

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

Attn: Terri Choy
AECOM

1001 Bishop Street
Honolulu HI 96813

Generated 4/6/2023 1:31 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-125379-1

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: 580-125379-1

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: 580-125379-1

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

Six samples were received on 3/30/2023 1:00 PM. 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 2.2° 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-RHMW16-WGN01LF-2303W4 (580-125379-1), AF-RHMW10-WGN01LF-2303W4 (580-125379-2), AF-HDMW225303-WGN01LF-2303W4 (580-125379-3), AF-RHMW225401-WGN01B-2303W4 (580-125379-4), AF-RHMW12A-WGN01LF-2303W4 (580-125379-5) and AF-RHMW12A-WGFD01LF-2303W4 (580-125379-6) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 04/05/2023.

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: 580-125379-1

Client Sample ID: AF-RHMW16-WGN01LF-2303W4

Lab Sample ID: 580-125379-1

No Detections.

Client Sample ID: AF-RHMW10-WGN01LF-2303W4

Lab Sample ID: 580-125379-2

No Detections.

Client Sample ID: AF-HDMW225303-WGN01LF-2303W4

Lab Sample ID: 580-125379-3

No Detections.

Client Sample ID: AF-RHMW225401-WGN01B-2303W4

Lab Sample ID: 580-125379-4

No Detections.

Client Sample ID: AF-RHMW12A-WGN01LF-2303W4

Lab Sample ID: 580-125379-5

No Detections.

Client Sample ID: AF-RHMW12A-WGFD01LF-2303W4

Lab Sample ID: 580-125379-6

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: 580-125379-1

Client Sample ID: AF-RHMW16-WGN01LF-2303W4

Lab Sample ID: 580-125379-1

Date Collected: 03/27/23 13:50

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 00:35	1

Client Sample ID: AF-RHMW10-WGN01LF-2303W4

Lab Sample ID: 580-125379-2

Date Collected: 03/28/23 12:55

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 00:58	1

Client Sample ID: AF-HDMW225303-WGN01LF-2303W4

Lab Sample ID: 580-125379-3

Date Collected: 03/28/23 10:20

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 01:21	1

Client Sample ID: AF-RHMW225401-WGN01B-2303W4

Lab Sample ID: 580-125379-4

Date Collected: 03/29/23 10:35

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 01:45	1

Client Sample ID: AF-RHMW12A-WGN01LF-2303W4

Lab Sample ID: 580-125379-5

Date Collected: 03/27/23 11:25

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 02:08	1

Client Sample ID: AF-RHMW12A-WGFD01LF-2303W4

Lab Sample ID: 580-125379-6

Date Collected: 03/27/23 11:25

Matrix: Water

Date Received: 03/30/23 13:00

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			04/05/23 02:31	1

Default Detection Limits

Client: AECOM

Job ID: 580-125379-1

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: 580-125379-1

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

Lab Sample ID: MB 680-771309/11
Matrix: Water
Analysis Batch: 771309

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 M	5.0	1.1	mg/L			04/04/23 15:14	1

Lab Sample ID: LCS 680-771309/5
Matrix: Water
Analysis Batch: 771309

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	20.6		mg/L		103	50 - 150

Lab Sample ID: LCSD 680-771309/6
Matrix: Water
Analysis Batch: 771309

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	22.0		mg/L		110	50 - 150	7	50

Lab Sample ID: 580-125379-2 MS
Matrix: Water
Analysis Batch: 771309

Client Sample ID: AF-RHMW10-WGN01LF-2303W4
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 M	20.0	27.2		mg/L		136	50 - 150

Lab Sample ID: 580-125379-2 MSD
Matrix: Water
Analysis Batch: 771309

Client Sample ID: AF-RHMW10-WGN01LF-2303W4
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 M	20.0	25.2		mg/L		126	50 - 150	8	50

QC Association Summary

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

Job ID: 580-125379-1

GC Semi VOA

Analysis Batch: 771309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-125379-1	AF-RHMW16-WGN01LF-2303W4	Total/NA	Water	8015C GLY	
580-125379-2	AF-RHMW10-WGN01LF-2303W4	Total/NA	Water	8015C GLY	
580-125379-3	AF-HDMW225303-WGN01LF-2303W4	Total/NA	Water	8015C GLY	
580-125379-4	AF-RHMW225401-WGN01B-2303W4	Total/NA	Water	8015C GLY	
580-125379-5	AF-RHMW12A-WGN01LF-2303W4	Total/NA	Water	8015C GLY	
580-125379-6	AF-RHMW12A-WGFD01LF-2303W4	Total/NA	Water	8015C GLY	
MB 680-771309/11	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-771309/5	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-771309/6	Lab Control Sample Dup	Total/NA	Water	8015C GLY	
580-125379-2 MS	AF-RHMW10-WGN01LF-2303W4	Total/NA	Water	8015C GLY	
580-125379-2 MSD	AF-RHMW10-WGN01LF-2303W4	Total/NA	Water	8015C GLY	

Lab Chronicle

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

Job ID: 580-125379-1

Client Sample ID: AF-RHMW16-WGN01LF-2303W4

Lab Sample ID: 580-125379-1

Date Collected: 03/27/23 13:50

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 00:35

Client Sample ID: AF-RHMW10-WGN01LF-2303W4

Lab Sample ID: 580-125379-2

Date Collected: 03/28/23 12:55

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 00:58

Client Sample ID: AF-HDMW225303-WGN01LF-2303W4

Lab Sample ID: 580-125379-3

Date Collected: 03/28/23 10:20

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 01:21

Client Sample ID: AF-RHMW225401-WGN01B-2303W4

Lab Sample ID: 580-125379-4

Date Collected: 03/29/23 10:35

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 01:45

Client Sample ID: AF-RHMW12A-WGN01LF-2303W4

Lab Sample ID: 580-125379-5

Date Collected: 03/27/23 11:25

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 02:08

Client Sample ID: AF-RHMW12A-WGFD01LF-2303W4

Lab Sample ID: 580-125379-6

Date Collected: 03/27/23 11:25

Matrix: Water

Date Received: 03/30/23 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	771309	JCK	EET SAV	04/05/23 02:31

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM

Job ID: 580-125379-1

Project/Site: Red Hill - AFFF Assessment Sampling

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: 580-125379-1

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: 580-125379-1

Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-125379-1	AF-RHMW16-WGN01LF-2303W4	Water	03/27/23 13:50	03/30/23 13:00
580-125379-2	AF-RHMW10-WGN01LF-2303W4	Water	03/28/23 12:55	03/30/23 13:00
580-125379-3	AF-HDMW225303-WGN01LF-2303W4	Water	03/28/23 10:20	03/30/23 13:00
580-125379-4	AF-RHMW225401-WGN01B-2303W4	Water	03/29/23 10:35	03/30/23 13:00
580-125379-5	AF-RHMW12A-WGN01LF-2303W4	Water	03/27/23 11:25	03/30/23 13:00
580-125379-6	AF-RHMW12A-WGFD01LF-2303W4	Water	03/27/23 11:25	03/30/23 13:00

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-125379-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 770932

Lab Sample ID: IC 680-770932/4 Client Sample ID: _____

Date Analyzed: 04/02/23 14:09 Lab File ID: GD02004.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	5.98	Baseline Smoothing	SWK1	04/03/23 10:27
Ethylene glycol	6.24	Baseline Smoothing	SWK1	04/03/23 10:27

Lab Sample ID: IC 680-770932/5 Client Sample ID: _____

Date Analyzed: 04/02/23 14:33 Lab File ID: GD02005.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	5.99	Baseline Smoothing	SWK1	04/03/23 10:27
Ethylene glycol	6.23	Baseline Smoothing	SWK1	04/03/23 10:27

Lab Sample ID: IC 680-770932/6 Client Sample ID: _____

Date Analyzed: 04/02/23 14:56 Lab File ID: GD02006.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.02	Baseline Smoothing	SWK1	04/03/23 10:27
Ethylene glycol	6.24	Baseline Smoothing	SWK1	04/03/23 10:27

Lab Sample ID: ICIS 680-770932/7 Client Sample ID: _____

Date Analyzed: 04/02/23 15:20 Lab File ID: GD02007.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.03	Baseline Smoothing	SWK1	04/03/23 10:27
Ethylene glycol	6.25	Baseline Smoothing	SWK1	04/03/23 10:27

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-125379-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 770932

Lab Sample ID: IC 680-770932/8 Client Sample ID: _____

Date Analyzed: 04/02/23 15:43 Lab File ID: GD02008.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.03	Baseline Smoothing	SWK1	04/03/23 10:25
Ethylene glycol	6.24	Baseline Smoothing	SWK1	04/03/23 10:25

Lab Sample ID: IC 680-770932/9 Client Sample ID: _____

Date Analyzed: 04/02/23 16:06 Lab File ID: GD02009.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.04	Baseline Smoothing	SWK1	04/03/23 10:24
Ethylene glycol	6.24	Baseline Smoothing	SWK1	04/03/23 10:24

Lab Sample ID: IC 680-770932/10 Client Sample ID: _____

Date Analyzed: 04/02/23 16:30 Lab File ID: GD02010.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.03	Baseline Smoothing	SWK1	04/03/23 10:25
Ethylene glycol	6.25	Baseline Smoothing	SWK1	04/03/23 10:25

Lab Sample ID: ICV 680-770932/11 CCV Client Sample ID: _____

Date Analyzed: 04/02/23 16:53 Lab File ID: GD02011.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.03	Baseline Smoothing	SWK1	04/03/23 10:25
Ethylene glycol	6.25	Baseline Smoothing	SWK1	04/03/23 10:25

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-125379-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 771309

Lab Sample ID: CCVIS 680-771309/4 Client Sample ID: _____

Date Analyzed: 04/04/23 12:30 Lab File ID: GD04004.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Butoxyethanol	3.56	Baseline Smoothing	SK9U	04/04/23 12:51

Lab Sample ID: MB 680-771309/11 Client Sample ID: _____

Date Analyzed: 04/04/23 15:14 Lab File ID: GD04011.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	SK9U	04/04/23 18:12

Lab Sample ID: 580-125379-1 Client Sample ID: AF-RHMW16-WGN01LF-2303W4

Date Analyzed: 04/05/23 00:35 Lab File ID: GD04035.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	04/05/23 10:48

Lab Sample ID: 580-125379-2 Client Sample ID: AF-RHMW10-WGN01LF-2303W4

Date Analyzed: 04/05/23 00:58 Lab File ID: GD04036.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	04/05/23 10:48

Lab Sample ID: 580-125379-3 Client Sample ID: AF-HDMW225303-WGN01LF-2303W4

Date Analyzed: 04/05/23 01:21 Lab File ID: GD04037.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	04/05/23 10:48

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-125379-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 771309

Lab Sample ID: 580-125379-4 Client Sample ID: AF-RHMW225401-WGN01B-2303W4

Date Analyzed: 04/05/23 01:45 Lab File ID: GD04038.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	04/05/23 10:48

Lab Sample ID: 580-125379-5 Client Sample ID: AF-RHMW12A-WGN01LF-2303W4

Date Analyzed: 04/05/23 02:08 Lab File ID: GD04039.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	04/05/23 10:48

Lab Sample ID: 580-125379-6 Client Sample ID: AF-RHMW12A-WGFD01LF-2303W4

Date Analyzed: 04/05/23 02:31 Lab File ID: GD04040.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	04/05/23 10:48

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-125379-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SG_Gly_CAL_00054	06/27/23		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_00106	05/22/23		Agilent, Lot 0006720623			(Purchased Reagent)	n-Heptyl Alcohol	5000 ug/mL
SG_GlyICV_00059	06/27/23		o2si, Lot 454407			(Purchased Reagent)	2-(2-Butoxyethoxy)ethanol	2000 ug/mL

Reagent

SG_Gly_CAL_00054



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



ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

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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:

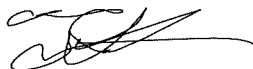


Brian Stokes

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

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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.

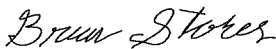
Expiration Information:

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

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Released By:



Susan Mathews

14 -Jun-2022

Quality Control Team Lead

Reagent

SG_GLY_ISTD_00106

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:

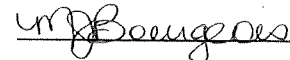
The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise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



ISO 17034 Cert
No. AR-1936

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

Reagent

SG_GlyICV_00059



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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

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:

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

$u_c = (u_{char}^2 + u_{tran}^2 + u_{homo}^2 + u_{lis}^2)^{1/2}$ 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

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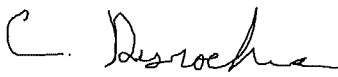


Jared Ball

1 -Jul-2021

Quality Control Chemist I

Certified By:



Claire Desrochers

7 -Jul-2021

Quality Control Chemist I

Released By:



Susan Mathews

8 -Jul-2021

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-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:

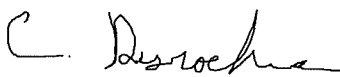


Jared Ball

1 -Jul-2021

Quality Control Chemist I

Certified By:

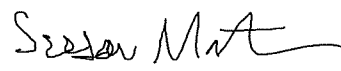


Claire Desrochers

7 -Jul-2021

Quality Control Chemist I

Released By:



Susan Mathews

8 -Jul-2021

Quality Control Team Lead

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Phone: 866.272.0932 • Fax: 866.509.5146 www.o2si.com

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.: 580-125379-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GD04005.D
 Lab ID: LCS 680-771309/5 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy) ethanol	20.0	20.6	103	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.: 580-125379-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GD04006.D
 Lab ID: LCSD 680-771309/6 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy) ethanol	20.0	22.0	110	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.: 580-125379-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GD04041.D
 Lab ID: 580-125379-2 MS Client ID: AF-RHWW10-WGN01LF-2303W4 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy) ethanol	20.0	3.0 U	27.2	136	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.: 580-125379-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GD04042.D
 Lab ID: 580-125379-2 MSD Client ID: AF-RHMW10-WGN01LF-2303W4 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy) ethanol	20.0	25.2	126	8	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.: 580-125379-1
 SDG No.: _____
 Lab Sample ID: MB 680-771309/11
 Matrix: Water Date Extracted: _____
 Lab File ID: (1) GD04011.D Lab File ID: (2) _____
 Date Analyzed: (1) 04/04/2023 15:14 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 680-771309/5	04/04/2023 12:54	
	LCSD 680-771309/6	04/04/2023 13:17	
AF-RHMW16-WGN01LF-2303W4	580-125379-1	04/05/2023 00:35	
AF-RHMW10-WGN01LF-2303W4	580-125379-2	04/05/2023 00:58	
AF-HDMW225303-WGN01LF-2303W4	580-125379-3	04/05/2023 01:21	
AF-RHMW225401-WGN01B-2303W4	580-125379-4	04/05/2023 01:45	
AF-RHMW12A-WGN01LF-2303W4	580-125379-5	04/05/2023 02:08	
AF-RHMW12A-WGFD01LF-2303W4	580-125379-6	04/05/2023 02:31	
AF-RHMW10-WGN01LF-2303W4 MS	580-125379-2 MS	04/05/2023 02:54	
AF-RHMW10-WGN01LF-2303W4 MSD	580-125379-2 MSD	04/05/2023 03:18	

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

Lab Name: Eurofins Savannah Job No.: 580-125379-1
 SDG No.: _____
 Sample No.: ICIS 680-770932/7 Date Analyzed: 04/02/2023 15:20
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm)
 Lab File ID (Standard): GD02007.D Heated Purge: (Y/N) N
 Calibration ID: 90409

	nHPA		#	RT #	#	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	5447082	3.97				
UPPER LIMIT	10894164	4.47				
LOWER LIMIT	2723541	3.47				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 680-770932/11 CCV		5993944	3.97			

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.: 580-125379-1
 SDG No.: _____
 Sample No.: CCVIS 680-771309/4 Date Analyzed: 04/04/2023 12:30
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm)
 Lab File ID (Standard): GD04004.D Heated Purge: (Y/N) N
 Calibration ID: 90409

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		5455876	3.99				
UPPER LIMIT		10911752	4.49				
LOWER LIMIT		2727938	3.49				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 680-771309/5		5377829	3.99				
LCSD 680-771309/6		5298494	3.98				
MB 680-771309/11		5970542	3.98				
CCV 680-771309/28		5110475	3.97				
580-125379-1	AF-RHMW16-WGN01LF-2 303W4	4712438	3.96				
580-125379-2	AF-RHMW10-WGN01LF-2 303W4	4887036	3.96				
580-125379-3	AF-HDMW225303-WGN01 LF-2303W4	4765853	3.96				
580-125379-4	AF-RHMW225401-WGN01 B-2303W4	5727571	3.97				
580-125379-5	AF-RHMW12A-WGN01LF- 2303W4	5010793	3.97				
580-125379-6	AF-RHMW12A-WGFD01LF -2303W4	4904690	3.97				
580-125379-2 MS	AF-RHMW10-WGN01LF-2 303W4 MS	5008115	3.97				
580-125379-2 MSD	AF-RHMW10-WGN01LF-2 303W4 MSD	4947367	3.97				
CCV 680-771309/44		4830901	3.97				

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.: 580-125379-1
 SDG No.: _____
 Client Sample ID: AF-RHWW16-WGN01LF-2303W4 Lab Sample ID: 580-125379-1
 Matrix: Water Lab File ID: GD04035.D
 Analysis Method: 8015C GLY Date Collected: 03/27/2023 13:50
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 04/05/2023 00:35
 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.: 771309 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\20230404-84931.b\GD04035.D
 Lims ID: 580-125379-B-1
 Client ID: AF-RHMW16-WGN01LF-2303W4
 Sample Type: Client
 Inject. Date: 05-Apr-2023 00:35:07 ALS Bottle#: 0 Worklist Smp#: 35
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-035
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 05-Apr-2023 10:49:00 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1633

First Level Reviewer: SWK1 Date: 05-Apr-2023 10:48:45

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

* 4 n-Heptyl Alcohol
 3.962 3.969 -0.007 4712438 50.0

QC Flag Legend

Processing Flags

Reagents:

SG_GLY_ISTD_00106 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04035.D

Injection Date: 05-Apr-2023 00:35:07

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-125379-B-1

Lab Sample ID: 680-125379-1

Worklist Smp#: 35

Client ID: AF-RHMW16-WGN01LF-2303W4

Injection Vol: 1.0 ul

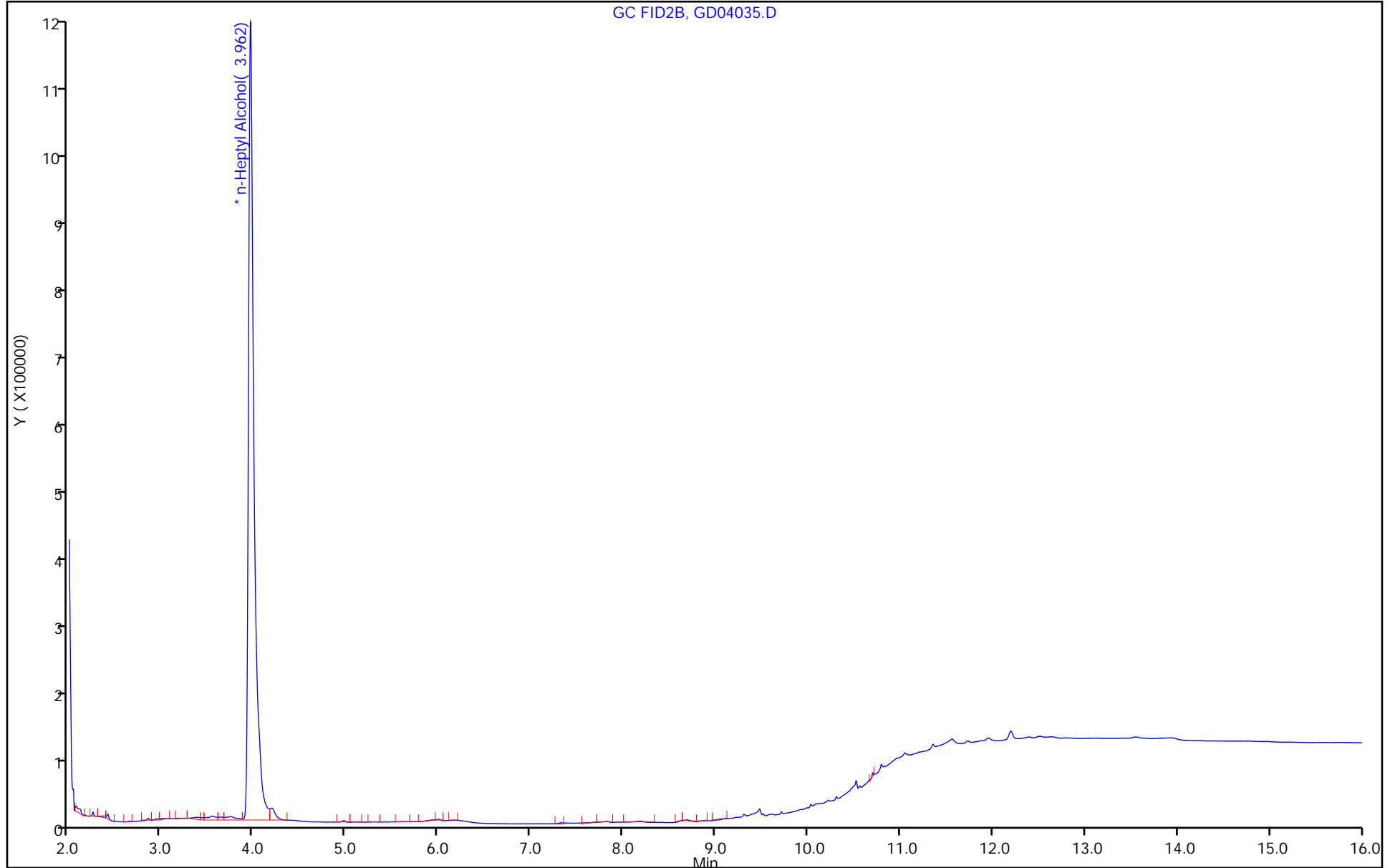
Dil. Factor: 1.0000

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.: 580-125379-1
 SDG No.: _____
 Client Sample ID: AF-RHMW10-WGN01LF-2303W4 Lab Sample ID: 580-125379-2
 Matrix: Water Lab File ID: GD04036.D
 Analysis Method: 8015C GLY Date Collected: 03/28/2023 12:55
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 04/05/2023 00:58
 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.: 771309 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\20230404-84931.b\GD04036.D
 Lims ID: 580-125379-C-2
 Client ID: AF-RHMW10-WGN01LF-2303W4
 Sample Type: Client
 Inject. Date: 05-Apr-2023 00:58:24 ALS Bottle#: 0 Worklist Smp#: 36
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-036
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 05-Apr-2023 10:49:00 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1633

First Level Reviewer: SWK1 Date: 05-Apr-2023 10:48:49

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol
 3.961 3.969 -0.008 4887036 50.0

QC Flag Legend

Processing Flags

Reagents:

SG_GLY_ISTD_00106 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04036.D

Injection Date: 05-Apr-2023 00:58:24

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-125379-C-2

Lab Sample ID: 680-125379-2

Worklist Smp#: 36

Client ID: AF-RHMW10-WGN01LF-2303W4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

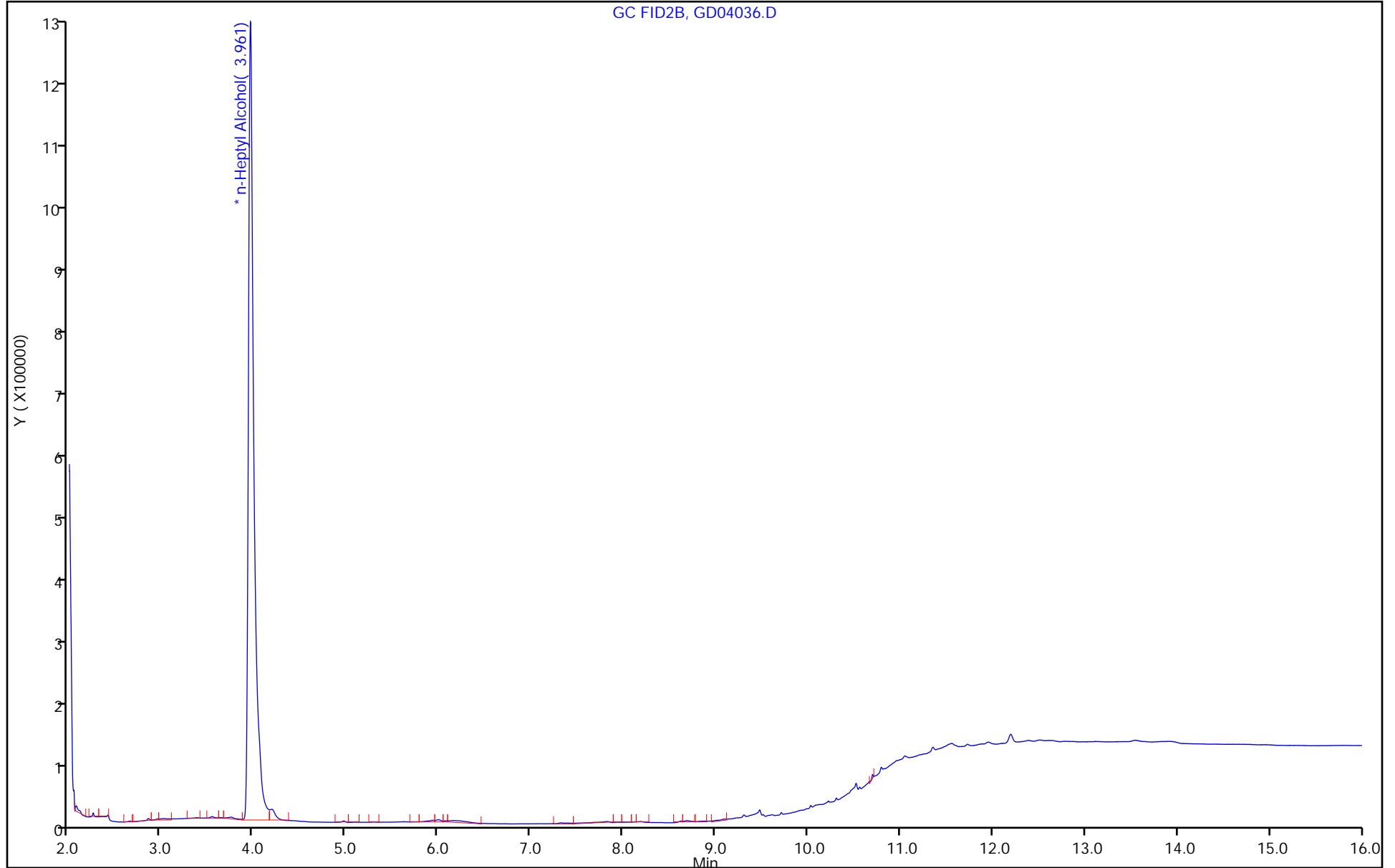
ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)

GC FID2B, GD04036.D



Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04037.D
 Lims ID: 580-125379-A-3
 Client ID: AF-HDMW225303-WGN01LF-2303W4
 Sample Type: Client
 Inject. Date: 05-Apr-2023 01:21:46 ALS Bottle#: 0 Worklist Smp#: 37
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-037
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 05-Apr-2023 10:49:00 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1633

First Level Reviewer: SWK1 Date: 05-Apr-2023 10:48:52

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol
 3.963 3.969 -0.006 4765853 50.0

QC Flag Legend

Processing Flags

Reagents:

SG_GLY_ISTD_00106 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04037.D

Injection Date: 05-Apr-2023 01:21:46

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-125379-A-3

Lab Sample ID: 680-125379-3

Worklist Smp#: 37

Client ID: AF-HDMW225303-WGN01LF-2303W4

Injection Vol: 1.0 ul

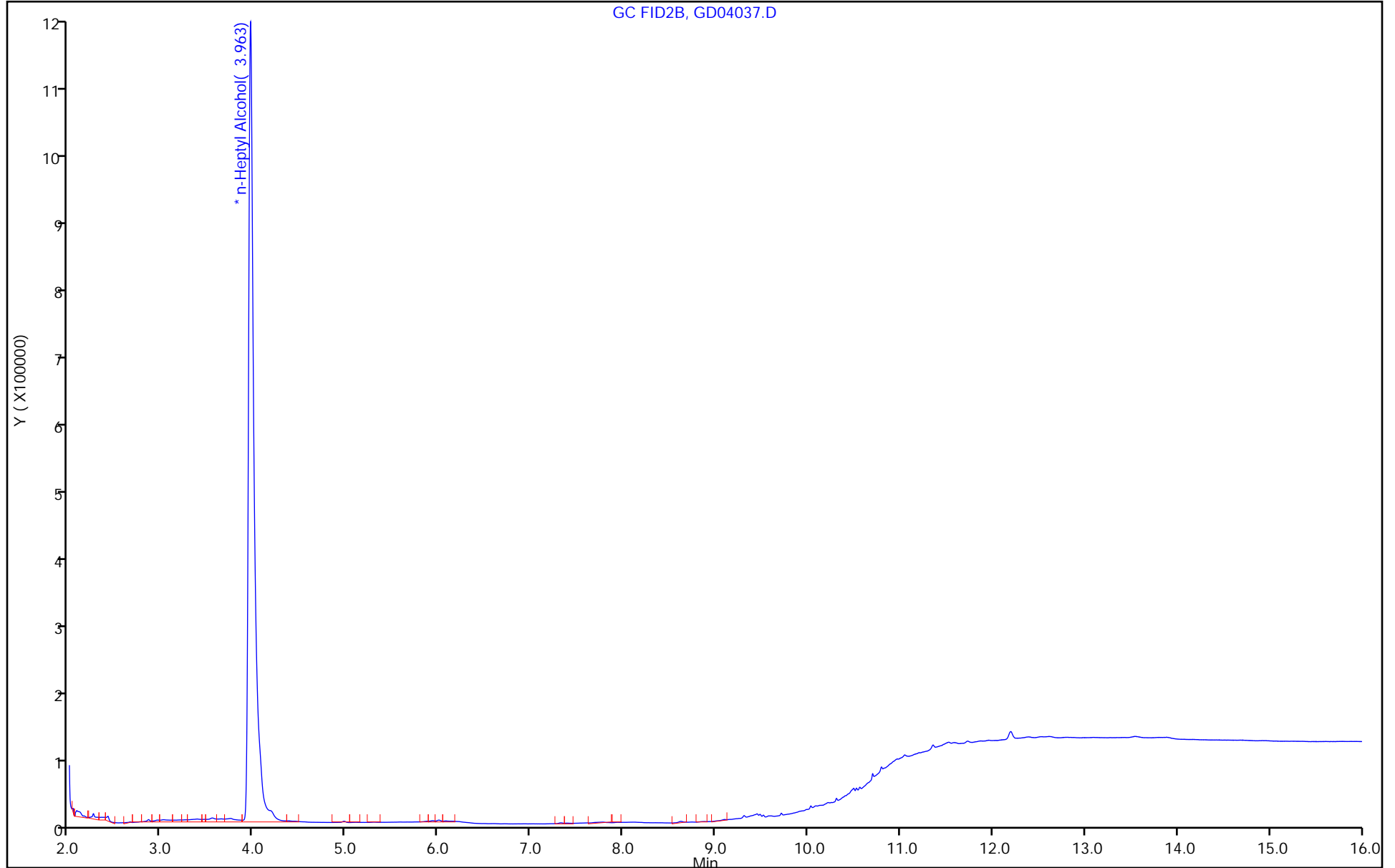
Dil. Factor: 1.0000

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.: 580-125379-1
SDG No.: _____
Client Sample ID: AF-RHMW225401-WGN01B-2303 Lab Sample ID: 580-125379-4
W4
Matrix: Water Lab File ID: GD04038.D
Analysis Method: 8015C GLY Date Collected: 03/29/2023 10:35
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 1(mL) Date Analyzed: 04/05/2023 01:45
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.: 771309 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\20230404-84931.b\GD04038.D
 Lims ID: 580-125379-A-4
 Client ID: AF-RHMW225401-WGN01B-2303W4
 Sample Type: Client
 Inject. Date: 05-Apr-2023 01:45:02 ALS Bottle#: 0 Worklist Smp#: 38
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-038
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 05-Apr-2023 10:49:00 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1633

First Level Reviewer: SWK1 Date: 05-Apr-2023 10:48:55

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol
 3.970 3.969 0.001 5727571 50.0

QC Flag Legend

Processing Flags

Reagents:

SG_GLY_ISTD_00106 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04038.D

Injection Date: 05-Apr-2023 01:45:02

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-125379-A-4

Lab Sample ID: 680-125379-4

Worklist Smp#: 38

Client ID: AF-RHMW225401-WGN01B-2303W4

Injection Vol: 1.0 ul

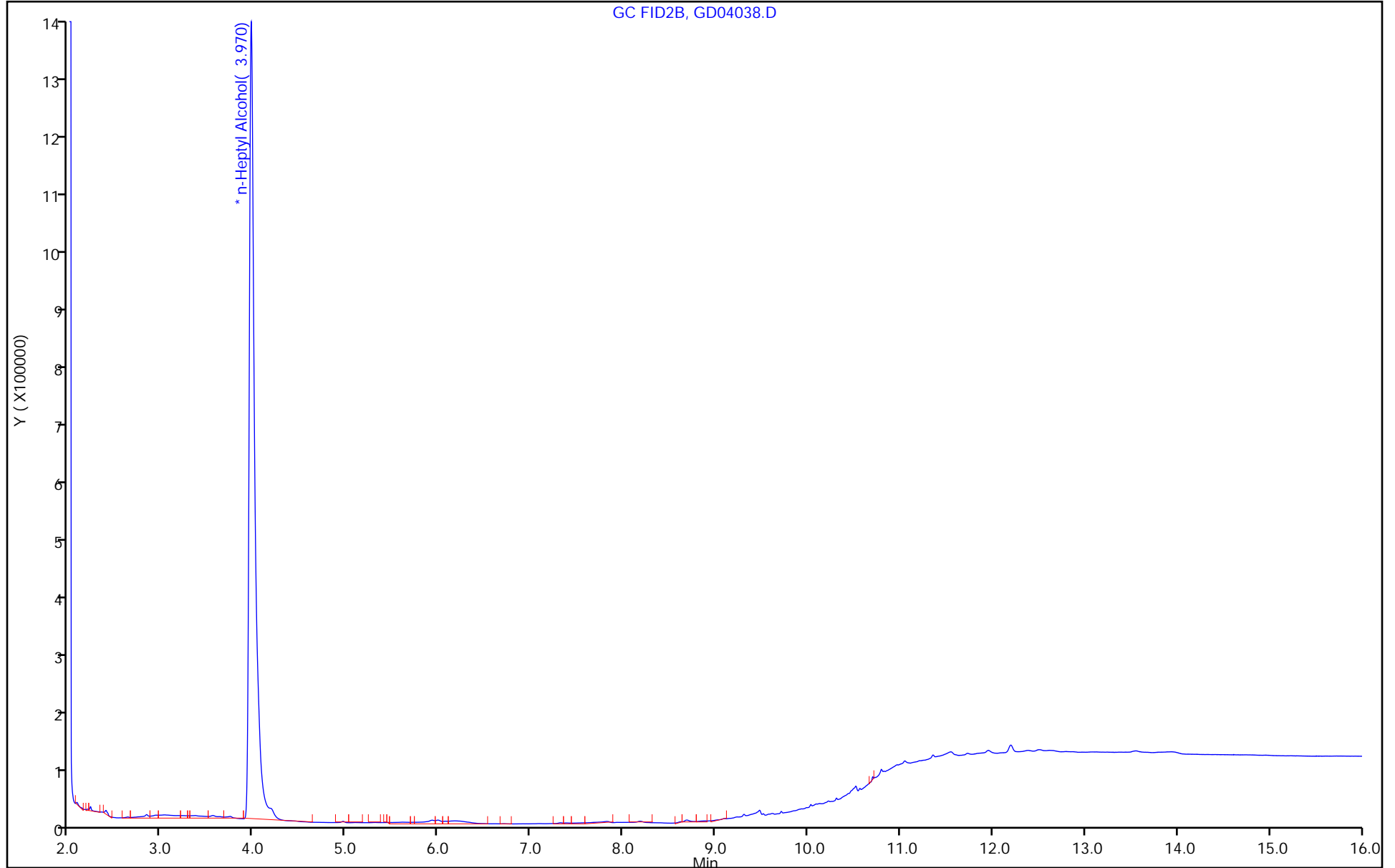
Dil. Factor: 1.0000

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.: 580-125379-1
 SDG No.: _____
 Client Sample ID: AF-RHMW12A-WGN01LF-2303W4 Lab Sample ID: 580-125379-5
 Matrix: Water Lab File ID: GD04039.D
 Analysis Method: 8015C GLY Date Collected: 03/27/2023 11:25
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 04/05/2023 02:08
 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.: 771309 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\20230404-84931.b\GD04039.D
 Lims ID: 580-125379-A-5
 Client ID: AF-RHMW12A-WGN01LF-2303W4
 Sample Type: Client
 Inject. Date: 05-Apr-2023 02:08:18 ALS Bottle#: 0 Worklist Smp#: 39
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-039
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 05-Apr-2023 10:49:00 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1633

First Level Reviewer: SWK1 Date: 05-Apr-2023 10:48:58

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol
 3.967 3.969 -0.002 5010793 50.0

QC Flag Legend

Processing Flags

Reagents:

SG_GLY_ISTD_00106 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04039.D

Injection Date: 05-Apr-2023 02:08:18

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-125379-A-5

Lab Sample ID: 680-125379-5

Worklist Smp#: 39

Client ID: AF-RHMW12A-WGN01LF-2303W4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

