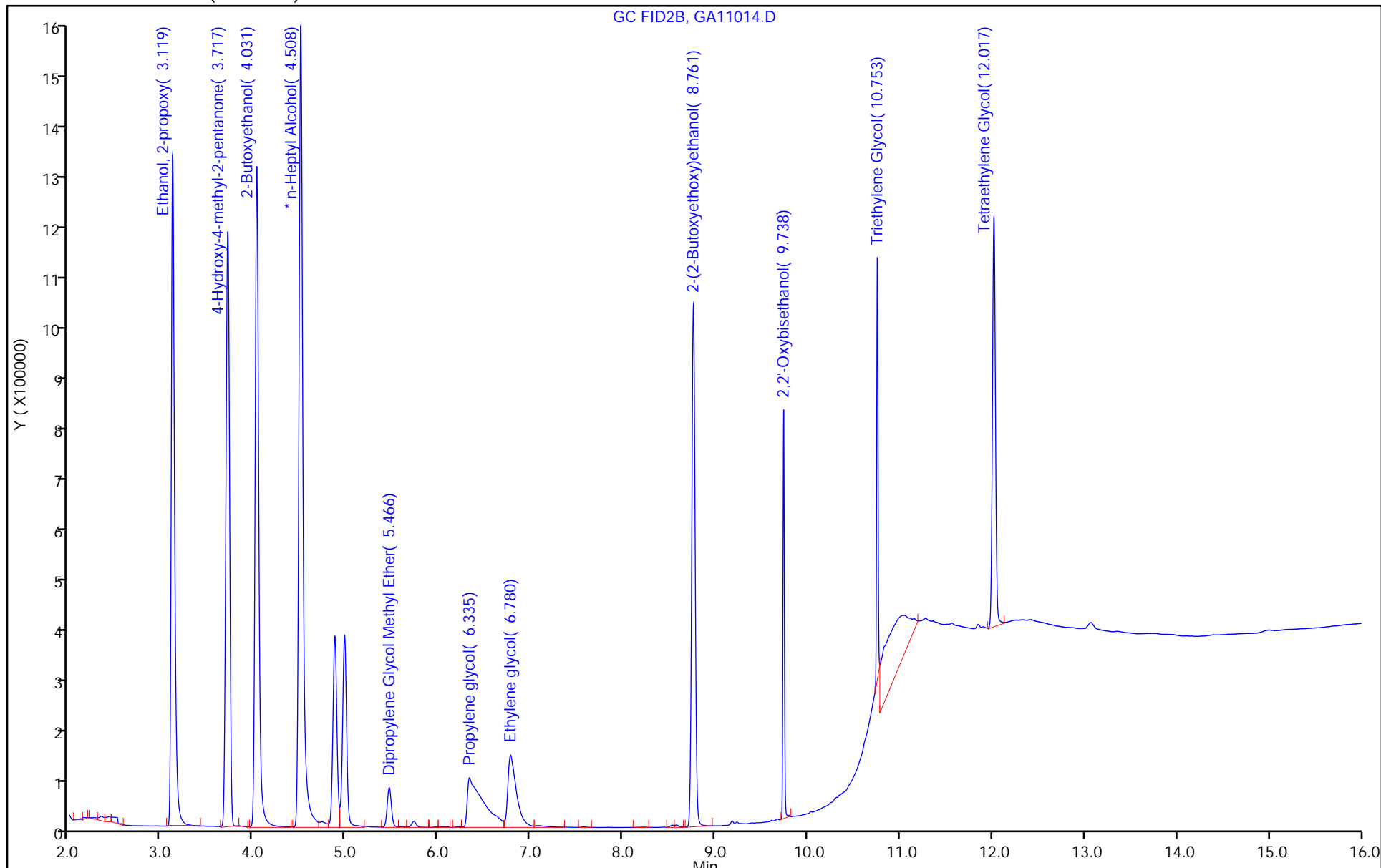
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

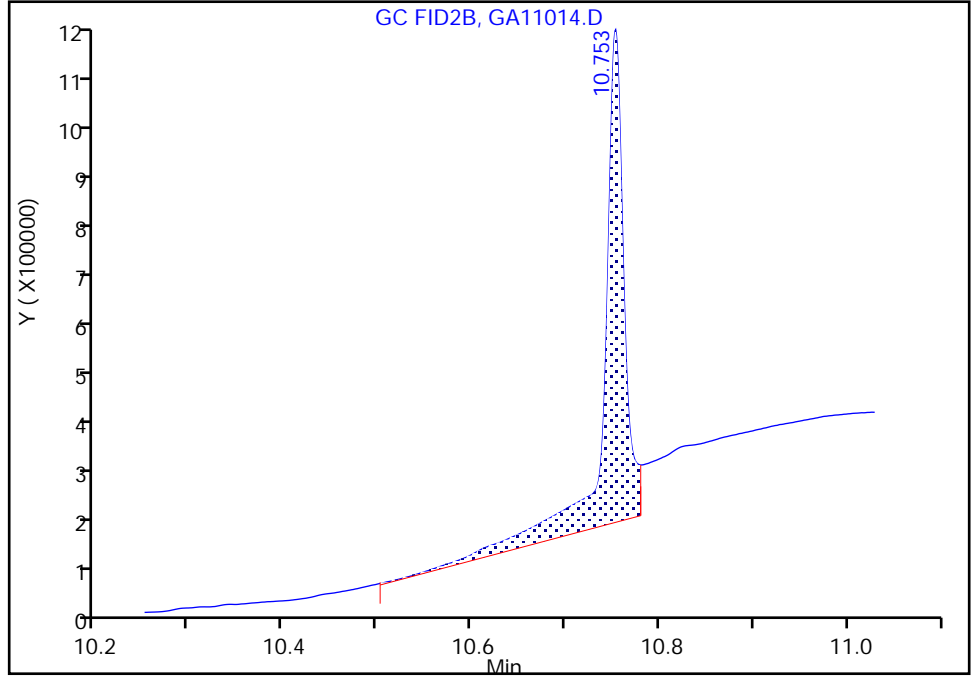
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11014.D
Injection Date: 11-Jan-2023 20:04:42 Instrument ID: CVGG2
Lims ID: ic g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

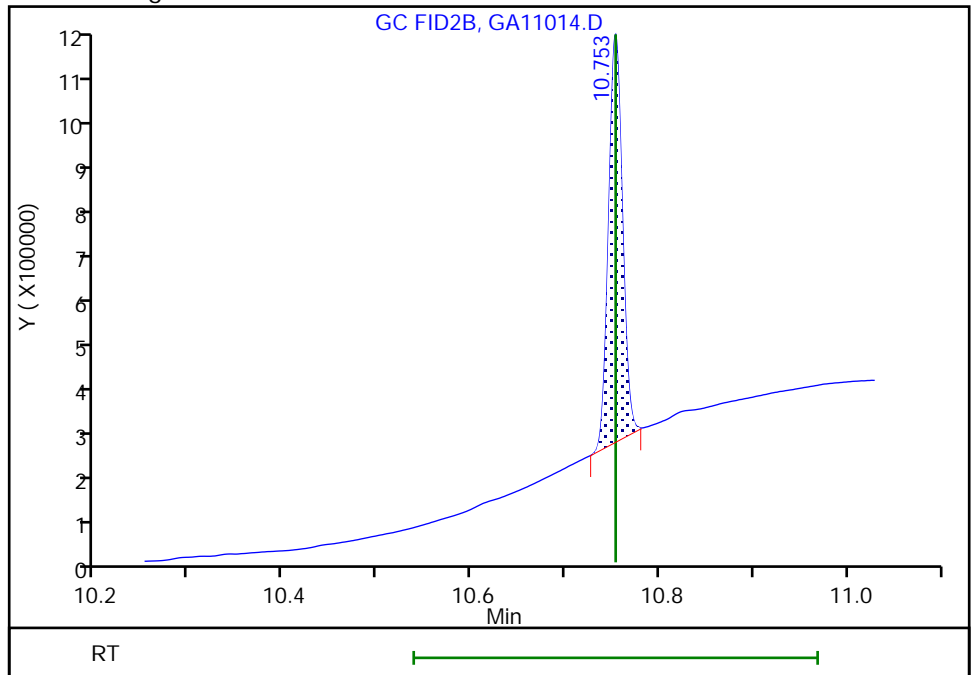
RT: 10.75
Area: 1328259
Amount: 46.921372
Amount Units: ug/ml

Processing Integration Results



RT: 10.75
Area: 817829
Amount: 48.353352
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 20:51:59
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11015.D
 Lims ID: icis g3
 Client ID:
 Sample Type: ICIS Calib Level: 3
 Inject. Date: 11-Jan-2023 20:28:01 ALS Bottle#: 0 Worklist Smp#: 15
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-015
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:14:40 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1

Date: 11-Jan-2023 20:52:25

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						M
3.121	3.121	0.000	1400382	20.0	20.2	M
2 4-Hydroxy-4-methyl-2-pentanone						
3.724	3.724	0.000	1371968	20.0	20.2	
3 2-Butoxyethanol						
4.031	4.031	0.000	1519939	20.0	20.2	
* 4 n-Heptyl Alcohol						
4.504	4.504	0.000	4703166	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.469	5.469	0.000	103939	20.0	21.9	
6 Propylene glycol						
6.341	6.341	0.000	485048	20.0	20.2	
7 Ethylene glycol						
6.782	6.782	0.000	378219	20.0	19.3	
8 2-(2-Butoxyethoxy)ethanol						
8.758	8.758	0.000	1111022	20.0	20.2	
9 2,2'-Oxybisethanol						
9.737	9.737	0.000	356750	20.0	19.6	
10 Triethylene Glycol						M
10.753	10.753	0.000	332049	20.0	19.1	M
11 Tetraethylene Glycol						
12.016	12.016	0.000	748973	40.0	39.7	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11015.D

Injection Date: 11-Jan-2023 20:28:01

Instrument ID: CVGG2

Operator ID:

Lims ID: icis g3

Worklist Smp#: 15

Client ID:

Injection Vol: 1.0 ul

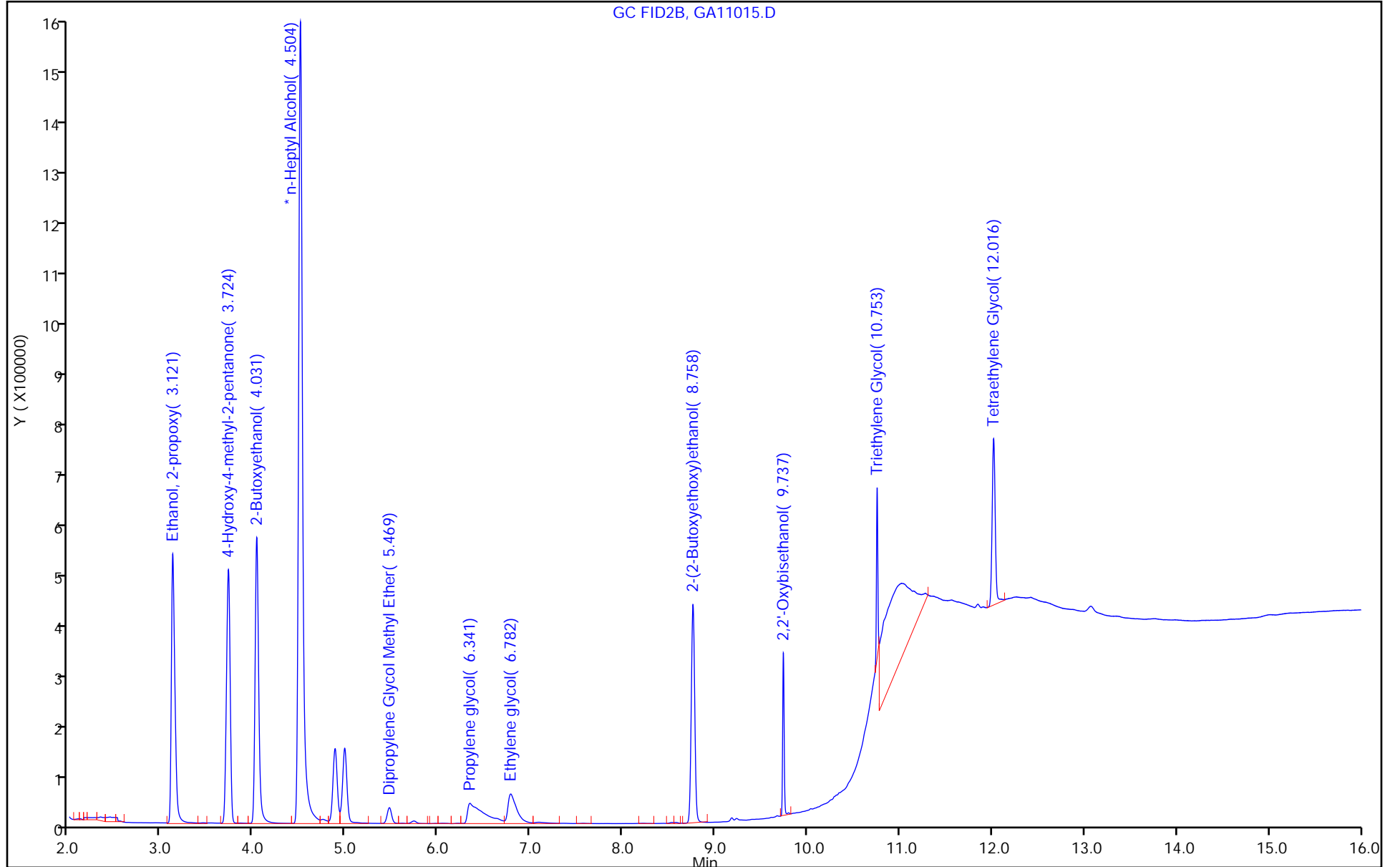
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

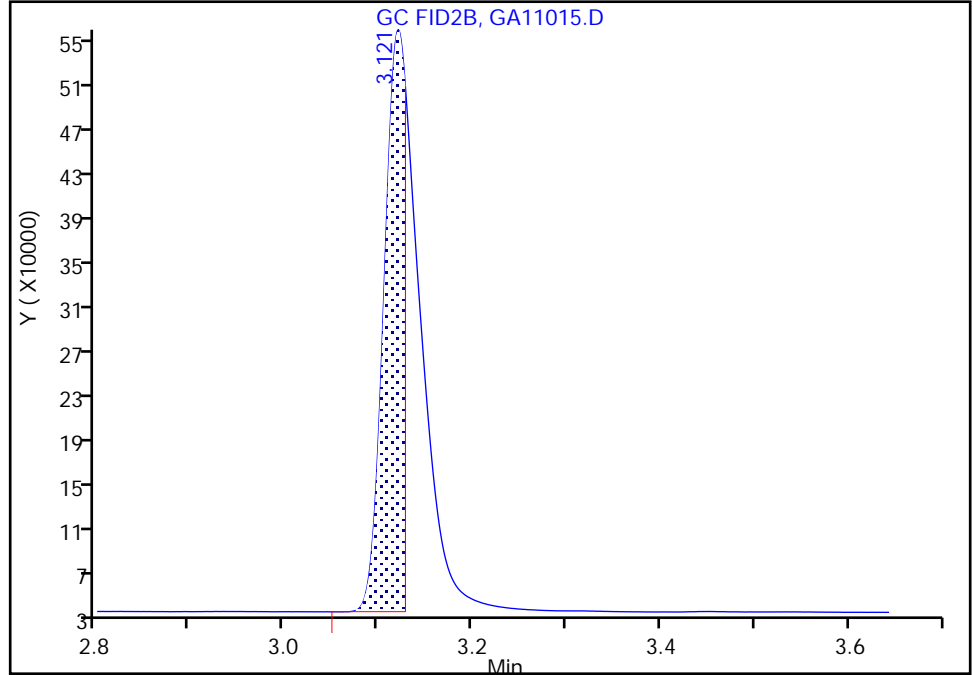
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11015.D
Injection Date: 11-Jan-2023 20:28:01 Instrument ID: CVGG2
Lims ID: icis g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

1 Ethanol, 2-propoxy, CAS: 2807-30-9

Signal: 1

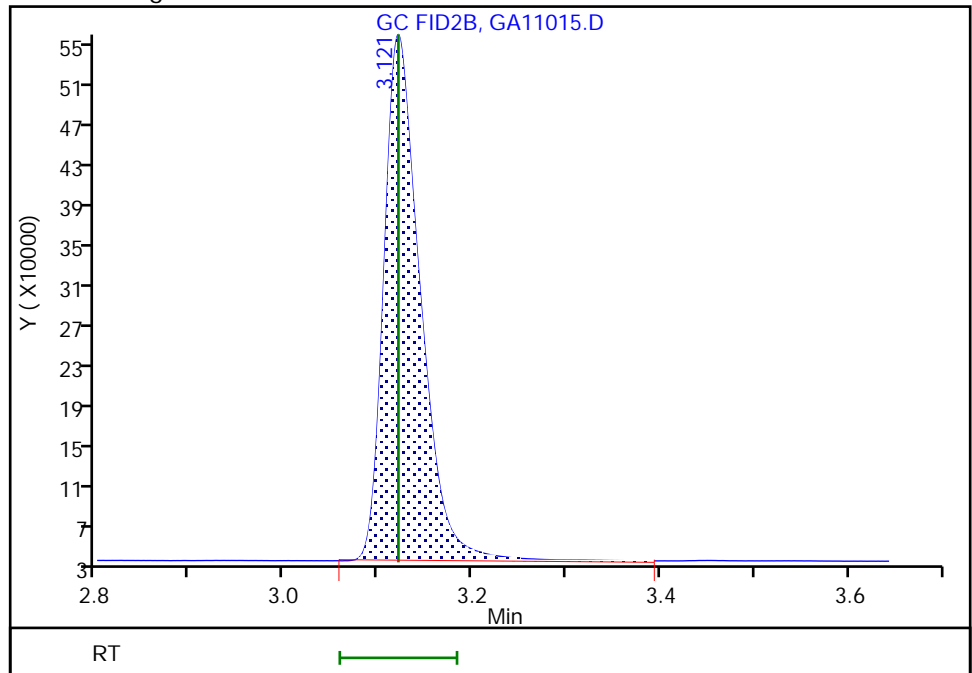
RT: 3.12
Area: 767020
Amount: 19.716542
Amount Units: ug/ml

Processing Integration Results



RT: 3.12
Area: 1400382
Amount: 20.235490
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 20:52:14
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Savannah

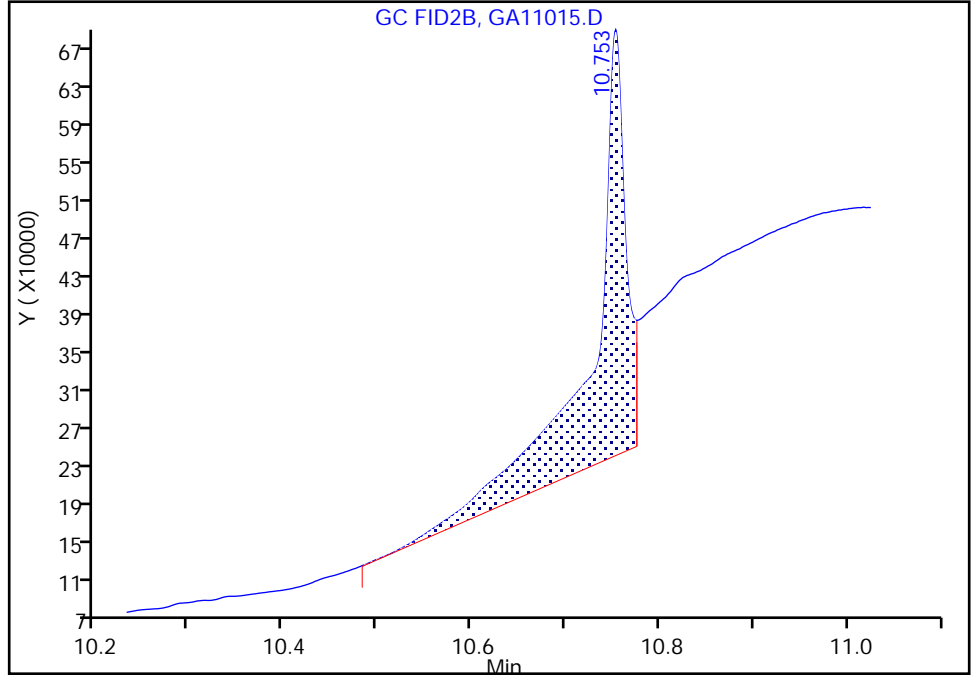
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11015.D
Injection Date: 11-Jan-2023 20:28:01 Instrument ID: CVGG2
Lims ID: icis g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

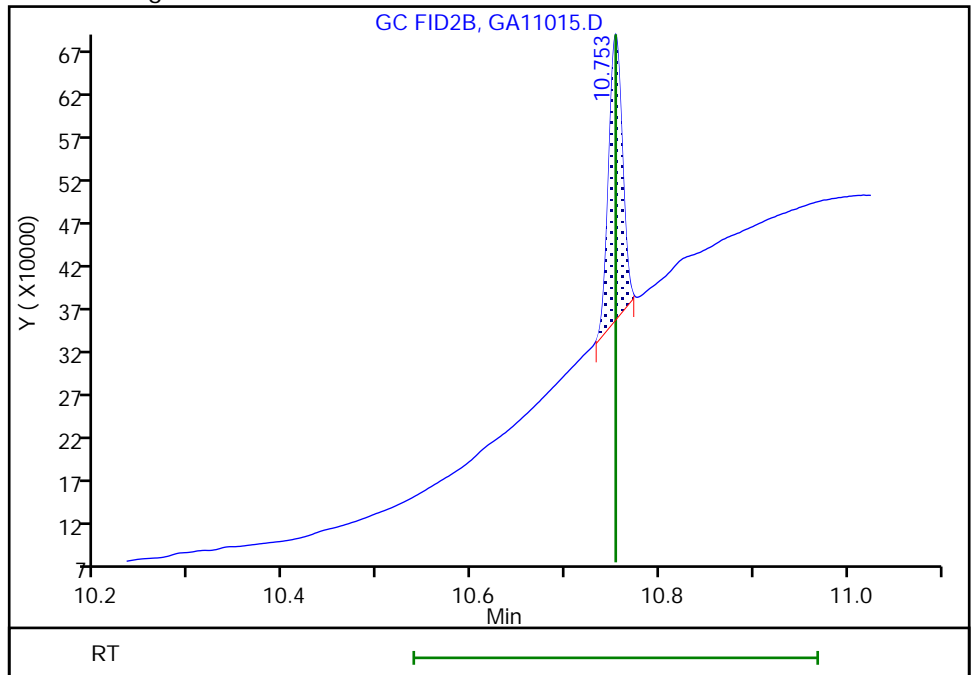
RT: 10.75
Area: 1102258
Amount: 41.614842
Amount Units: ug/ml

Processing Integration Results



RT: 10.75
Area: 332049
Amount: 19.090192
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 20:52:21
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11016.D
 Lims ID: ic g2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 11-Jan-2023 20:51:15 ALS Bottle#: 0 Worklist Smp#: 16
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-016
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:14:40 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 11-Jan-2023 21:35:21

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.118	3.121	-0.003	729297	10.0	10.1	
2 4-Hydroxy-4-methyl-2-pentanone						
3.719	3.724	-0.005	711603	10.0	10.0	
3 2-Butoxyethanol						
4.030	4.031	-0.001	801660	10.0	10.2	
* 4 n-Heptyl Alcohol						
4.505	4.504	0.001	4915794	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.469	5.469	0.000	53252	10.0	10.7	
6 Propylene glycol						
6.339	6.341	-0.002	263729	10.0	10.5	
7 Ethylene glycol						
6.785	6.782	0.003	217023	10.0	10.6	
8 2-(2-Butoxyethoxy)ethanol						
8.759	8.758	0.001	578471	10.0	10.1	
9 2,2'-Oxybisethanol						
9.737	9.737	0.000	195926	10.0	10.3	
10 Triethylene Glycol						
10.753	10.753	0.000	183444	10.0	10.1	M
11 Tetraethylene Glycol						
12.015	12.016	-0.001	403210	20.0	20.4	M

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00052

Amount Added: 5.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11016.D

Injection Date: 11-Jan-2023 20:51:15

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g2

Worklist Smp#: 16

Client ID:

Injection Vol: 1.0 ul

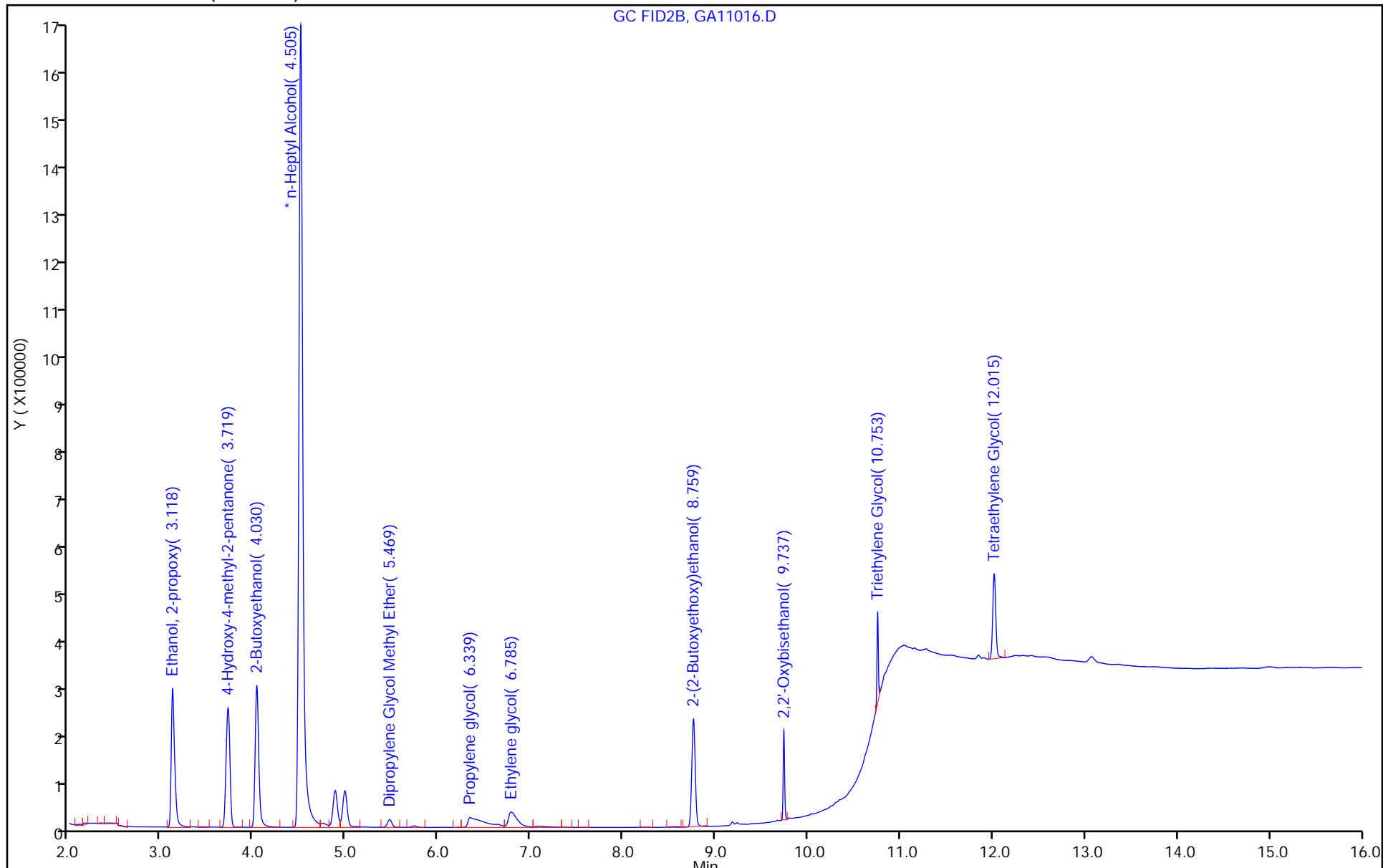
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



GC FID2B, GA11016.D

Eurofins Savannah

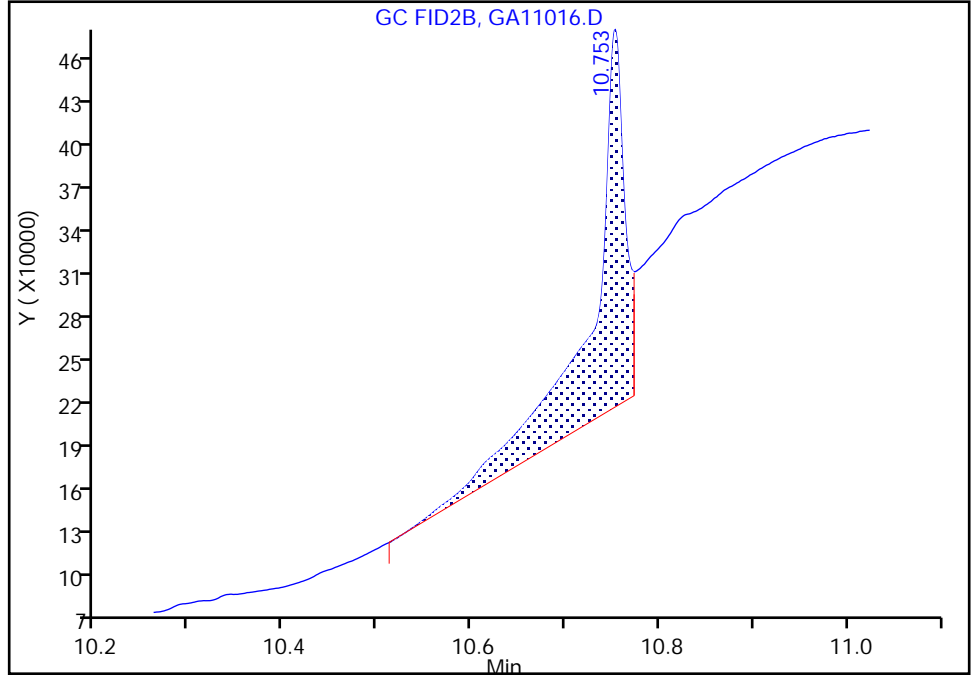
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11016.D
Injection Date: 11-Jan-2023 20:51:15 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

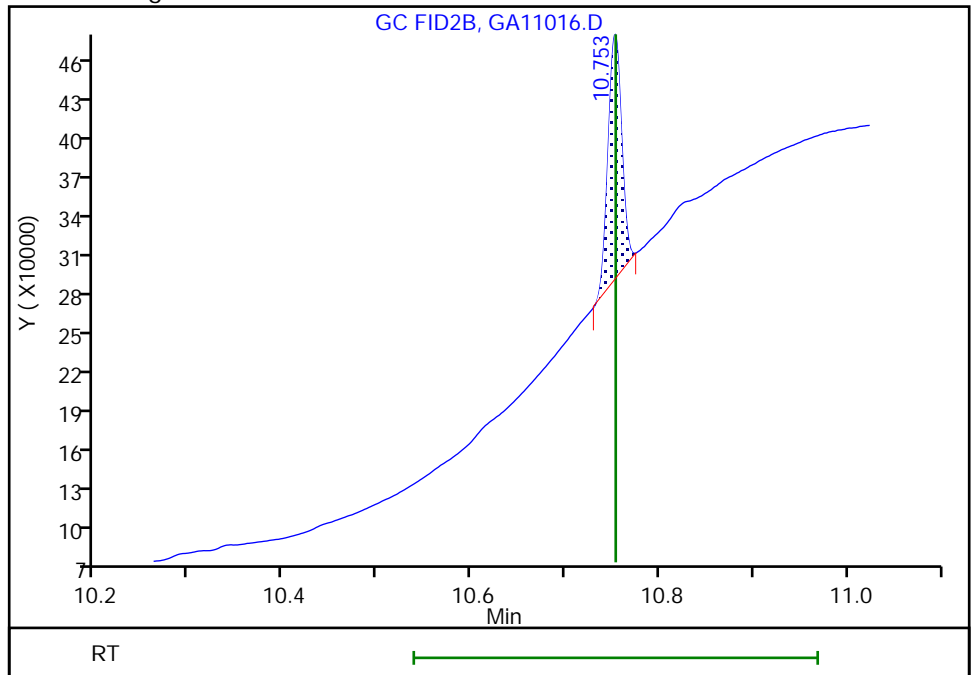
RT: 10.75
Area: 624342
Amount: 21.077064
Amount Units: ug/ml

Processing Integration Results



RT: 10.75
Area: 183444
Amount: 10.090397
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 21:35:15
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Lims ID: ic g1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 11-Jan-2023 21:14:29 ALS Bottle#: 0 Worklist Smp#: 17
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-017
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:14:41 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 11-Jan-2023 21:35:45

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.122	3.121	0.001	412485	5.00	5.78	
2 4-Hydroxy-4-methyl-2-pentanone						
3.727	3.724	0.003	405244	5.00	5.80	
3 2-Butoxyethanol						
4.031	4.031	0.000	449925	5.00	5.81	
* 4 n-Heptyl Alcohol						
4.502	4.504	-0.002	4848013	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.463	5.469	-0.006	14210	5.00	2.80	
6 Propylene glycol						
6.333	6.341	-0.008	124185	5.00	5.02	
7 Ethylene glycol						
6.777	6.782	-0.005	121803	5.00	6.02	
8 2-(2-Butoxyethoxy)ethanol						
8.756	8.758	-0.002	328114	5.00	5.79	
9 2,2'-Oxybisethanol						
9.737	9.737	0.000	106006	5.00	5.65	
10 Triethylene Glycol						
10.753	10.753	0.000	99849	5.00	5.57	M
11 Tetraethylene Glycol						
12.016	12.016	0.000	214886	10.0	11.0	M

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00052

Amount Added: 2.50

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D

Injection Date: 11-Jan-2023 21:14:29

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g1

Worklist Smp#: 17

Client ID:

Injection Vol: 1.0 ul

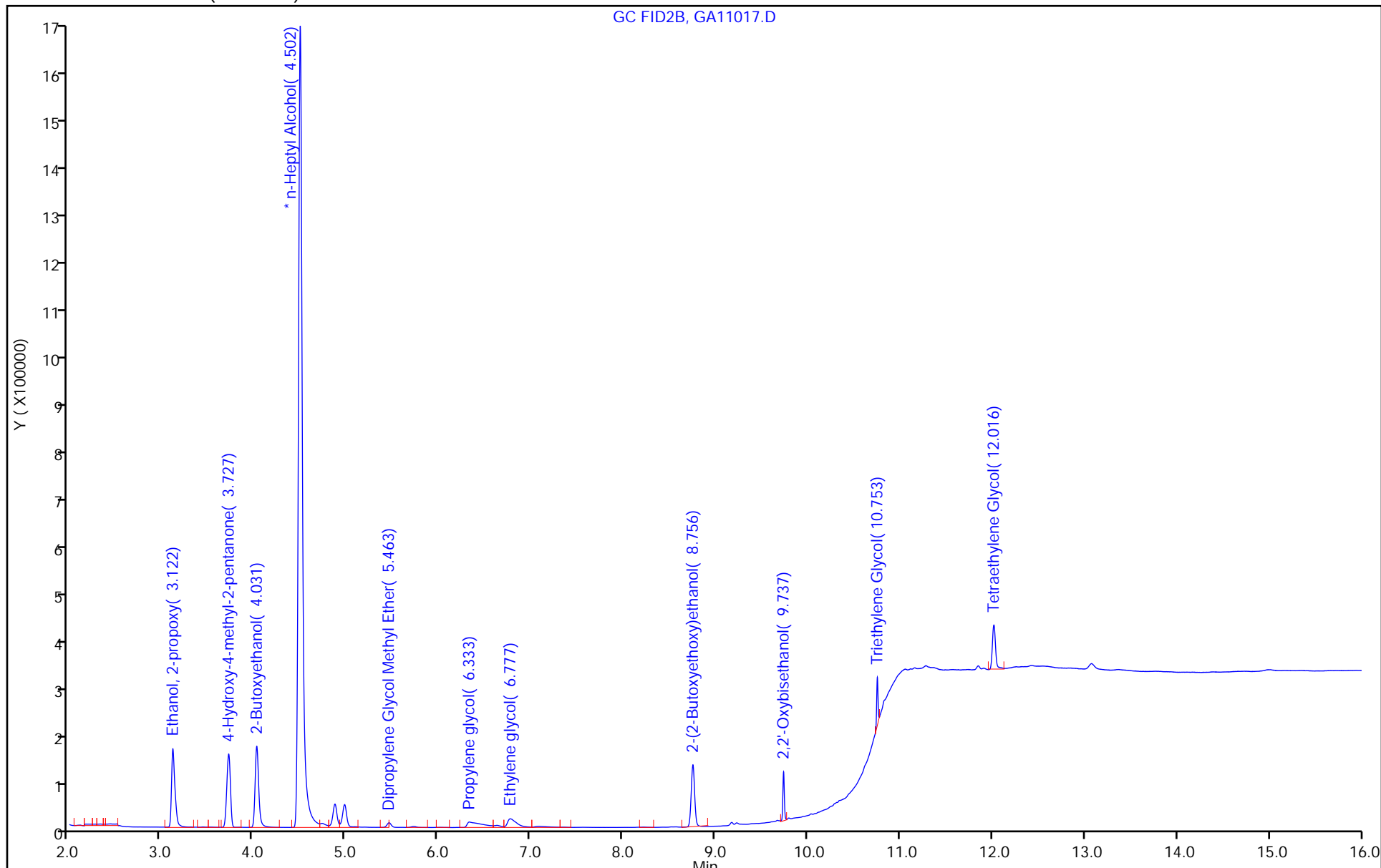
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Euofins Savannah

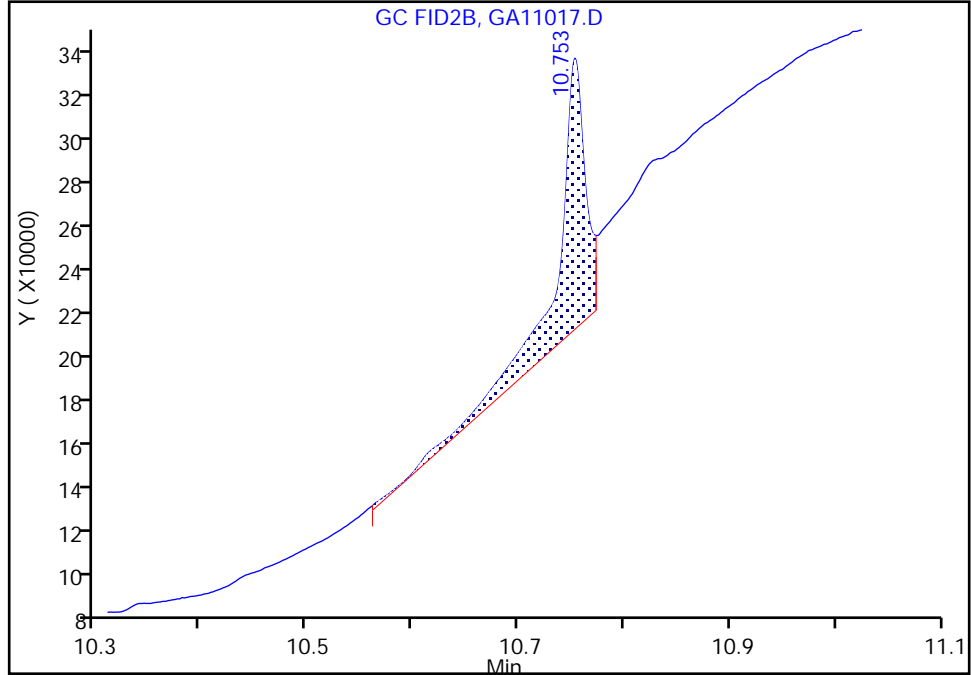
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
Injection Date: 11-Jan-2023 21:14:29 Instrument ID: CVGG2
Lims ID: ic g1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

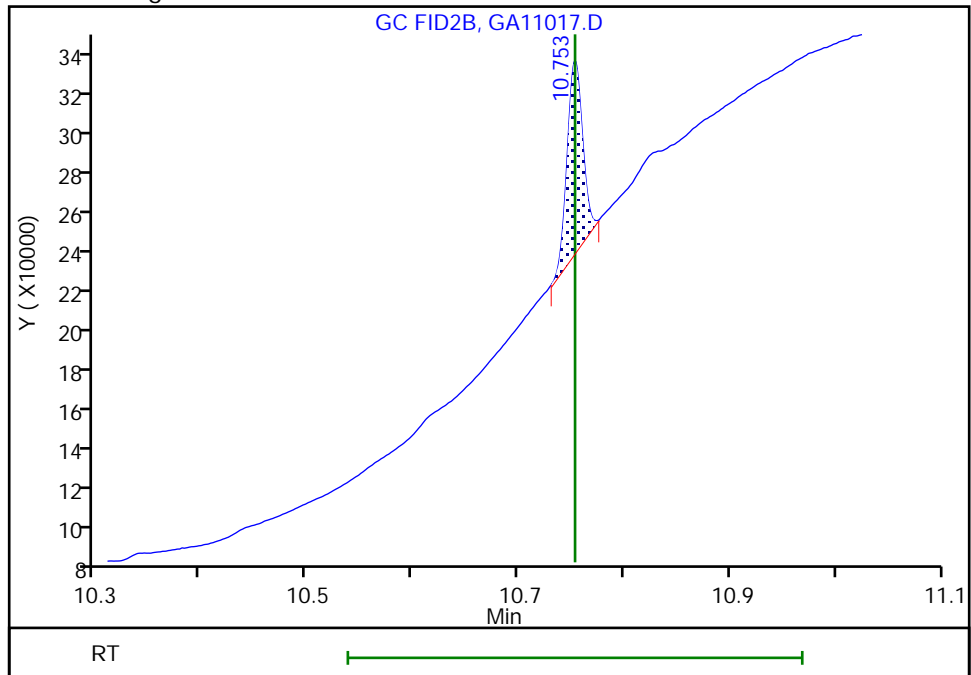
RT: 10.75
Area: 220961
Amount: 10.059022
Amount Units: ug/ml

Processing Integration Results



RT: 10.75
Area: 99849
Amount: 5.569015
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 21:35:31
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Calibration

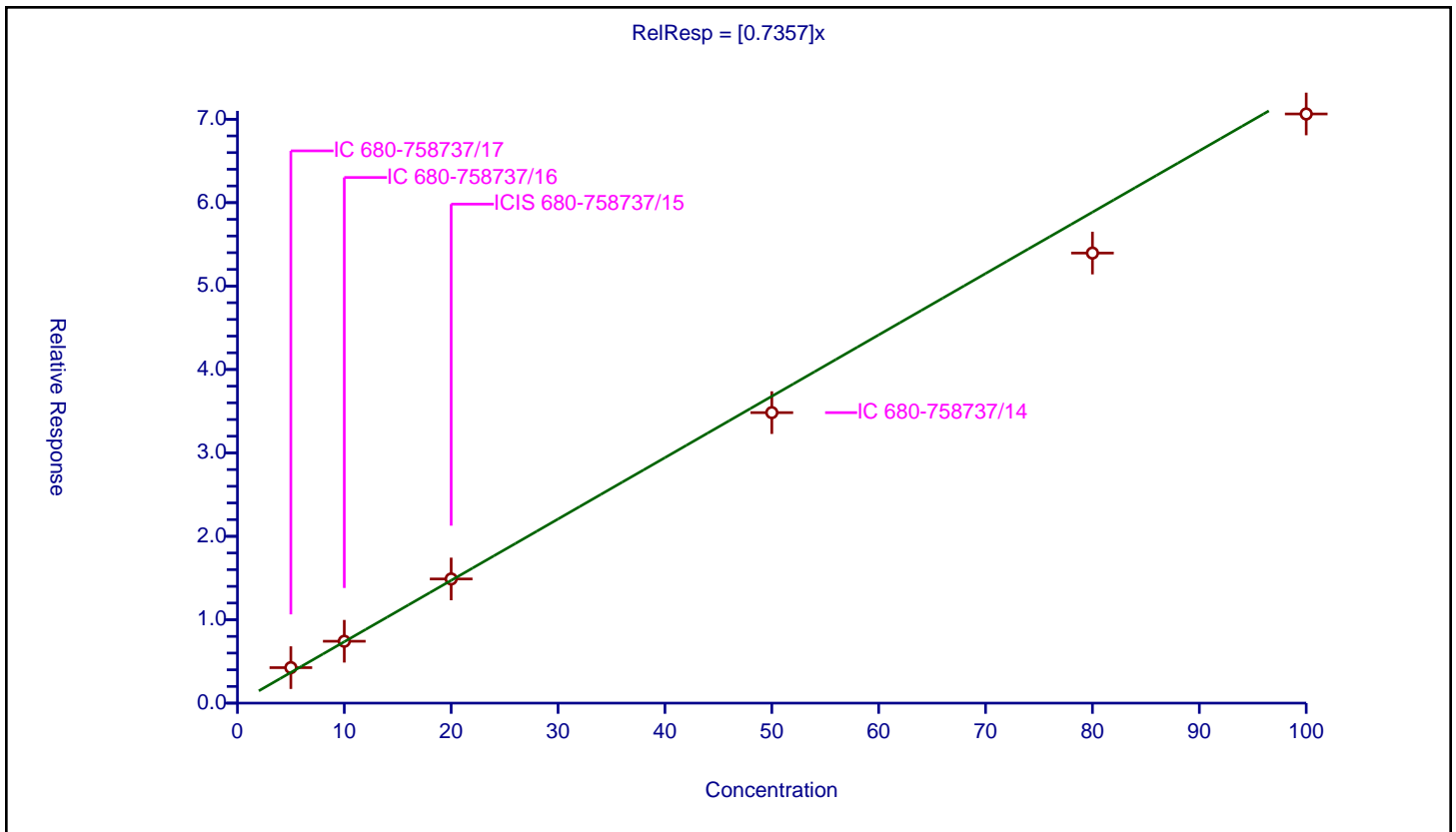
/ Ethanol, 2-propoxy

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7357

Error Coefficients	
Standard Error:	3880000
Relative Standard Error:	8.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-758737/17	5.0	4.254166	50.0	4848013.0	0.850833	Y
2	IC 680-758737/16	10.0	7.417896	50.0	4915794.0	0.74179	Y
3	ICIS 680-758737/15	20.0	14.887652	50.0	4703166.0	0.744383	Y
4	IC 680-758737/14	50.0	34.827989	50.0	4573349.0	0.69656	Y
5	IC 680-758737/13	80.0	53.955351	50.0	4582147.0	0.674442	Y
6	IC 680-758737/12	100.0	70.631235	50.0	4362652.0	0.706312	Y



Calibration

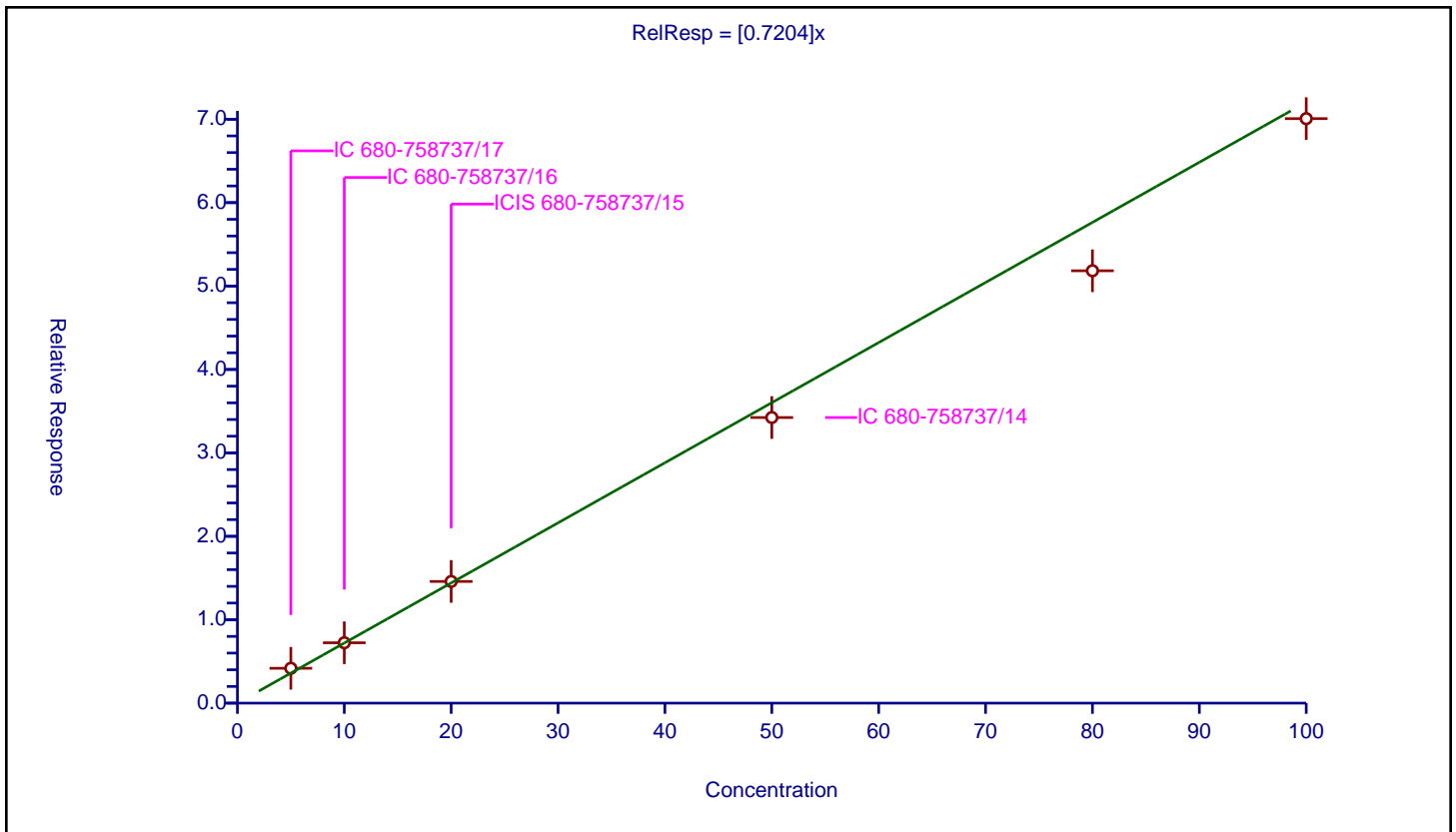
/ 4-Hydroxy-4-methyl-2-pentanone

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7204

Error Coefficients	
Standard Error:	3800000
Relative Standard Error:	8.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-758737/17	5.0	4.179485	50.0	4848013.0	0.835897	Y
2	IC 680-758737/16	10.0	7.237925	50.0	4915794.0	0.723793	Y
3	ICIS 680-758737/15	20.0	14.585579	50.0	4703166.0	0.729279	Y
4	IC 680-758737/14	50.0	34.240663	50.0	4573349.0	0.684813	Y
5	IC 680-758737/13	80.0	51.832973	50.0	4582147.0	0.647912	Y
6	IC 680-758737/12	100.0	70.070602	50.0	4362652.0	0.700706	Y



Calibration

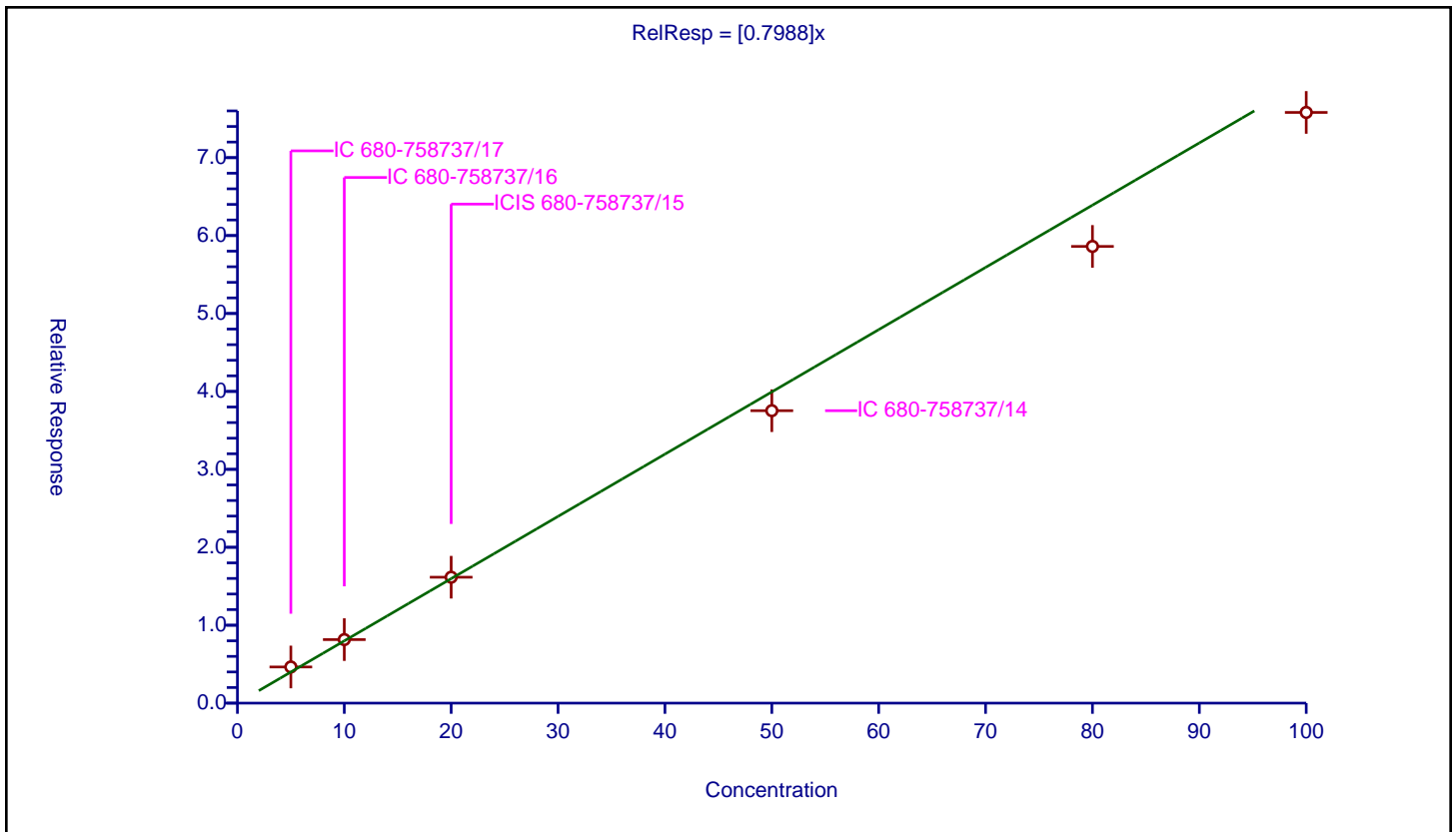
/ 2-Butoxyethanol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7988

Error Coefficients	
Standard Error:	4180000
Relative Standard Error:	8.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-758737/17	5.0	4.640303	50.0	4848013.0	0.928061	Y
2	IC 680-758737/16	10.0	8.153922	50.0	4915794.0	0.815392	Y
3	ICIS 680-758737/15	20.0	16.158679	50.0	4703166.0	0.807934	Y
4	IC 680-758737/14	50.0	37.528877	50.0	4573349.0	0.750578	Y
5	IC 680-758737/13	80.0	58.606315	50.0	4582147.0	0.732579	Y
6	IC 680-758737/12	100.0	75.801176	50.0	4362652.0	0.758012	Y



Calibration

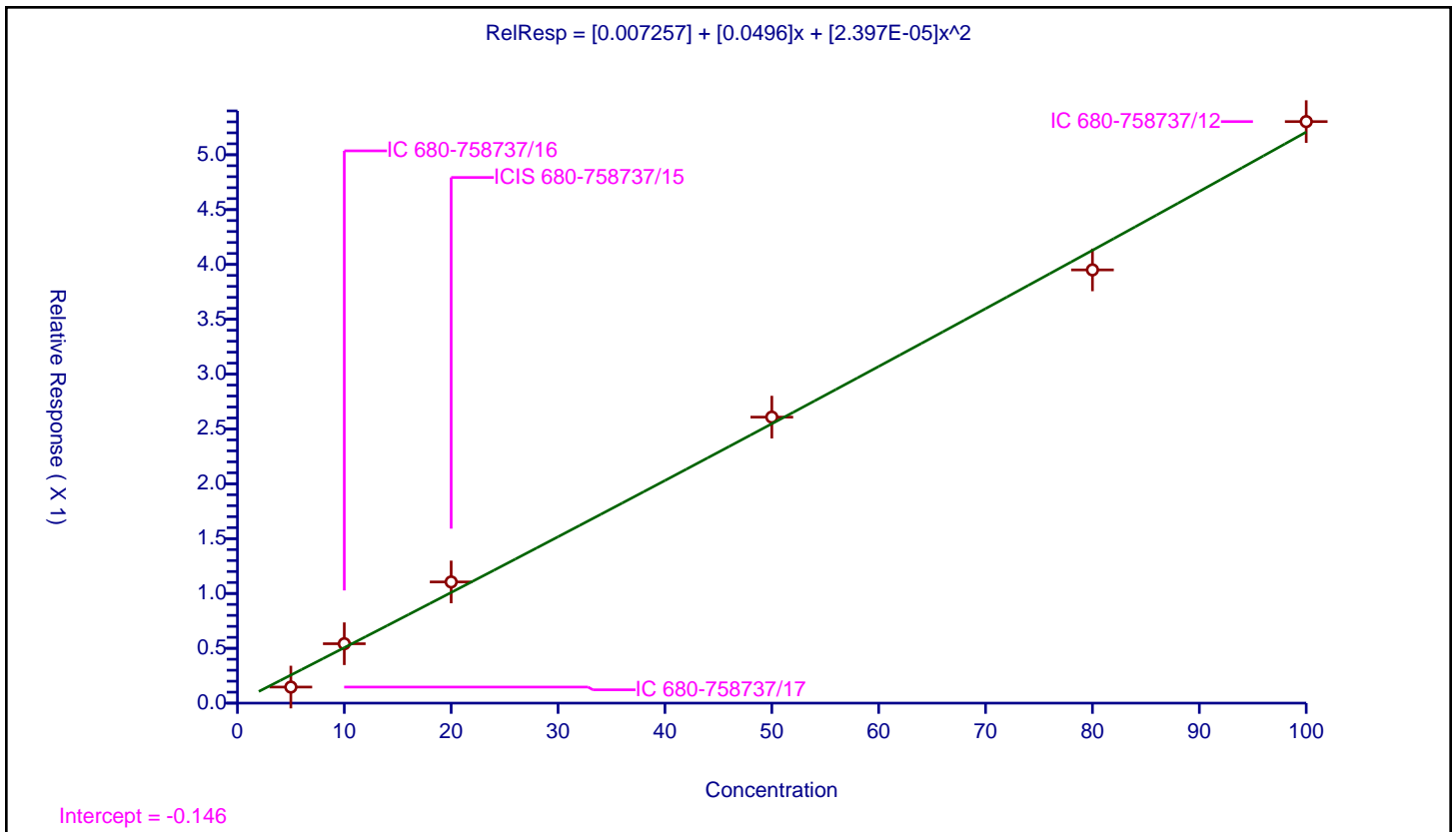
/ Dipropylene Glycol Methyl Ether

Curve Type: Quadratic
 Weighting: None
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0.007257
Slope:	0.0496
Second Order:	2.397E-05

Error Coefficients	
Standard Error:	372000
Relative Standard Error:	26.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-758737/17	5.0	0.146555	50.0	4848013.0	0.029311	Y
2	IC 680-758737/16	10.0	0.541642	50.0	4915794.0	0.054164	Y
3	ICIS 680-758737/15	20.0	1.10499	50.0	4703166.0	0.055249	Y
4	IC 680-758737/14	50.0	2.607826	50.0	4573349.0	0.052157	Y
5	IC 680-758737/13	80.0	3.950266	50.0	4582147.0	0.049378	Y
6	IC 680-758737/12	100.0	5.302314	50.0	4362652.0	0.053023	Y



Calibration

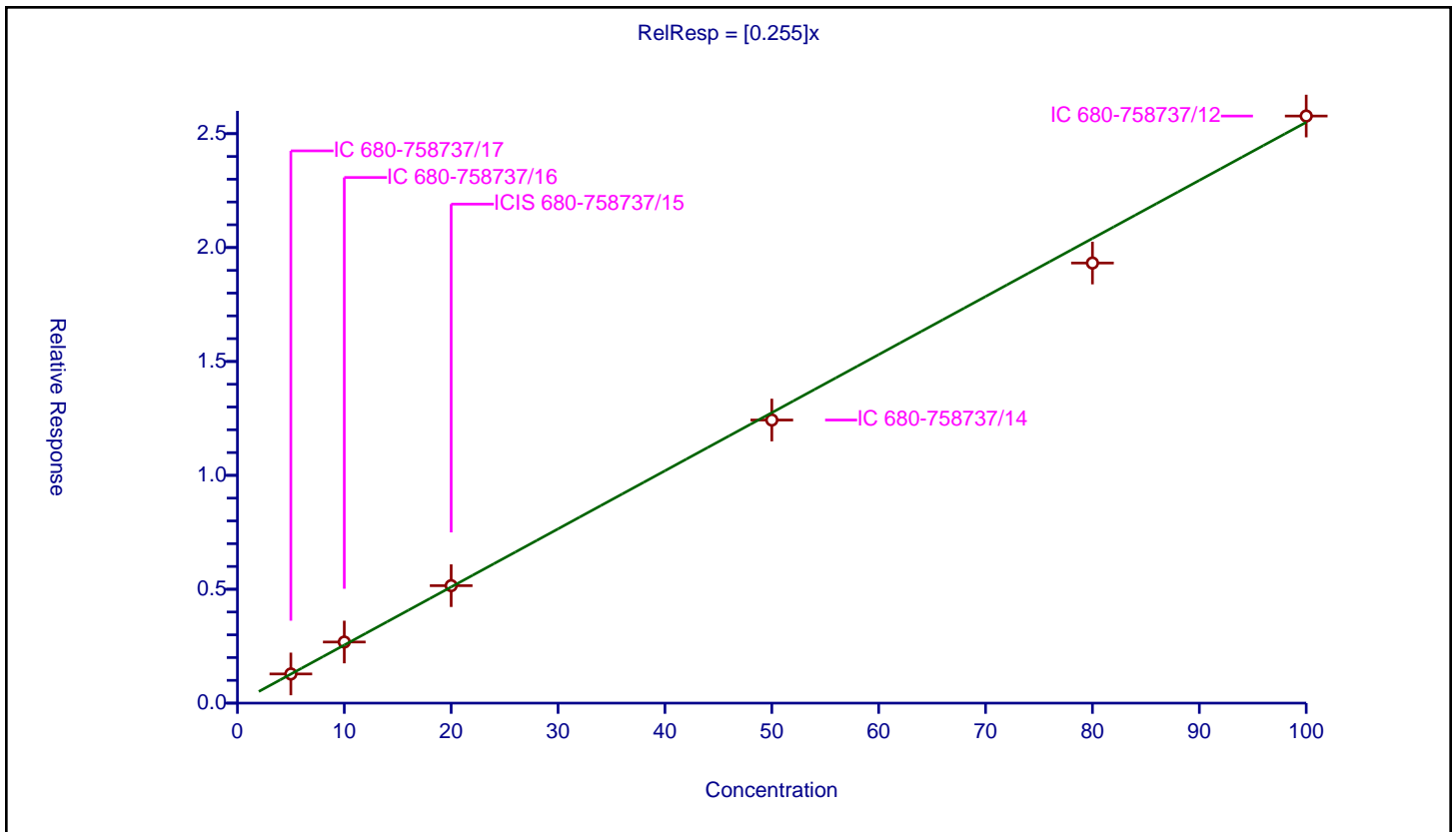
/ Propylene glycol

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.255

Error Coefficients	
Standard Error:	1400000
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-758737/17	5.0	1.280782	50.0	4848013.0	0.256156	Y
2	IC 680-758737/16	10.0	2.682466	50.0	4915794.0	0.268247	Y
3	ICIS 680-758737/15	20.0	5.156612	50.0	4703166.0	0.257831	Y
4	IC 680-758737/14	50.0	12.42831	50.0	4573349.0	0.248566	Y
5	IC 680-758737/13	80.0	19.32103	50.0	4582147.0	0.241513	Y
6	IC 680-758737/12	100.0	25.774678	50.0	4362652.0	0.257747	Y