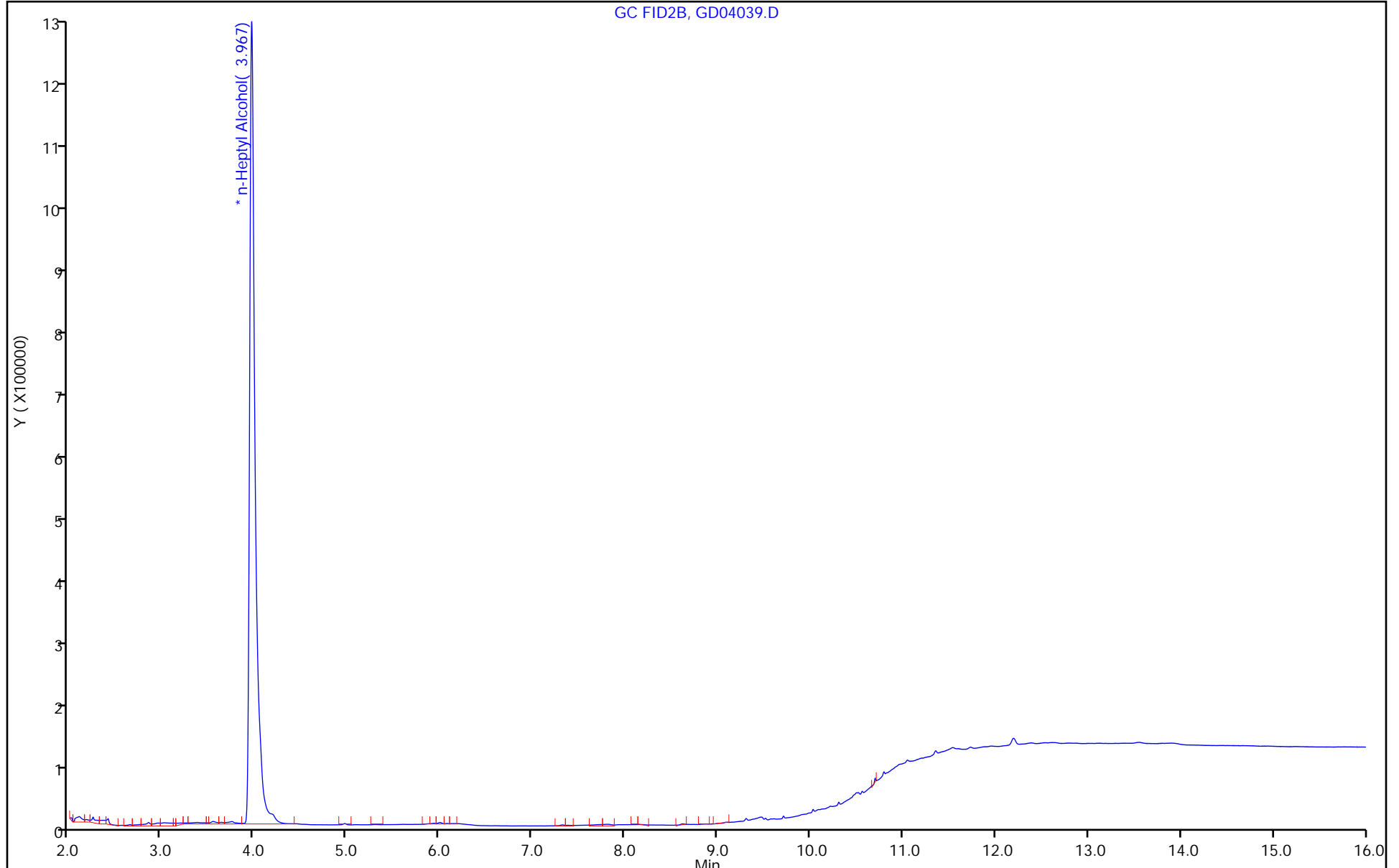
ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)

GC FID2B, GD04039.D



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-125379-1
 SDG No.: _____
 Client Sample ID: AF-RHMW12A-WGFD01LF-2303W Lab Sample ID: 580-125379-6
 4
 Matrix: Water Lab File ID: GD04040.D
 Analysis Method: 8015C GLY Date Collected: 03/27/2023 11:25
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 04/05/2023 02:31
 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.: 771309 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\20230404-84931.b\GD04040.D
 Lims ID: 580-125379-A-6
 Client ID: AF-RHMW12A-WGFD01LF-2303W4
 Sample Type: Client
 Inject. Date: 05-Apr-2023 02:31:41 ALS Bottle#: 0 Worklist Smp#: 40
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-040
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 05-Apr-2023 10:49:00 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1633

First Level Reviewer: SWK1 Date: 05-Apr-2023 10:49:00

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

* 4 n-Heptyl Alcohol
 3.968 3.969 -0.001 4904690 50.0

QC Flag Legend

Processing Flags

Reagents:

SG_GLY_ISTD_00106 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04040.D

Injection Date: 05-Apr-2023 02:31:41

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-125379-A-6

Lab Sample ID: 680-125379-6

Worklist Smp#: 40

Client ID: AF-RHMW12A-WGFD01LF-2303W4

Injection Vol: 1.0 ul

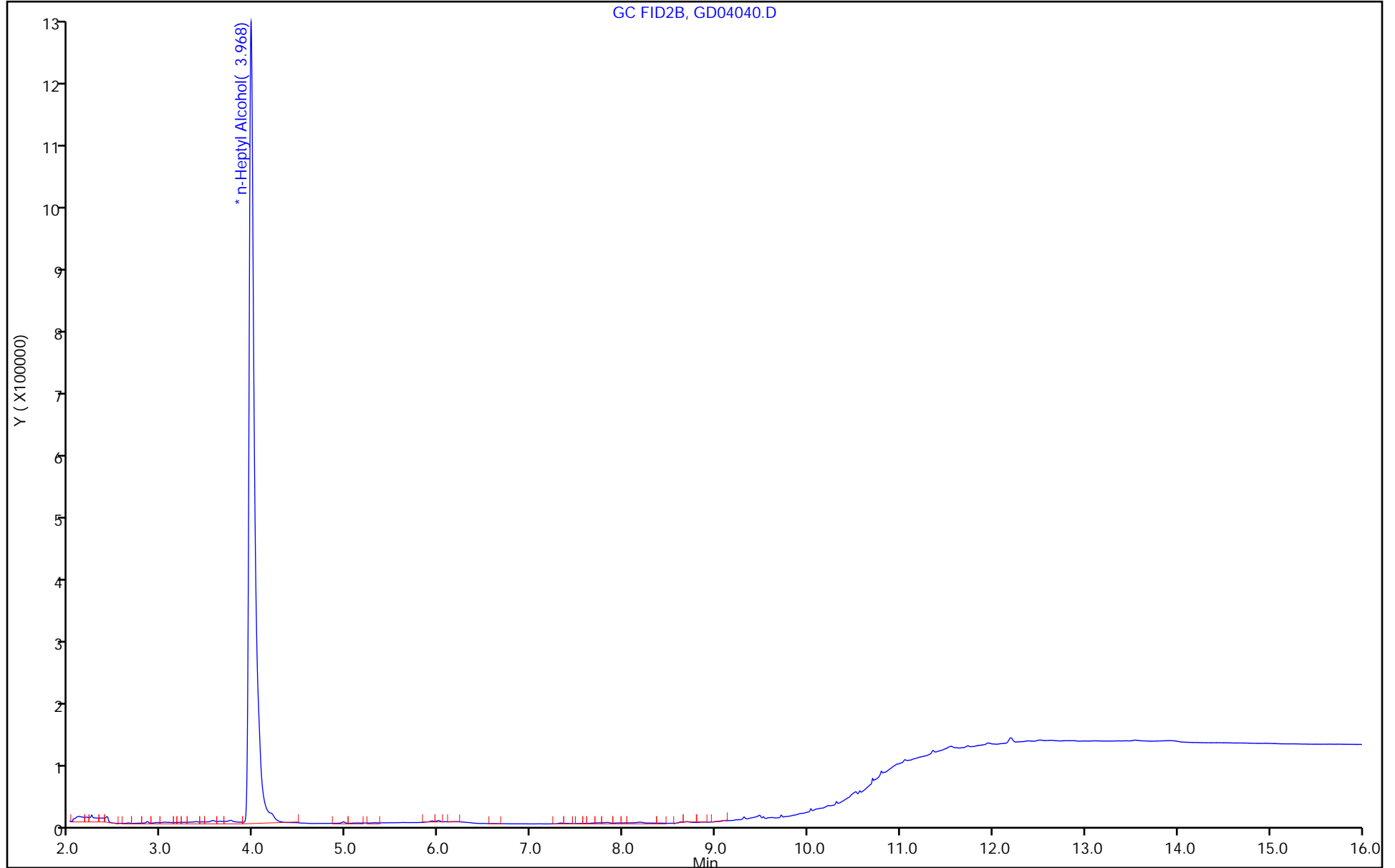
Dil. Factor: 1.0000

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.: 580-125379-1 Analy Batch No.: 770932
 SDG No.: _____
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm) Heated Purge: (Y/N) N
 Calibration Start Date: 04/02/2023 14:09 Calibration End Date: 04/02/2023 16:30 Calibration ID: 90409

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-770932/10	GD02010.D
Level 2	IC 680-770932/9	GD02009.D
Level 3	IC 680-770932/8	GD02008.D
Level 4	ICIS 680-770932/7	GD02007.D
Level 5	IC 680-770932/6	GD02006.D
Level 6	IC 680-770932/5	GD02005.D
Level 7	IC 680-770932/4	GD02004.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 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethanol, 2-propoxy	0.6812 0.5576	0.7046 0.6037	0.5644	0.7169	0.6105	Ave		0.634 1			10.4		20.0				
4-Hydroxy-4-methyl-2-pentanone	0.6664 0.5481	0.6935 0.5997	0.5499	0.7103	0.6201	Ave		0.626 9			10.5		20.0				
2-Butoxyethanol	0.7583 0.6004	0.7710 0.6503	0.6248	0.7758	0.6565	Ave		0.691 0			10.8		20.0				
Dipropylene Glycol Methyl Ether	0.0508 0.0443	0.0524 0.0471	0.0425	0.0547	0.0530	Ave		0.049 3			9.5		20.0				
Propylene glycol	0.2068 0.1265	0.1578 +++++	0.1284	0.1442	0.1569	Ave		0.153 4			19.1		20.0				
Ethylene glycol	0.5337 0.3295	0.3619 +++++	0.3474	0.3748	0.4289	Ave		0.396 0			19.0		20.0				
2-(2-Butoxyethoxy)ethanol	0.6324 0.4631	0.5887 0.4885	0.4791	0.5967	0.5598	Ave		0.544 0			12.3		20.0				
2,2'-Oxybisethanol	0.2259 0.2029	0.3167 +++++	0.2419	0.2255	0.2606	Ave		0.245 6			16.2		20.0				
Triethylene Glycol	0.2189 0.1983	0.2165 +++++	0.1934	0.2143	0.2509	Ave		0.215 4			9.4		20.0				
Tetraethylene Glycol	0.2537 0.2096	0.2367 +++++	0.2066	0.2291	0.2636	Ave		0.233 2			9.8		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.: 580-125379-1 Analy Batch No.: 770932

SDG No.: _____

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

Calibration Start Date: 04/02/2023 14:09 Calibration End Date: 04/02/2023 16:30 Calibration ID: 90409

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-770932/10	GD02010.D
Level 2	IC 680-770932/9	GD02009.D
Level 3	IC 680-770932/8	GD02008.D
Level 4	ICIS 680-770932/7	GD02007.D
Level 5	IC 680-770932/6	GD02006.D
Level 6	IC 680-770932/5	GD02005.D
Level 7	IC 680-770932/4	GD02004.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7				LVL 6	LVL 7			
Ethanol, 2-propoxy	nHPA	Ave	152859 4514436	362928 5909445	708752	1561905	3083877	2.00 80.0	5.00 100	10.0	20.0	50.0
4-Hydroxy-4-methyl-2-pentanone	nHPA	Ave	149534 4437804	357214 5869783	690578	1547641	3132405	2.00 80.0	5.00 100	10.0	20.0	50.0
2-Butoxyethanol	nHPA	Ave	170166 4861222	397103 6365631	784677	1690259	3316183	2.00 80.0	5.00 100	10.0	20.0	50.0
Dipropylene Glycol Methyl Ether	nHPA	Ave	11391 358822	27003 460752	53380	119219	267890	2.00 80.0	5.00 100	10.0	20.0	50.0
Propylene glycol	nHPA	Ave	46397 1023791	81281 +++++	161238	314176	792723	2.00 80.0	5.00 +++++	10.0	20.0	50.0
Ethylene glycol	nHPA	Ave	119753 2667532	186390 +++++	436255	816575	2166529	2.00 80.0	5.00 +++++	10.0	20.0	50.0
2-(2-Butoxyethoxy)ethanol	nHPA	Ave	141914 3749026	303229 4781862	601678	1300067	2827783	2.00 80.0	5.00 100	10.0	20.0	50.0
2,2'-Oxybisethanol	nHPA	Ave	50691 1642854	163139 +++++	303770	491224	1316229	2.00 80.0	5.00 +++++	10.0	20.0	50.0
Triethylene Glycol	nHPA	Ave	49121 1605412	111501 +++++	242914	467032	1267334	2.00 80.0	5.00 +++++	10.0	20.0	50.0
Tetraethylene Glycol	nHPA	Ave	113844 3393323	243783 +++++	518921	998555	2662829	4.00 160	10.0 +++++	20.0	40.0	100

Curve Type Legend

Ave = Average ISTD

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

Lab Name: Eurofins Savannah Job No.: 580-125379-1 Analy Batch No.: 770932

SDG No.: _____

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

Calibration Start Date: 04/02/2023 14:09 Calibration End Date: 04/02/2023 16:30 Calibration ID: 90409

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-770932/10	GD02010.D
Level 2	IC 680-770932/9	GD02009.D
Level 3	IC 680-770932/8	GD02008.D
Level 4	ICIS 680-770932/7	GD02007.D
Level 5	IC 680-770932/6	GD02006.D
Level 6	IC 680-770932/5	GD02005.D
Level 7	IC 680-770932/4	GD02004.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Ethanol, 2-propoxy	7.4 -4.8	11.1	-11.0	13.0	-3.7	-12.1	20 20	20	20	20	20	20
4-Hydroxy-4-methyl-2-pentanone	6.3 -4.3	10.6	-12.3	13.3	-1.1	-12.6	20 20	20	20	20	20	20
2-Butoxyethanol	9.7 -5.9	11.6	-9.6	12.3	-5.0	-13.1	20 20	20	20	20	20	20
Dipropylene Glycol Methyl Ether	3.0 -4.5	6.4	-13.7	11.1	7.7	-10.0	20 20	20	20	20	20	20
Propylene glycol	34.8 * ++++	2.9	-16.3	-6.0	2.3	-17.6	20	20	20	20	20	20
Ethylene glycol	34.8 * ++++	-8.6	-12.3	-5.4	8.3	-16.8	20	20	20	20	20	20
2-(2-Butoxyethoxy)ethanol	16.2 -10.2	8.2	-11.9	9.7	2.9	-14.9	20 20	20	20	20	20	20
2,2'-Oxybisethanol	-8.0 ++++	29.0 *	-1.5	-8.2	6.1	-17.4	20	20	20	20	20	20
Triethylene Glycol	1.6 ++++	0.5	-10.2	-0.5	16.5	-7.9	20	20	20	20	20	20
Tetraethylene Glycol	8.8 ++++	1.5	-11.4	-1.7	13.0	-10.1	20	20	20	20	20	20

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02004.D
 Lims ID: ic g7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 02-Apr-2023 14:09:54 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084885-004
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 03-Apr-2023 10:36:33 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1 Date: 03-Apr-2023 10:27:41

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.763	2.762	0.001	5909445	100.0	95.2	
2 4-Hydroxy-4-methyl-2-pentanone						
3.284	3.287	-0.003	5869783	100.0	95.7	
3 2-Butoxyethanol						
3.552	3.550	0.002	6365631	100.0	94.1	
* 4 n-Heptyl Alcohol						
3.979	3.967	0.012	4894306	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
4.883	4.883	0.000	460752	100.0	95.5	
6 Propylene glycol						
5.984	6.045	-0.061	1080340	100.0	71.9	M
7 Ethylene glycol						
6.240	6.283	-0.043	2880684	100.0	74.3	M
8 2-(2-Butoxyethoxy)ethanol						
8.080	8.079	0.001	4781862	100.0	89.8	
9 2,2'-Oxybisethanol						
9.480	9.482	-0.002	1693771	100.0	70.5	
10 Triethylene Glycol						
10.523	10.525	-0.002	1654110	100.0	78.5	
11 Tetraethylene Glycol						
11.570	11.570	0.000	3459555	200.0	151.6	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00054

Amount Added: 50.00

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02004.D

Injection Date: 02-Apr-2023 14:09:54

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g7

Worklist Smp#: 4

Client ID:

Injection Vol: 1.0 ul

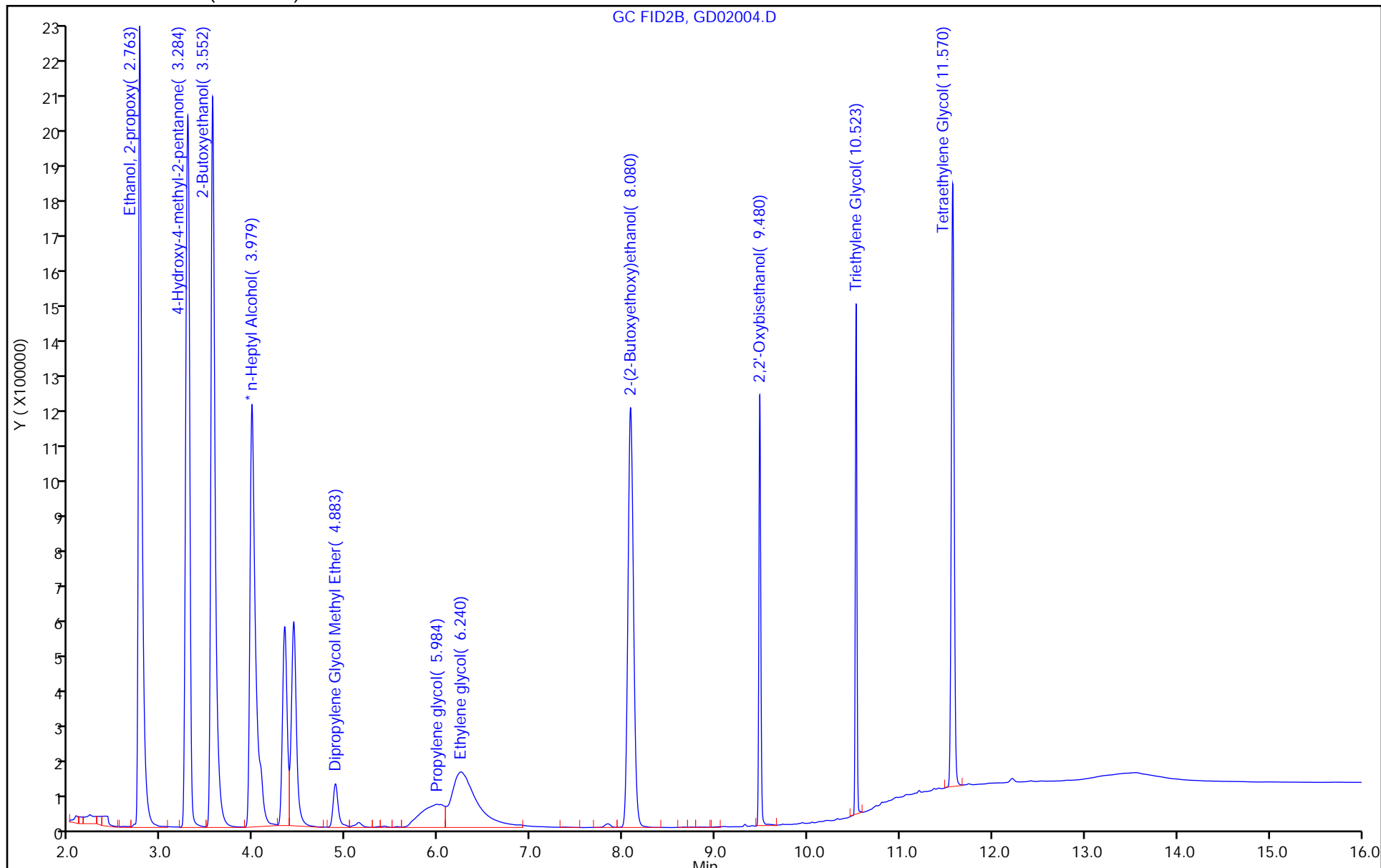
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

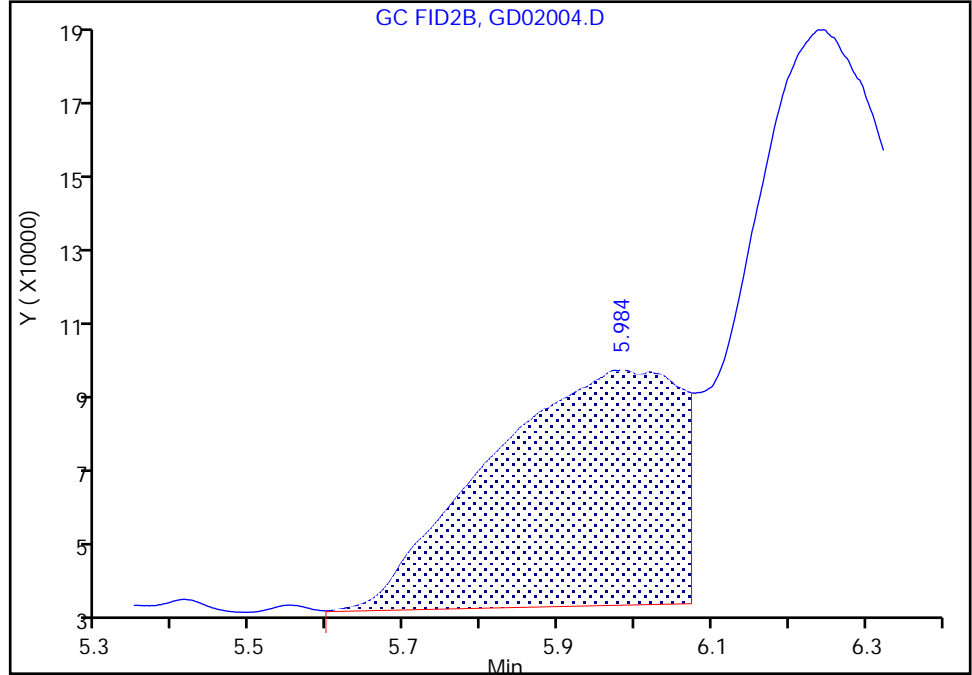
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02004.D
Injection Date: 02-Apr-2023 14:09:54 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

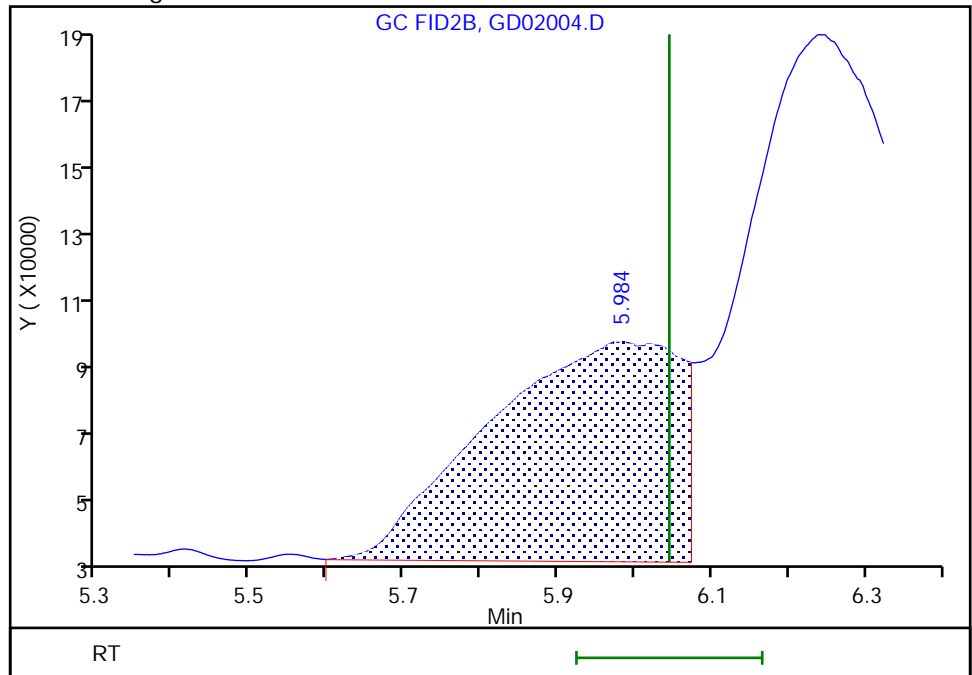
RT: 5.98
Area: 1039114
Amount: 94.675757
Amount Units: ug/ml

Processing Integration Results



RT: 5.98
Area: 1080340
Amount: 71.935613
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:27:37
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

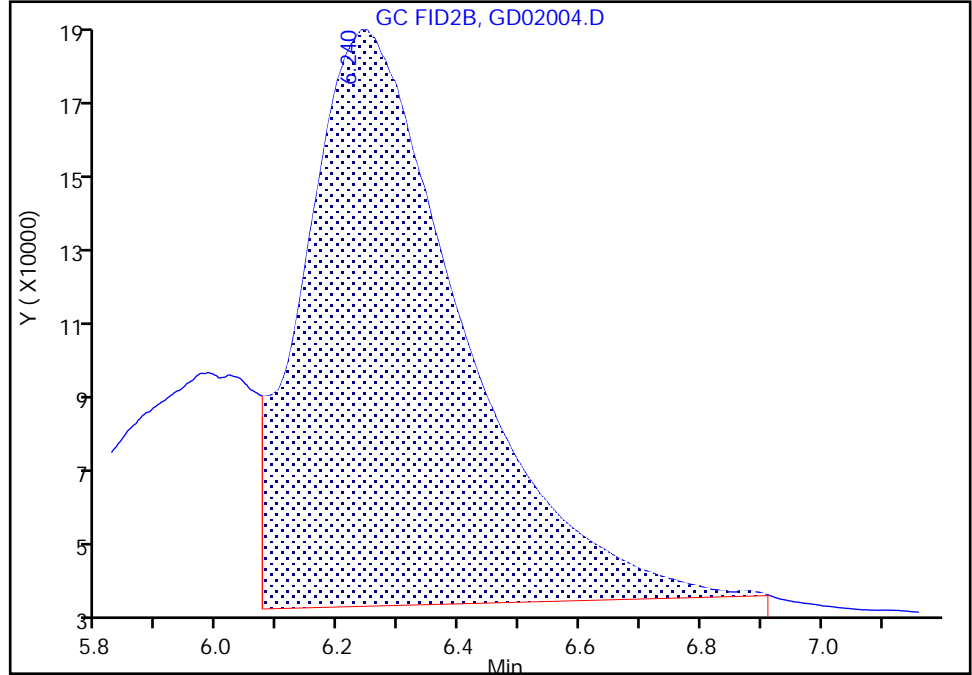
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02004.D
Injection Date: 02-Apr-2023 14:09:54 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

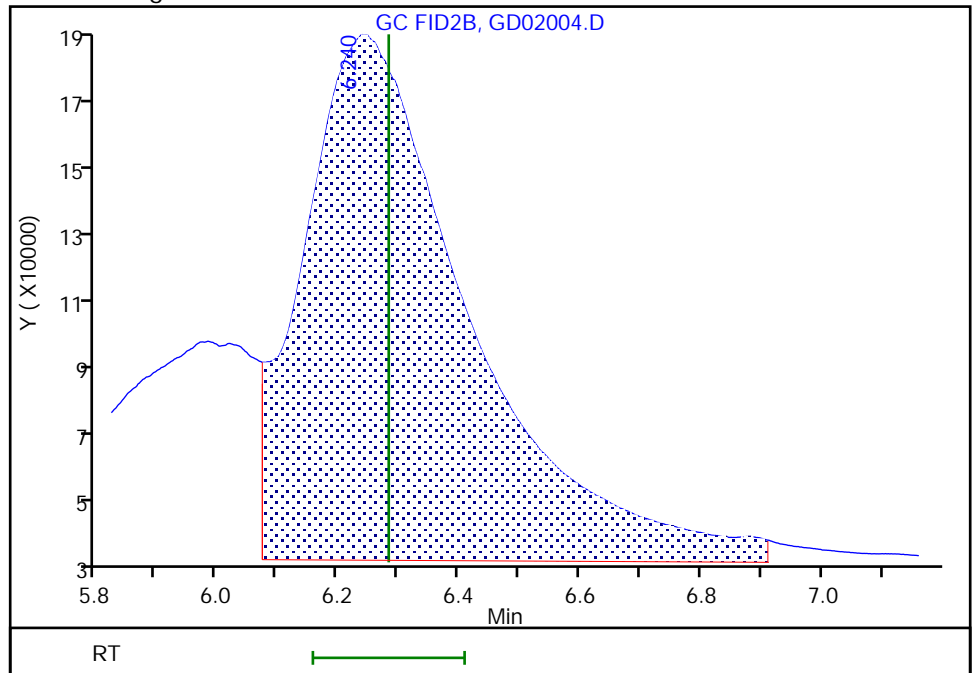
RT: 6.24
Area: 2667071
Amount: 90.988194
Amount Units: ug/ml

Processing Integration Results



RT: 6.24
Area: 2880684
Amount: 74.312387
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:27:37
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02005.D
 Lims ID: ic g6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 02-Apr-2023 14:33:16 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084885-005
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 03-Apr-2023 10:36:34 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1 Date: 03-Apr-2023 10:27:30

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.759	2.762	-0.003	4514436	80.0	70.3	
2 4-Hydroxy-4-methyl-2-pentanone						
3.281	3.287	-0.006	4437804	80.0	70.0	
3 2-Butoxyethanol						
3.550	3.550	0.000	4861222	80.0	69.5	
* 4 n-Heptyl Alcohol						
3.975	3.967	0.008	5060015	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
4.880	4.883	-0.003	358822	80.0	72.0	
6 Propylene glycol						
5.990	6.045	-0.055	1023791	80.0	65.9	M
7 Ethylene glycol						
6.226	6.283	-0.057	2667532	80.0	66.6	M
8 2-(2-Butoxyethoxy)ethanol						
8.080	8.079	0.001	3749026	80.0	68.1	
9 2,2'-Oxybisethanol						
9.480	9.482	-0.002	1642854	80.0	66.1	
10 Triethylene Glycol						
10.523	10.525	-0.002	1605412	80.0	73.7	
11 Tetraethylene Glycol						
11.570	11.570	0.000	3393323	160.0	143.8	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00054

Amount Added: 40.00

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02005.D

Injection Date: 02-Apr-2023 14:33:16

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g6

Worklist Smp#: 5

Client ID:

Injection Vol: 1.0 ul

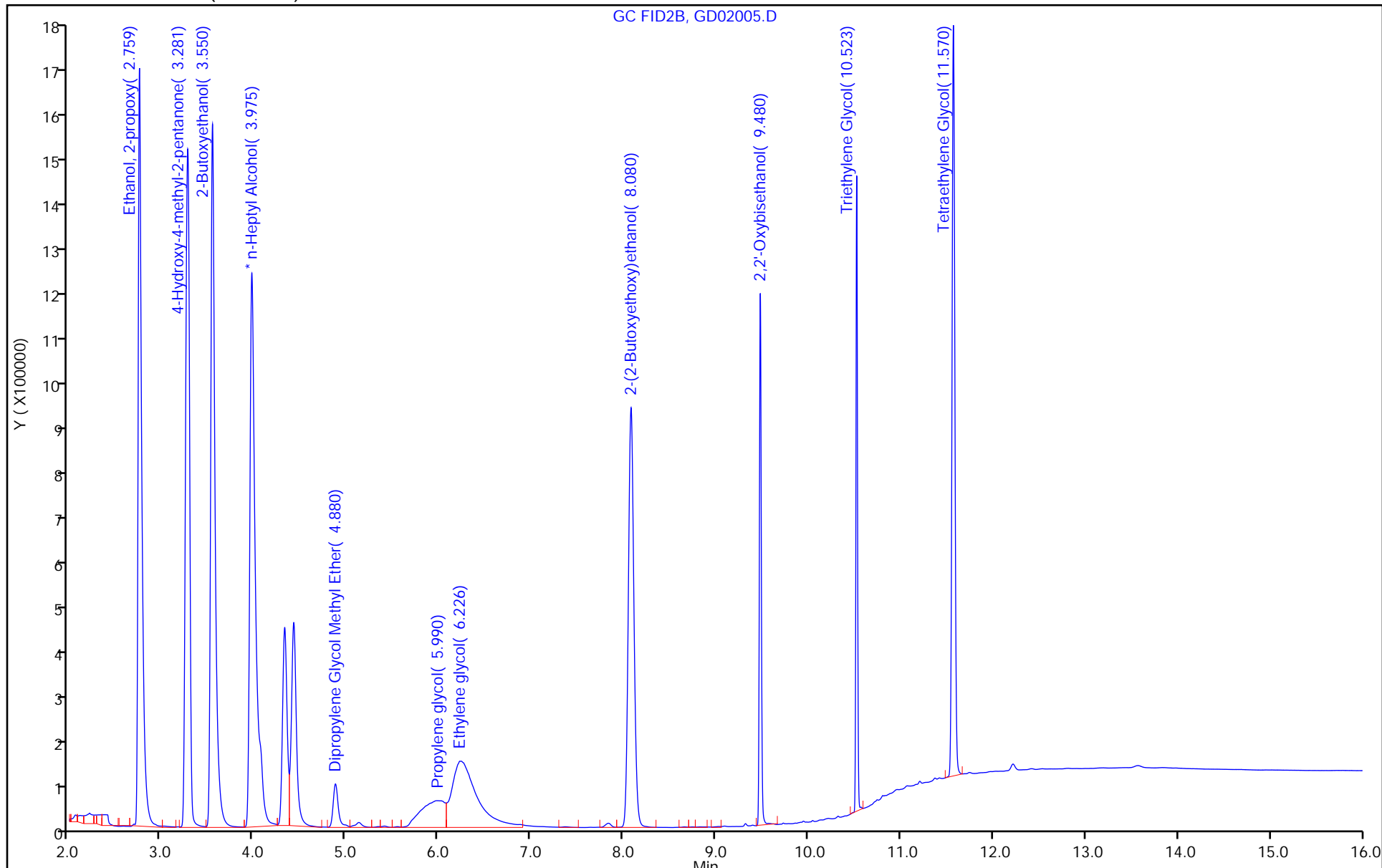
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

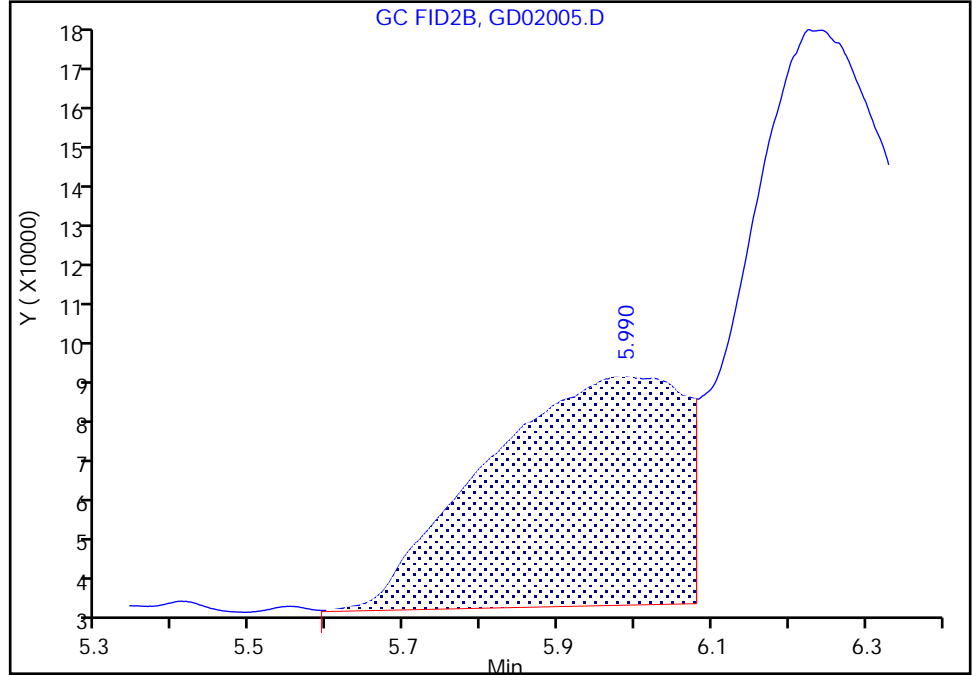
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02005.D
Injection Date: 02-Apr-2023 14:33:16 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

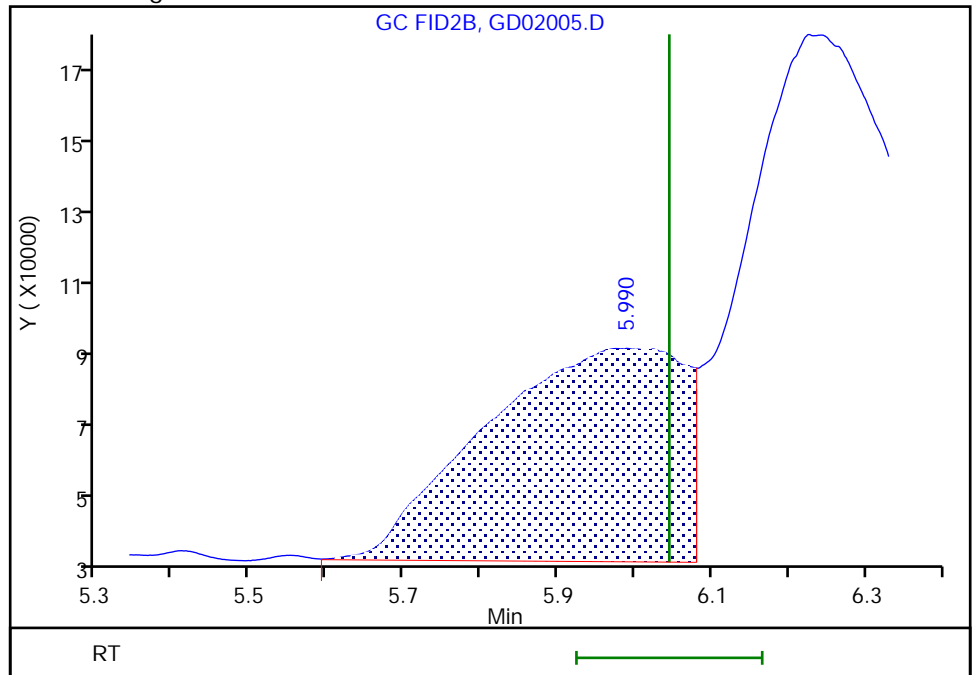
RT: 5.99
Area: 983650
Amount: 77.365732
Amount Units: ug/ml

Processing Integration Results



RT: 5.99
Area: 1023791
Amount: 65.937749
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:27:28
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Euofins Savannah

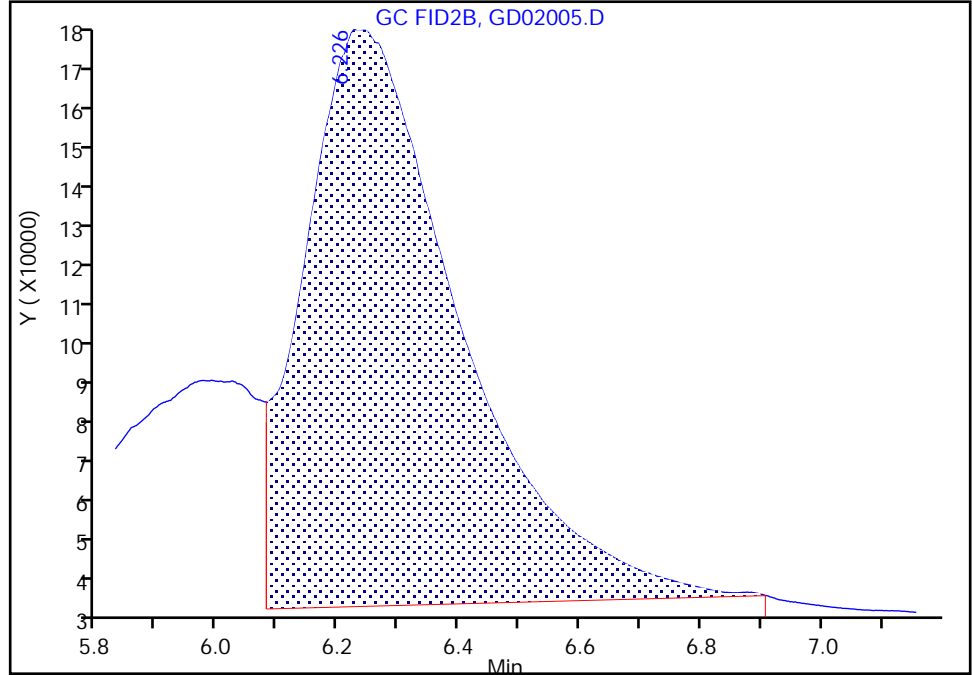
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02005.D
Injection Date: 02-Apr-2023 14:33:16 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