Calibration

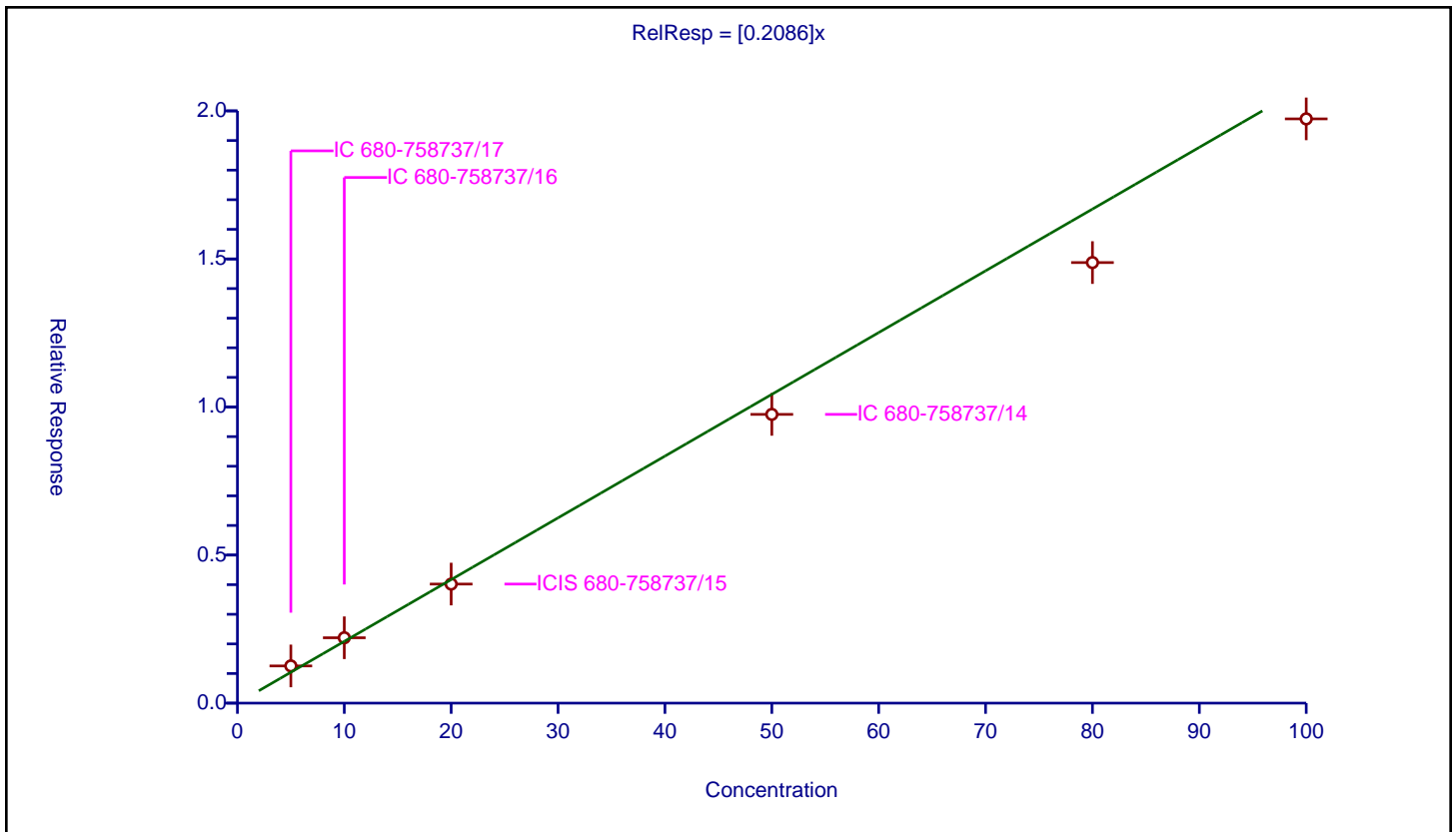
/ Ethylene glycol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2086

Error Coefficients	
Standard Error:	1080000
Relative Standard Error:	11.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.974

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-758737/17	5.0	1.256216	50.0	4848013.0	0.251243	Y
2	IC 680-758737/16	10.0	2.207405	50.0	4915794.0	0.220741	Y
3	ICIS 680-758737/15	20.0	4.020898	50.0	4703166.0	0.201045	Y
4	IC 680-758737/14	50.0	9.750732	50.0	4573349.0	0.195015	Y
5	IC 680-758737/13	80.0	14.877404	50.0	4582147.0	0.185968	Y
6	IC 680-758737/12	100.0	19.730281	50.0	4362652.0	0.197303	Y



Calibration

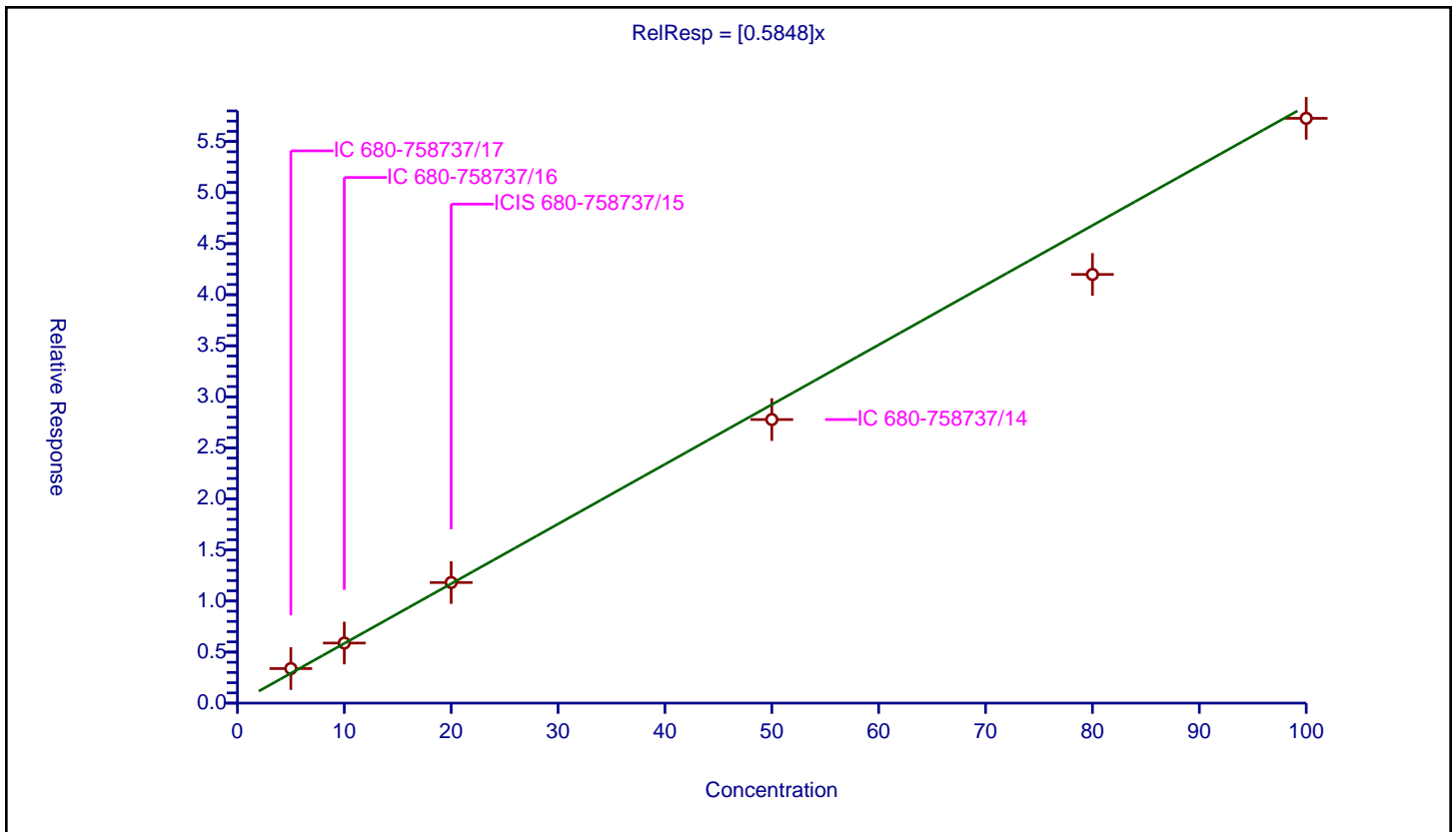
/ 2-(2-Butoxyethoxy)ethanol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5848

Error Coefficients	
Standard Error:	3100000
Relative Standard Error:	8.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-758737/17	5.0	3.384005	50.0	4848013.0	0.676801	Y
2	IC 680-758737/16	10.0	5.8838	50.0	4915794.0	0.58838	Y
3	ICIS 680-758737/15	20.0	11.811427	50.0	4703166.0	0.590571	Y
4	IC 680-758737/14	50.0	27.771935	50.0	4573349.0	0.555439	Y
5	IC 680-758737/13	80.0	41.982721	50.0	4582147.0	0.524784	Y
6	IC 680-758737/12	100.0	57.272572	50.0	4362652.0	0.572726	Y



Calibration

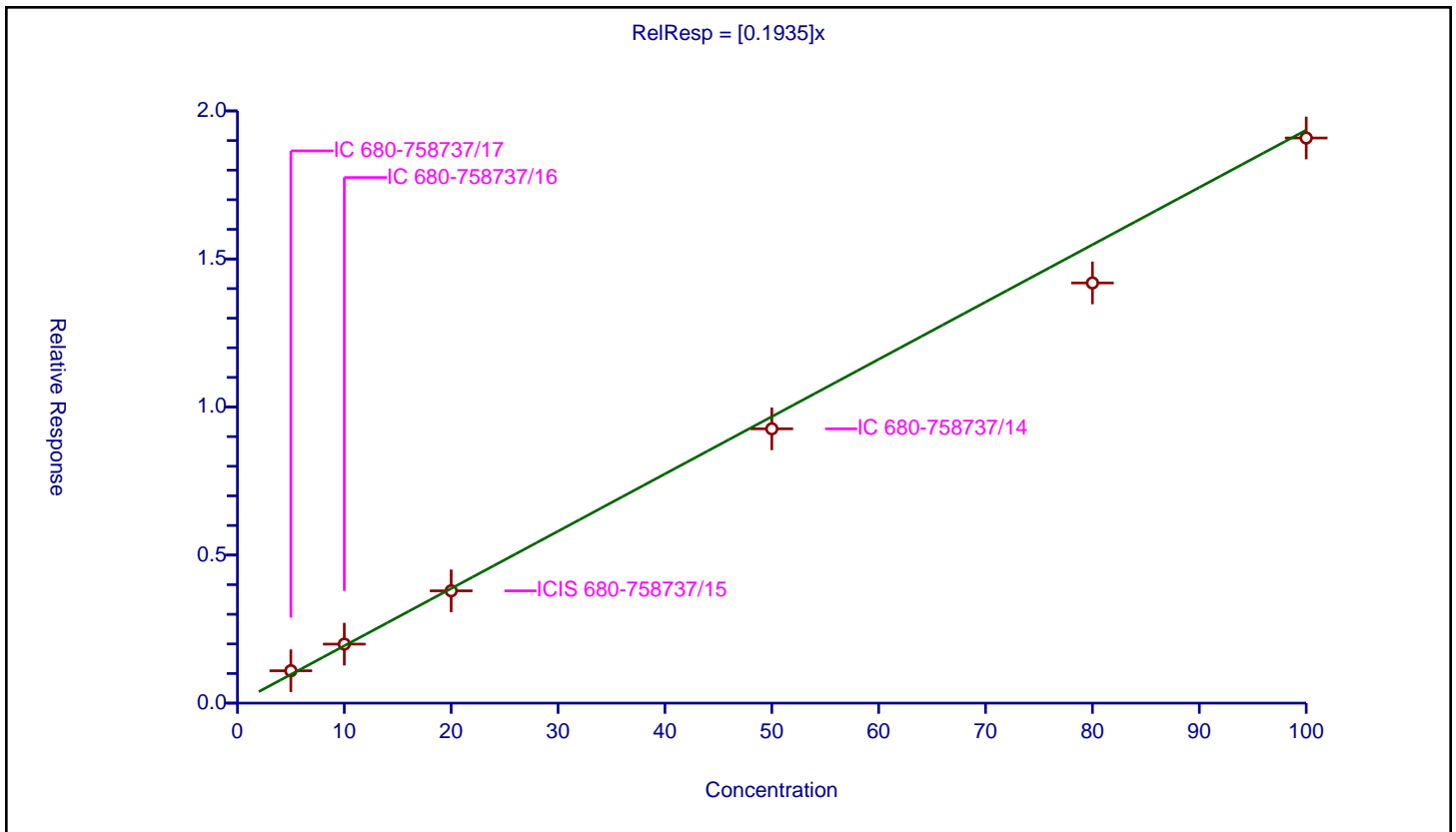
/ 2,2'-Oxybisethanol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1935

Error Coefficients	
Standard Error:	1040000
Relative Standard Error:	7.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-758737/17	5.0	1.093293	50.0	4848013.0	0.218659	Y
2	IC 680-758737/16	10.0	1.992822	50.0	4915794.0	0.199282	Y
3	ICIS 680-758737/15	20.0	3.792658	50.0	4703166.0	0.189633	Y
4	IC 680-758737/14	50.0	9.263627	50.0	4573349.0	0.185273	Y
5	IC 680-758737/13	80.0	14.190084	50.0	4582147.0	0.177376	Y
6	IC 680-758737/12	100.0	19.085066	50.0	4362652.0	0.190851	Y



Calibration

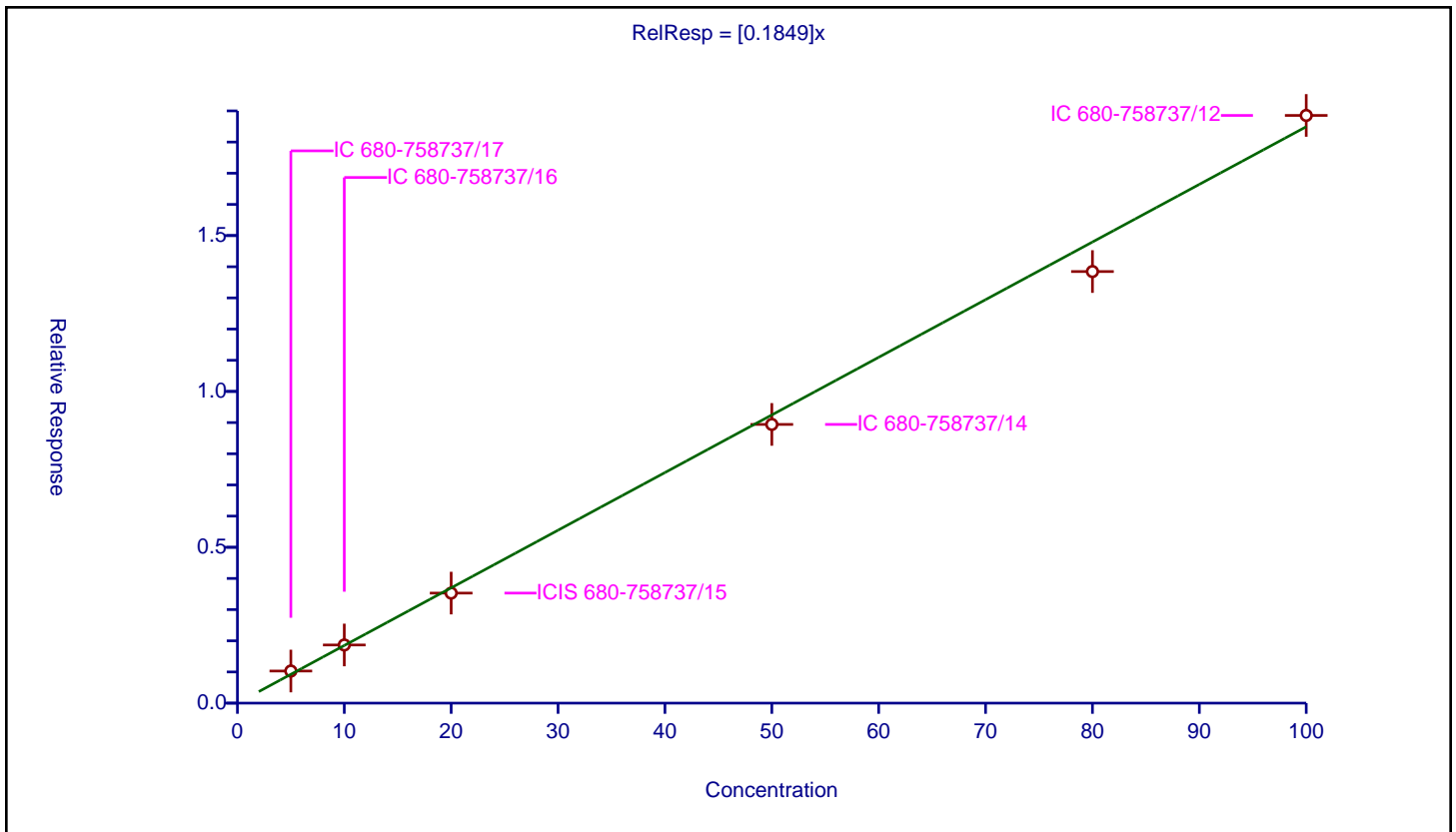
/ Triethylene Glycol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1849

Error Coefficients	
Standard Error:	1010000
Relative Standard Error:	6.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-758737/17	5.0	1.029793	50.0	4848013.0	0.205959	Y
2	IC 680-758737/16	10.0	1.865863	50.0	4915794.0	0.186586	Y
3	ICIS 680-758737/15	20.0	3.530058	50.0	4703166.0	0.176503	Y
4	IC 680-758737/14	50.0	8.941249	50.0	4573349.0	0.178825	Y
5	IC 680-758737/13	80.0	13.845846	50.0	4582147.0	0.173073	Y
6	IC 680-758737/12	100.0	18.854266	50.0	4362652.0	0.188543	Y



Calibration

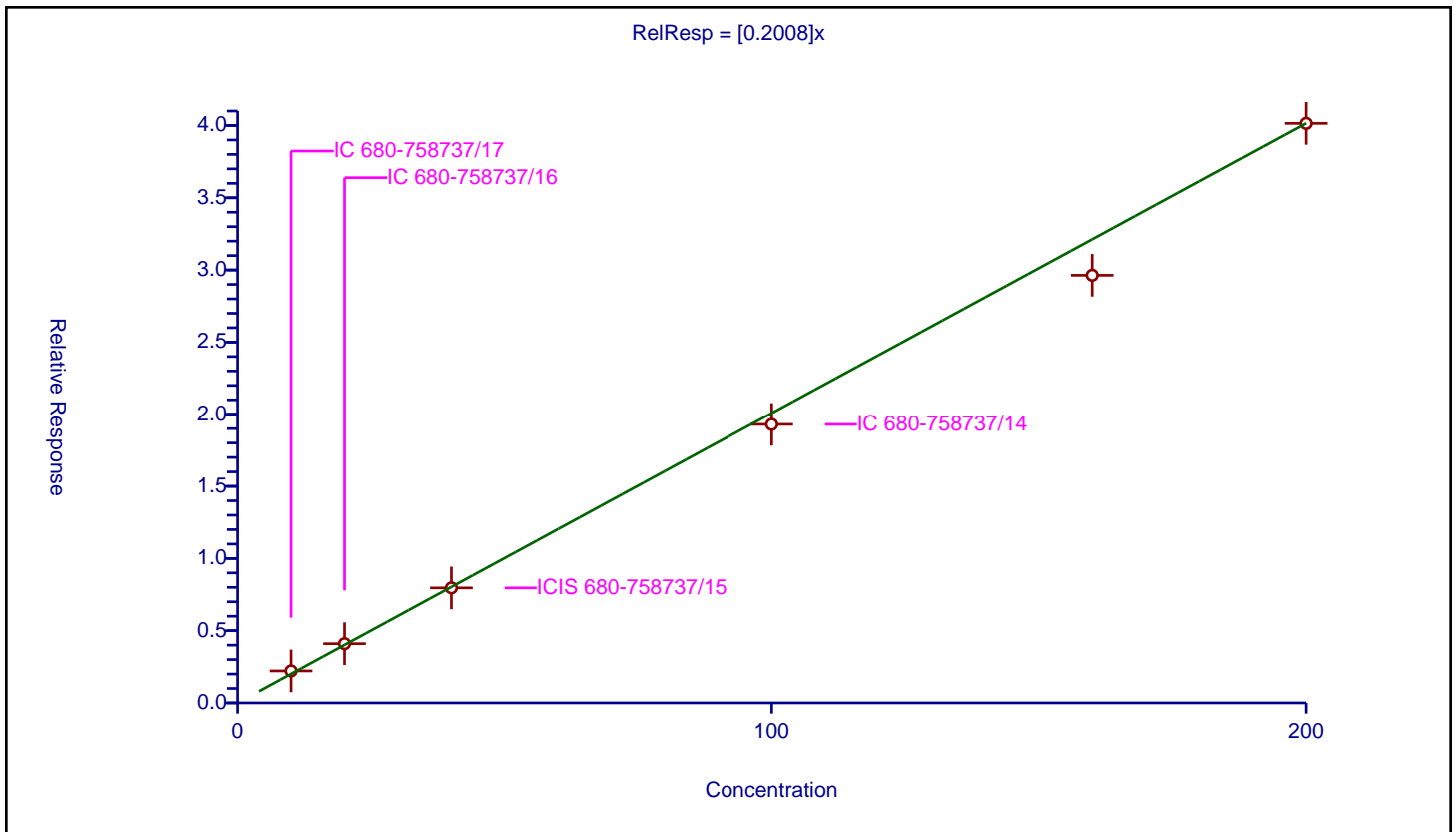
/ Tetraethylene Glycol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2008

Error Coefficients	
Standard Error:	2170000
Relative Standard Error:	6.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-758737/17	10.0	2.216228	50.0	4848013.0	0.221623	Y
2	IC 680-758737/16	20.0	4.101169	50.0	4915794.0	0.205058	Y
3	ICIS 680-758737/15	40.0	7.962434	50.0	4703166.0	0.199061	Y
4	IC 680-758737/14	100.0	19.293892	50.0	4573349.0	0.192939	Y
5	IC 680-758737/13	160.0	29.633958	50.0	4582147.0	0.185212	Y
6	IC 680-758737/12	200.0	40.148767	50.0	4362652.0	0.200744	Y



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: ICV 680-758737/18 Calibration Date: 01/11/2023 21:37
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11018.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.7357	0.6851		18.6	20.0	-6.9	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.7204	0.6634		18.4	20.0	-7.9	20.0
2-Butoxyethanol	Ave	0.7988	0.7754		19.4	20.0	-2.9	20.0
Dipropylene Glycol Methyl Ether	Qua		0.0482		19.1	20.0	-4.4	20.0
Propylene glycol	Ave	0.2550	0.2110		16.5	20.0	-17.3	20.0
Ethylene glycol	Ave	0.2086	0.1803		17.3	20.0	-13.5	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5848	0.5163		17.7	20.0	-11.7	20.0
2,2'-Oxybisethanol	Ave	0.1935	0.1552		16.0	20.0	-19.8	20.0
Triethylene Glycol	Ave	0.1849	0.1636		17.7	20.0	-11.5	20.0
Tetraethylene Glycol	Ave	0.2008	0.1723		34.3	40.0	-14.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: ICV 680-758737/18 Calibration Date: 01/11/2023 21:37
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11018.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	3.12	3.06	3.18
4-Hydroxy-4-methyl-2-pentanone	3.71	3.65	3.80
2-Butoxyethanol	4.03	3.95	4.11
Dipropylene Glycol Methyl Ether	5.46	5.36	5.58
Propylene glycol	6.33	6.21	6.47
Ethylene glycol	6.78	6.65	6.92
2-(2-Butoxyethoxy)ethanol	8.76	8.58	8.93
2,2'-Oxybisethanol	9.74	9.54	9.93
Triethylene Glycol	10.75	10.54	10.97
Tetraethylene Glycol	12.02	11.78	12.26

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11018.D
 Lims ID: icv gly
 Client ID:
 Sample Type: CCV
 Inject. Date: 11-Jan-2023 21:37:49 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-018
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:36 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 11-Jan-2023 22:04:13

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.116	3.121	-0.005	1356430	20.0	18.6	
2 4-Hydroxy-4-methyl-2-pentanone						
3.713	3.724	-0.011	1313425	20.0	18.4	
3 2-Butoxyethanol						
4.029	4.031	-0.002	1535224	20.0	19.4	
* 4 n-Heptyl Alcohol						
4.506	4.504	0.002	4949602	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.464	5.469	-0.005	95497	20.0	19.1	
6 Propylene glycol						
6.334	6.341	-0.007	417674	20.0	16.5	
7 Ethylene glycol						
6.779	6.782	-0.003	356978	20.0	17.3	
8 2-(2-Butoxyethoxy)ethanol						
8.760	8.758	0.002	1022106	20.0	17.7	
9 2,2'-Oxybisethanol						
9.739	9.737	0.002	307185	20.0	16.0	
10 Triethylene Glycol						
10.753	10.753	0.000	323915	20.0	17.7	M
11 Tetraethylene Glycol						
12.016	12.016	0.000	682159	40.0	34.3	M

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_GlyICV_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11018.D

Injection Date: 11-Jan-2023 21:37:49

Instrument ID: CVGG2

Operator ID:

Lims ID: icv gly

Worklist Smp#: 18

Client ID:

Injection Vol: 1.0 ul

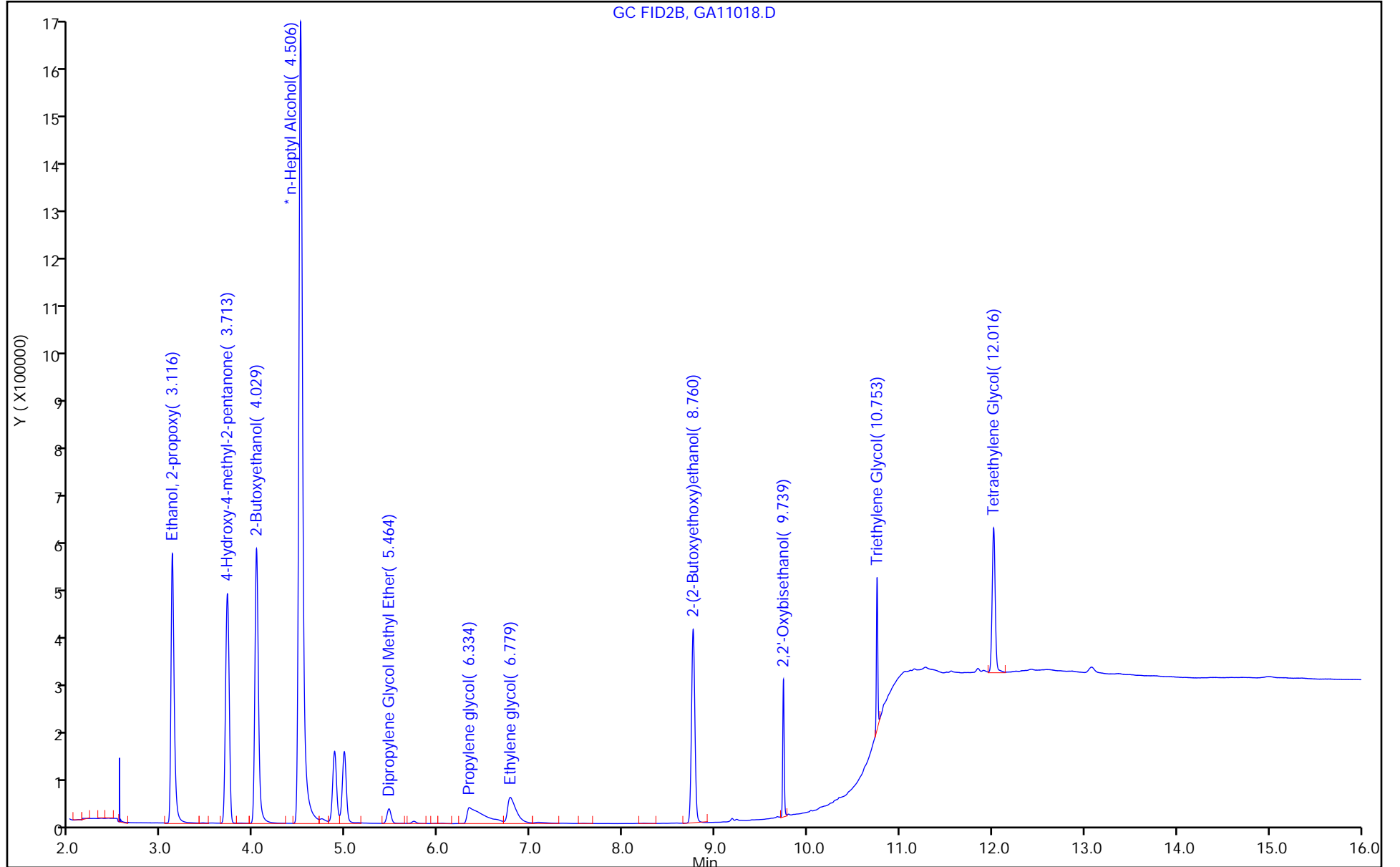
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

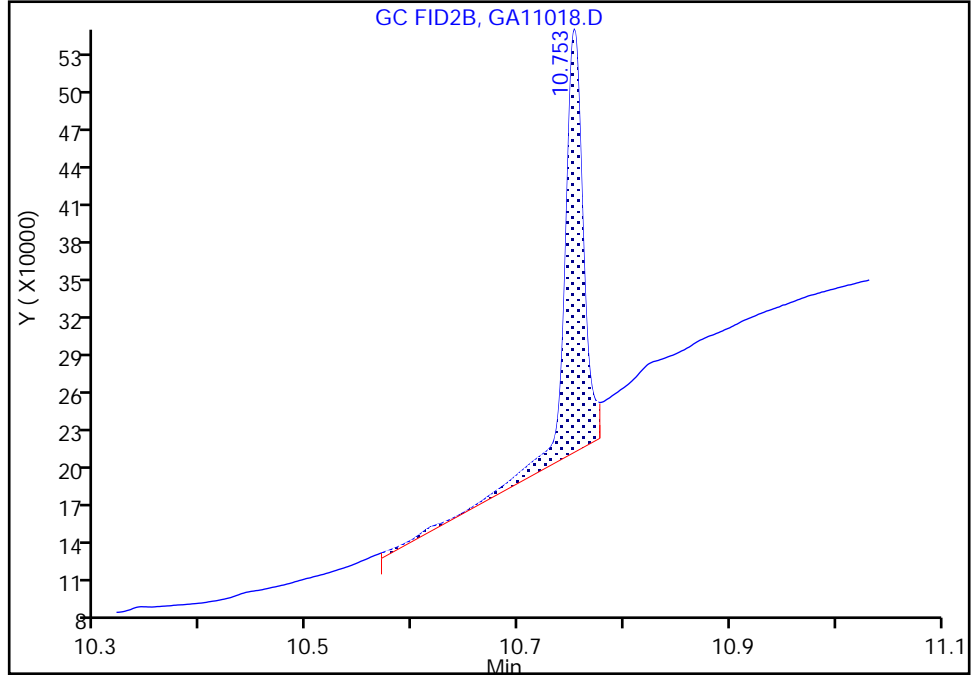
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11018.D
Injection Date: 11-Jan-2023 21:37:49 Instrument ID: CVGG2
Lims ID: icv gly
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

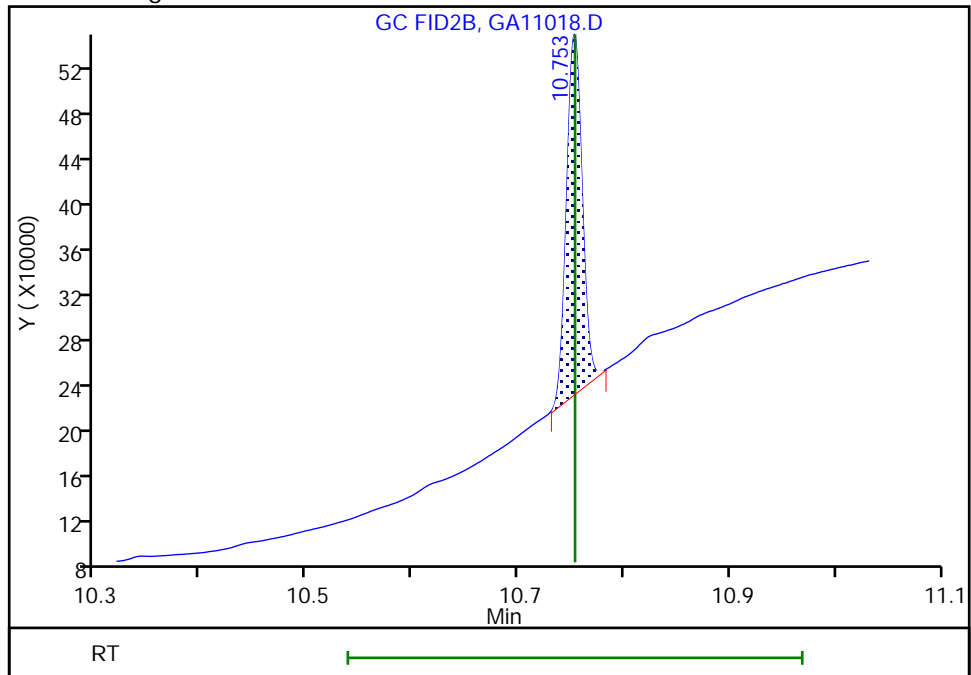
RT: 10.75
Area: 408495
Amount: 22.315925
Amount Units: ug/ml

Processing Integration Results



RT: 10.75
Area: 323915
Amount: 17.695352
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 11-Jan-2023 22:02:48
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: CCV 680-758737/37 Calibration Date: 01/12/2023 05:11
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11037.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.7357	0.7020		19.1	20.0	-4.6	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.7204	0.6625		18.4	20.0	-8.0	20.0
2-Butoxyethanol	Ave	0.7988	0.7687		19.2	20.0	-3.8	20.0
Dipropylene Glycol Methyl Ether	Qua		0.0526		20.9	20.0	4.3	20.0
Propylene glycol	Ave	0.2550	0.2424		19.0	20.0	-4.9	20.0
Ethylene glycol	Ave	0.2086	0.2090		20.0	20.0	0.2	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5848	0.5577		19.1	20.0	-4.6	20.0
2,2'-Oxybisethanol	Ave	0.1935	0.1917		19.8	20.0	-1.0	20.0
Triethylene Glycol	Ave	0.1849	0.1906		20.6	20.0	3.1	20.0
Tetraethylene Glycol	Ave	0.2008	0.1911		38.1	40.0	-4.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: CCV 680-758737/37 Calibration Date: 01/12/2023 05:11
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11037.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	3.13	3.07	3.19
4-Hydroxy-4-methyl-2-pentanone	3.73	3.66	3.80
2-Butoxyethanol	4.04	3.96	4.12
Dipropylene Glycol Methyl Ether	5.47	5.36	5.58
Propylene glycol	6.43	6.30	6.56
Ethylene glycol	6.80	6.67	6.94
2-(2-Butoxyethoxy)ethanol	8.76	8.59	8.94
2,2'-Oxybisethanol	9.74	9.55	9.93
Triethylene Glycol	10.75	10.54	10.97
Tetraethylene Glycol	12.02	11.78	12.26

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D
 Lims ID: ccvis I3
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 12-Jan-2023 05:11:08 ALS Bottle#: 0 Worklist Smp#: 37
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-037
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:41:58

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.131	3.131	0.000	1513801	20.0	19.1	
2 4-Hydroxy-4-methyl-2-pentanone						
3.729	3.729	0.000	1428713	20.0	18.4	
3 2-Butoxyethanol						
4.037	4.037	0.000	1657634	20.0	19.2	
* 4 n-Heptyl Alcohol						
4.504	4.504	0.000	5390984	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.474	5.474	0.000	113501	20.0	20.9	
6 Propylene glycol						a
6.429	6.429	0.000	522737	20.0	19.0	a
7 Ethylene glycol						
6.803	6.803	0.000	450592	20.0	20.0	
8 2-(2-Butoxyethoxy)ethanol						
8.761	8.761	0.000	1202720	20.0	19.1	
9 2,2'-Oxybisethanol						
9.739	9.739	0.000	413291	20.0	19.8	
10 Triethylene Glycol						
10.754	10.754	0.000	411089	20.0	20.6	
11 Tetraethylene Glycol						
12.018	12.018	0.000	824305	40.0	38.1	

QC Flag Legend
Processing Flags

Review Flags

a - User Assigned ID

Reagents:

SG_Gly_CAL_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D
 Lims ID: ccvis I3
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 12-Jan-2023 05:11:08 ALS Bottle#: 0 Worklist Smp#: 37
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-037
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:41:58

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.131	3.131	0.000	1513801	20.0	19.1	
2 4-Hydroxy-4-methyl-2-pentanone						
3.729	3.729	0.000	1428713	20.0	18.4	
3 2-Butoxyethanol						
4.037	4.037	0.000	1657634	20.0	19.2	
* 4 n-Heptyl Alcohol						
4.504	4.504	0.000	5390984	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.474	5.474	0.000	113501	20.0	20.9	
6 Propylene glycol						a
6.429	6.429	0.000	522737	20.0	19.0	a
7 Ethylene glycol						
6.803	6.803	0.000	450592	20.0	20.0	
8 2-(2-Butoxyethoxy)ethanol						
8.761	8.761	0.000	1202720	20.0	19.1	
9 2,2'-Oxybisethanol						
9.739	9.739	0.000	413291	20.0	19.8	
10 Triethylene Glycol						
10.754	10.754	0.000	411089	20.0	20.6	
11 Tetraethylene Glycol						
12.018	12.018	0.000	824305	40.0	38.1	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

SG_Gly_CAL_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D

Injection Date: 12-Jan-2023 05:11:08

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis I3

Worklist Smp#: 37

Client ID:

Injection Vol: 1.0 ul

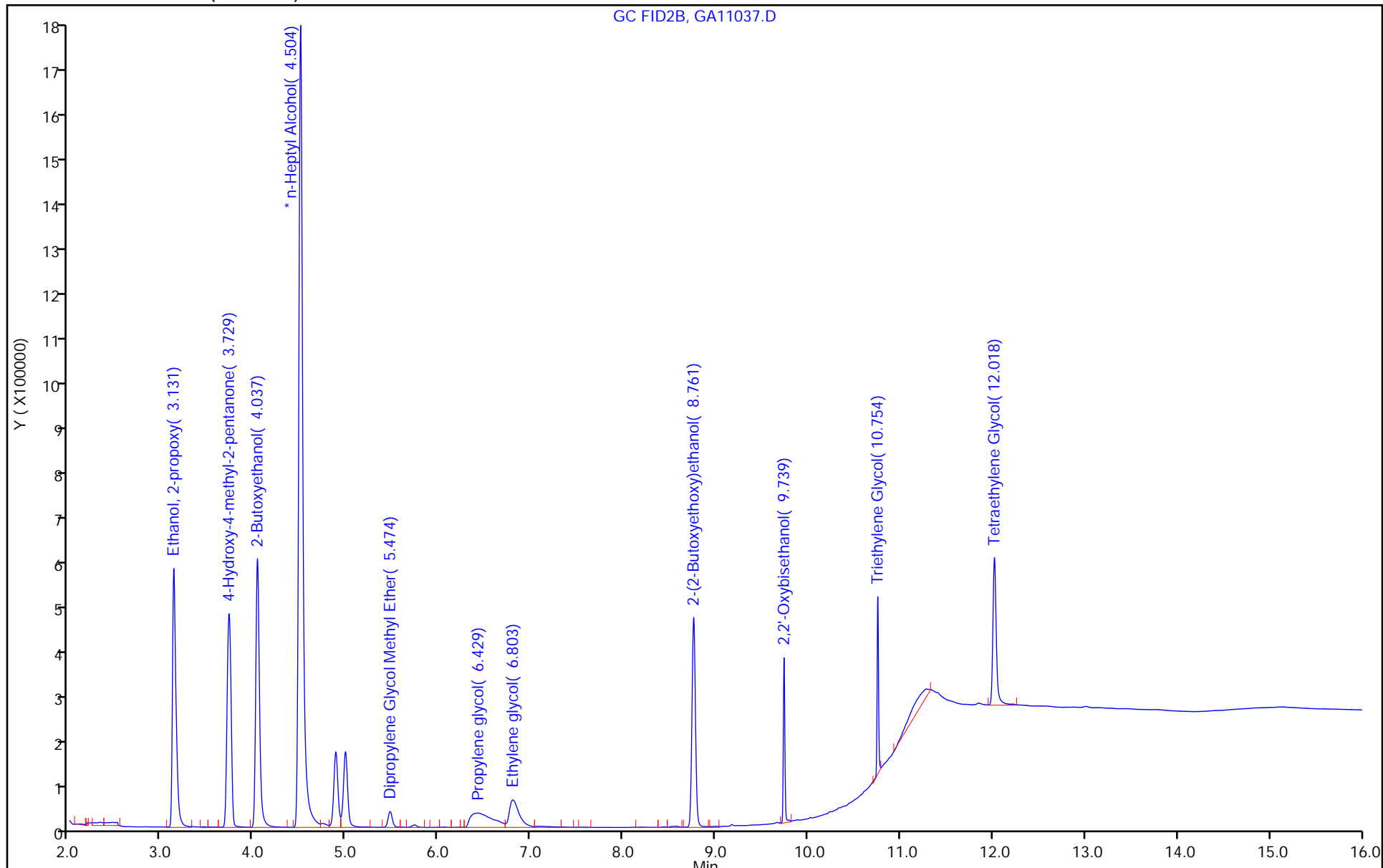
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D

Injection Date: 12-Jan-2023 05:11:08

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis I3

Worklist Smp#: 37

Client ID:

Injection Vol: 1.0 ul

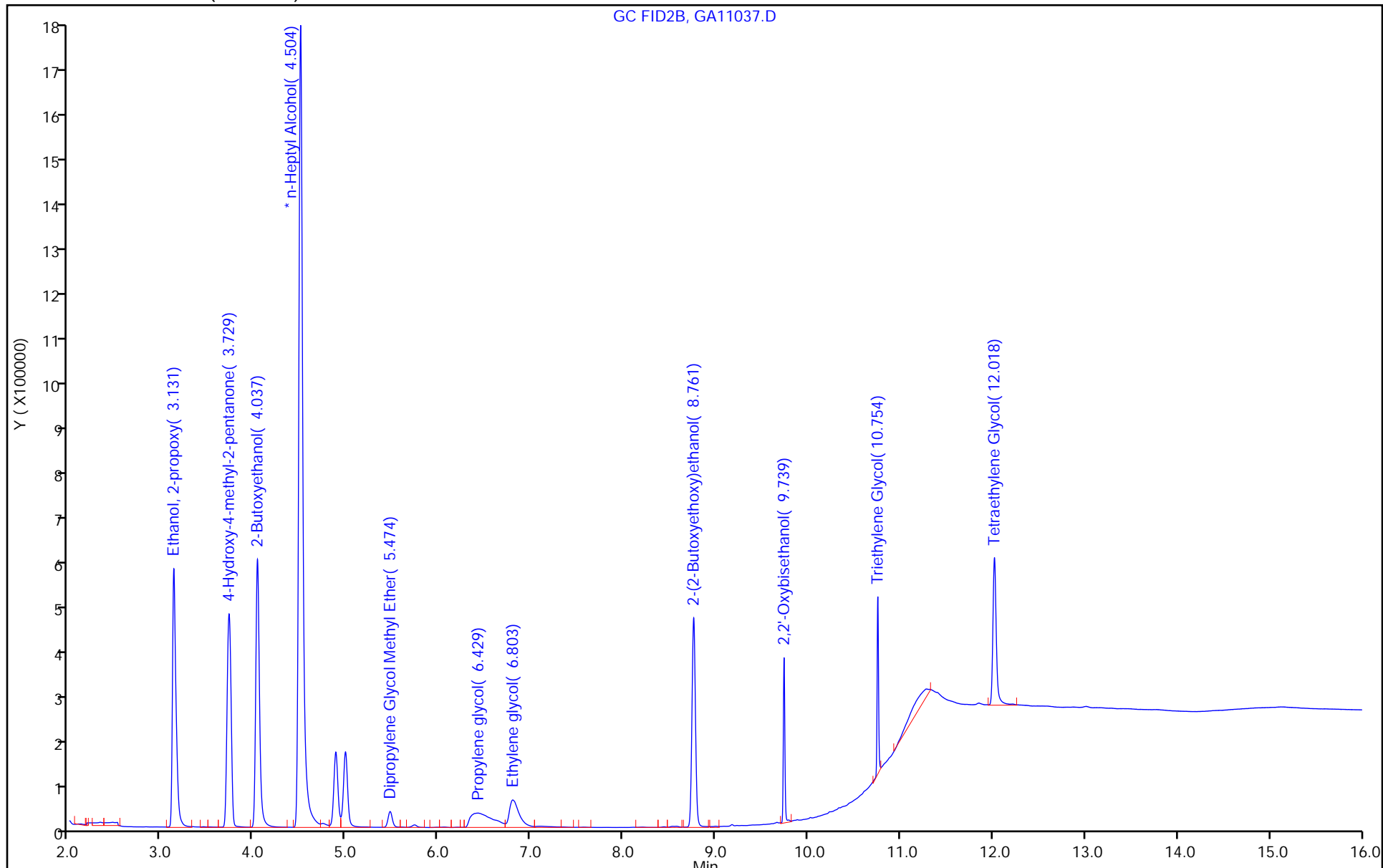
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

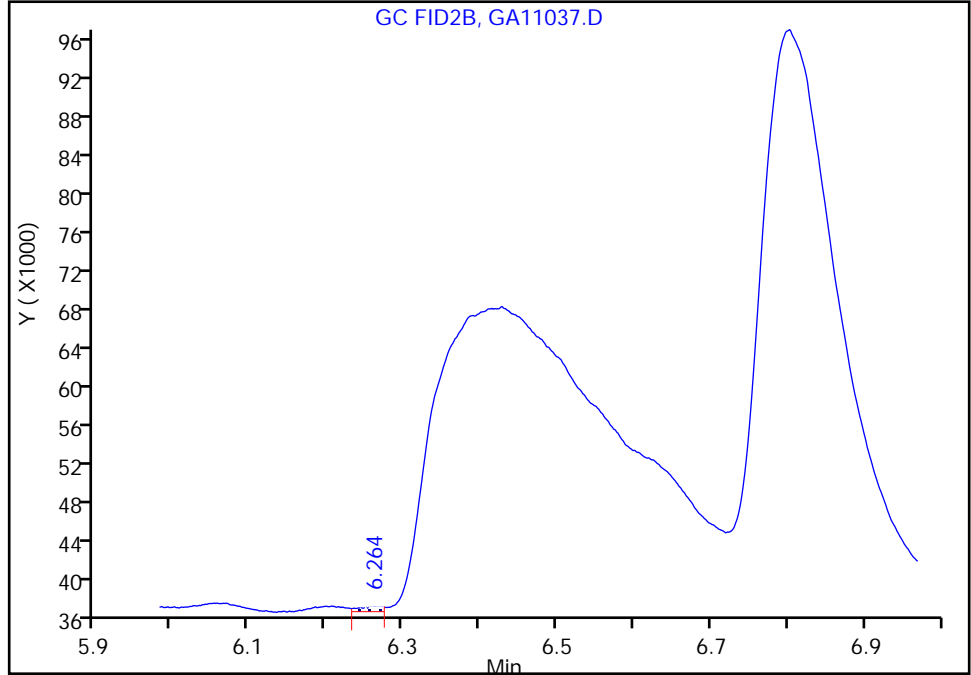
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D
Injection Date: 12-Jan-2023 05:11:08 Instrument ID: CVGG2
Lims ID: ccvis I3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

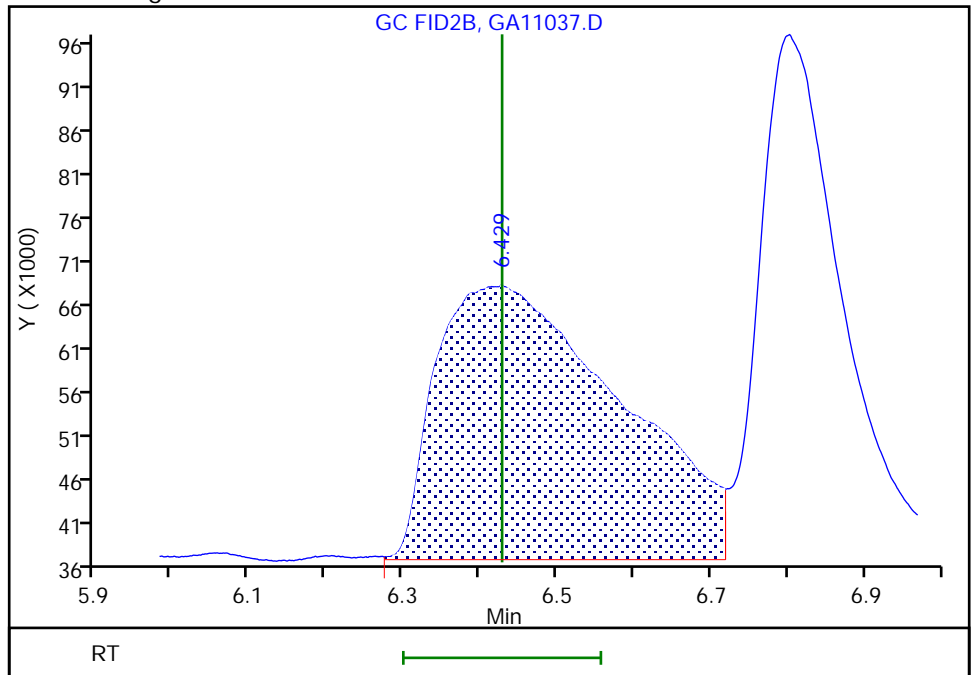
RT: 6.26
Area: 1173
Amount: 0.042209
Amount Units: ug/ml

Processing Integration Results



RT: 6.43
Area: 522737
Amount: 19.012014
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 12-Jan-2023 11:40:43
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah

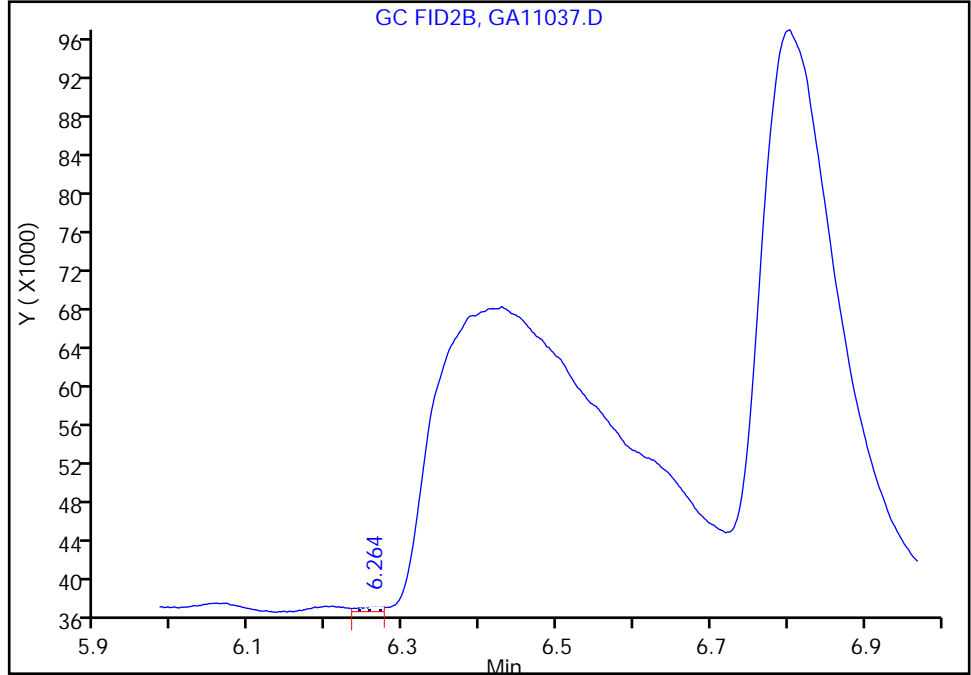
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D
Injection Date: 12-Jan-2023 05:11:08 Instrument ID: CVGG2
Lims ID: ccvis I3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

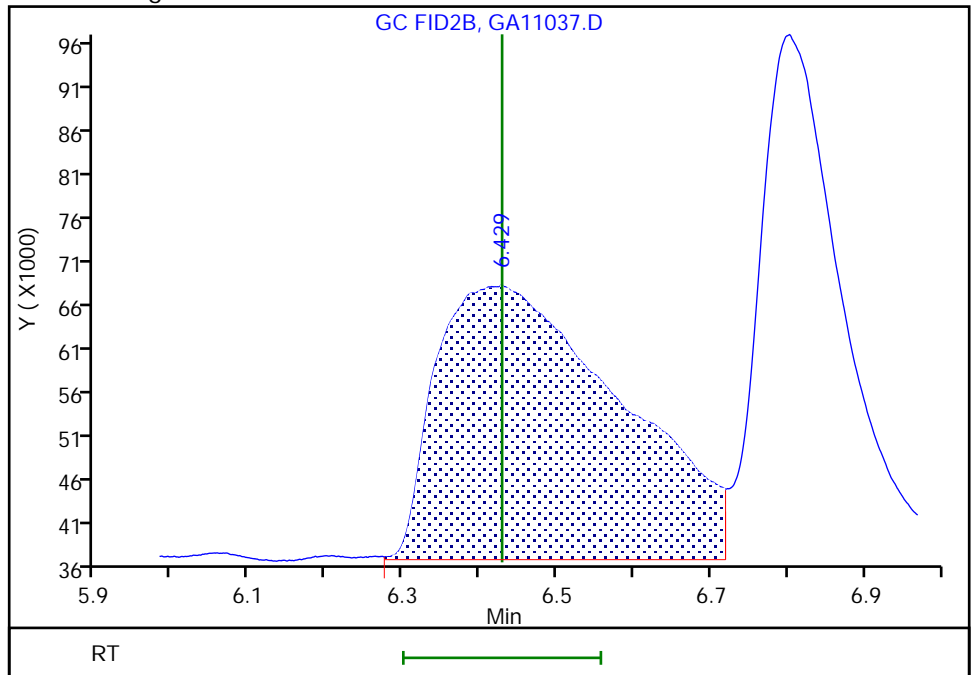
RT: 6.26
Area: 1173
Amount: 0.042209
Amount Units: ug/ml

Processing Integration Results



RT: 6.43
Area: 522737
Amount: 19.012014
Amount Units: ug/ml

Manual Integration Results



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: CCVIS 680-758764/37 Calibration Date: 01/12/2023 05:11
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11037.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.7357	0.7020		19.1	20.0	-4.6	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.7204	0.6625		18.4	20.0	-8.0	20.0
2-Butoxyethanol	Ave	0.7988	0.7687		19.2	20.0	-3.8	20.0
Dipropylene Glycol Methyl Ether	Qua		0.0526		20.9	20.0	4.3	20.0
Propylene glycol	Ave	0.2550	0.2424		19.0	20.0	-4.9	20.0
Ethylene glycol	Ave	0.2086	0.2090		20.0	20.0	0.2	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5848	0.5577		19.1	20.0	-4.6	20.0
2,2'-Oxybisethanol	Ave	0.1935	0.1917		19.8	20.0	-1.0	20.0
Triethylene Glycol	Ave	0.1849	0.1906		20.6	20.0	3.1	20.0
Tetraethylene Glycol	Ave	0.2008	0.1911		38.1	40.0	-4.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: CCVIS 680-758764/37 Calibration Date: 01/12/2023 05:11
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11037.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	3.13	3.07	3.19
4-Hydroxy-4-methyl-2-pentanone	3.73	3.66	3.80
2-Butoxyethanol	4.04	3.96	4.12
Dipropylene Glycol Methyl Ether	5.47	5.36	5.58
Propylene glycol	6.43	6.30	6.56
Ethylene glycol	6.80	6.67	6.94
2-(2-Butoxyethoxy)ethanol	8.76	8.59	8.94
2,2'-Oxybisethanol	9.74	9.55	9.93
Triethylene Glycol	10.75	10.54	10.97
Tetraethylene Glycol	12.02	11.78	12.26

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D
 Lims ID: ccvis I3
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 12-Jan-2023 05:11:08 ALS Bottle#: 0 Worklist Smp#: 37
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-037
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:41:58

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.131	3.131	0.000	1513801	20.0	19.1	
2 4-Hydroxy-4-methyl-2-pentanone						
3.729	3.729	0.000	1428713	20.0	18.4	
3 2-Butoxyethanol						
4.037	4.037	0.000	1657634	20.0	19.2	
* 4 n-Heptyl Alcohol						
4.504	4.504	0.000	5390984	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.474	5.474	0.000	113501	20.0	20.9	
6 Propylene glycol						a
6.429	6.429	0.000	522737	20.0	19.0	a
7 Ethylene glycol						
6.803	6.803	0.000	450592	20.0	20.0	
8 2-(2-Butoxyethoxy)ethanol						
8.761	8.761	0.000	1202720	20.0	19.1	
9 2,2'-Oxybisethanol						
9.739	9.739	0.000	413291	20.0	19.8	
10 Triethylene Glycol						
10.754	10.754	0.000	411089	20.0	20.6	
11 Tetraethylene Glycol						
12.018	12.018	0.000	824305	40.0	38.1	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

SG_Gly_CAL_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D
 Lims ID: ccvis I3
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 12-Jan-2023 05:11:08 ALS Bottle#: 0 Worklist Smp#: 37
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-037
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:41:58

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.131	3.131	0.000	1513801	20.0	19.1	
2 4-Hydroxy-4-methyl-2-pentanone						
3.729	3.729	0.000	1428713	20.0	18.4	
3 2-Butoxyethanol						
4.037	4.037	0.000	1657634	20.0	19.2	
* 4 n-Heptyl Alcohol						
4.504	4.504	0.000	5390984	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.474	5.474	0.000	113501	20.0	20.9	
6 Propylene glycol						a
6.429	6.429	0.000	522737	20.0	19.0	a
7 Ethylene glycol						
6.803	6.803	0.000	450592	20.0	20.0	
8 2-(2-Butoxyethoxy)ethanol						
8.761	8.761	0.000	1202720	20.0	19.1	
9 2,2'-Oxybisethanol						
9.739	9.739	0.000	413291	20.0	19.8	
10 Triethylene Glycol						
10.754	10.754	0.000	411089	20.0	20.6	
11 Tetraethylene Glycol						
12.018	12.018	0.000	824305	40.0	38.1	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

SG_Gly_CAL_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D

Injection Date: 12-Jan-2023 05:11:08

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis I3

Worklist Smp#: 37

Client ID:

Injection Vol: 1.0 ul

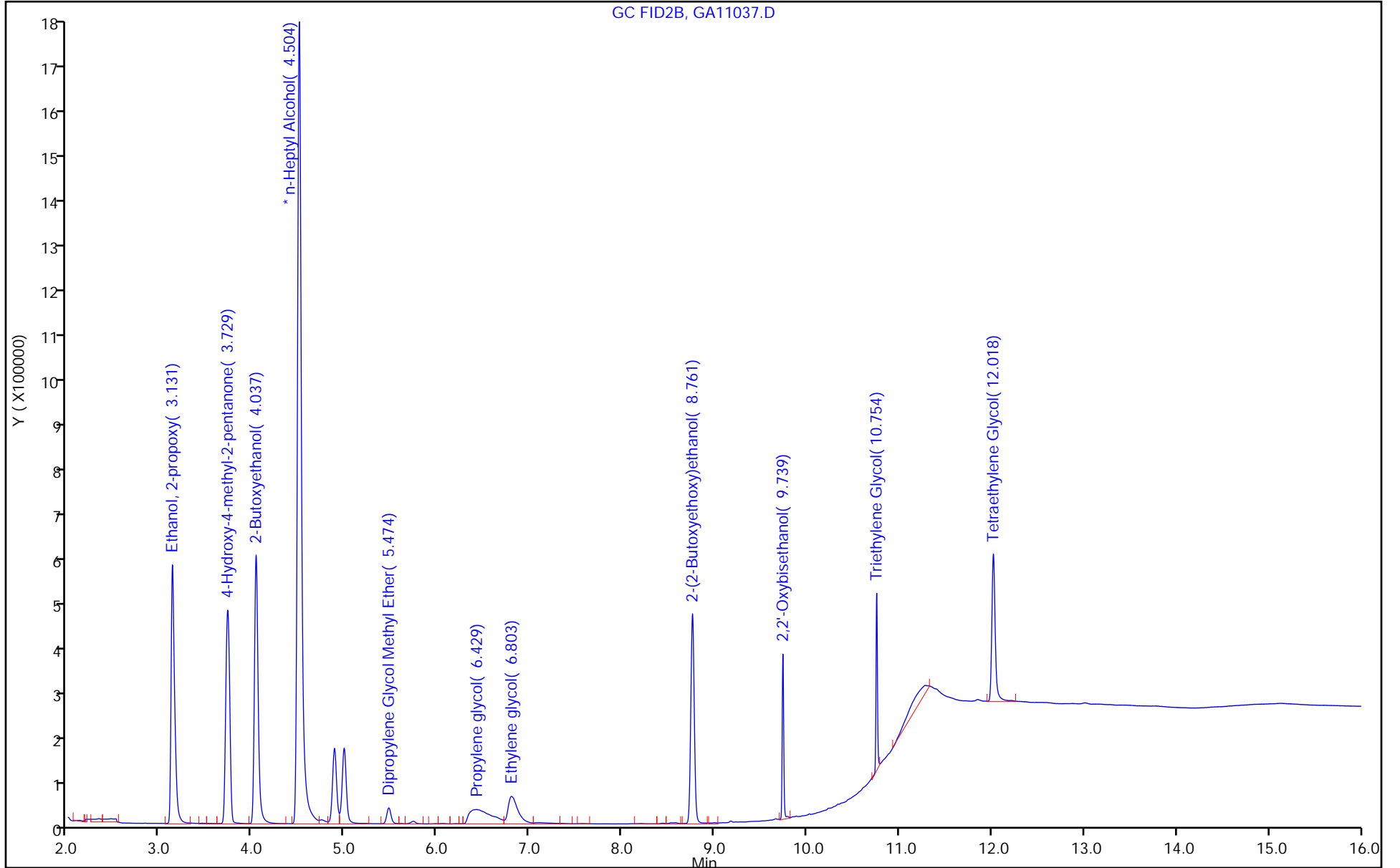
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D

Injection Date: 12-Jan-2023 05:11:08

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis I3

Worklist Smp#: 37

Client ID:

Injection Vol: 1.0 ul

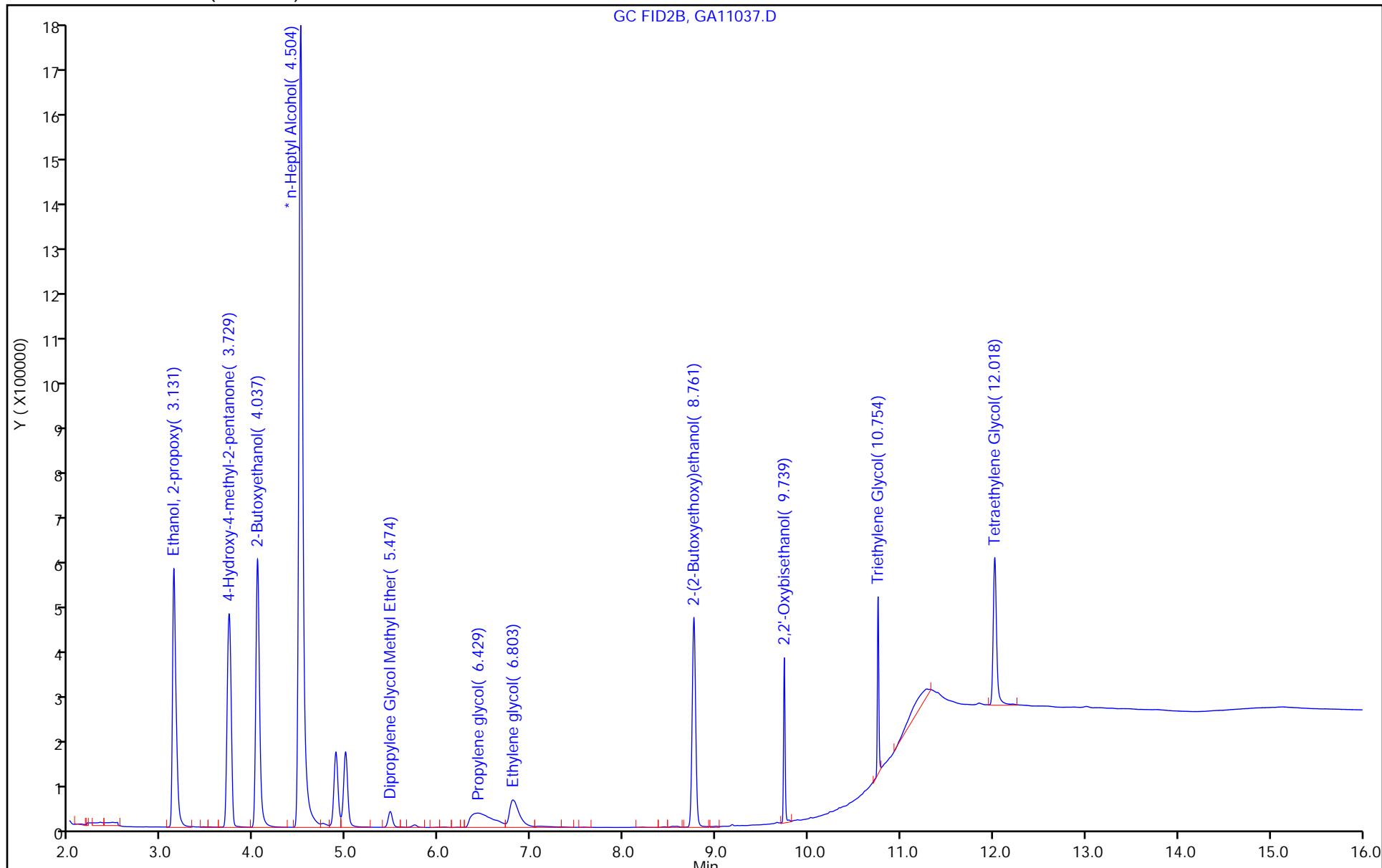
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

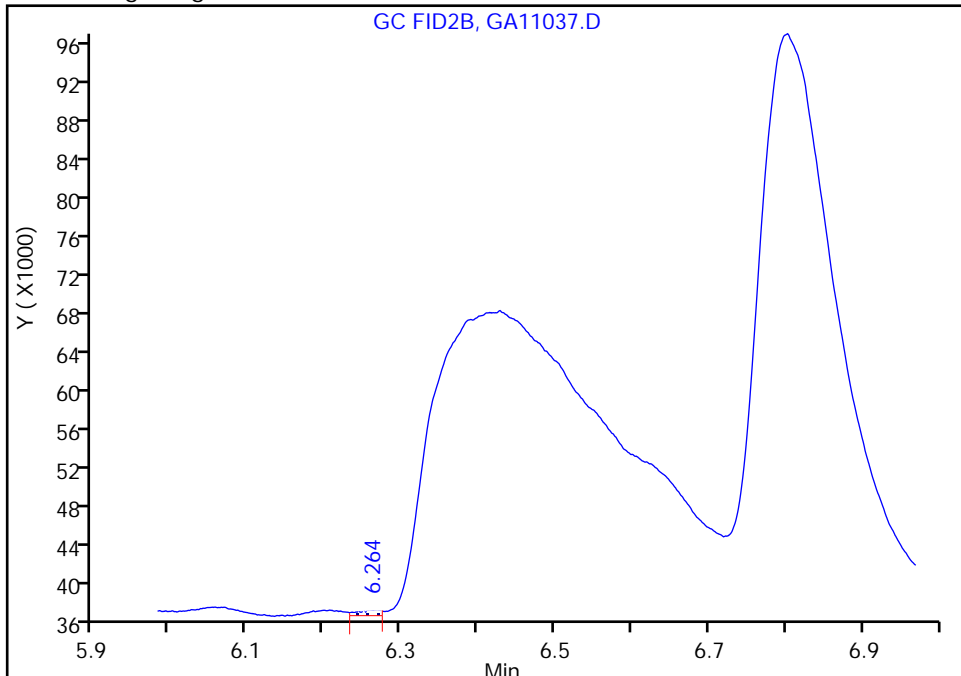
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D
Injection Date: 12-Jan-2023 05:11:08 Instrument ID: CVGG2
Lims ID: ccvis I3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