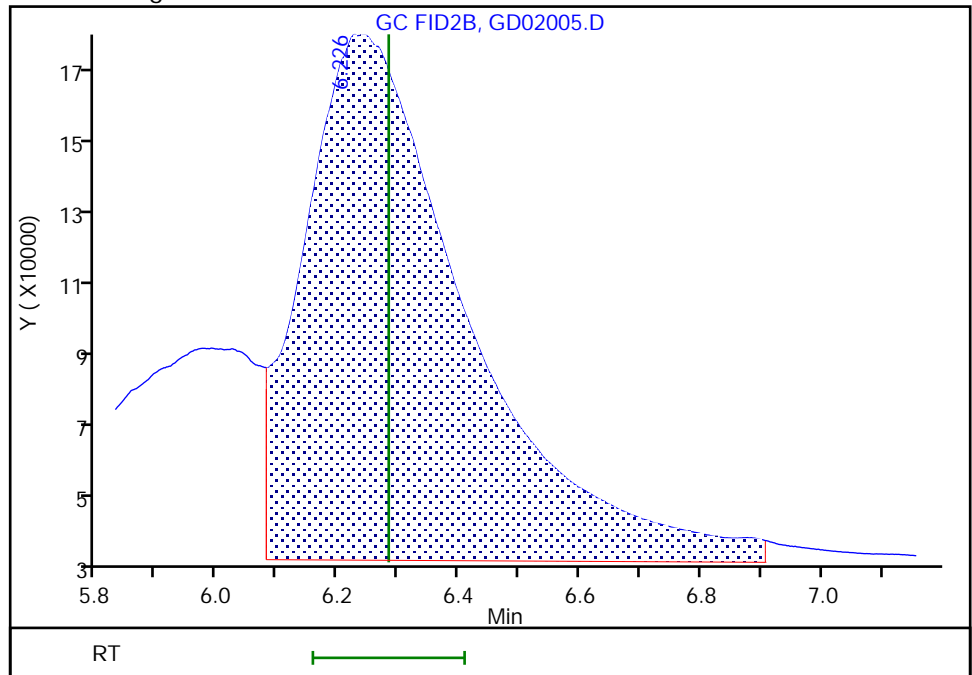
RT: 6.23
Area: 2472952
Amount: 71.656352
Amount Units: ug/ml

Processing Integration Results



RT: 6.23
Area: 2667532
Amount: 66.560188
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:27:28
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing
Page 70 of 164

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02006.D
 Lims ID: ic g5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 02-Apr-2023 14:56:40 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084885-006
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 03-Apr-2023 10:36:36 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1 Date: 03-Apr-2023 10:27:23

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.757	2.762	-0.005	3083877	50.0	48.1	
2 4-Hydroxy-4-methyl-2-pentanone						
3.280	3.287	-0.007	3132405	50.0	49.5	
3 2-Butoxyethanol						
3.548	3.550	-0.002	3316183	50.0	47.5	
* 4 n-Heptyl Alcohol						
3.975	3.967	0.008	5051127	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
4.880	4.883	-0.003	267890	50.0	53.8	
6 Propylene glycol						
6.020	6.045	-0.025	792723	50.0	51.1	M
7 Ethylene glycol						
6.240	6.283	-0.043	2166529	50.0	54.2	M
8 2-(2-Butoxyethoxy)ethanol						
8.080	8.079	0.001	2827783	50.0	51.5	
9 2,2'-Oxybisethanol						
9.480	9.482	-0.002	1316229	50.0	53.1	
10 Triethylene Glycol						
10.523	10.525	-0.002	1267334	50.0	58.2	
11 Tetraethylene Glycol						
11.570	11.570	0.000	2662829	100.0	113.0	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00054

Amount Added: 25.00

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02006.D

Injection Date: 02-Apr-2023 14:56:40

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g5

Worklist Smp#: 6

Client ID:

Injection Vol: 1.0 ul

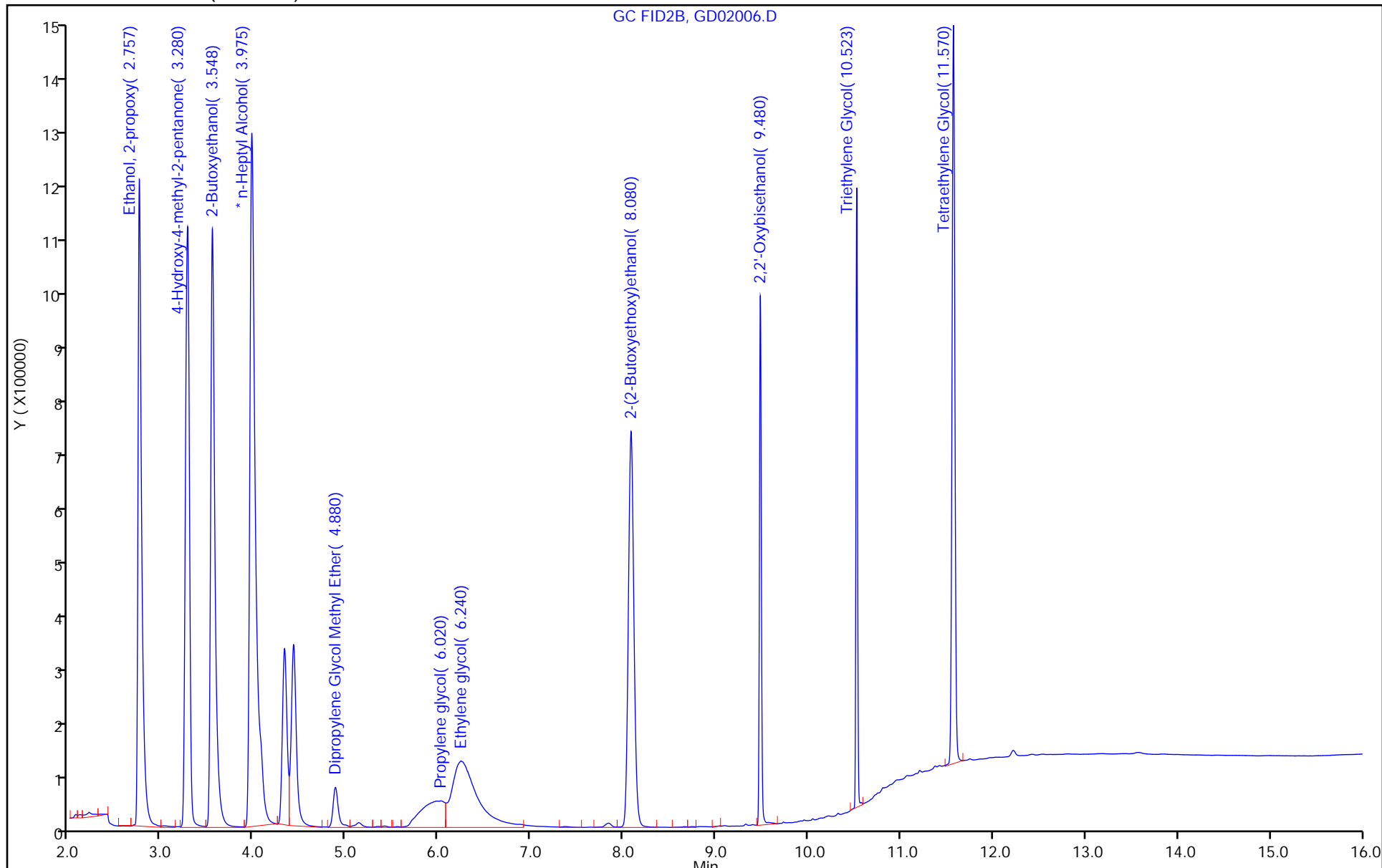
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

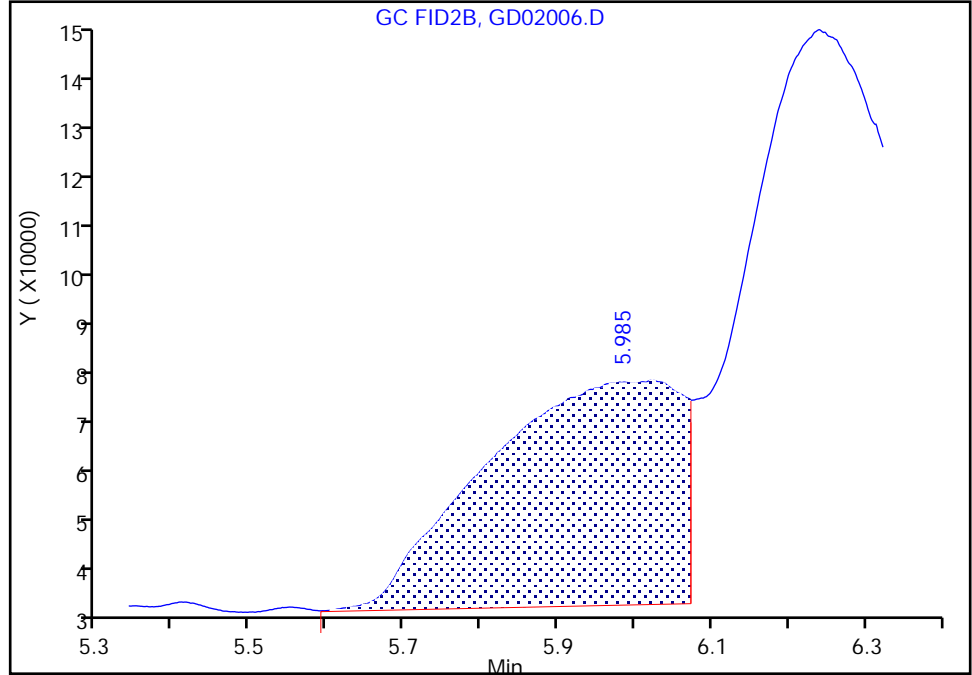
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02006.D
Injection Date: 02-Apr-2023 14:56:40 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

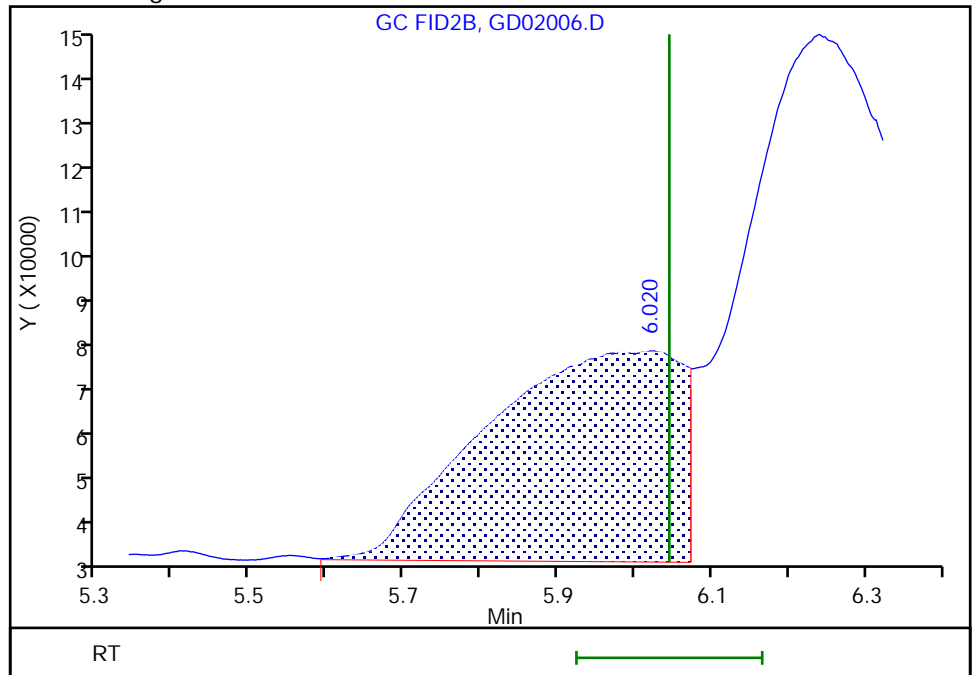
RT: 5.99
Area: 759951
Amount: 52.840944
Amount Units: ug/ml

Processing Integration Results



RT: 6.02
Area: 792723
Amount: 51.145542
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:27:21
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

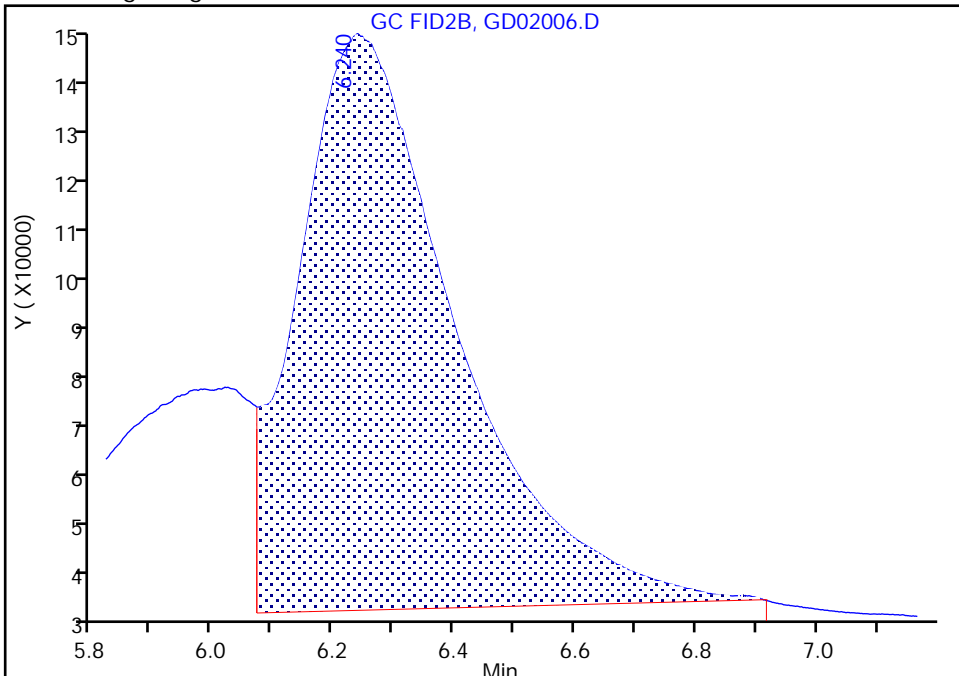
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02006.D
Injection Date: 02-Apr-2023 14:56:40 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

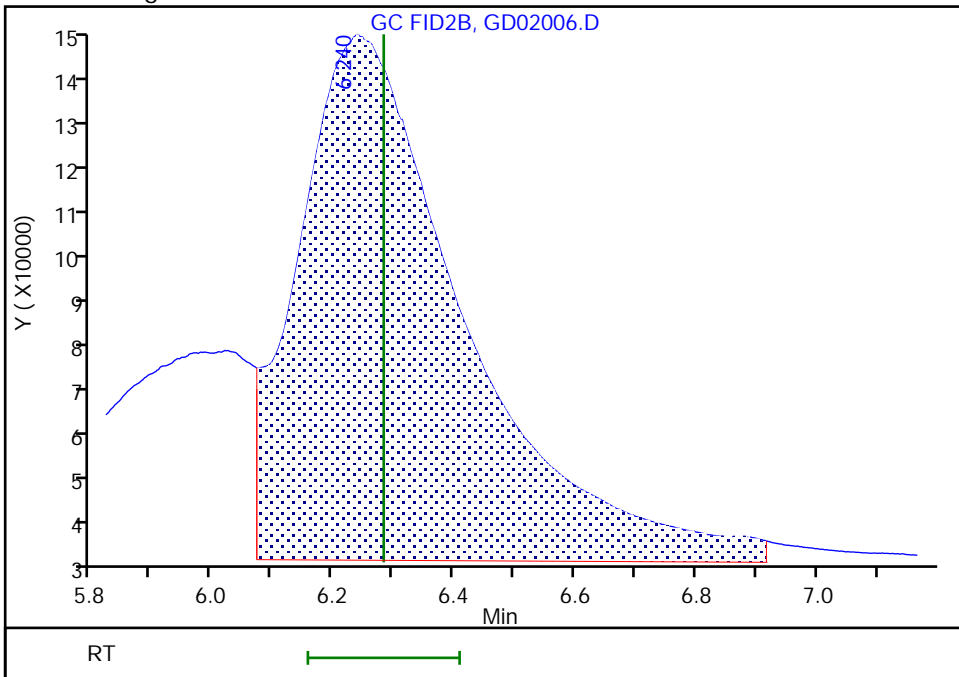
RT: 6.24
Area: 2010553
Amount: 54.270107
Amount Units: ug/ml

Processing Integration Results



RT: 6.24
Area: 2166529
Amount: 54.154298
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:27:21
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02007.D
 Lims ID: icis g4
 Client ID:
 Sample Type: ICIS Calib Level: 4
 Inject. Date: 02-Apr-2023 15:20:08 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084885-007
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 03-Apr-2023 10:36:37 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1 Date: 03-Apr-2023 10:24:12

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.760	2.760	0.000	1561905	20.0	22.6	
2 4-Hydroxy-4-methyl-2-pentanone						
3.282	3.282	0.000	1547641	20.0	22.7	
3 2-Butoxyethanol						
3.548	3.548	0.000	1690259	20.0	22.5	
* 4 n-Heptyl Alcohol						
3.970	3.970	0.000	5447082	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
4.880	4.880	0.000	119219	20.0	22.2	
6 Propylene glycol						
6.028	6.028	0.000	314176	20.0	18.8	M
7 Ethylene glycol						
6.247	6.247	0.000	816575	20.0	18.9	M
8 2-(2-Butoxyethoxy)ethanol						
8.082	8.082	0.000	1300067	20.0	21.9	
9 2,2'-Oxybisethanol						
9.480	9.480	0.000	491224	20.0	18.4	
10 Triethylene Glycol						
10.523	10.523	0.000	467032	20.0	19.9	
11 Tetraethylene Glycol						
11.569	11.569	0.000	998555	40.0	39.3	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00054

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02007.D

Injection Date: 02-Apr-2023 15:20:08

Instrument ID: CVGG2

Operator ID:

Lims ID: icis g4

Worklist Smp#: 7

Client ID:

Injection Vol: 1.0 ul

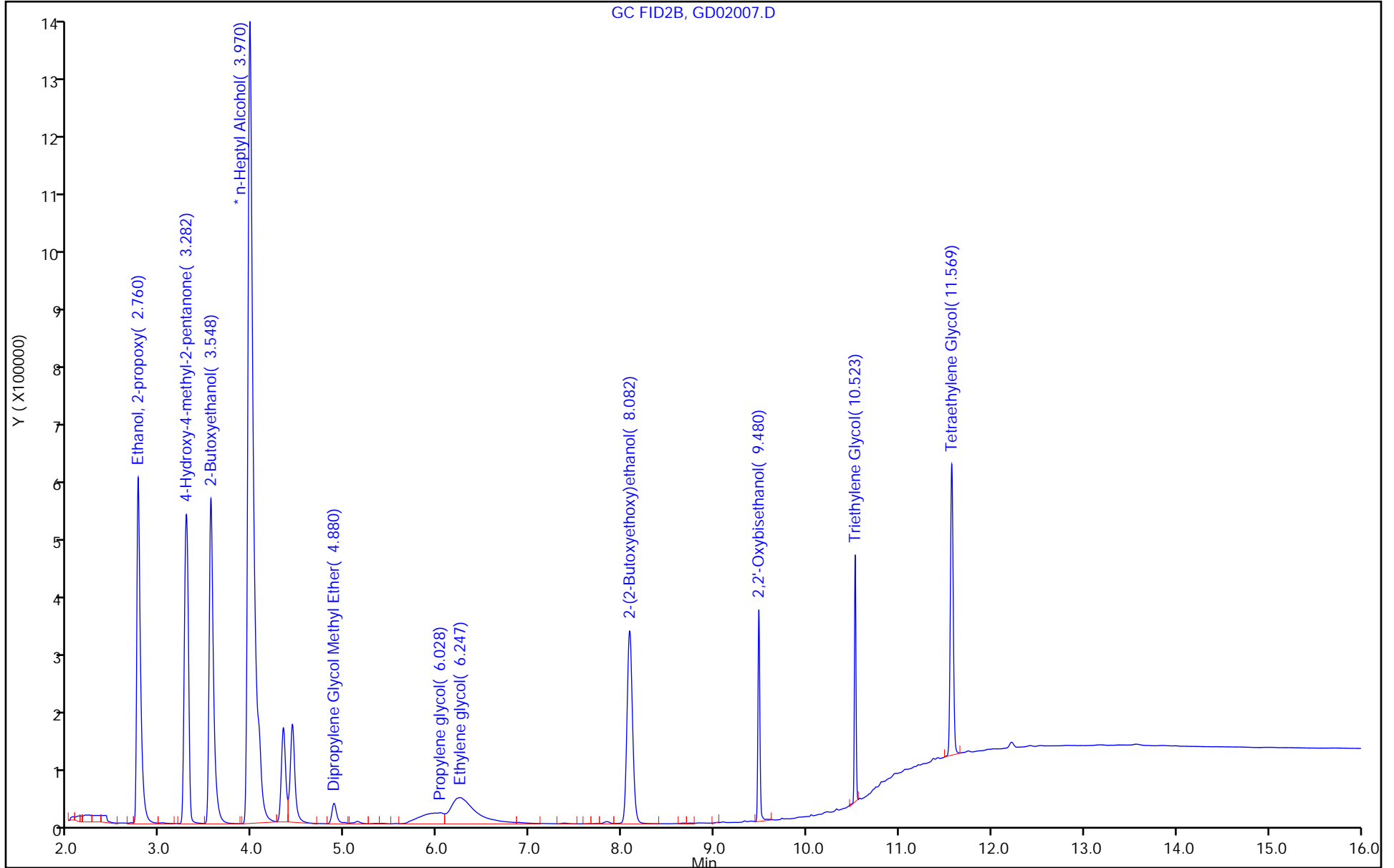
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

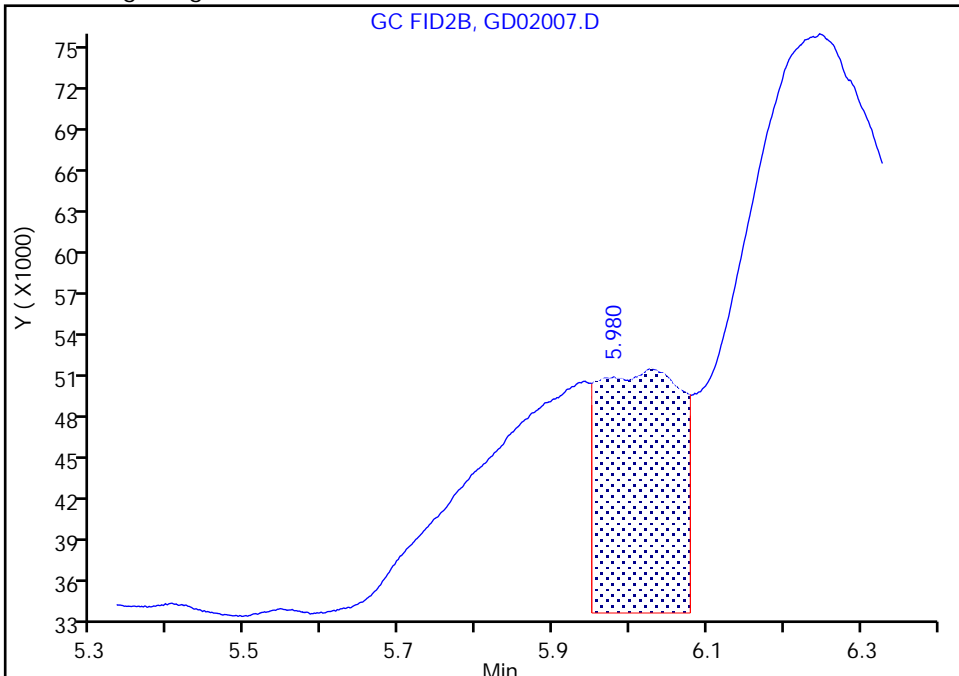
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02007.D
Injection Date: 02-Apr-2023 15:20:08 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

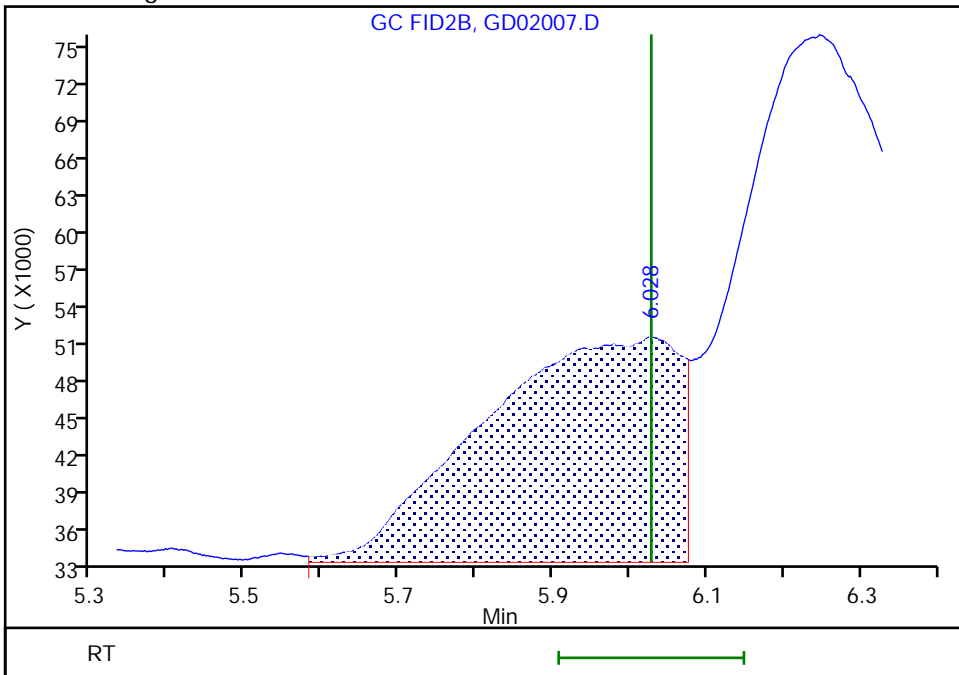
RT: 5.98
Area: 130157
Amount: 12.883740
Amount Units: ug/ml

Processing Integration Results



RT: 6.03
Area: 314176
Amount: 18.796791
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:27:11
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

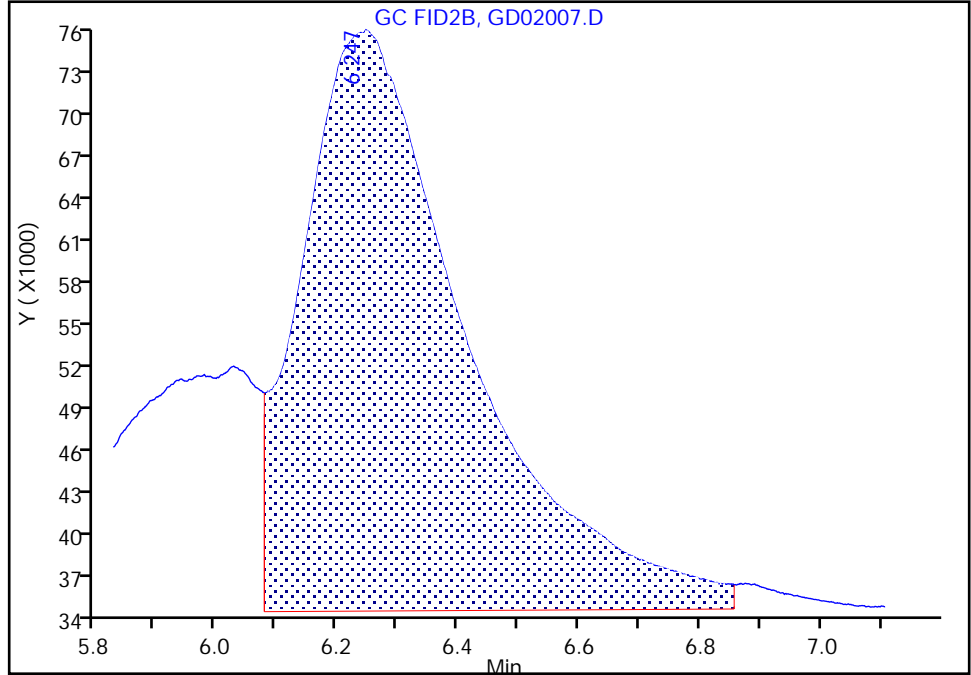
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02007.D
Injection Date: 02-Apr-2023 15:20:08 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

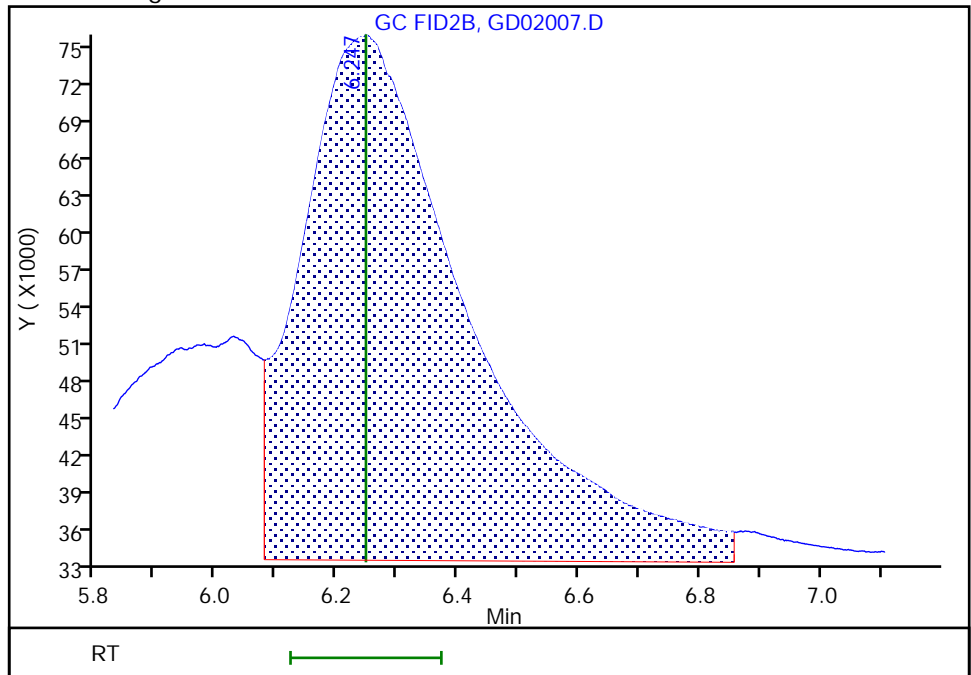
RT: 6.25
Area: 794859
Amount: 17.433424
Amount Units: ug/ml

Processing Integration Results



RT: 6.25
Area: 816575
Amount: 18.927309
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02008.D
 Lims ID: ic g3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 02-Apr-2023 15:43:32 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084885-008
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 03-Apr-2023 10:36:39 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1 Date: 03-Apr-2023 10:24:22

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.757	2.760	-0.003	708752	10.0	8.90	
2 4-Hydroxy-4-methyl-2-pentanone						
3.277	3.282	-0.005	690578	10.0	8.77	
3 2-Butoxyethanol						
3.545	3.548	-0.003	784677	10.0	9.04	
* 4 n-Heptyl Alcohol						
3.970	3.970	0.000	6279283	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
4.878	4.880	-0.002	53380	10.0	8.63	
6 Propylene glycol						
6.030	6.028	0.002	161238	10.0	8.37	M
7 Ethylene glycol						
6.238	6.247	-0.009	436255	10.0	8.77	M
8 2-(2-Butoxyethoxy)ethanol						
8.080	8.082	-0.002	601678	10.0	8.81	
9 2,2'-Oxybisethanol						
9.480	9.480	0.000	303770	10.0	9.85	
10 Triethylene Glycol						
10.523	10.523	0.000	242914	10.0	8.98	
11 Tetraethylene Glycol						
11.569	11.569	0.000	518921	20.0	17.7	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00054

Amount Added: 5.00

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02008.D

Injection Date: 02-Apr-2023 15:43:32

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g3

Worklist Smp#: 8

Client ID:

Injection Vol: 1.0 ul

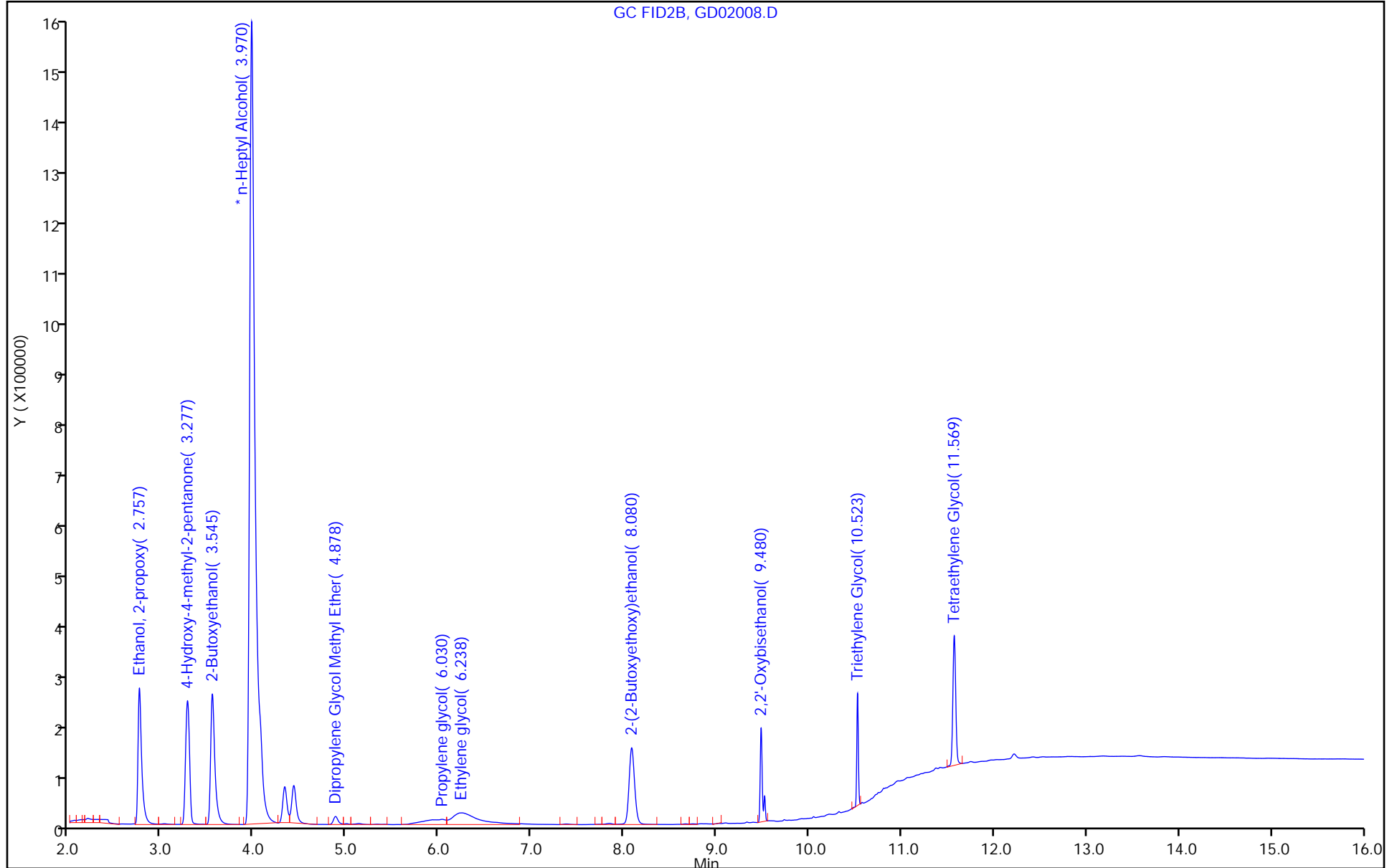
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

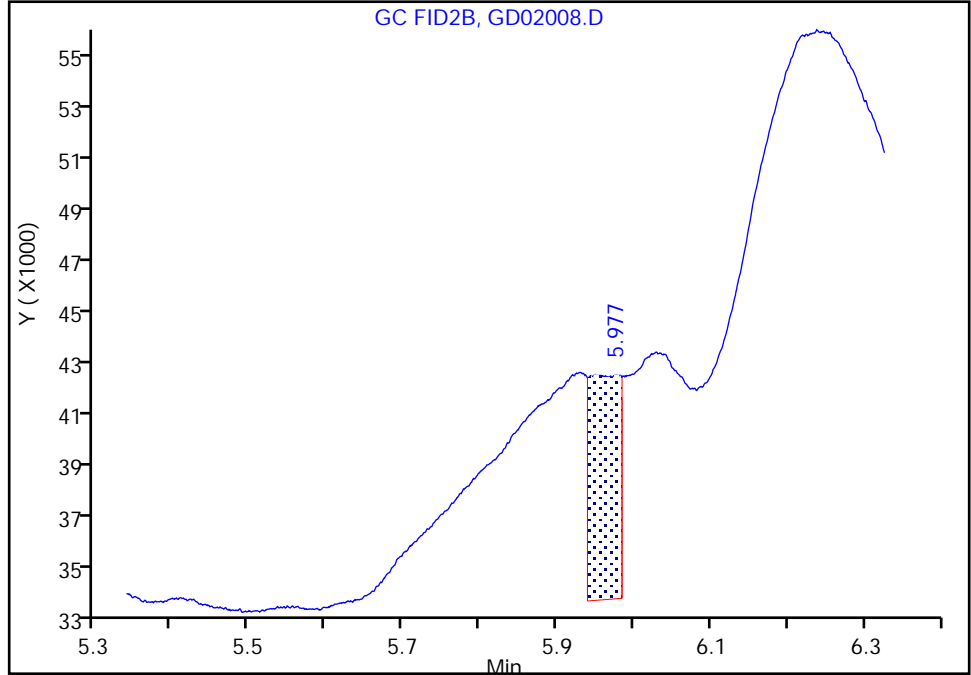
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02008.D
Injection Date: 02-Apr-2023 15:43:32 Instrument ID: CVGG2
Lims ID: ic g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