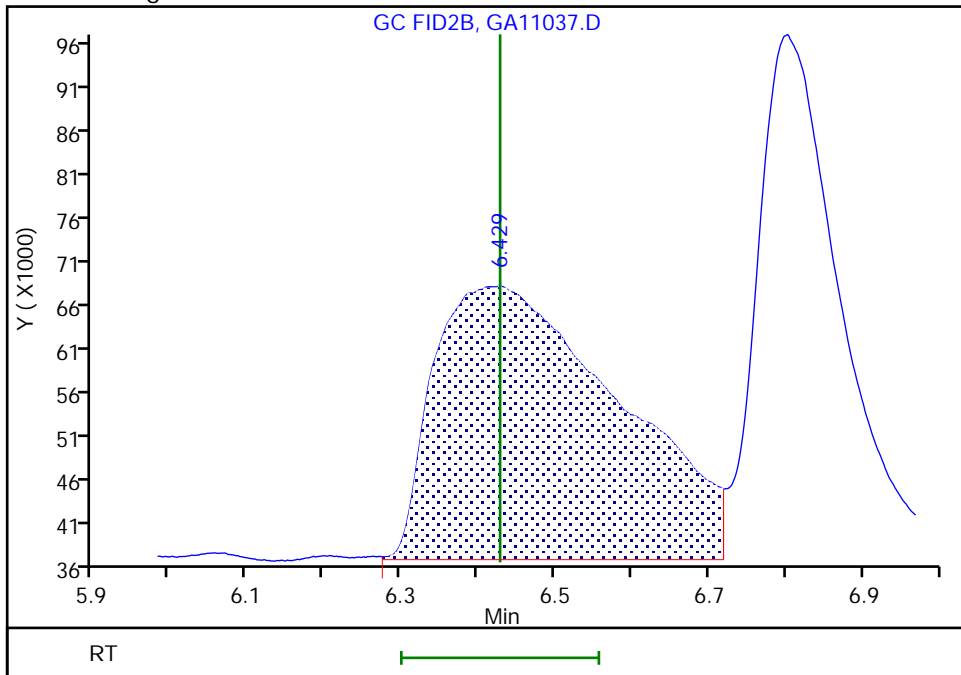
RT: 6.26
Area: 1173
Amount: 0.042209
Amount Units: ug/ml

Processing Integration Results



RT: 6.43
Area: 522737
Amount: 19.012014
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 12-Jan-2023 11:40:43
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Savannah

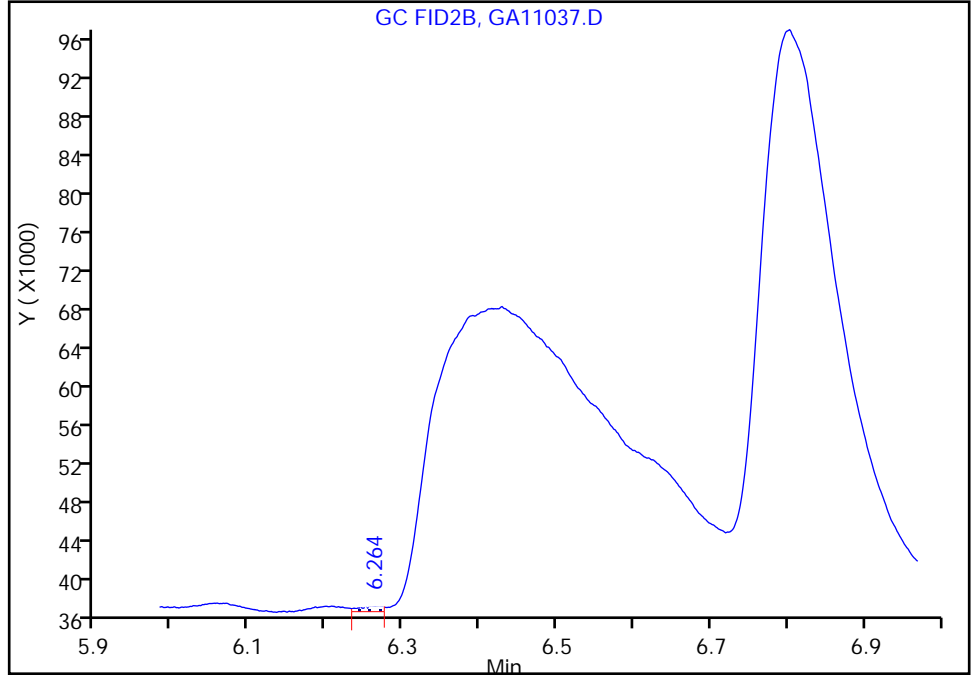
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11037.D
Injection Date: 12-Jan-2023 05:11:08 Instrument ID: CVGG2
Lims ID: ccvis I3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

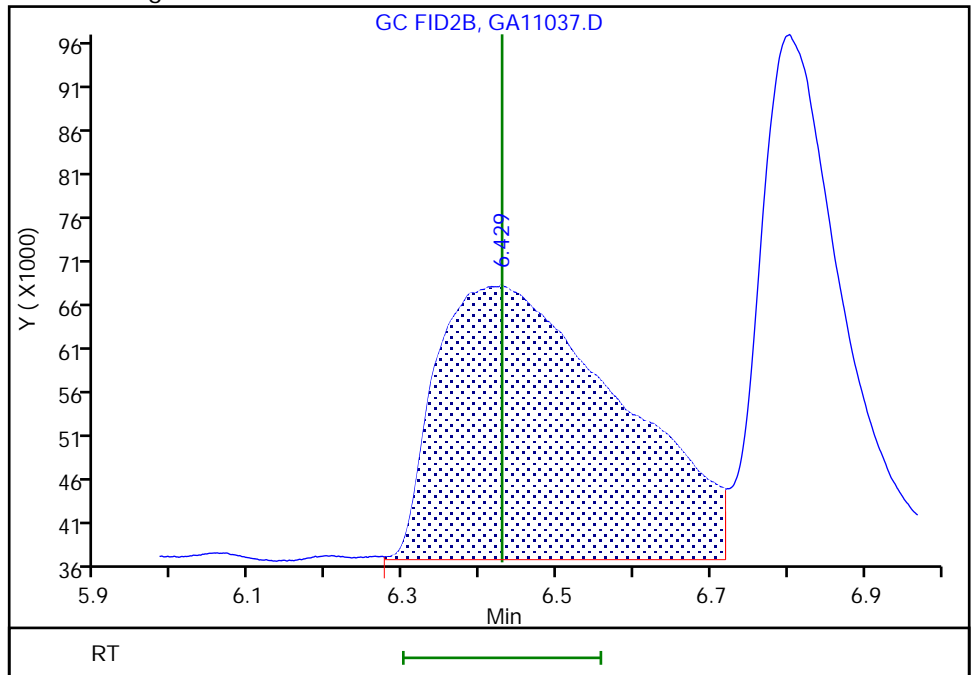
RT: 6.26
Area: 1173
Amount: 0.042209
Amount Units: ug/ml

Processing Integration Results



RT: 6.43
Area: 522737
Amount: 19.012014
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 12-Jan-2023 11:40:43
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: CCV 680-758764/53 Calibration Date: 01/12/2023 11:42
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11053.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.7357	0.6764		18.4	20.0	-8.1	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.7204	0.5666		15.7	20.0	-21.3*	20.0
2-Butoxyethanol	Ave	0.7988	0.7507		18.8	20.0	-6.0	20.0
Dipropylene Glycol Methyl Ether	Qua		0.0488		19.4	20.0	-3.2	20.0
Propylene glycol	Ave	0.2550	0.2895		22.7	20.0	13.5	20.0
Ethylene glycol	Ave	0.2086	0.2801		26.9	20.0	34.3*	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5848	0.5321		18.2	20.0	-9.0	20.0
2,2'-Oxybisethanol	Ave	0.1935	0.2873		29.7	20.0	48.5*	20.0
Triethylene Glycol	Ave	0.1849	0.2931		31.7	20.0	58.5*	20.0
Tetraethylene Glycol	Ave	0.2008	0.1743		34.7	40.0	-13.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: CCV 680-758764/53 Calibration Date: 01/12/2023 11:42
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11053.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	3.12	3.06	3.18
4-Hydroxy-4-methyl-2-pentanone	3.71	3.63	3.78
2-Butoxyethanol	4.03	3.95	4.11
Dipropylene Glycol Methyl Ether	5.46	5.35	5.57
Propylene glycol	6.41	6.28	6.54
Ethylene glycol	6.79	6.66	6.93
2-(2-Butoxyethoxy)ethanol	8.76	8.58	8.93
2,2'-Oxybisethanol	9.74	9.55	9.93
Triethylene Glycol	10.75	10.54	10.97
Tetraethylene Glycol	12.02	11.78	12.26

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11053.D
 Lims ID: ccvis I3
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 12-Jan-2023 11:42:17 ALS Bottle#: 0 Worklist Smp#: 53
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-053
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:53:26 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 12:05:07

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	------------------	--------------------	-------

1 Ethanol, 2-propoxy	3.117	3.117	0.000	1373319	20.0	18.4
2 4-Hydroxy-4-methyl-2-pentanone	3.709	3.709	0.000	1150371	20.0	15.7
3 2-Butoxyethanol	4.027	4.027	0.000	1524157	20.0	18.8
* 4 n-Heptyl Alcohol	4.504	4.504	0.000	5075534	50.0	50.0
5 Dipropylene Glycol Methyl Ether	5.459	5.459	0.000	99086	20.0	19.4
6 Propylene glycol	6.410	6.410	0.000	587826	20.0	22.7
7 Ethylene glycol	6.794	6.794	0.000	568589	20.0	26.9
8 2-(2-Butoxyethoxy)ethanol	8.758	8.758	0.000	1080191	20.0	18.2
9 2,2'-Oxybisethanol	9.739	9.739	0.000	583250	20.0	29.7
10 Triethylene Glycol	10.754	10.754	0.000	595085	20.0	31.7
11 Tetraethylene Glycol	12.017	12.017	0.000	707873	40.0	34.7

QC Flag Legend
Processing Flags

Reagents:

SG_Gly_CAL_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11053.D
 Lims ID: ccvis I3
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 12-Jan-2023 11:42:17 ALS Bottle#: 0 Worklist Smp#: 53
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-053
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:53:26 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1

Date: 12-Jan-2023 12:05:07

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	------------------	--------------------	-------

1 Ethanol, 2-propoxy	3.117	3.117	0.000	1373319	20.0	18.4
2 4-Hydroxy-4-methyl-2-pentanone	3.709	3.709	0.000	1150371	20.0	15.7
3 2-Butoxyethanol	4.027	4.027	0.000	1524157	20.0	18.8
* 4 n-Heptyl Alcohol	4.504	4.504	0.000	5075534	50.0	50.0
5 Dipropylene Glycol Methyl Ether	5.459	5.459	0.000	99086	20.0	19.4
6 Propylene glycol	6.410	6.410	0.000	587826	20.0	22.7
7 Ethylene glycol	6.794	6.794	0.000	568589	20.0	26.9
8 2-(2-Butoxyethoxy)ethanol	8.758	8.758	0.000	1080191	20.0	18.2
9 2,2'-Oxybisethanol	9.739	9.739	0.000	583250	20.0	29.7
10 Triethylene Glycol	10.754	10.754	0.000	595085	20.0	31.7
11 Tetraethylene Glycol	12.017	12.017	0.000	707873	40.0	34.7

QC Flag Legend

Processing Flags

Reagents:

SG_Gly_CAL_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11053.D

Injection Date: 12-Jan-2023 11:42:17

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis I3

Worklist Smp#: 53

Client ID:

Injection Vol: 1.0 ul

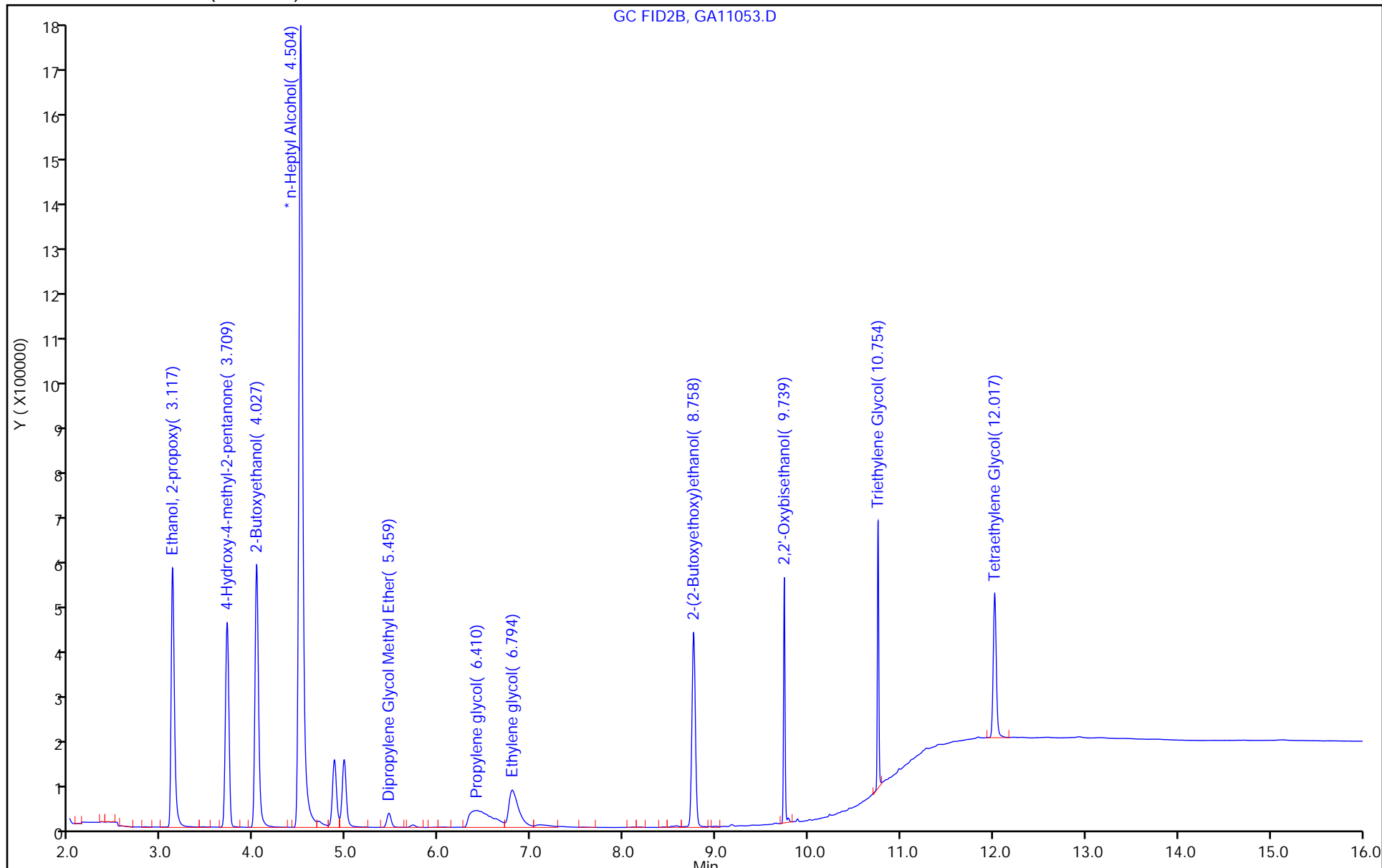
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11053.D

Injection Date: 12-Jan-2023 11:42:17

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis I3

Worklist Smp#: 53

Client ID:

Injection Vol: 1.0 ul

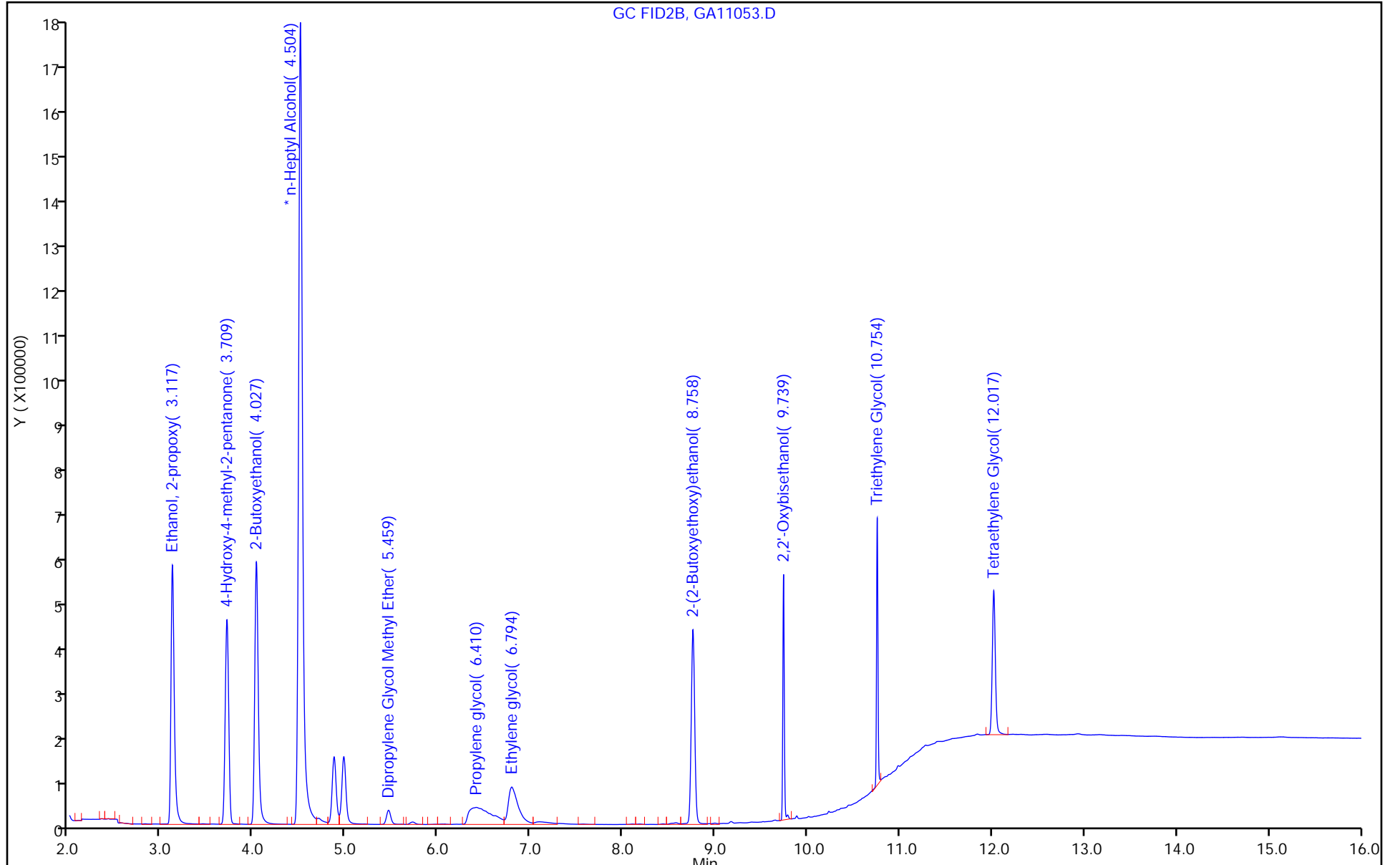
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: CCVIS 680-758860/53 Calibration Date: 01/12/2023 11:42
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11053.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.7357	0.6764		18.4	20.0	-8.1	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.7204	0.5666		15.7	20.0	-21.3*	20.0
2-Butoxyethanol	Ave	0.7988	0.7507		18.8	20.0	-6.0	20.0
Dipropylene Glycol Methyl Ether	Qua		0.0488		19.4	20.0	-3.2	20.0
Propylene glycol	Ave	0.2550	0.2895		22.7	20.0	13.5	20.0
Ethylene glycol	Ave	0.2086	0.2801		26.9	20.0	34.3*	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5848	0.5321		18.2	20.0	-9.0	20.0
2,2'-Oxybisethanol	Ave	0.1935	0.2873		29.7	20.0	48.5*	20.0
Triethylene Glycol	Ave	0.1849	0.2931		31.7	20.0	58.5*	20.0
Tetraethylene Glycol	Ave	0.2008	0.1743		34.7	40.0	-13.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: CCVIS 680-758860/53 Calibration Date: 01/12/2023 11:42
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11053.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	3.12	3.06	3.18
4-Hydroxy-4-methyl-2-pentanone	3.71	3.63	3.78
2-Butoxyethanol	4.03	3.95	4.11
Dipropylene Glycol Methyl Ether	5.46	5.35	5.57
Propylene glycol	6.41	6.28	6.54
Ethylene glycol	6.79	6.66	6.93
2-(2-Butoxyethoxy)ethanol	8.76	8.58	8.93
2,2'-Oxybisethanol	9.74	9.55	9.93
Triethylene Glycol	10.75	10.54	10.97
Tetraethylene Glycol	12.02	11.78	12.26

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11053.D
 Lims ID: ccvis I3
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 12-Jan-2023 11:42:17 ALS Bottle#: 0 Worklist Smp#: 53
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-053
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:53:26 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 12:05:07

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.117	3.117	0.000	1373319	20.0	18.4	
2 4-Hydroxy-4-methyl-2-pentanone						
3.709	3.709	0.000	1150371	20.0	15.7	
3 2-Butoxyethanol						
4.027	4.027	0.000	1524157	20.0	18.8	
* 4 n-Heptyl Alcohol						
4.504	4.504	0.000	5075534	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.459	5.459	0.000	99086	20.0	19.4	
6 Propylene glycol						
6.410	6.410	0.000	587826	20.0	22.7	
7 Ethylene glycol						
6.794	6.794	0.000	568589	20.0	26.9	
8 2-(2-Butoxyethoxy)ethanol						
8.758	8.758	0.000	1080191	20.0	18.2	
9 2,2'-Oxybisethanol						
9.739	9.739	0.000	583250	20.0	29.7	
10 Triethylene Glycol						
10.754	10.754	0.000	595085	20.0	31.7	
11 Tetraethylene Glycol						
12.017	12.017	0.000	707873	40.0	34.7	

QC Flag Legend

Processing Flags

Reagents:

SG_Gly_CAL_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11053.D
 Lims ID: ccvis I3
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 12-Jan-2023 11:42:17 ALS Bottle#: 0 Worklist Smp#: 53
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-053
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:53:26 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 12:05:07

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.117	3.117	0.000	1373319	20.0	18.4	
2 4-Hydroxy-4-methyl-2-pentanone						
3.709	3.709	0.000	1150371	20.0	15.7	
3 2-Butoxyethanol						
4.027	4.027	0.000	1524157	20.0	18.8	
* 4 n-Heptyl Alcohol						
4.504	4.504	0.000	5075534	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.459	5.459	0.000	99086	20.0	19.4	
6 Propylene glycol						
6.410	6.410	0.000	587826	20.0	22.7	
7 Ethylene glycol						
6.794	6.794	0.000	568589	20.0	26.9	
8 2-(2-Butoxyethoxy)ethanol						
8.758	8.758	0.000	1080191	20.0	18.2	
9 2,2'-Oxybisethanol						
9.739	9.739	0.000	583250	20.0	29.7	
10 Triethylene Glycol						
10.754	10.754	0.000	595085	20.0	31.7	
11 Tetraethylene Glycol						
12.017	12.017	0.000	707873	40.0	34.7	

QC Flag Legend

Processing Flags

Reagents:

SG_Gly_CAL_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11053.D

Injection Date: 12-Jan-2023 11:42:17

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis I3

Worklist Smp#: 53

Client ID:

Injection Vol: 1.0 ul

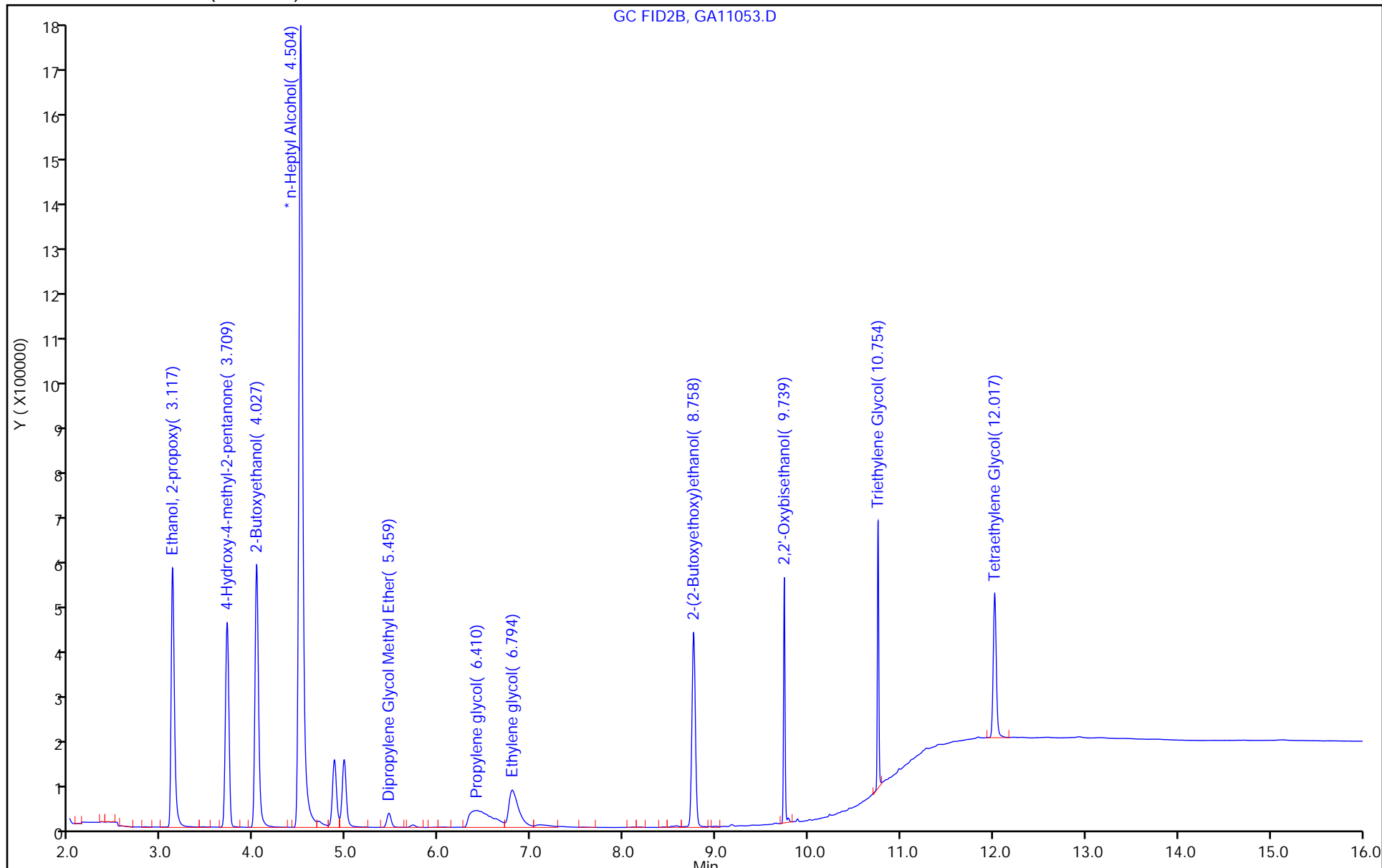
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11053.D

Injection Date: 12-Jan-2023 11:42:17

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis I3

Worklist Smp#: 53

Client ID:

Injection Vol: 1.0 ul

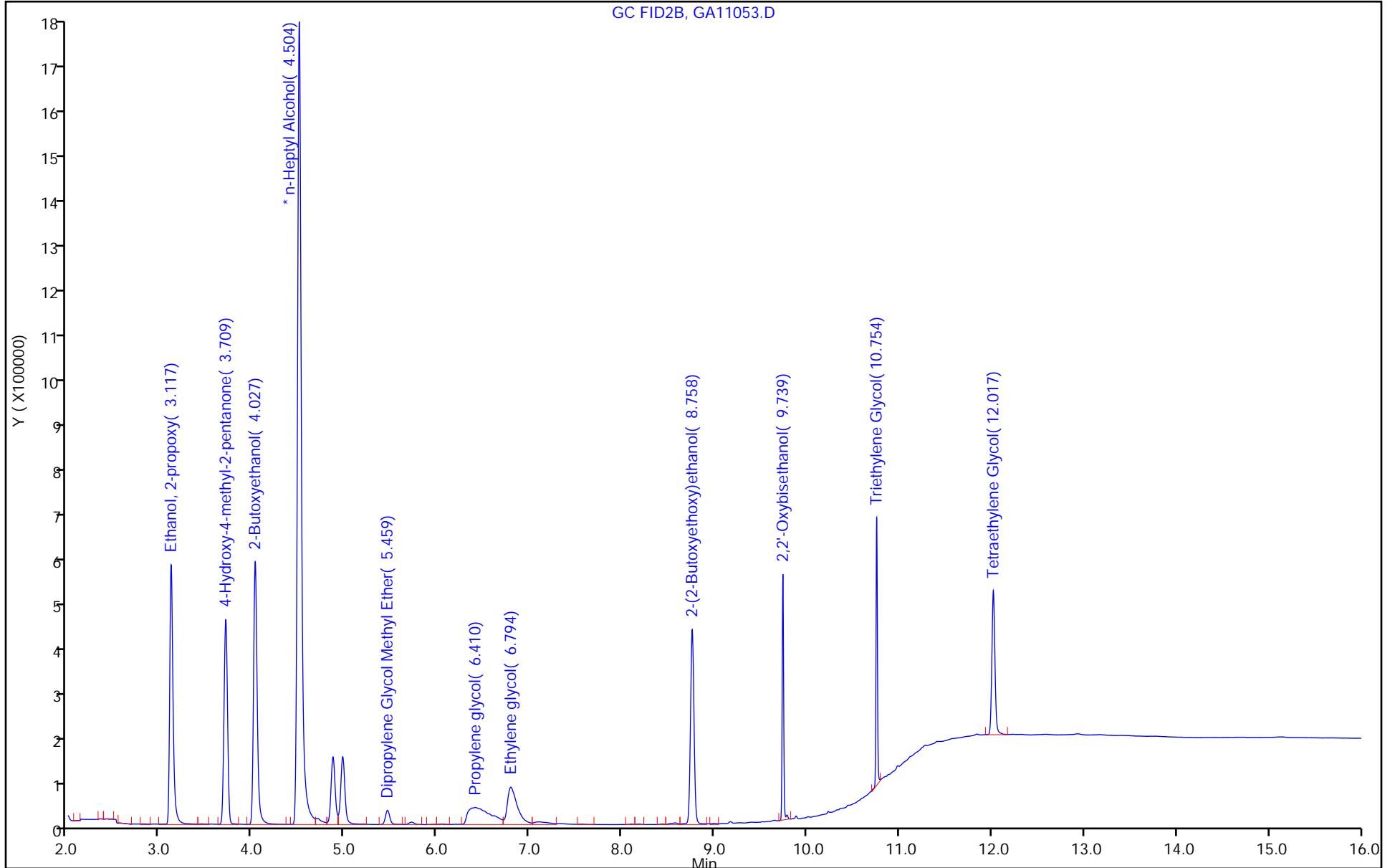
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: CCV 680-758860/70 Calibration Date: 01/12/2023 18:18
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11070.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.7357	0.7487		20.4	20.0	1.8	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.7204	0.6777		18.8	20.0	-5.9	20.0
2-Butoxyethanol	Ave	0.7988	0.8196		20.5	20.0	2.6	20.0
Dipropylene Glycol Methyl Ether	Qua		0.0542		21.5	20.0	7.4	20.0
Propylene glycol	Ave	0.2550	0.2164		17.0	20.0	-15.1	20.0
Ethylene glycol	Ave	0.2086	0.2451		23.5	20.0	17.5	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5848	0.5762		19.7	20.0	-1.5	20.0
2,2'-Oxybisethanol	Ave	0.1935	0.1885		19.5	20.0	-2.6	20.0
Triethylene Glycol	Ave	0.1849	0.1686		18.2	20.0	-8.8	20.0
Tetraethylene Glycol	Ave	0.2008	0.1132		22.5	40.0	-43.6*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Lab Sample ID: CCV 680-758860/70 Calibration Date: 01/12/2023 18:18
 Instrument ID: CVGG2 Calib Start Date: 01/11/2023 19:18
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 01/11/2023 21:14
 Lab File ID: GA11070.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	3.12	3.05	3.18
4-Hydroxy-4-methyl-2-pentanone	3.72	3.64	3.79
2-Butoxyethanol	4.03	3.95	4.11
Dipropylene Glycol Methyl Ether	5.46	5.35	5.57
Propylene glycol	6.46	6.33	6.59
Ethylene glycol	6.81	6.68	6.95
2-(2-Butoxyethoxy)ethanol	8.75	8.58	8.93
2,2'-Oxybisethanol	9.74	9.54	9.93
Triethylene Glycol	10.76	10.54	10.97
Tetraethylene Glycol	12.02	11.78	12.26