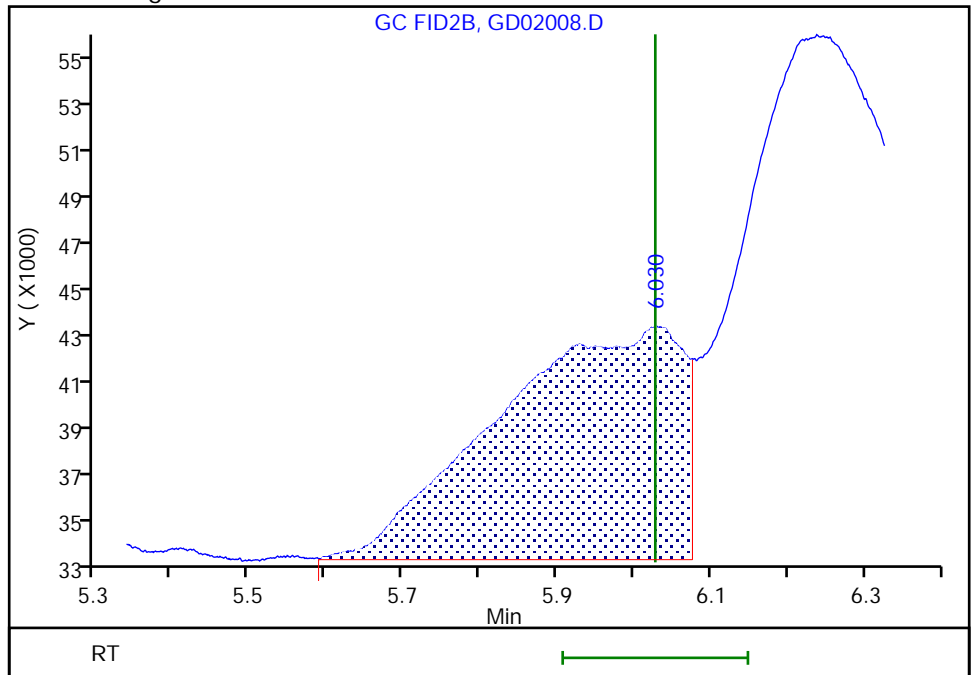
RT: 5.98
Area: 22453
Amount: 1.526624
Amount Units: ug/ml

Processing Integration Results



RT: 6.03
Area: 161238
Amount: 8.368198
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:25:22
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

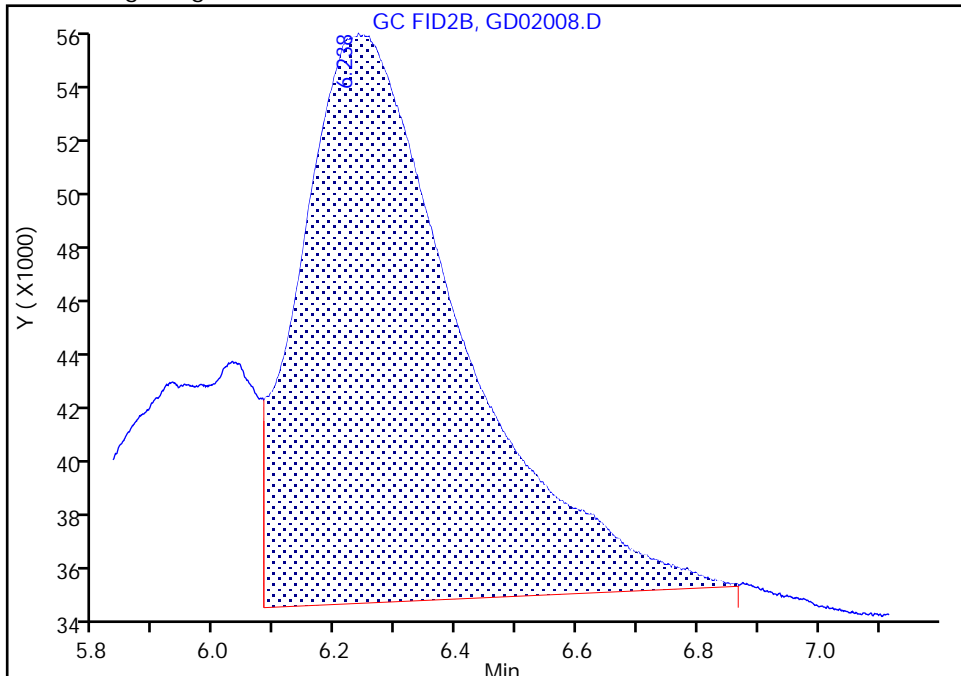
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02008.D
Injection Date: 02-Apr-2023 15:43:32 Instrument ID: CVGG2
Lims ID: ic g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

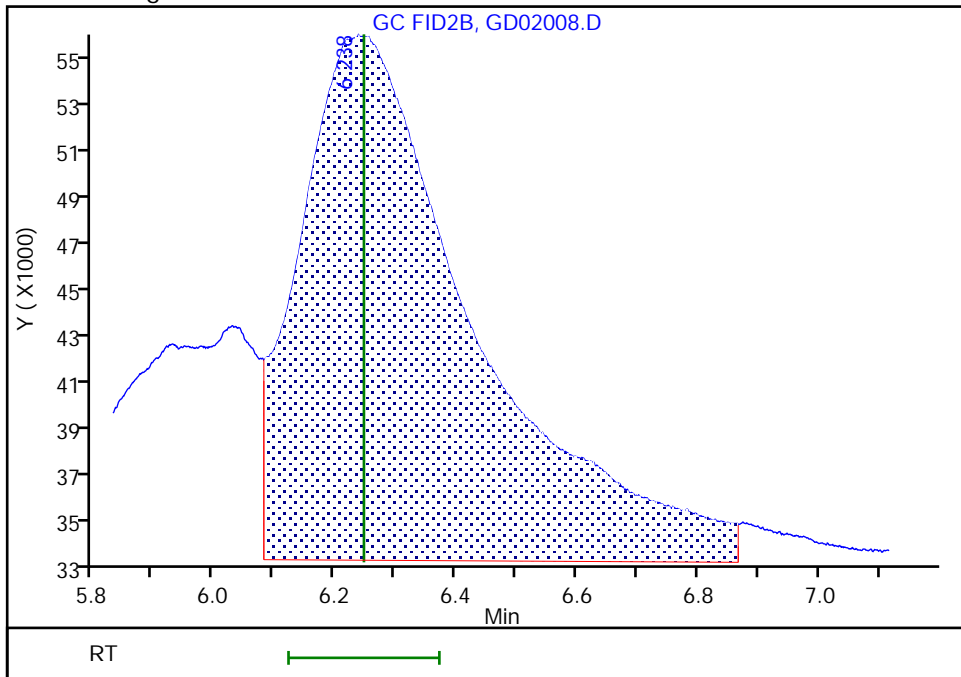
RT: 6.24
Area: 386371
Amount: 6.316785
Amount Units: ug/ml

Processing Integration Results



RT: 6.24
Area: 436255
Amount: 8.771767
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:25:22
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02009.D
 Lims ID: ic g2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 02-Apr-2023 16:06:54 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084885-009
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 03-Apr-2023 10:36:40 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1 Date: 03-Apr-2023 10:24:55

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.755	2.760	-0.005	362928	5.00	5.56	
2 4-Hydroxy-4-methyl-2-pentanone						
3.275	3.282	-0.007	357214	5.00	5.53	
3 2-Butoxyethanol						
3.545	3.548	-0.003	397103	5.00	5.58	
* 4 n-Heptyl Alcohol						
3.970	3.970	0.000	5150689	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
4.877	4.880	-0.003	27003	5.00	5.32	
6 Propylene glycol						
6.037	6.028	0.009	81281	5.00	5.14	M
7 Ethylene glycol						
6.235	6.247	-0.012	186390	5.00	4.57	M
8 2-(2-Butoxyethoxy)ethanol						
8.078	8.082	-0.004	303229	5.00	5.41	
9 2,2'-Oxybisethanol						
9.479	9.480	-0.001	163139	5.00	6.45	
10 Triethylene Glycol						
10.522	10.523	-0.001	111501	5.00	5.03	
11 Tetraethylene Glycol						
11.568	11.569	-0.001	243783	10.0	10.1	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00054

Amount Added: 2.50

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02009.D

Injection Date: 02-Apr-2023 16:06:54

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g2

Worklist Smp#: 9

Client ID:

Injection Vol: 1.0 ul

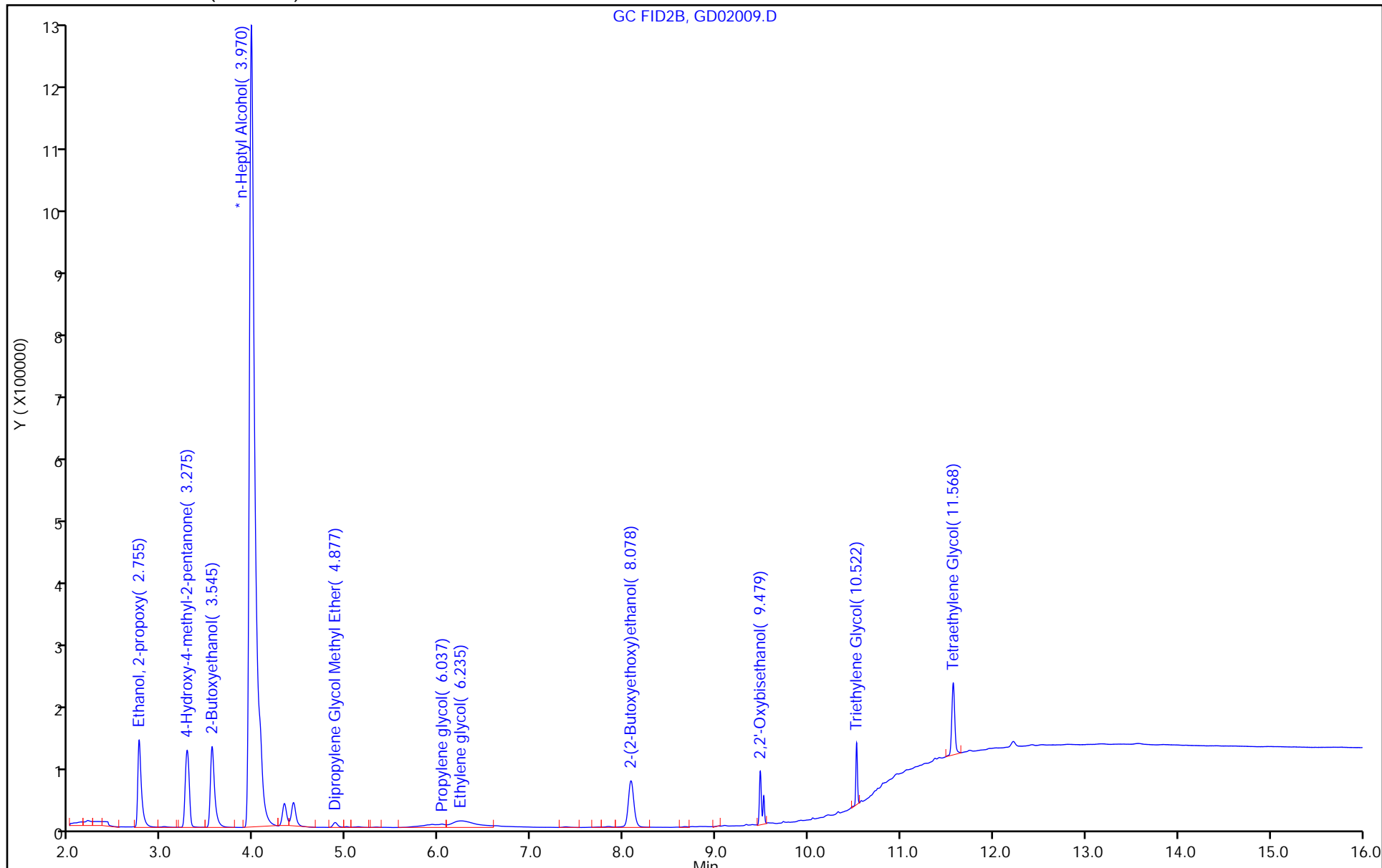
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

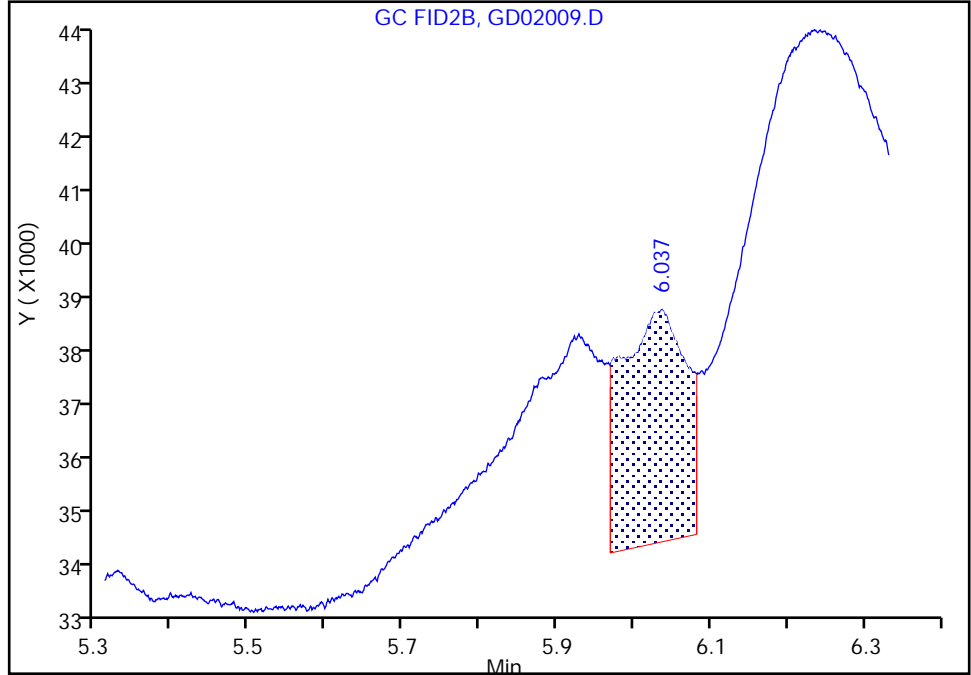
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02009.D
Injection Date: 02-Apr-2023 16:06:54 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

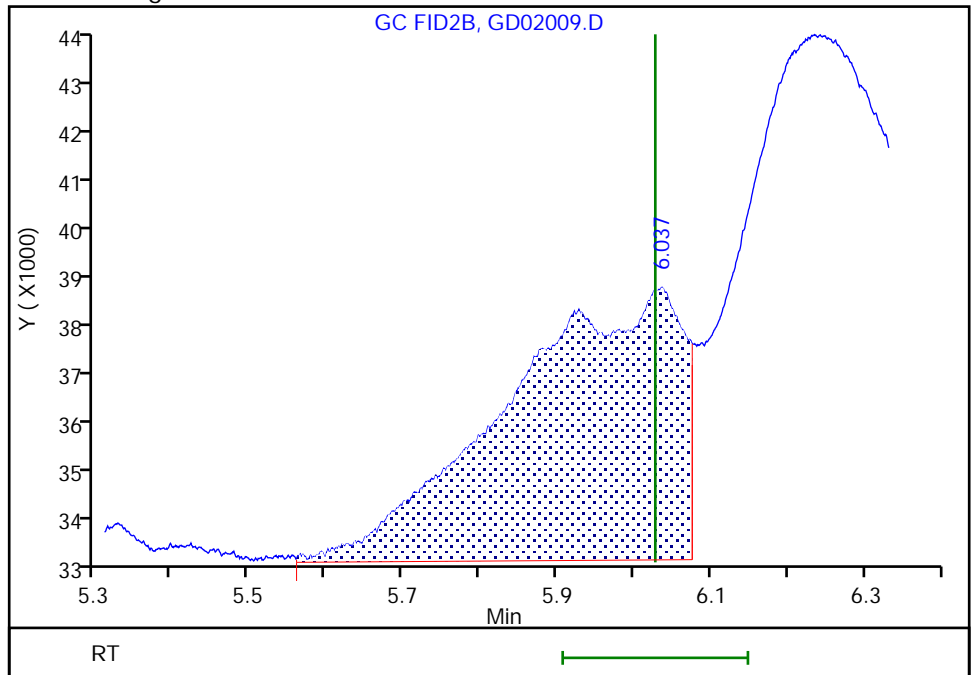
RT: 6.04
Area: 23091
Amount: -0.028186
Amount Units: ug/ml

Processing Integration Results



RT: 6.04
Area: 81281
Amount: 5.142784
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:24:54
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

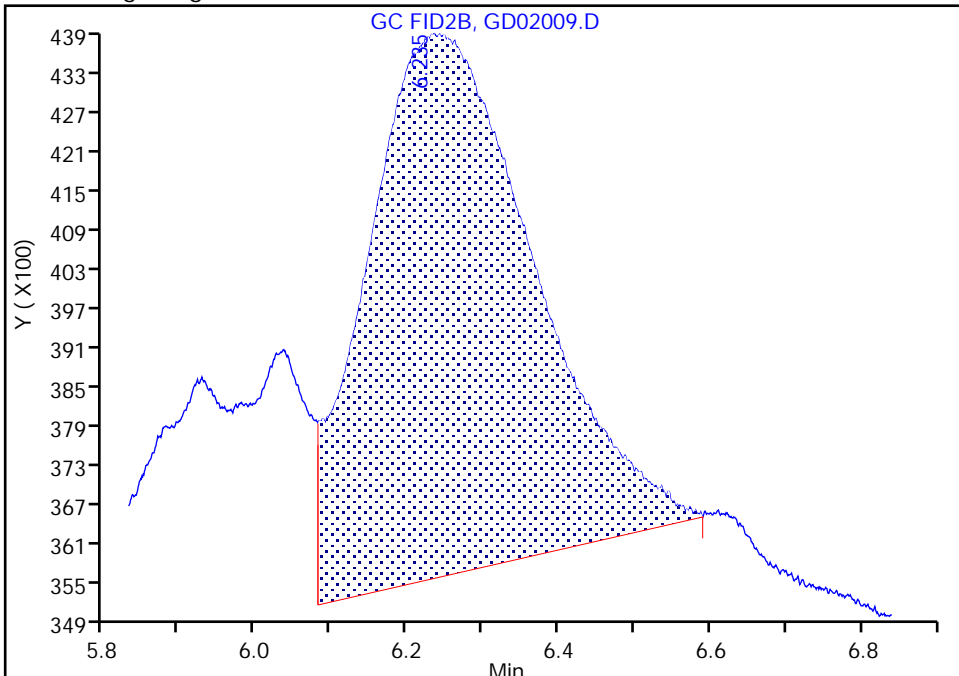
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02009.D
Injection Date: 02-Apr-2023 16:06:54 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