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11070.D
 Lims ID: ccvis I3
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 12-Jan-2023 18:18:18 ALS Bottle#: 0 Worklist Smp#: 70
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-053
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 13-Jan-2023 11:26:32 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1 Date: 13-Jan-2023 11:26:18

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.117	3.117	0.000	1438539	20.0	20.4	
2 4-Hydroxy-4-methyl-2-pentanone						
3.715	3.715	0.000	1302202	20.0	18.8	
3 2-Butoxyethanol						
4.027	4.027	0.000	1574845	20.0	20.5	
* 4 n-Heptyl Alcohol						
4.499	4.499	0.000	4803638	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.463	5.463	0.000	104125	20.0	21.5	
6 Propylene glycol						
6.460	6.460	0.000	415799	20.0	17.0	M
7 Ethylene glycol						
6.812	6.812	0.000	470880	20.0	23.5	M
8 2-(2-Butoxyethoxy)ethanol						
8.754	8.754	0.000	1107101	20.0	19.7	
9 2,2'-Oxybisethanol						
9.739	9.739	0.000	362235	20.0	19.5	
10 Triethylene Glycol						
10.756	10.756	0.000	323933	20.0	18.2	
11 Tetraethylene Glycol						
12.020	12.020	0.000	434896	40.0	22.5	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11070.D

Injection Date: 12-Jan-2023 18:18:18

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis I3

Worklist Smp#: 70

Client ID:

Injection Vol: 1.0 ul

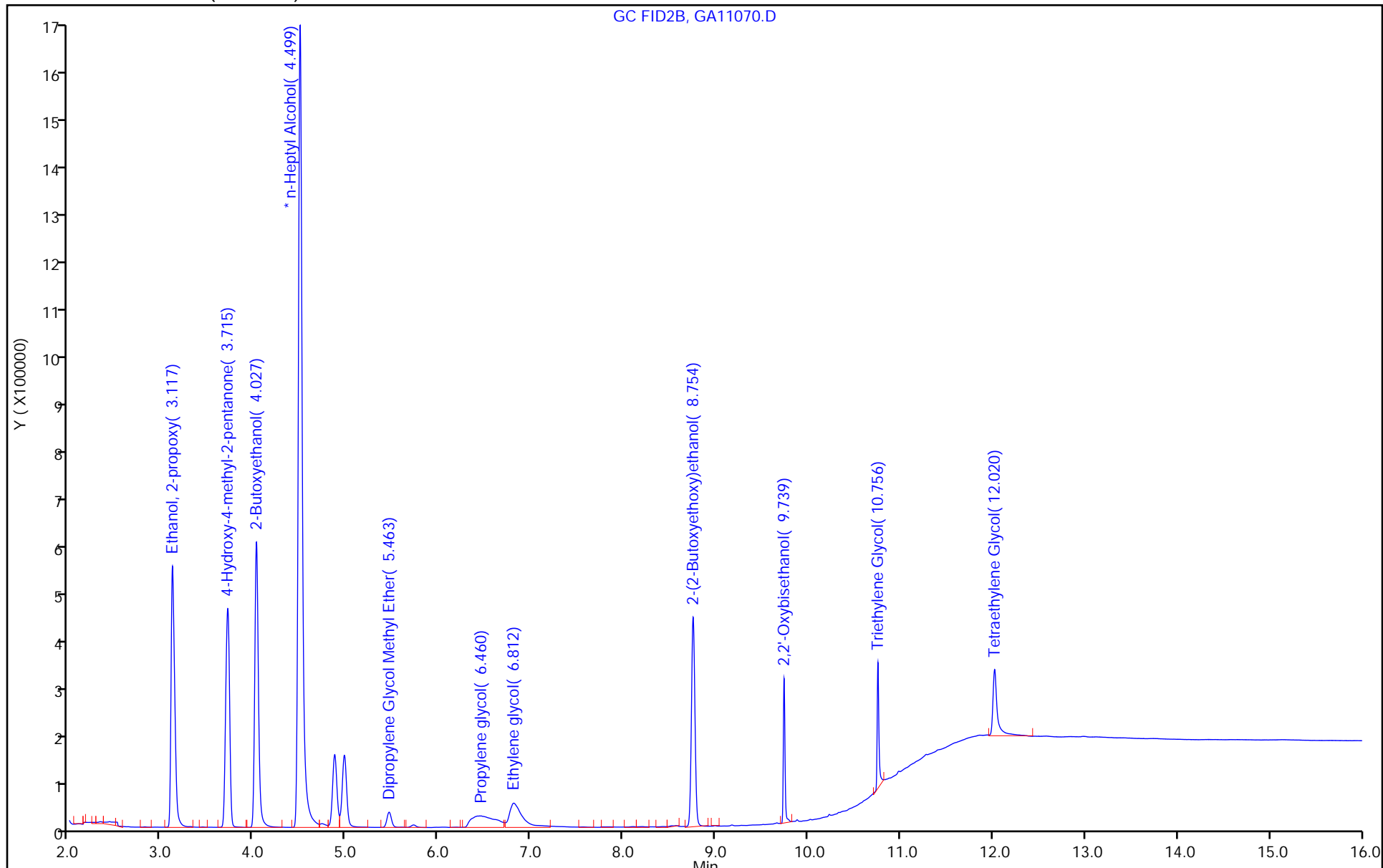
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



GC FID2B, GA11070.D

Eurofins Savannah

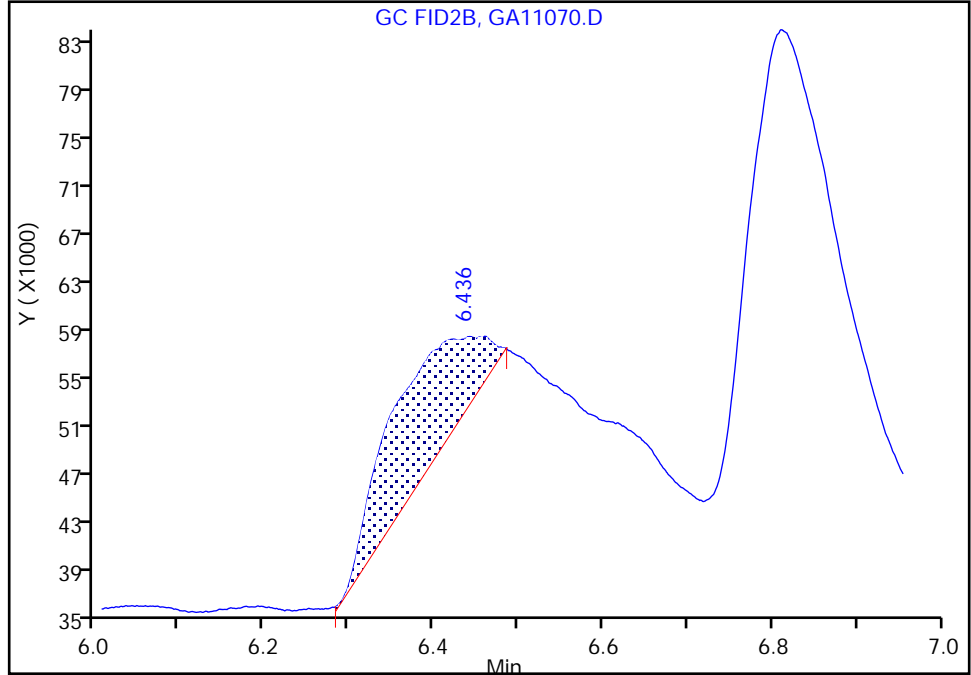
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11070.D
Injection Date: 12-Jan-2023 18:18:18 Instrument ID: CVGG2
Lims ID: ccvis I3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 70
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

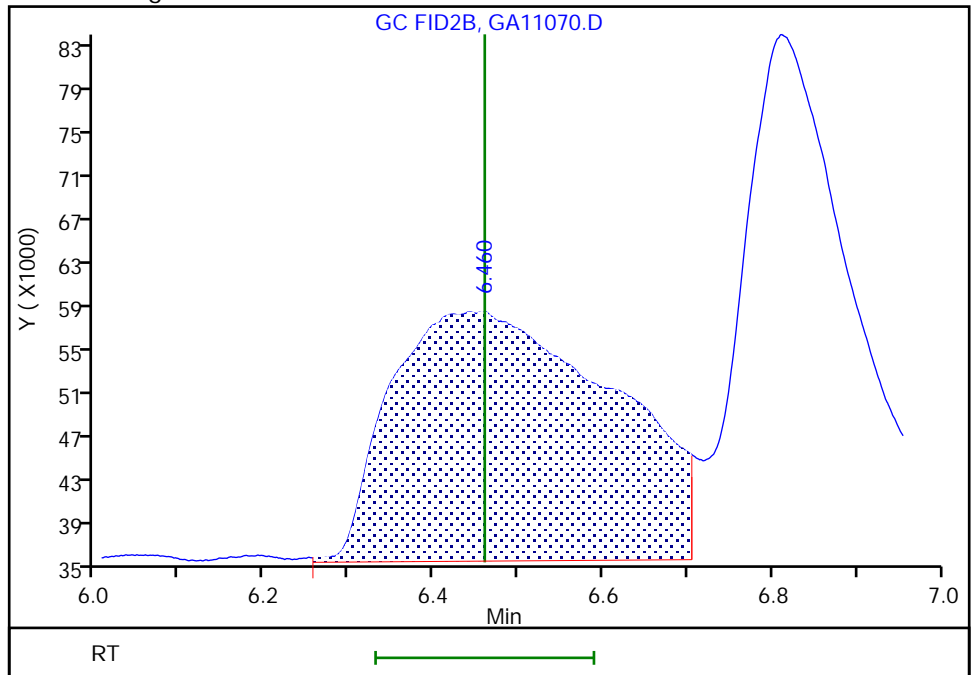
RT: 6.44
Area: 71010
Amount: 2.898426
Amount Units: ug/ml

Processing Integration Results



RT: 6.46
Area: 415799
Amount: 16.971729
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

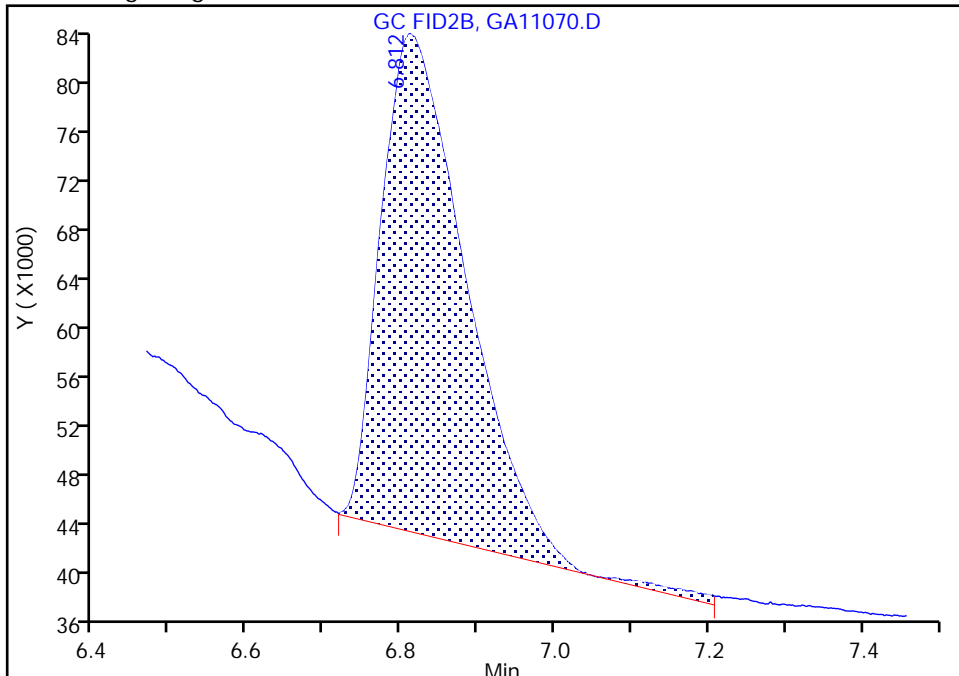
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11070.D
Injection Date: 12-Jan-2023 18:18:18 Instrument ID: CVGG2
Lims ID: ccvis I3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 70
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

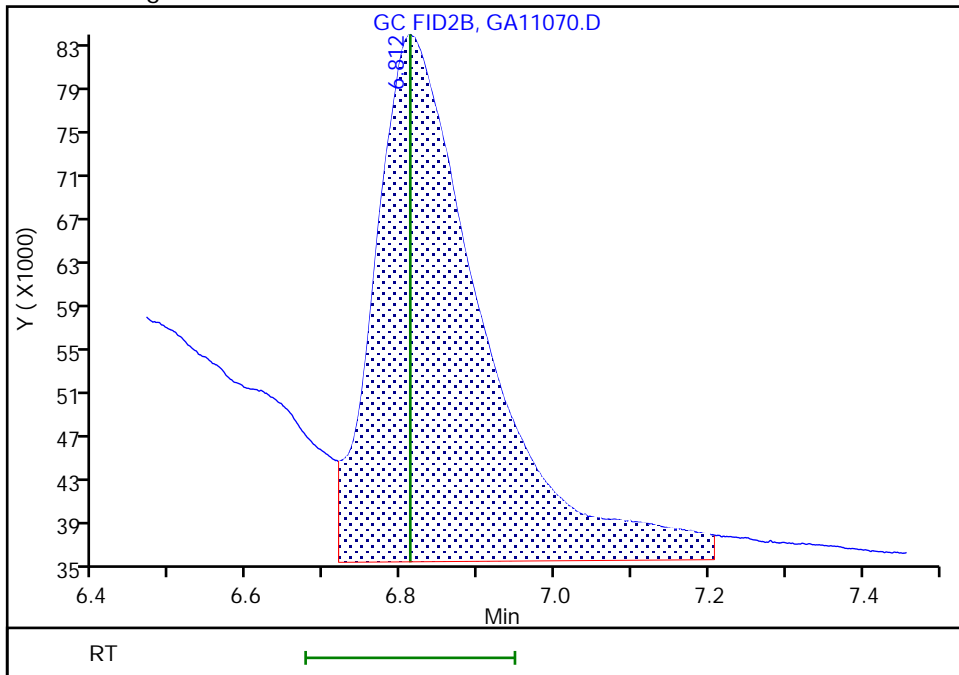
RT: 6.81
Area: 316499
Amount: 15.796366
Amount Units: ug/ml

Processing Integration Results



RT: 6.81
Area: 470880
Amount: 23.501473
Amount Units: ug/ml

Manual Integration Results



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 680-758737/23
 Matrix: Water Lab File ID: GA11023.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/11/2023 23:45
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758737 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11023.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 11-Jan-2023 23:45:59 ALS Bottle#: 0 Worklist Smp#: 23
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-023
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:07 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:43:12

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	------------------	--------------------	-------

* 4 n-Heptyl Alcohol
 4.510 4.504 0.006 5210595 50.0 50.0
 8 2-(2-Butoxyethoxy)ethanol 7
 8.765 8.758 0.007 7909 0.1298 7
 LOD = 0.5000

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11023.D

Injection Date: 11-Jan-2023 23:45:59

Instrument ID: CVGG2

Operator ID:

Lims ID: mb

Worklist Smp#: 23

Client ID:

Injection Vol: 1.0 ul

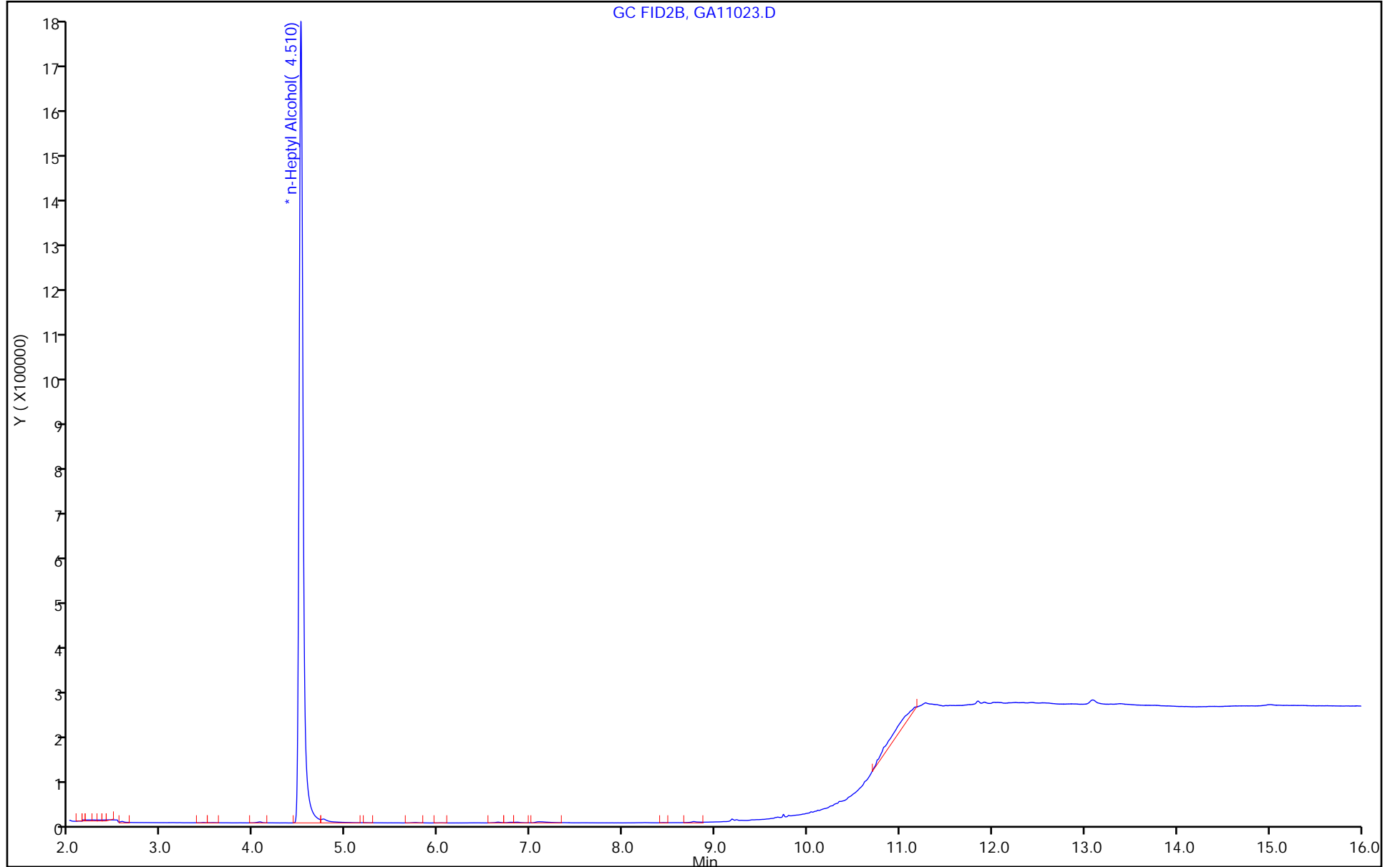
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



GC FID2B, GA11023.D

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 680-758764/23
 Matrix: Water Lab File ID: GA11023.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/11/2023 23:45
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758764 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11023.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 11-Jan-2023 23:45:59 ALS Bottle#: 0 Worklist Smp#: 23
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-023
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 13-Jan-2023 11:38:50 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1659

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:43:12

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	------------------	--------------------	-------

* 4 n-Heptyl Alcohol
 4.510 4.499 0.011 5210595 50.0 50.0
 8 2-(2-Butoxyethoxy)ethanol 7
 8.765 8.754 0.011 7909 0.1298 7
 LOD = 0.5000

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11023.D

Injection Date: 11-Jan-2023 23:45:59

Instrument ID: CVGG2

Operator ID:

Lims ID: mb

Worklist Smp#: 23

Client ID:

Injection Vol: 1.0 ul

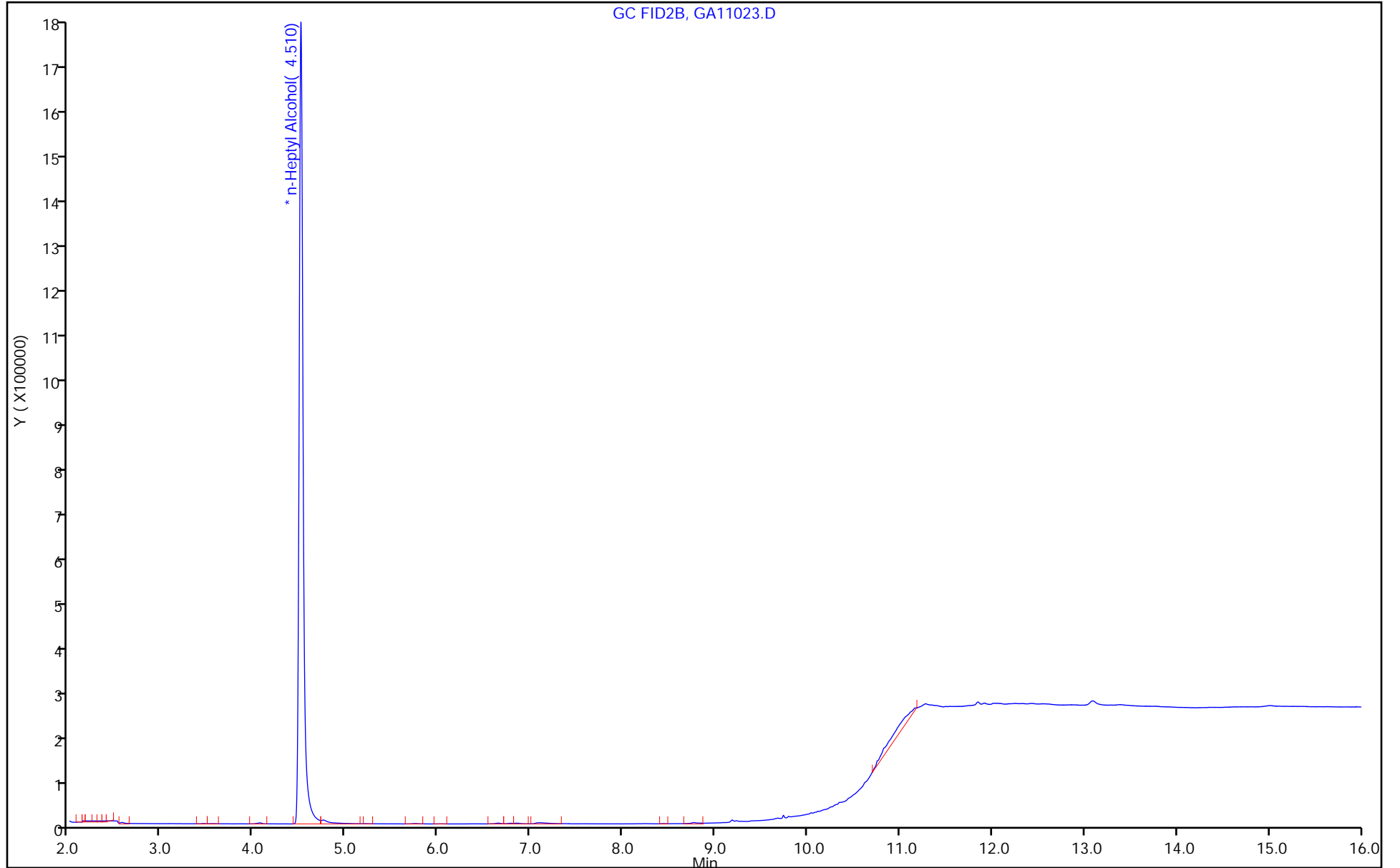
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



GC FID2B, GA11023.D

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 680-758860/60
 Matrix: Water Lab File ID: GA11060.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 14:25
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758860 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11060.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 12-Jan-2023 14:25:16 ALS Bottle#: 0 Worklist Smp#: 60
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-023
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 13-Jan-2023 11:26:18 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1 Date: 13-Jan-2023 11:24:20

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
-----------	---------------	---------------	----------	---------------	-----------------	-------

* 4 n-Heptyl Alcohol						
4.496	4.499	-0.003	4666923	50.0	50.0	
8 2-(2-Butoxyethoxy)ethanol						
8.762	8.754	0.008	6786		0.1243	7
LOD = 0.5000						
9 2,2'-Oxybisethanol						
9.739	9.739	0.000	32485		1.80	
10 Triethylene Glycol						
10.753	10.756	-0.003	63950		3.71	
11 Tetraethylene Glycol						
12.016	12.020	-0.004	131066		6.99	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11060.D

Injection Date: 12-Jan-2023 14:25:16

Instrument ID: CVGG2

Operator ID:

Lims ID: mb

Worklist Smp#: 60

Client ID:

Injection Vol: 1.0 ul

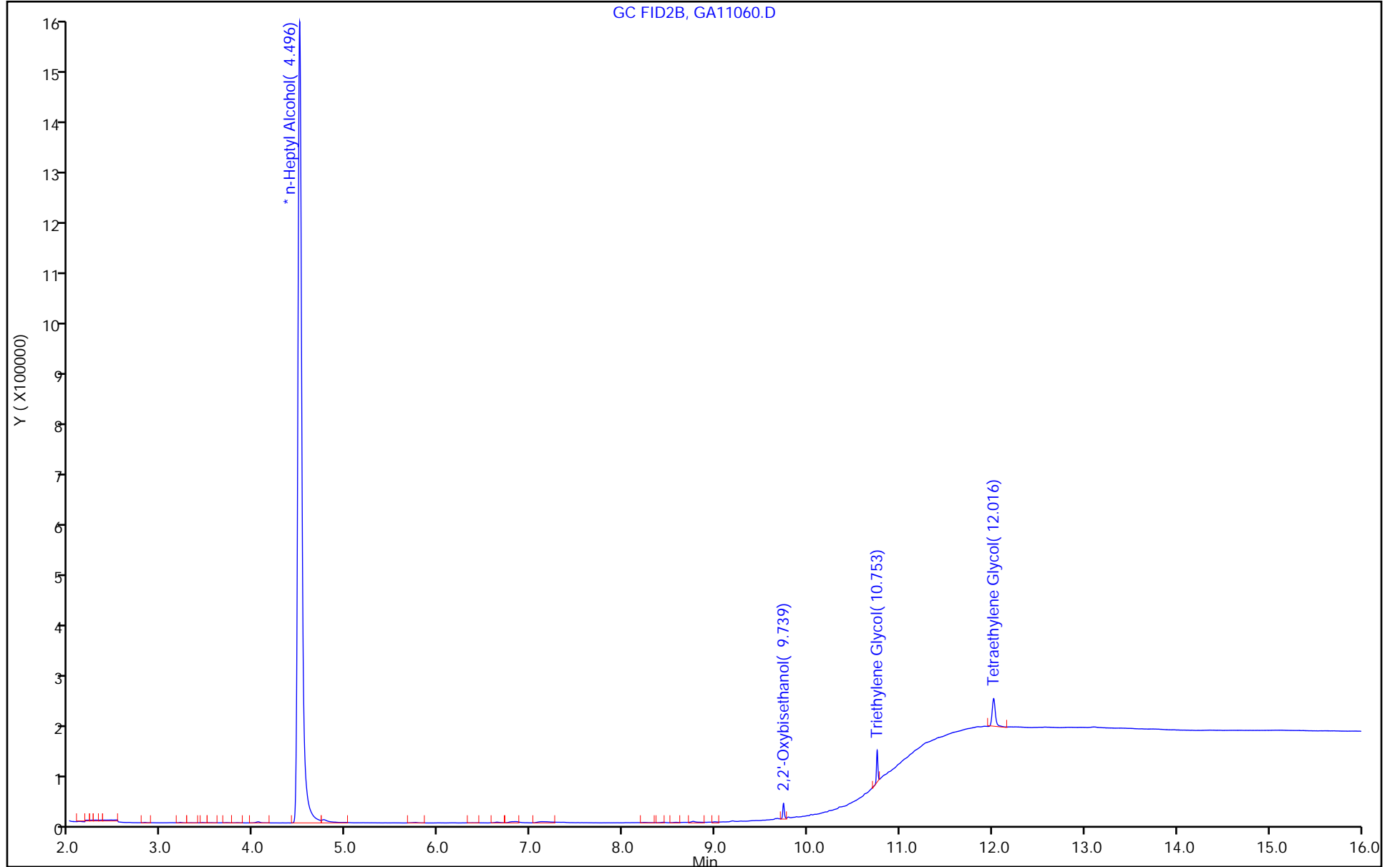
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 680-758737/19
 Matrix: Water Lab File ID: GA11019.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/11/2023 22:13
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758737 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	21.1		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11019.D
 Lims ID: lcs
 Client ID:
 Sample Type: LCS
 Inject. Date: 11-Jan-2023 22:13:04 ALS Bottle#: 0 Worklist Smp#: 19
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-019
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:36 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:42:42

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy	3.123	3.121	0.002	1539493	20.0	24.4
2 4-Hydroxy-4-methyl-2-pentanone	3.721	3.724	-0.003	1472918	20.0	23.8
3 2-Butoxyethanol	4.033	4.031	0.002	1722061	20.0	25.1
* 4 n-Heptyl Alcohol	4.508	4.504	0.004	4295899	50.0	50.0
5 Dipropylene Glycol Methyl Ether	5.466	5.469	-0.003	101612	20.0	23.4
6 Propylene glycol	6.337	6.341	-0.004	275840	20.0	12.6
7 Ethylene glycol	6.780	6.782	-0.002	233707	20.0	13.0
8 2-(2-Butoxyethoxy)ethanol	8.759	8.758	0.001	1058778	20.0	21.1
9 2,2'-Oxybisethanol	9.738	9.737	0.001	192802	20.0	11.6
10 Triethylene Glycol	10.753	10.753	0.000	306331	20.0	19.3
11 Tetraethylene Glycol	12.016	12.016	0.000	451056	40.0	26.1

QC Flag Legend

Processing Flags

Reagents:

SG_GlyICV_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11019.D

Injection Date: 11-Jan-2023 22:13:04

Instrument ID: CVGG2

Operator ID:

Lims ID: lcs

Worklist Smp#: 19

Client ID:

Injection Vol: 1.0 ul

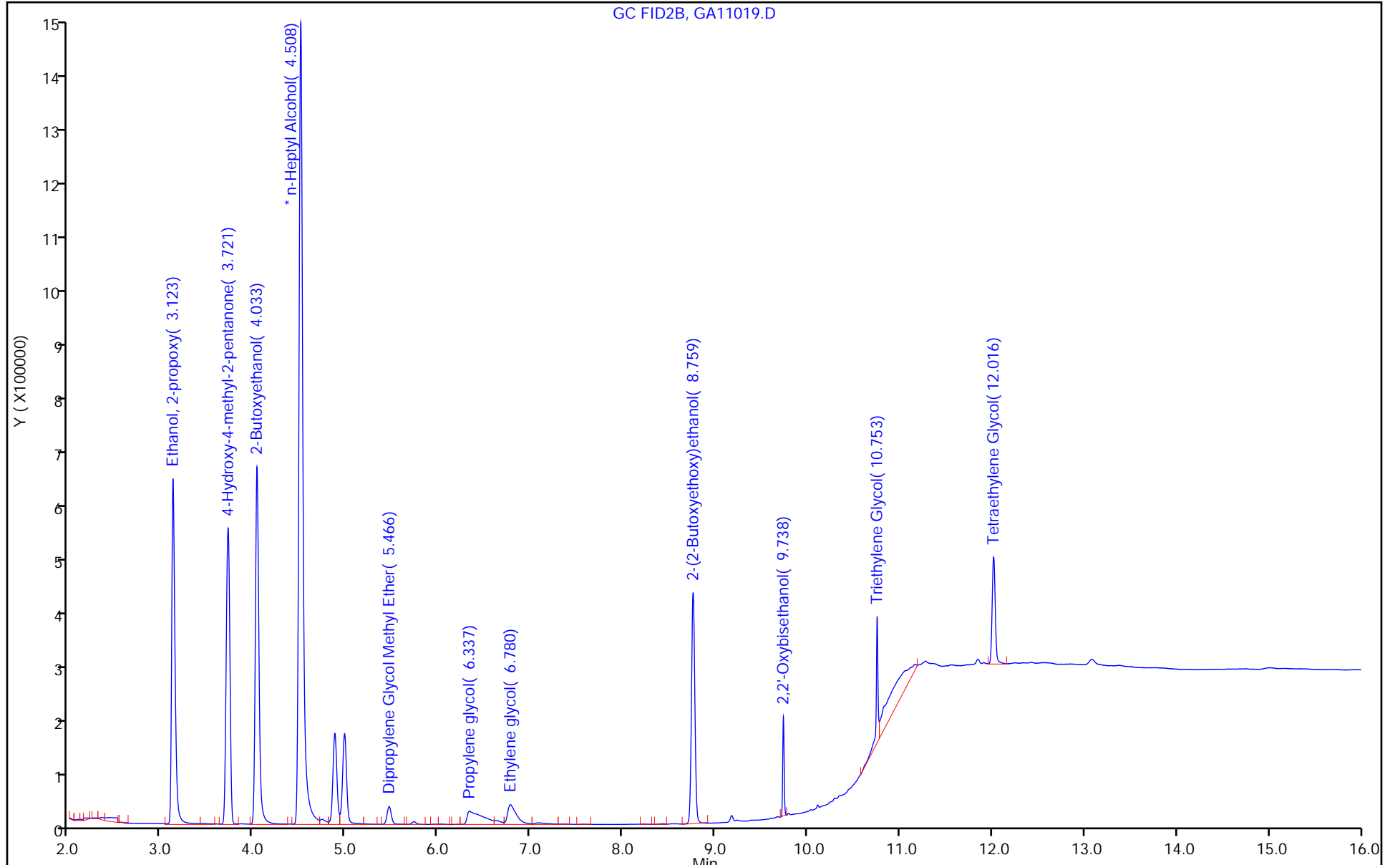
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 680-758764/19
 Matrix: Water Lab File ID: GA11019.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/11/2023 22:13
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758764 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	21.1		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11019.D
 Lims ID: lcs
 Client ID:
 Sample Type: LCS
 Inject. Date: 11-Jan-2023 22:13:04 ALS Bottle#: 0 Worklist Smp#: 19
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-019
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 13-Jan-2023 11:38:50 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1659

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:42:42

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.123	3.117	0.006	1539493	20.0	24.4	
2 4-Hydroxy-4-methyl-2-pentanone						
3.721	3.715	0.006	1472918	20.0	23.8	
3 2-Butoxyethanol						
4.033	4.027	0.006	1722061	20.0	25.1	
* 4 n-Heptyl Alcohol						
4.508	4.499	0.009	4295899	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.466	5.463	0.003	101612	20.0	23.4	
6 Propylene glycol						
6.337	6.460	-0.123	275840	20.0	12.6	
7 Ethylene glycol						
6.780	6.812	-0.032	233707	20.0	13.0	
8 2-(2-Butoxyethoxy)ethanol						
8.759	8.754	0.005	1058778	20.0	21.1	
9 2,2'-Oxybisethanol						
9.738	9.739	-0.001	192802	20.0	11.6	
10 Triethylene Glycol						
10.753	10.756	-0.003	306331	20.0	19.3	
11 Tetraethylene Glycol						
12.016	12.020	-0.004	451056	40.0	26.1	

QC Flag Legend

Processing Flags

Reagents:

SG_GlyICV_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11019.D

Injection Date: 11-Jan-2023 22:13:04

Instrument ID: CVGG2

Operator ID:

Lims ID: lcs

Worklist Smp#: 19

Client ID:

Injection Vol: 1.0 ul

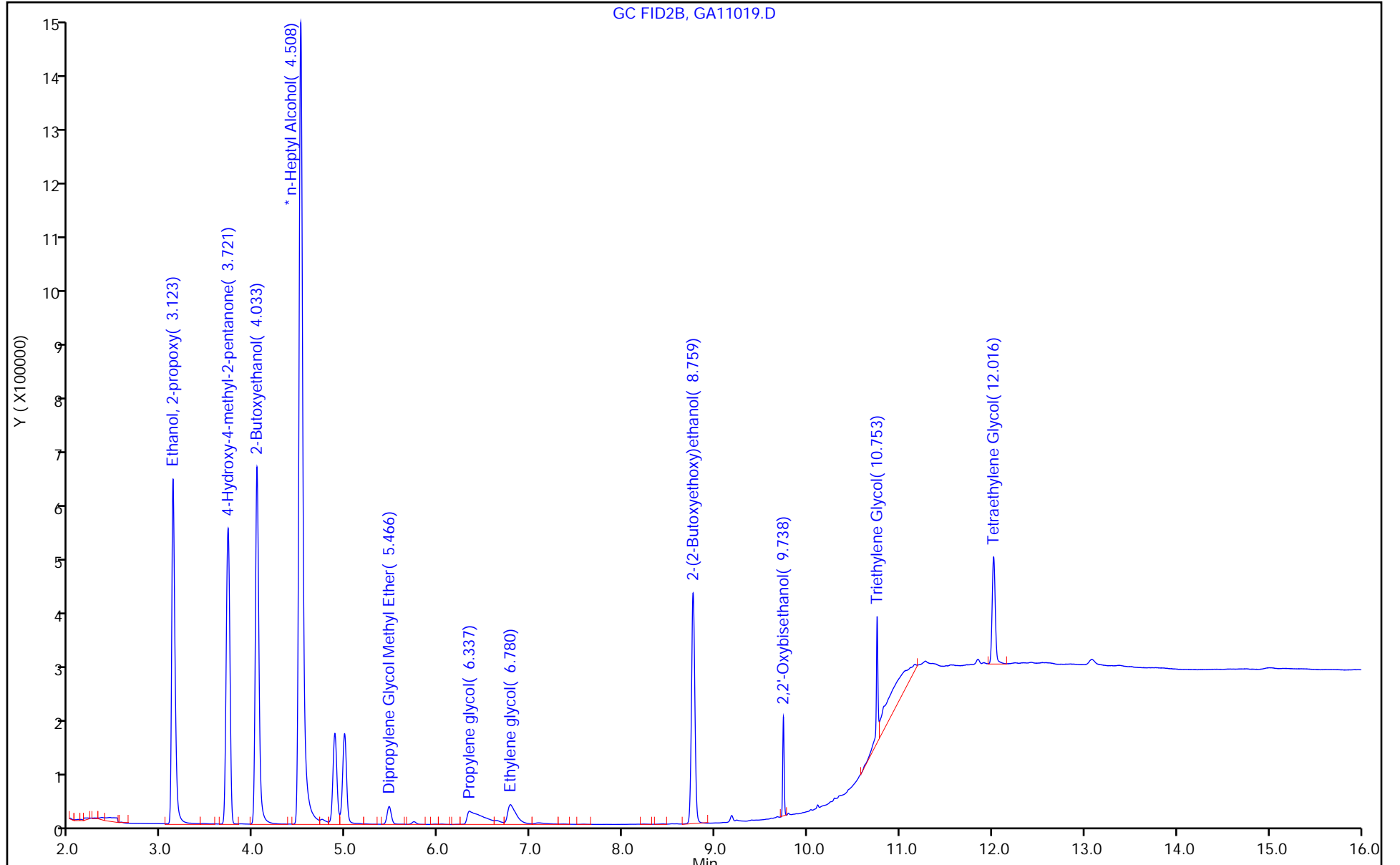
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 680-758860/56
 Matrix: Water Lab File ID: GA11056.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 12:52
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758860 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	16.4		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11056.D
 Lims ID: lcs
 Client ID:
 Sample Type: LCS
 Inject. Date: 12-Jan-2023 12:52:03 ALS Bottle#: 0 Worklist Smp#: 56
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-019
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 13-Jan-2023 11:26:18 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy	3.117	3.117	0.000	1317523	20.0	16.7
2 4-Hydroxy-4-methyl-2-pentanone	3.709	3.715	-0.006	1067165	20.0	13.9
3 2-Butoxyethanol	4.029	4.027	0.002	1564659	20.0	18.3
* 4 n-Heptyl Alcohol	4.509	4.499	0.010	5346079	50.0	50.0
5 Dipropylene Glycol Methyl Ether	5.459	5.463	-0.004	95359	20.0	17.7
6 Propylene glycol	6.414	6.460	-0.046	551216	20.0	20.2
7 Ethylene glycol	6.797	6.812	-0.015	586958	20.0	26.3
8 2-(2-Butoxyethoxy)ethanol	8.757	8.754	0.003	1027961	20.0	16.4
9 2,2'-Oxybisethanol	9.738	9.739	-0.001	487114	20.0	23.5
10 Triethylene Glycol	10.754	10.756	-0.002	447248	20.0	22.6
11 Tetraethylene Glycol	12.016	12.020	-0.004	503999	40.0	23.5

Reagents:

SG_GlylCV_00052 Amount Added: 10.00 Units: uL
 SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11056.D

Injection Date: 12-Jan-2023 12:52:03

Instrument ID: CVGG2

Operator ID:

Lims ID: lcs

Worklist Smp#: 56

Client ID:

Injection Vol: 1.0 ul

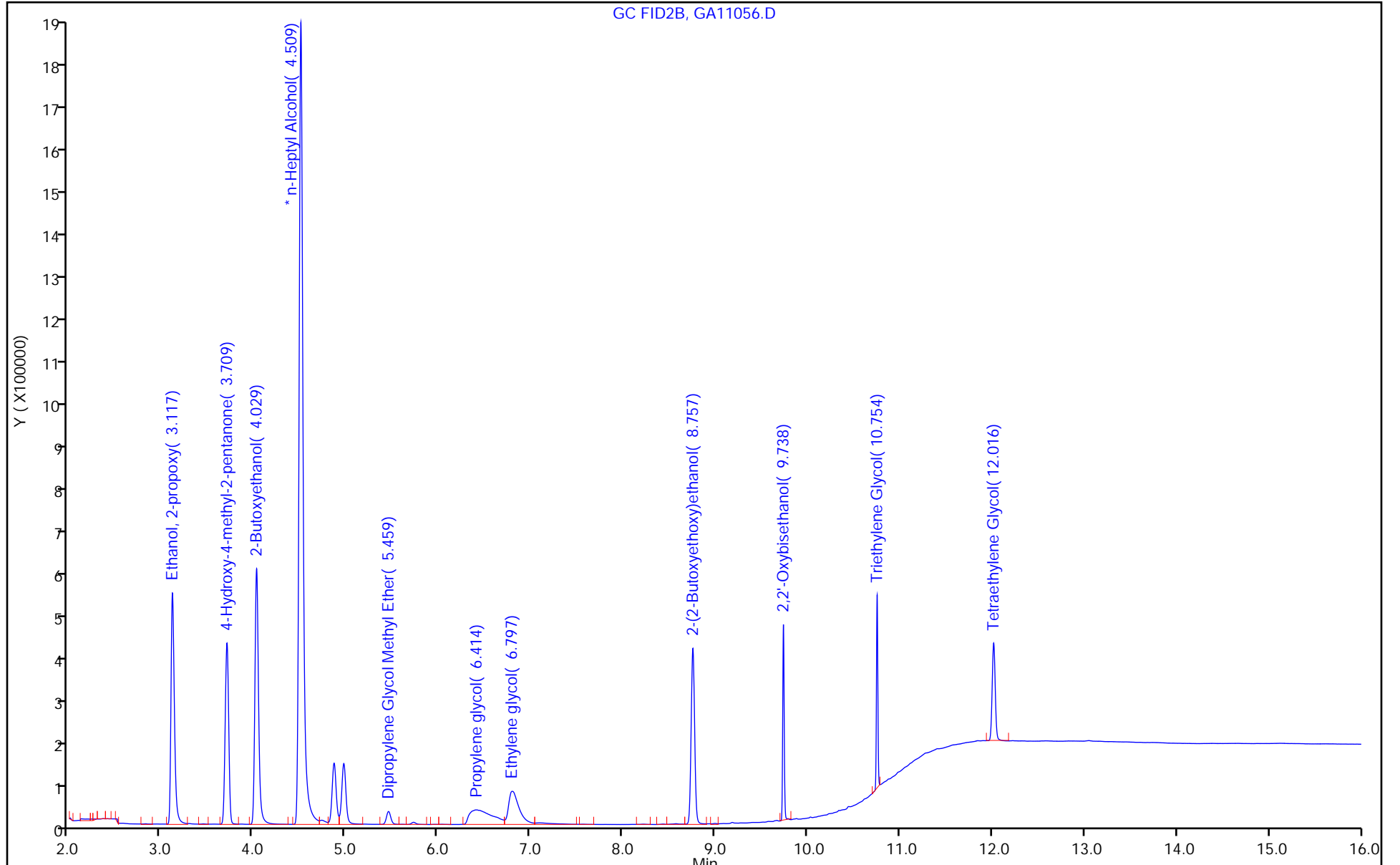
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 680-758737/20
 Matrix: Water Lab File ID: GA11020.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/11/2023 22:36
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758737 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	18.6		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11020.D
 Lims ID: lcsd
 Client ID:
 Sample Type: LCSD
 Inject. Date: 11-Jan-2023 22:36:15 ALS Bottle#: 0 Worklist Smp#: 20
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-020
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:36 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy	3.119	3.121	-0.002	1463933	20.0	19.9
2 4-Hydroxy-4-methyl-2-pentanone	3.718	3.724	-0.006	1390630	20.0	19.3
3 2-Butoxyethanol	4.030	4.031	-0.001	1665403	20.0	20.8
* 4 n-Heptyl Alcohol	4.505	4.504	0.001	5004426	50.0	50.0
5 Dipropylene Glycol Methyl Ether	5.464	5.469	-0.005	101331	20.0	20.1
6 Propylene glycol	6.334	6.341	-0.007	467409	20.0	18.3
7 Ethylene glycol	6.777	6.782	-0.005	409405	20.0	19.6
8 2-(2-Butoxyethoxy)ethanol	8.759	8.758	0.001	1086383	20.0	18.6
9 2,2'-Oxybisethanol	9.738	9.737	0.001	374285	20.0	19.3
10 Triethylene Glycol	10.753	10.753	0.000	432241	20.0	23.4
11 Tetraethylene Glycol	12.014	12.016	-0.002	835202	40.0	41.6

Reagents:

SG_GlylCV_00052 Amount Added: 10.00 Units: uL
 SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11020.D

Injection Date: 11-Jan-2023 22:36:15

Instrument ID: CVGG2

Operator ID:

Lims ID: lcsd

Worklist Smp#: 20

Client ID:

Injection Vol: 1.0 ul

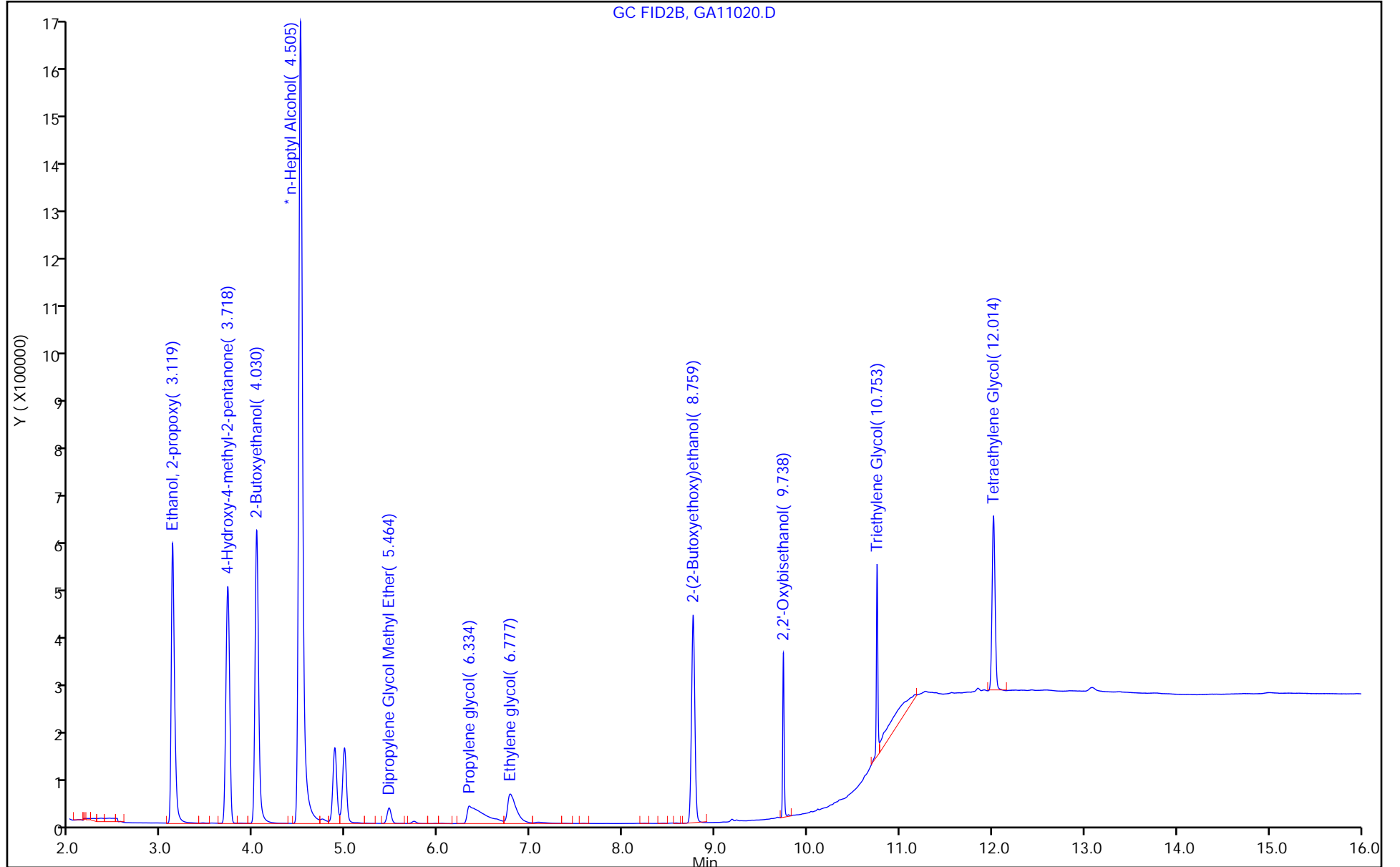
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 680-758764/20
 Matrix: Water Lab File ID: GA11020.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/11/2023 22:36
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758764 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	18.6		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11020.D
 Lims ID: lcsd
 Client ID:
 Sample Type: LCSD
 Inject. Date: 11-Jan-2023 22:36:15 ALS Bottle#: 0 Worklist Smp#: 20
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-020
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 13-Jan-2023 11:38:50 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1659

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	------------------	--------------------	-------

1 Ethanol, 2-propoxy	3.119	3.117	0.002	1463933	20.0	19.9
2 4-Hydroxy-4-methyl-2-pentanone	3.718	3.715	0.003	1390630	20.0	19.3
3 2-Butoxyethanol	4.030	4.027	0.003	1665403	20.0	20.8
* 4 n-Heptyl Alcohol	4.505	4.499	0.006	5004426	50.0	50.0
5 Dipropylene Glycol Methyl Ether	5.464	5.463	0.001	101331	20.0	20.1
6 Propylene glycol	6.334	6.460	-0.126	467409	20.0	18.3
7 Ethylene glycol	6.777	6.812	-0.035	409405	20.0	19.6
8 2-(2-Butoxyethoxy)ethanol	8.759	8.754	0.005	1086383	20.0	18.6
9 2,2'-Oxybisethanol	9.738	9.739	-0.001	374285	20.0	19.3
10 Triethylene Glycol	10.753	10.756	-0.003	432241	20.0	23.4
11 Tetraethylene Glycol	12.014	12.020	-0.006	835202	40.0	41.6

Reagents:

SG_GlylCV_00052 Amount Added: 10.00 Units: uL
 SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11020.D

Injection Date: 11-Jan-2023 22:36:15

Instrument ID: CVGG2

Operator ID:

Lims ID: lcsd

Worklist Smp#: 20

Client ID:

Injection Vol: 1.0 ul

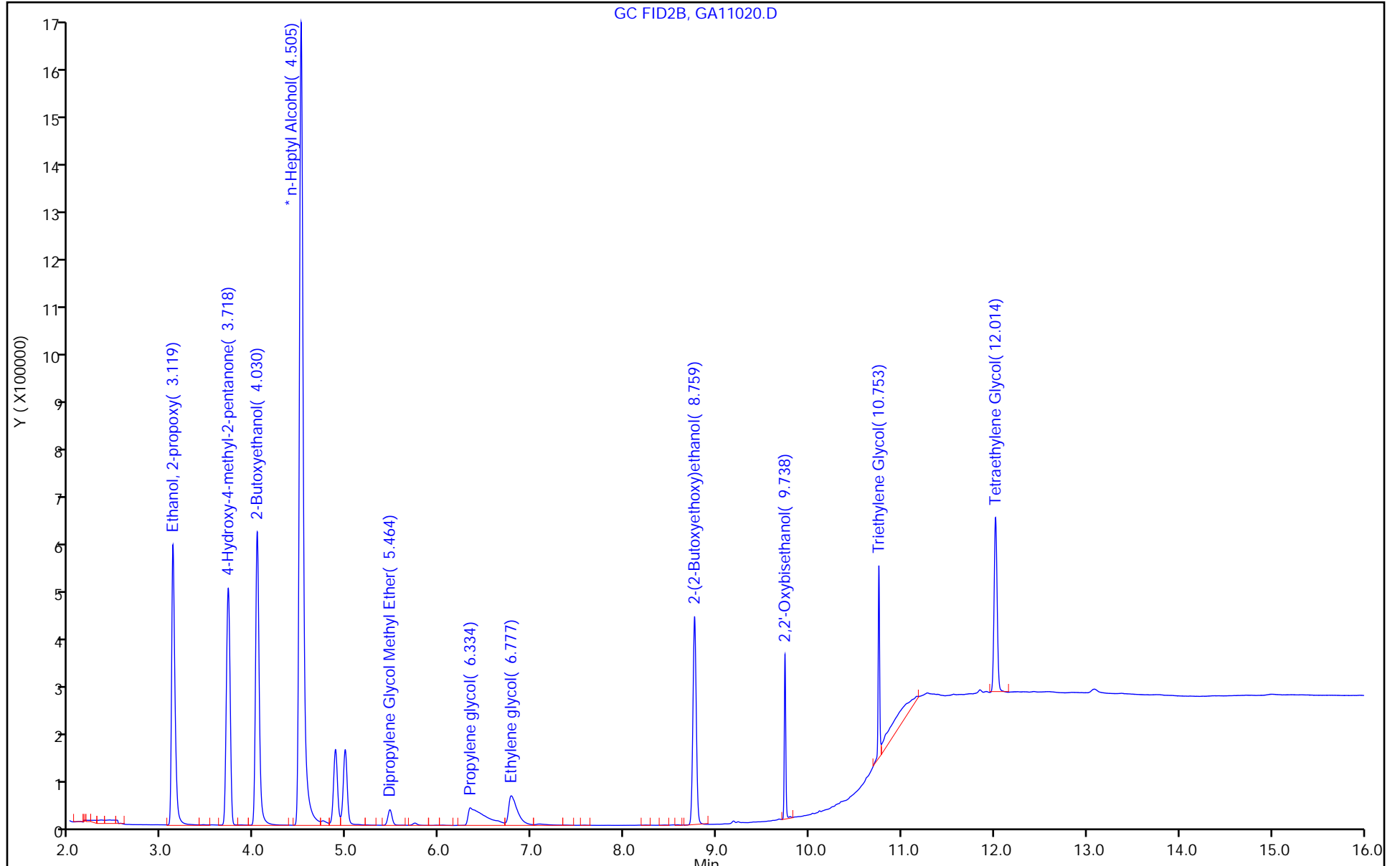
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 680-758860/57
 Matrix: Water Lab File ID: GA11057.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 13:15
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 758860 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	17.6		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11057.D
 Lims ID: lcsd
 Client ID:
 Sample Type: LCSD
 Inject. Date: 12-Jan-2023 13:15:24 ALS Bottle#: 0 Worklist Smp#: 57
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-020
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 13-Jan-2023 11:26:18 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1 Date: 13-Jan-2023 11:24:01

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
3.119	3.117	0.002	1460007	20.0	19.2	
2 4-Hydroxy-4-methyl-2-pentanone						
3.712	3.715	-0.003	1258572	20.0	16.9	
3 2-Butoxyethanol						
4.028	4.027	0.001	1681813	20.0	20.3	
* 4 n-Heptyl Alcohol						
4.504	4.499	0.005	5174352	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.462	5.463	-0.001	100657	20.0	19.3	
6 Propylene glycol						
6.406	6.460	-0.054	450397	20.0	17.1	M
7 Ethylene glycol						
6.802	6.812	-0.010	433725	20.0	20.1	M
8 2-(2-Butoxyethoxy)ethanol						
8.758	8.754	0.004	1066163	20.0	17.6	
9 2,2'-Oxybisethanol						
9.737	9.739	-0.002	409204	20.0	20.4	
10 Triethylene Glycol						
10.753	10.756	-0.003	445886	20.0	23.3	
11 Tetraethylene Glycol						
12.015	12.020	-0.005	637160	40.0	30.7	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_GlyICV_00052

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11057.D

Injection Date: 12-Jan-2023 13:15:24

Instrument ID: CVGG2

Operator ID:

Lims ID: lcsd

Worklist Smp#: 57

Client ID:

Injection Vol: 1.0 ul

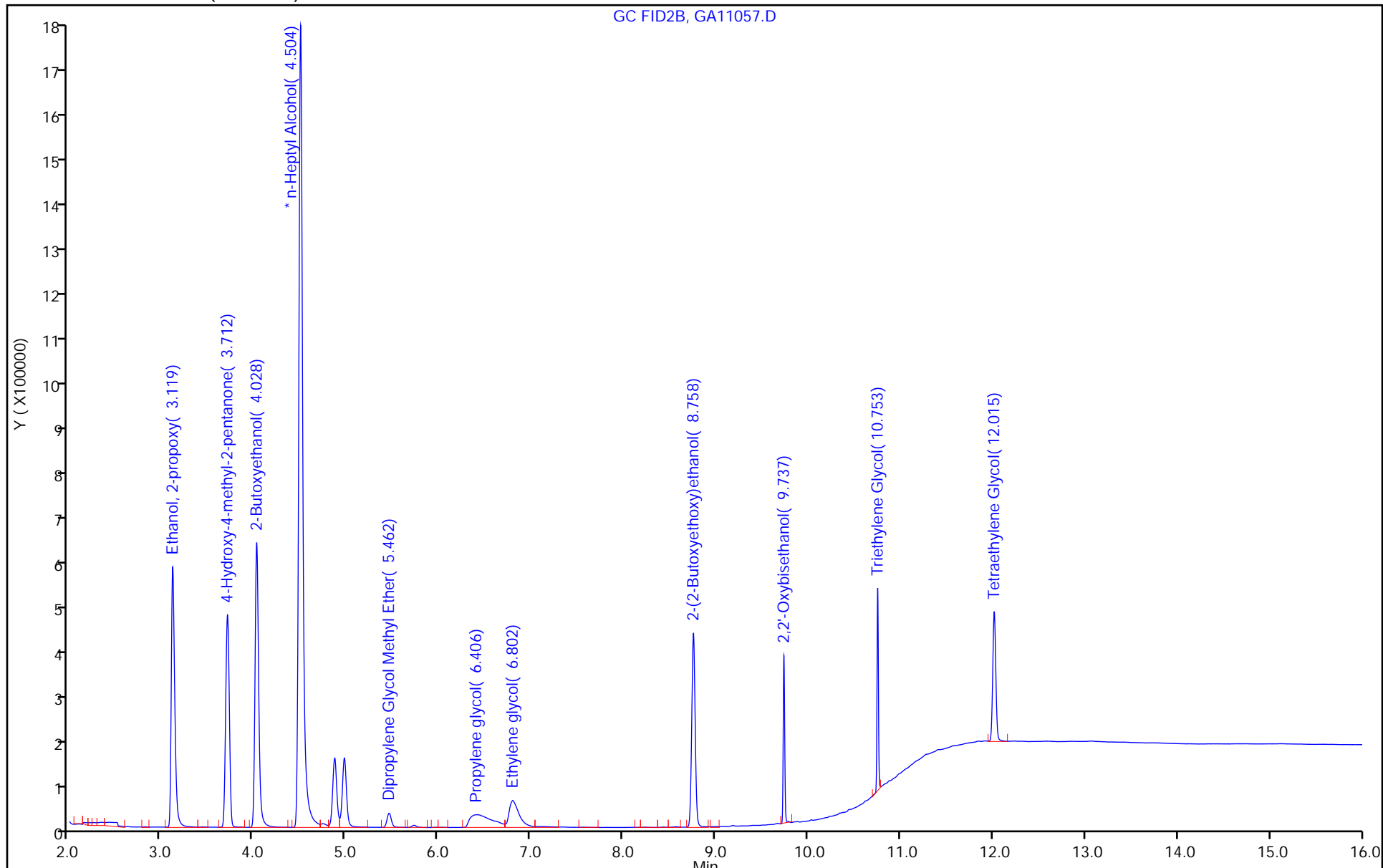
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11050.D
 Lims ID: 580-121933-B-2 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 12-Jan-2023 10:13:09 ALS Bottle#: 0 Worklist Smp#: 50
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-050
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

First Level Reviewer: SWK1 Date: 12-Jan-2023 11:46:13

RT (min.)	Exp RT (min.)	Diff RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy	3.113	3.131	-0.018	2298430	40.0	28.3
2 4-Hydroxy-4-methyl-2-pentanone	3.700	3.729	-0.029	2030559	40.0	25.5
3 2-Butoxyethanol	4.030	4.037	-0.007	2699836	40.0	30.6
* 4 n-Heptyl Alcohol	4.517	4.504	0.013	5523736	50.0	50.0
5 Dipropylene Glycol Methyl Ether	5.460	5.474	-0.014	191257	40.0	34.2
6 Propylene glycol	6.342	6.429	-0.087	1179540	40.0	41.9
7 Ethylene glycol	6.790	6.803	-0.013	1243146	40.0	54.0
8 2-(2-Butoxyethoxy)ethanol	8.760	8.761	-0.001	2038586	40.0	31.6
9 2,2'-Oxybisethanol	9.740	9.739	0.001	739567	40.0	34.6
10 Triethylene Glycol	10.754	10.754	0.000	360663	40.0	17.7
11 Tetraethylene Glycol	12.017	12.018	-0.001	190950	80.0	8.61

QC Flag Legend

Processing Flags

Reagents:

SG_GlyICV_00052

Amount Added: 20.00

Units: uL

SG_GLY_ISTD_00105

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11050.D

Injection Date: 12-Jan-2023 10:13:09

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-B-2 MS

Worklist Smp#: 50

Client ID:

Injection Vol: 1.0 ul

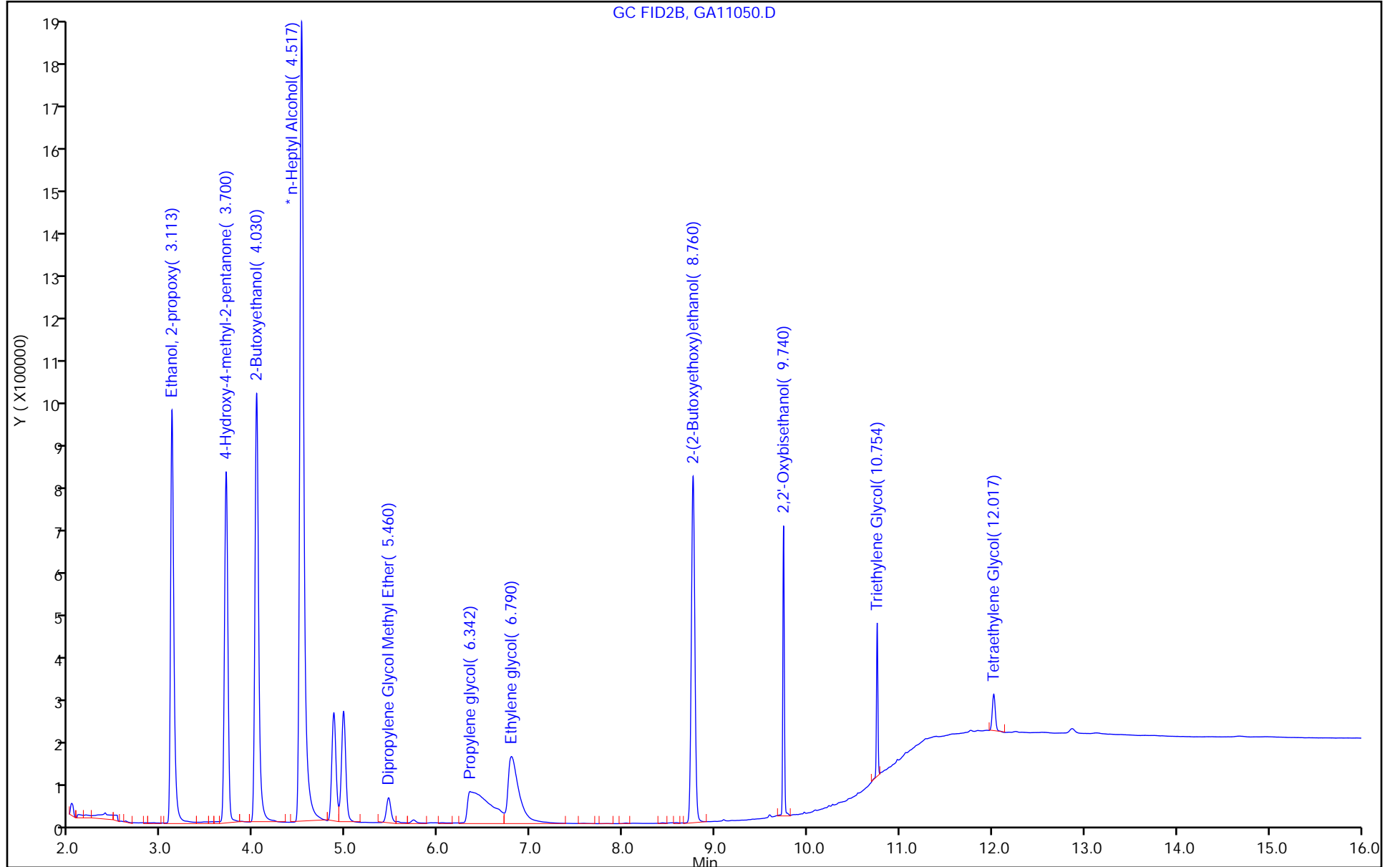
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11067.D
 Lims ID: 580-121933-B-8 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 12-Jan-2023 17:08:23 ALS Bottle#: 0 Worklist Smp#: 67
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-067
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 13-Jan-2023 11:26:18 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy	3.114	3.117	-0.003	3439485	40.0	42.9
2 4-Hydroxy-4-methyl-2-pentanone	3.712	3.715	-0.003	3140620	40.0	40.0
3 2-Butoxyethanol	4.024	4.027	-0.003	3869001	40.0	44.5
* 4 n-Heptyl Alcohol	4.497	4.499	-0.002	5445801	50.0	50.0
5 Dipropylene Glycol Methyl Ether	5.461	5.463	-0.002	117015	40.0	21.3
6 Propylene glycol	6.407	6.460	-0.053	966813	40.0	34.8
7 Ethylene glycol	6.795	6.812	-0.017	1072659	40.0	47.2
8 2-(2-Butoxyethoxy)ethanol	8.756	8.754	0.002	2698961	40.0	42.4
9 2,2'-Oxybisethanol	9.739	9.739	0.000	664020	40.0	31.5
10 Triethylene Glycol	10.755	10.756	-0.001	355287	40.0	17.6
11 Tetraethylene Glycol	12.022	12.020	0.002	201588	80.0	9.22

Reagents:

SG_GlyICV_00052 Amount Added: 20.00 Units: uL
 SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11067.D

Injection Date: 12-Jan-2023 17:08:23

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-B-8 MS

Worklist Smp#: 67

Client ID:

Injection Vol: 1.0 ul

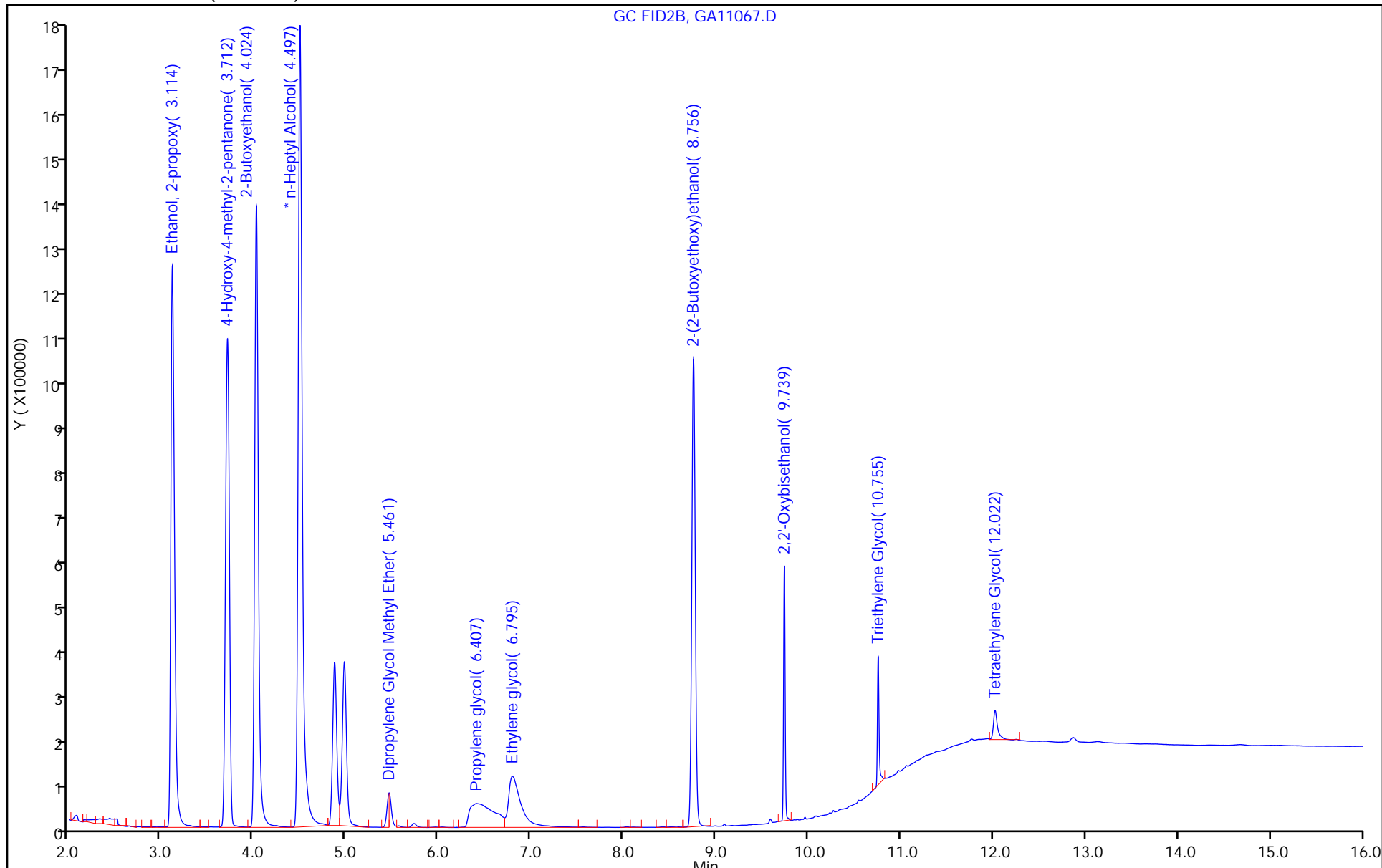
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1
SDG No.: _____
Client Sample ID: AF-RHMW04-WGN01LF-2301W1 Lab Sample ID: 580-121933-2 MSD
MSD
Matrix: Water Lab File ID: GA11051.D
Analysis Method: 8015C GLY Date Collected: 01/04/2023 12:05
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 1(mL) Date Analyzed: 01/12/2023 10:36
Con. Extract Vol.: 1(mL) Dilution Factor: 1
Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
Cleanup Factor: _____
Analysis Batch No.: 758764 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	32.0		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11051.D
 Lims ID: 580-121933-B-2 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 12-Jan-2023 10:36:22 ALS Bottle#: 0 Worklist Smp#: 51
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-051
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-Jan-2023 12:41:39 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1634

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy	3.120	3.131	-0.011	2822531	40.0	33.3
2 4-Hydroxy-4-methyl-2-pentanone	3.714	3.729	-0.015	2400132	40.0	28.9
3 2-Butoxyethanol	4.031	4.037	-0.006	3298908	40.0	35.8
* 4 n-Heptyl Alcohol	4.510	4.504	0.006	5768831	50.0	50.0
5 Dipropylene Glycol Methyl Ether	5.460	5.474	-0.014	204866	40.0	35.1
6 Propylene glycol	6.387	6.429	-0.042	1140262	40.0	38.8
7 Ethylene glycol	6.787	6.803	-0.016	1287869	40.0	53.5
8 2-(2-Butoxyethoxy)ethanol	8.756	8.761	-0.005	2161399	40.0	32.0
9 2,2'-Oxybisethanol	9.739	9.739	0.000	1080509	40.0	48.4
10 Triethylene Glycol	10.754	10.754	0.000	928523	40.0	43.5
11 Tetraethylene Glycol	12.015	12.018	-0.003	768996	80.0	33.2

Reagents:

SG_GlyICV_00052	Amount Added: 20.00	Units: uL
SG_GLY_ISTD_00105	Amount Added: 10.00	Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11051.D

Injection Date: 12-Jan-2023 10:36:22

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-B-2 MSD

Worklist Smp#: 51

Client ID:

Injection Vol: 1.0 ul

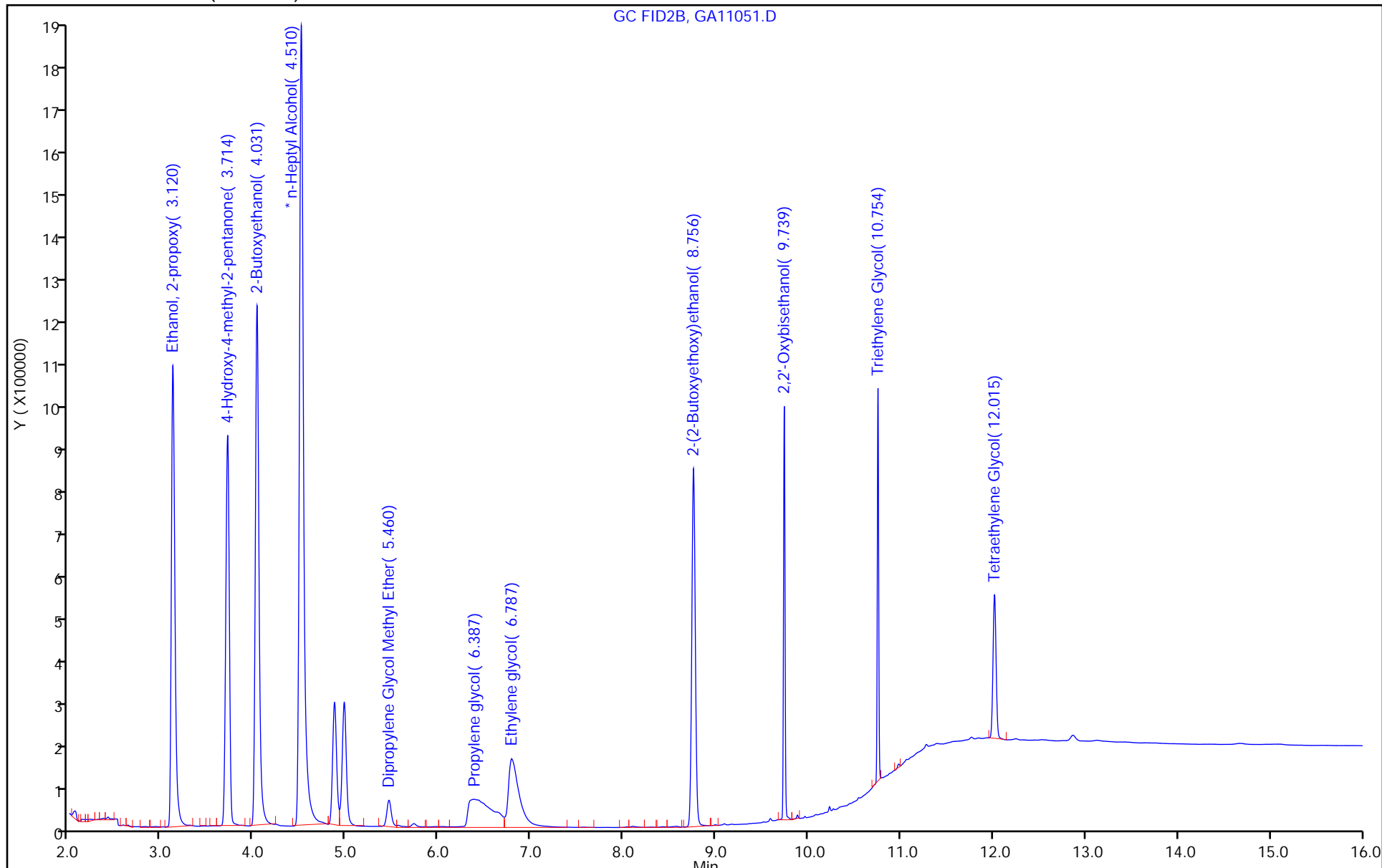
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11068.D
 Lims ID: 580-121933-B-8 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 12-Jan-2023 17:31:41 ALS Bottle#: 0 Worklist Smp#: 68
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0083226-068
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 13-Jan-2023 11:26:18 Calib Date: 11-Jan-2023 21:14:29
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11017.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy	3.112	3.117	-0.005	3017048	40.0	41.1
2 4-Hydroxy-4-methyl-2-pentanone	3.709	3.715	-0.006	2703709	40.0	37.6
3 2-Butoxyethanol	4.023	4.027	-0.004	3383771	40.0	42.5
* 4 n-Heptyl Alcohol	4.497	4.499	-0.002	4987322	50.0	50.0
5 Dipropylene Glycol Methyl Ether	5.458	5.463	-0.005	224925	40.0	44.4
6 Propylene glycol	6.427	6.460	-0.033	1070289	40.0	42.1
7 Ethylene glycol	6.795	6.812	-0.017	1228145	40.0	59.0
8 2-(2-Butoxyethoxy)ethanol	8.756	8.754	0.002	2420115	40.0	41.5
9 2,2'-Oxybisethanol	9.740	9.739	0.001	1011342	40.0	52.4
10 Triethylene Glycol	10.755	10.756	-0.001	862688	40.0	46.8
11 Tetraethylene Glycol	12.017	12.020	-0.003	609900	80.0	30.5

Reagents:

SG_GlylCV_00052 Amount Added: 20.00 Units: uL
 SG_GLY_ISTD_00105 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230111-83226.b\GA11068.D

Injection Date: 12-Jan-2023 17:31:41

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-121933-B-8 MSD

Worklist Smp#: 68

Client ID:

Injection Vol: 1.0 ul

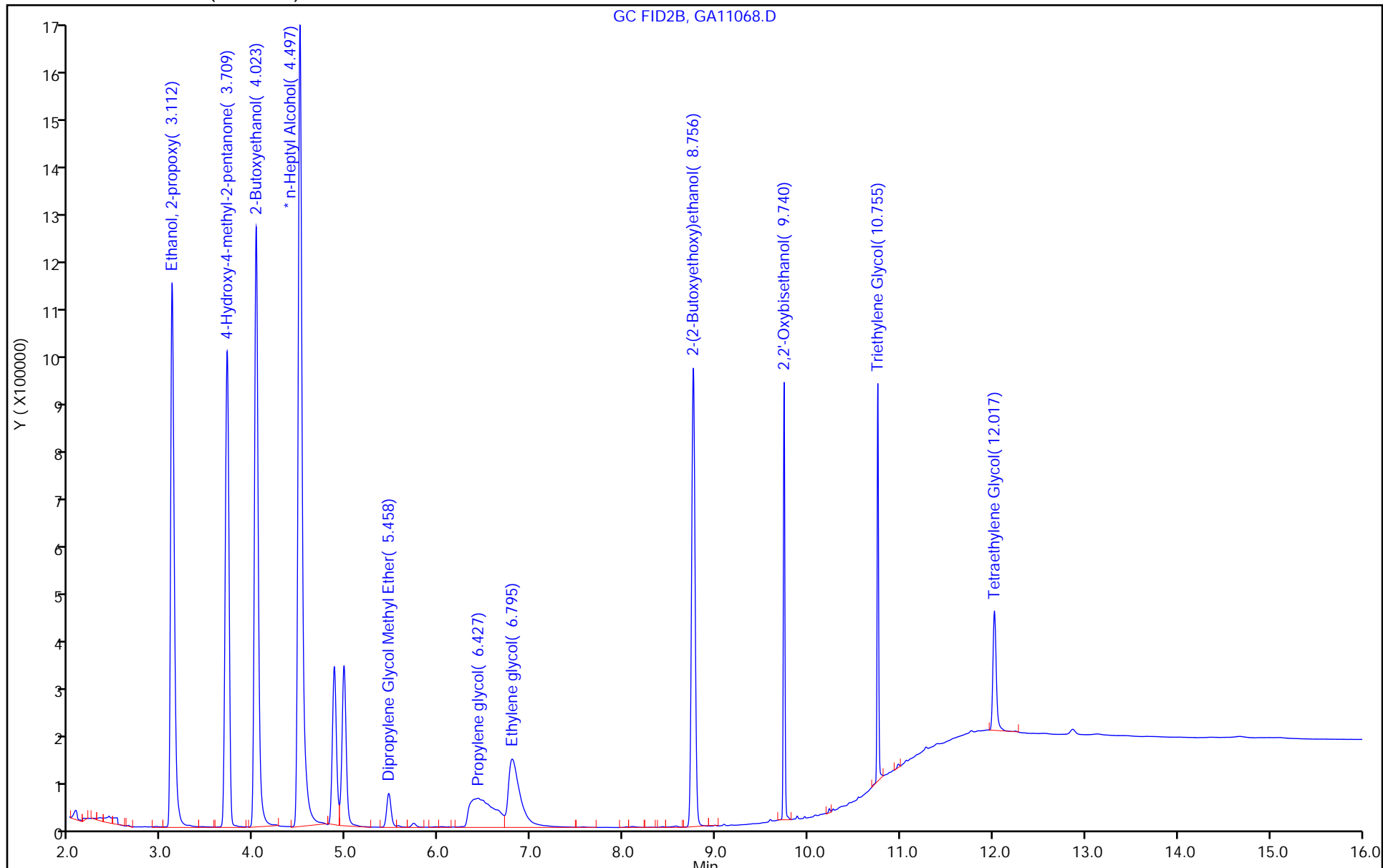
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Instrument ID: CVGG2 Start Date: 01/11/2023 19:18

Analysis Batch Number: 758737 End Date: 01/12/2023 05:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 680-758737/12		01/11/2023 19:18	1	GA11012.D	J&W DB WAX 0.45 (mm)
IC 680-758737/13		01/11/2023 19:41	1	GA11013.D	J&W DB WAX 0.45 (mm)
IC 680-758737/14		01/11/2023 20:04	1	GA11014.D	J&W DB WAX 0.45 (mm)
ICIS 680-758737/15		01/11/2023 20:28	1	GA11015.D	J&W DB WAX 0.45 (mm)
IC 680-758737/16		01/11/2023 20:51	1	GA11016.D	J&W DB WAX 0.45 (mm)
IC 680-758737/17		01/11/2023 21:14	1	GA11017.D	J&W DB WAX 0.45 (mm)
ICV 680-758737/18 CCV		01/11/2023 21:37	1	GA11018.D	J&W DB WAX 0.45 (mm)
LCS 680-758737/19		01/11/2023 22:13	1	GA11019.D	J&W DB WAX 0.45 (mm)
LCSD 680-758737/20		01/11/2023 22:36	1	GA11020.D	J&W DB WAX 0.45 (mm)
MB 680-758737/23		01/11/2023 23:45	1	GA11023.D	J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 00:09	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 00:32	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 00:55	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 01:18	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 01:42	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 02:05	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 02:28	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 02:51	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 03:15	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 03:38	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 04:01	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 04:24	1		J&W DB WAX 0.45 (mm)
CCV 680-758737/37		01/12/2023 05:11	1	GA11037.D	J&W DB WAX 0.45 (mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Instrument ID: CVGG2 Start Date: 01/11/2023 22:13

Analysis Batch Number: 758764 End Date: 01/12/2023 11:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
LCS 680-758764/19		01/11/2023 22:13	1	GA11019.D	J&W DB WAX 0.45 (mm)
LCSD 680-758764/20		01/11/2023 22:36	1	GA11020.D	J&W DB WAX 0.45 (mm)
MB 680-758764/23		01/11/2023 23:45	1	GA11023.D	J&W DB WAX 0.45 (mm)
CCVIS 680-758764/37		01/12/2023 05:11	1	GA11037.D	J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 06:20	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 06:43	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 07:07	1		J&W DB WAX 0.45 (mm)
580-121933-1	AF-RHMW06-WGN01LF-2301W1	01/12/2023 07:30	1	GA11043.D	J&W DB WAX 0.45 (mm)
580-121933-3	AF-RHMW16-WGN01LF-2301W1	01/12/2023 07:53	1	GA11044.D	J&W DB WAX 0.45 (mm)
580-121933-4	AF-RHMW12A-WGN01LF-2301W1	01/12/2023 08:16	1	GA11045.D	J&W DB WAX 0.45 (mm)
580-121933-5	AF-RHMW12A-WGFD01LF-2301W1	01/12/2023 08:40	1	GA11046.D	J&W DB WAX 0.45 (mm)
580-121933-6	AF-HDMW225303-WGN01LF-2301W1	01/12/2023 09:03	1	GA11047.D	J&W DB WAX 0.45 (mm)
580-121933-7	AF-RHMW10-WGN01LF-2301W1	01/12/2023 09:26	1	GA11048.D	J&W DB WAX 0.45 (mm)
580-121933-2	AF-RHMW04-WGN01LF-2301W1	01/12/2023 09:49	1	GA11049.D	J&W DB WAX 0.45 (mm)
580-121933-2 MS	AF-RHMW04-WGN01LF-2301W1 MS	01/12/2023 10:13	1	GA11050.D	J&W DB WAX 0.45 (mm)
580-121933-2 MSD	AF-RHMW04-WGN01LF-2301W1 MSD	01/12/2023 10:36	1	GA11051.D	J&W DB WAX 0.45 (mm)
CCV 680-758764/53		01/12/2023 11:42	1	GA11053.D	J&W DB WAX 0.45 (mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Instrument ID: CVGG2 Start Date: 01/11/2023 22:13

Analysis Batch Number: 758860 End Date: 01/12/2023 18:18

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		01/11/2023 22:13	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/11/2023 22:36	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/11/2023 23:45	1		J&W DB WAX 0.45 (mm)
CCVIS 680-758860/53		01/12/2023 11:42	1	GA11053.D	J&W DB WAX 0.45 (mm)
LCS 680-758860/56		01/12/2023 12:52	1	GA11056.D	J&W DB WAX 0.45 (mm)
LCSD 680-758860/57		01/12/2023 13:15	1	GA11057.D	J&W DB WAX 0.45 (mm)
MB 680-758860/60		01/12/2023 14:25	1	GA11060.D	J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 14:48	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 15:11	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 15:35	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 15:58	1		J&W DB WAX 0.45 (mm)
ZZZZZ		01/12/2023 16:21	1		J&W DB WAX 0.45 (mm)
580-121933-8	AF-RHMW10-WGFD01LF-23 01W1	01/12/2023 16:45	1	GA11066.D	J&W DB WAX 0.45 (mm)
580-121933-8 MS	AF-RHMW10-WGFD01LF-23 01W1 MS	01/12/2023 17:08	1	GA11067.D	J&W DB WAX 0.45 (mm)
580-121933-8 MSD	AF-RHMW10-WGFD01LF-23 01W1 MSD	01/12/2023 17:31	1	GA11068.D	J&W DB WAX 0.45 (mm)
CCV 680-758860/70		01/12/2023 18:18	1	GA11070.D	J&W DB WAX 0.45 (mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Batch Number: 758737 Batch Start Date: 01/11/23 19:18 Batch Analyst: Kellar, Joshua C

Batch Method: 8015C GLY Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00052	SG_GLY_ISTD 00105	SG_GlyICV 00052		
IC 680-758737/12		8015C GLY		1 mL	50 uL	10 uL			
IC 680-758737/13		8015C GLY		1 mL	40 uL	10 uL			
IC 680-758737/14		8015C GLY		1 mL	25 uL	10 uL			
ICIS 680-758737/15		8015C GLY		1 mL	10 uL	10 uL			
IC 680-758737/16		8015C GLY		1 mL	5 uL	10 uL			
IC 680-758737/17		8015C GLY		1 mL	2.5 uL	10 uL			
ICV 680-758737/18 CCV		8015C GLY		1 mL		10 uL	10 uL		
LCS 680-758737/19		8015C GLY		1 mL		10 uL	10 uL		
LCSD 680-758737/20		8015C GLY		1 mL		10 uL	10 uL		
MB 680-758737/23 CCV		8015C GLY		1 mL		10 uL			
CCV 680-758737/37		8015C GLY		1 mL	10 uL	10 uL			

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Batch Number: 758764 Batch Start Date: 01/11/23 22:13 Batch Analyst: Kellar, Joshua C

Batch Method: 8015C GLY Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00052	SG_GLY_ISTD 00105	SG_GlyICV 00052		
LCS 680-758764/19		8015C GLY		1 mL		10 uL	10 uL		
LCSD 680-758764/20		8015C GLY		1 mL		10 uL	10 uL		
MB 680-758764/23		8015C GLY		1 mL		10 uL			
CCVIS 680-758764/37		8015C GLY		1 mL	10 uL	10 uL			
580-121933-C-1	AF-RHMW06-WGN01L F-2301W1	8015C GLY	T	1 mL		10 uL			
580-121933-C-3	AF-RHMW16-WGN01L F-2301W1	8015C GLY	T	1 mL		10 uL			
580-121933-B-4	AF-RHMW12A-WGN01 LF-2301W1	8015C GLY	T	1 mL		10 uL			
580-121933-C-5	AF-RHMW12A-WGFD0 1LF-2301W1	8015C GLY	T	1 mL		10 uL			
580-121933-B-6	AF-HDMW225303-WG N01LF-2301W1	8015C GLY	T	1 mL		10 uL			
580-121933-C-7	AF-RHMW10-WGN01L F-2301W1	8015C GLY	T	1 mL		10 uL			
580-121933-B-2	AF-RHMW04-WGN01L F-2301W1	8015C GLY	T	1 mL		10 uL			
580-121933-B-2 MS	AF-RHMW04-WGN01L F-2301W1	8015C GLY	T	1 mL		10 uL	20 uL		
580-121933-B-2 MSD	AF-RHMW04-WGN01L F-2301W1	8015C GLY	T	1 mL		10 uL	20 uL		
CCV 680-758764/53		8015C GLY		1 mL	10 uL	10 uL			

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-121933-1

SDG No.: _____

Batch Number: 758860 Batch Start Date: 01/11/23 22:13 Batch Analyst: Kellar, Joshua C

Batch Method: 8015C GLY Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00052	SG_GLY_ISTD 00105	SG_GlyICV 00052		
CCVIS 680-758860/53		8015C GLY		1 mL	10 uL	10 uL			
LCS 680-758860/56		8015C GLY		1 mL		10 uL	10 uL		
LCSD 680-758860/57		8015C GLY		1 mL		10 uL	10 uL		
MB 680-758860/60		8015C GLY		1 mL		10 uL			
580-121933-B-8	AF-RHMW10-WGFD01 LF-2301W1	8015C GLY	T	1 mL		10 uL			
580-121933-B-8	AF-RHMW10-WGFD01 LF-2301W1	8015C GLY	T	1 mL		10 uL	20 uL		
580-121933-B-8	AF-RHMW10-WGFD01 LF-2301W1	8015C GLY	T	1 mL		10 uL	20 uL		
MSD									
CCV 680-758860/70		8015C GLY		1 mL	10 uL	10 uL			

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Subcontract Data

Shipping and Receiving Documents

Eurofins FGS, Seattle
 5755 8th Street East
 Tacoma, WA 98424

Chain of Custody Record

eurofins Environment Testing
 America

Client Information		Sample: <i>Tianzhun Nie</i>	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2301W1EUSav-08																												
Client Contact:		Phone: 808-382-8654	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1																												
Company: AECOM		PWSID:	Analysis Requested																														
Address: 1001 Bishop St. Suite 1600		Due Date Requested: see subcontract	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">NO 9/10/23</p> </div>																														
City: Honolulu		TAT Requested (days): Rush - ASAP																															
State, Zip: Hawaii 96813		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																															
Phone: 808-954-4512 / 770-331-0794		PO #:																															
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		WO #:																															
Project Name: CTO N6274223F0104		Project #: 60697810	<table border="1"> <tr> <th colspan="2">Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=Water, S=Soil, O=Other, F=Fuel, BT=Tissue, AA=Air)</th> <th>Preservation Codes</th> <th>Special Instructions/Note:</th> </tr> <tr> <td>AF-RHMW04-WGN01LF-2301W1</td> <td>4/4/23</td> <td>1205</td> <td>G</td> <td>W</td> <td>N N X</td> <td></td> <td></td> </tr> </table>			Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other, F=Fuel, BT=Tissue, AA=Air)	Preservation Codes	Special Instructions/Note:	AF-RHMW04-WGN01LF-2301W1	4/4/23	1205	G	W	N N X														
Sample Identification		Sample Date				Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other, F=Fuel, BT=Tissue, AA=Air)	Preservation Codes	Special Instructions/Note:																							
AF-RHMW04-WGN01LF-2301W1	4/4/23	1205	G	W	N N X																												
Site: RHSF		SSOW#:	<table border="1"> <tr> <th colspan="2">Preservation Codes:</th> </tr> <tr> <td>A - HCL</td> <td>M - Hexane</td> </tr> <tr> <td>B - NaOH</td> <td>N - None</td> </tr> <tr> <td>C - Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td>D - Nitric Acid</td> <td>P - Na2O4S</td> </tr> <tr> <td>E - NaHSO4</td> <td>Q - Na2SO3</td> </tr> <tr> <td>F - MeOH</td> <td>R - Na2S2O3</td> </tr> <tr> <td>G - Amchlor</td> <td>S - H2SO4</td> </tr> <tr> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> </tr> <tr> <td>I - Ice</td> <td>U - Acetone</td> </tr> <tr> <td>J - DI Water</td> <td>V - MCAA</td> </tr> <tr> <td>K - EDTA</td> <td>W - pH 4-5</td> </tr> <tr> <td>L - EDTA</td> <td>Z - other (specify)</td> </tr> <tr> <td colspan="2">Other:</td> </tr> </table>			Preservation Codes:		A - HCL	M - Hexane	B - NaOH	N - None	C - Zn Acetate	O - AsNaO2	D - Nitric Acid	P - Na2O4S	E - NaHSO4	Q - Na2SO3	F - MeOH	R - Na2S2O3	G - Amchlor	S - H2SO4	H - Ascorbic Acid	T - TSP Dodecahydrate	I - Ice	U - Acetone	J - DI Water	V - MCAA	K - EDTA	W - pH 4-5	L - EDTA	Z - other (specify)	Other:	
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Other:																																	
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																															
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																															
Deliverable Requested: I, II, III, IV, Other (specify)		Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT AECOM EQUS EDD		Special Instructions/QC Requirements: DOD QSM project.																													
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:																													
Relinquished by: <i>Tianzhun Nie</i>	Date/Time: 4/4/23 1345	Company: AECOM	Received by: <i>Miranda Desrosiers</i>	Date/Time: 4/4/23 1345	Company: AECOM																												
Relinquished by: <i>Miranda Desrosiers</i>	Date/Time: 4/4/23 1358	Company: AECOM	Received by: <i>[Signature]</i>	Date/Time: 4/6/23 1030	Company:																												
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:																												
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) and Other Remarks: 4.5/4.5																															

Ver. 01/16/2019

Chain of Custody Record

Client Information		Sampler: <i>NOBEE VIKATOSU</i>		Lab PM: Elaine Walker		Carrier Tracking No(s): FedEx		COC No: 2301W1EUSav-06	
Client Contact:		Phone: <i>224-645-7872</i>		E-Mail: M.Elaine.Walker@EurofinsET.com		State of Origin: Hawaii		Page: Page 1 of 1	
Company: AECOM		PWSID:		Analysis Requested				Job #:	
Address: 1001 Bishop St. Suite 1600		Due Date Requested: see subcontract		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol</div> <div style="text-align: center; font-size: 2em;"> <i>MD 1/04/23</i> </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Number of Samples</div> </div>				Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:	
City: Honolulu		TAT Requested (days): Rush - ASAP							
State, Zip: Hawaii 96813		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone: 808-954-4512 / 770-331-0794		PO #:							
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		WO #:							
Project Name: CTO N6274223F0104		Project #: 60697810							
Site: RHSF		SSCW#:							
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=organic, ET=Tissue, AA=Air)	Preservation Code:		Special Instructions/Note:	
AF-RHMW12A-WGN01LF-2301W1		<i>1/4/23</i>	<i>0940</i>	G	W	N	N	X	
AF-RHMW12A-WGFD01LF-2301W1		<i>1/4/23</i>	<i>0940</i>	G	W	N	N	X	
<i>MD 01/04/23</i>									
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EquiS EDD.				
Special Instructions/QC Requirements: DOD QSM project									
Empty Kit Relinquished by					Method of Shipment:				
Relinquished by: <i>JV</i>		Date/Time: <i>1/4/23 1205</i>	Company: AECOM	Received by: <i>Miranda DeArms</i>	Date/Time: <i>1/4/23 1205</i>	Company: <i>AECOM</i>			
Relinquished by: <i>Miranda DeArms</i>		Date/Time: <i>1/4/23 1215</i>	Company: <i>AECOM</i>	Received by: <i>CAJ</i>	Date/Time: <i>1/6/23 1030</i>	Company:			
Relinquished by:		Date/Time:	Company:	Received by:	Date/Time:	Company:			
Custody Seals Intact Custody Seal No.:					Cooler Temperature(s) °C and Other Remarks:				

4.5/4.5 Ver: 01/16/2019

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-121933-1

Login Number: 121933
List Number: 2
Creator: Johnson, Corey M

List Source: Eurofins Savannah
List Creation: 01/11/23 01:01 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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?	N/A	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	