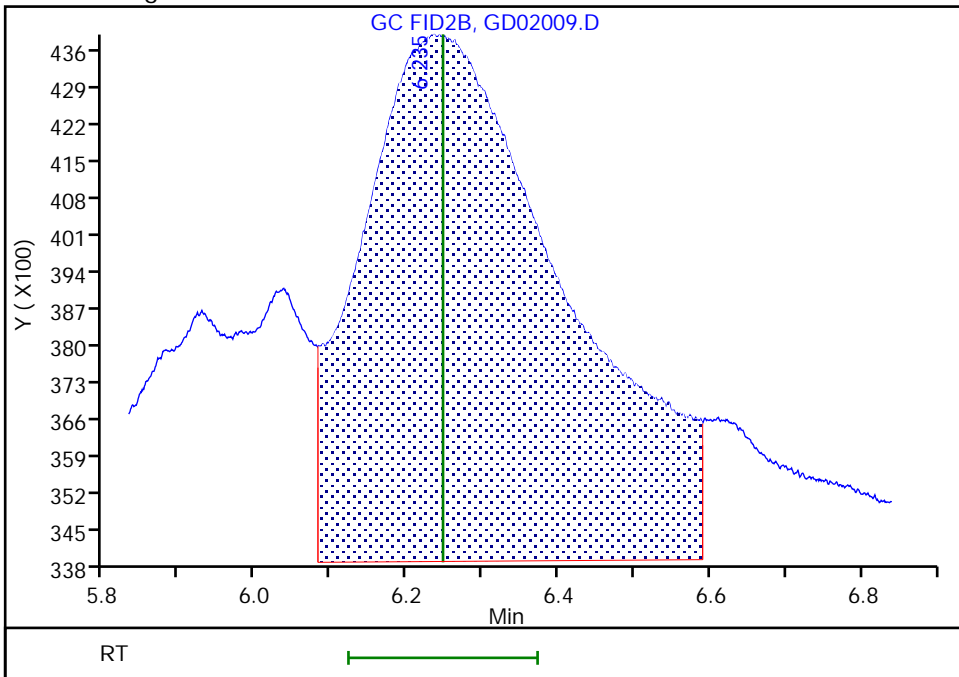
RT: 6.24
Area: 127190
Amount: 1.441255
Amount Units: ug/ml

Processing Integration Results



RT: 6.24
Area: 186390
Amount: 4.568925
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Lims ID: ic g1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 02-Apr-2023 16:30:26 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084885-010
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 03-Apr-2023 10:36:41 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1 Date: 03-Apr-2023 10:25:15

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.754	2.760	-0.006	152859	2.00	2.15	
2 4-Hydroxy-4-methyl-2-pentanone						
3.273	3.282	-0.009	149534	2.00	2.13	
3 2-Butoxyethanol						
3.545	3.548	-0.003	170166	2.00	2.19	
* 4 n-Heptyl Alcohol						
3.970	3.970	0.000	5609925	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
4.875	4.880	-0.005	11391	2.00	2.06	
6 Propylene glycol						
6.034	6.028	0.006	46397	2.00	2.70	Ma
7 Ethylene glycol						
6.254	6.247	0.007	119753	2.00	2.70	M
8 2-(2-Butoxyethoxy)ethanol						
8.079	8.082	-0.003	141914	2.00	2.32	
9 2,2'-Oxybisethanol						
9.480	9.480	0.000	50691	2.00	1.84	
10 Triethylene Glycol						
10.523	10.523	0.000	49121	2.00	2.03	
11 Tetraethylene Glycol						
11.568	11.569	-0.001	113844	4.00	4.35	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

SG_Gly_CAL_00054

Amount Added: 1.00

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D

Injection Date: 02-Apr-2023 16:30:26

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g1

Worklist Smp#: 10

Client ID:

Injection Vol: 1.0 ul

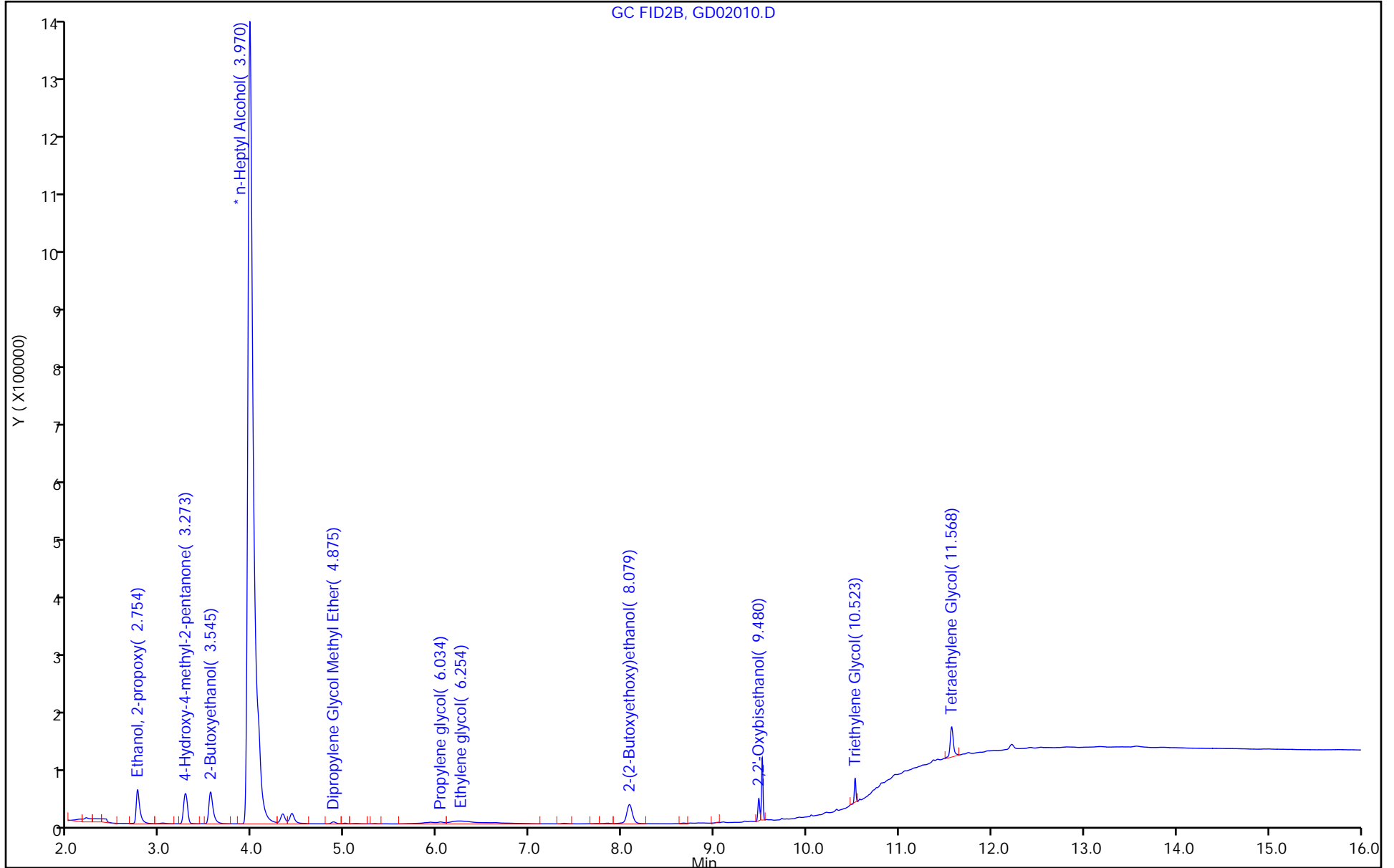
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

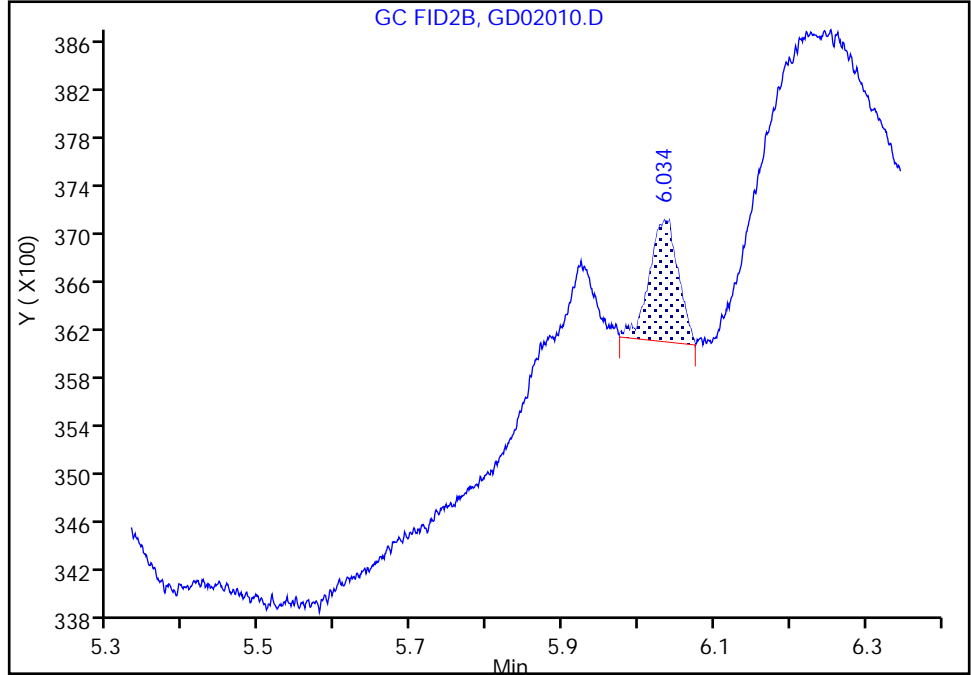
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
Injection Date: 02-Apr-2023 16:30:26 Instrument ID: CVGG2
Lims ID: ic g1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

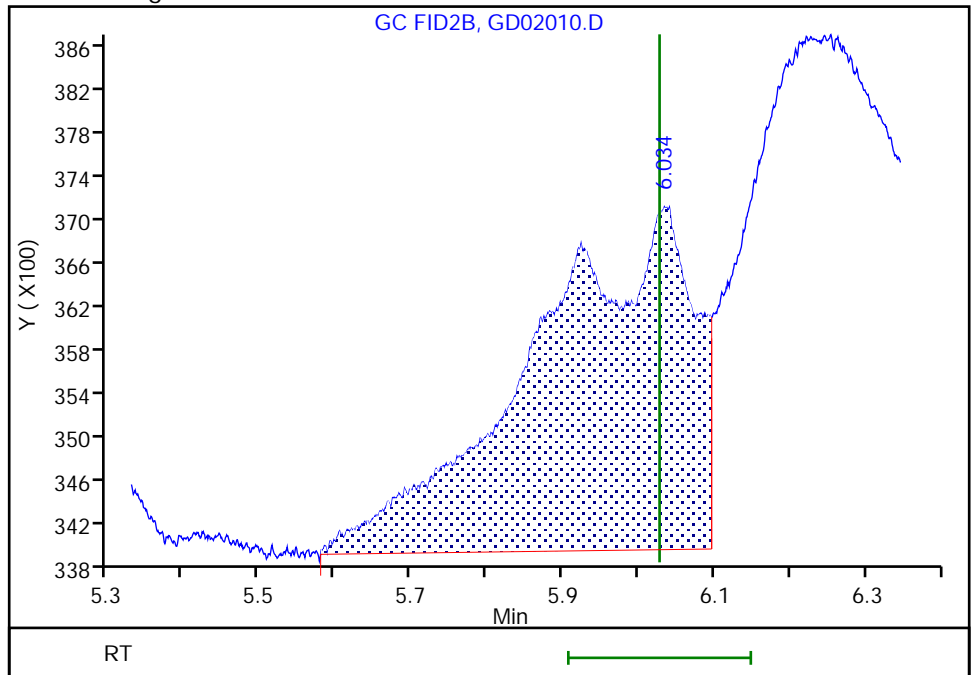
RT: 6.03
Area: 2656
Amount: -3.215441
Amount Units: ug/ml

Processing Integration Results



RT: 6.03
Area: 46397
Amount: 2.695302
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:25:13

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Euofins Savannah

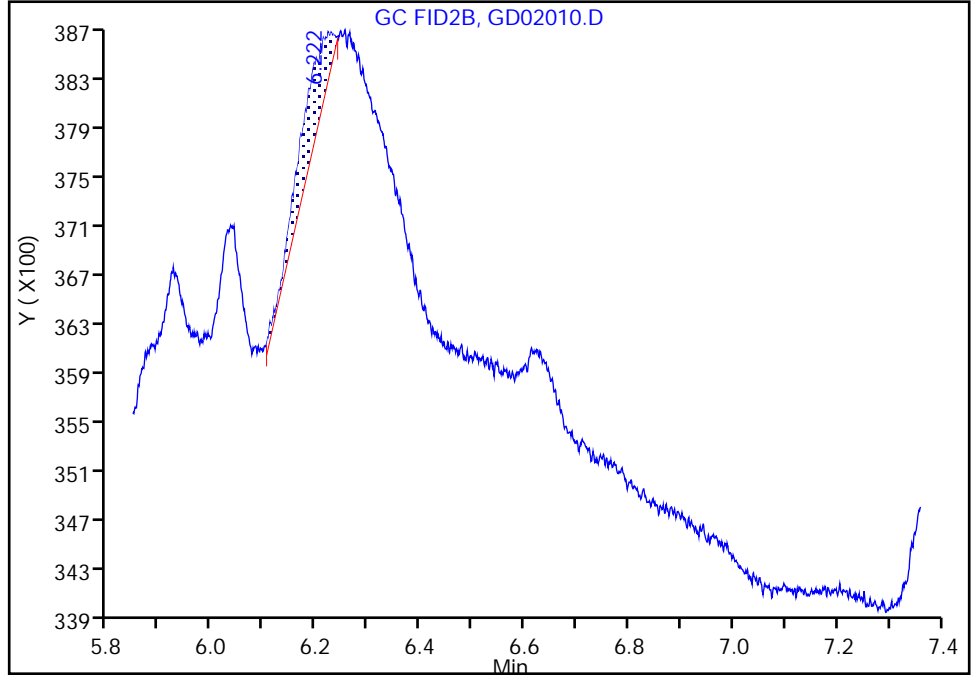
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
Injection Date: 02-Apr-2023 16:30:26 Instrument ID: CVGG2
Lims ID: ic g1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

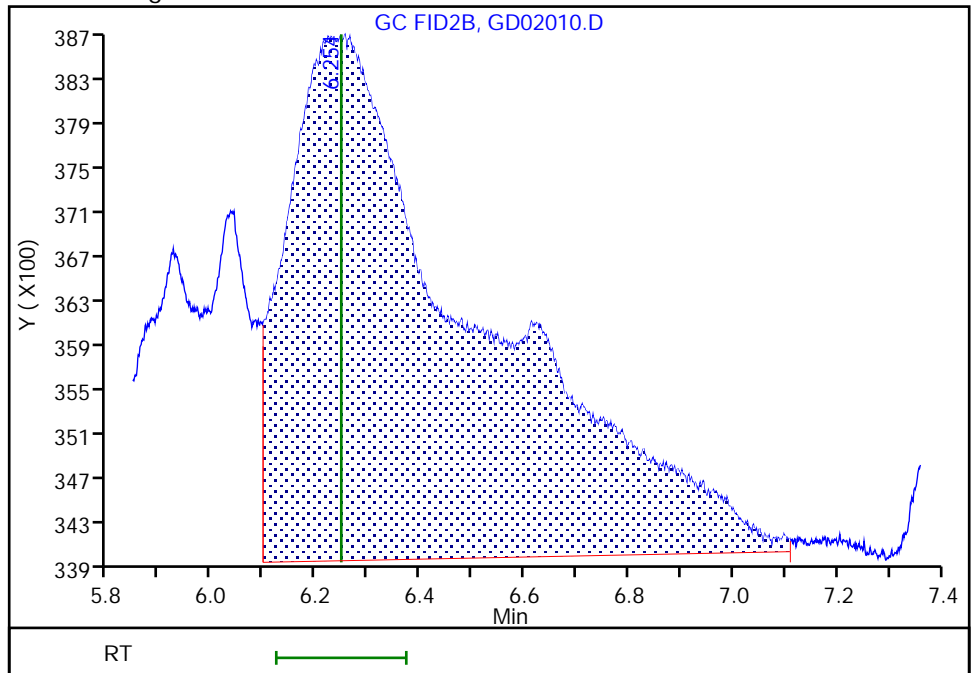
RT: 6.22
Area: 2640
Amount: -3.308345
Amount Units: ug/ml

Processing Integration Results



RT: 6.25
Area: 119753
Amount: 2.695169
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:25:10
Audit Action: Split an Integrated Peak

Audit Reason: Baseline Smoothing

Calibration

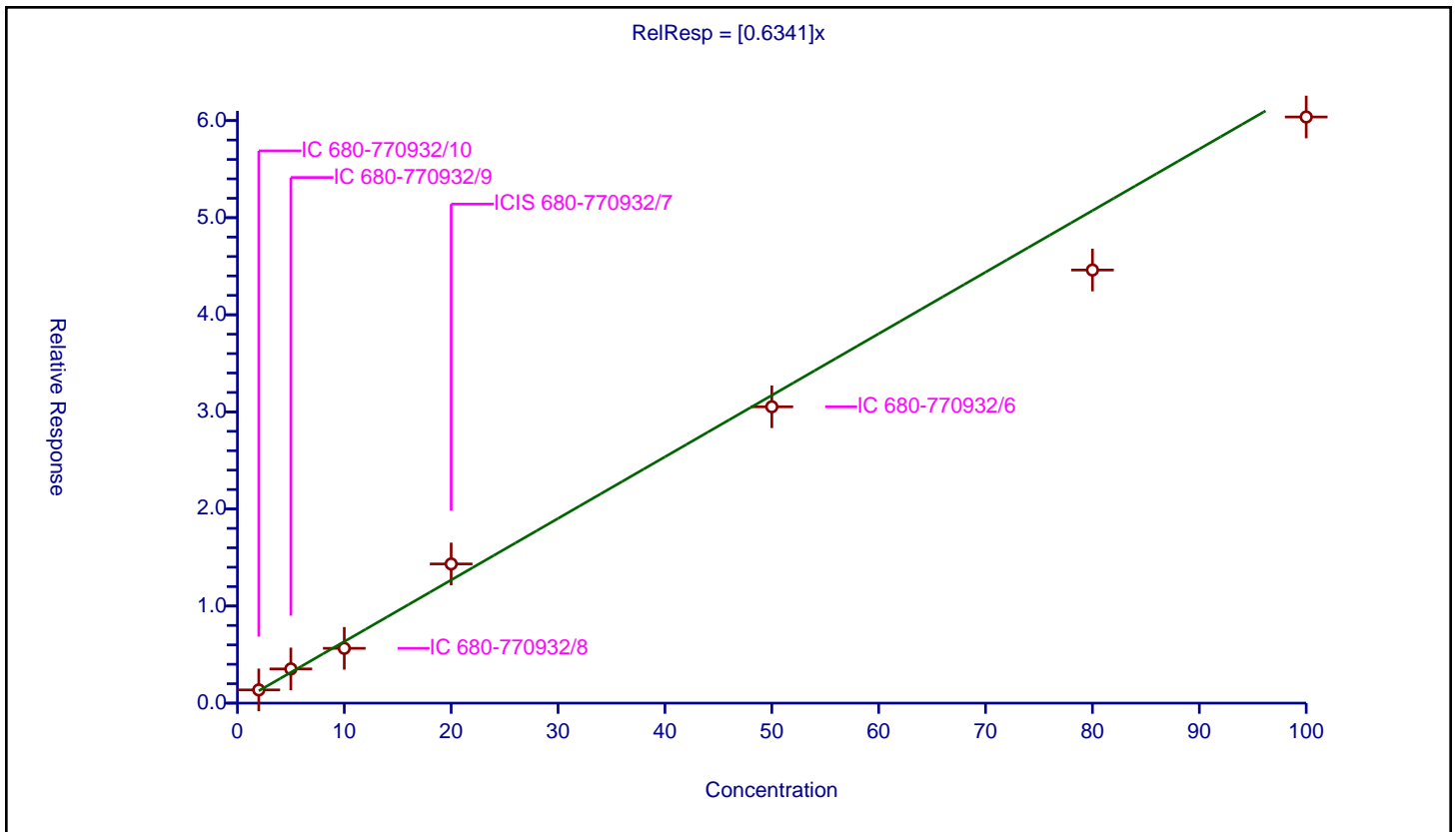
/ Ethanol, 2-propoxy

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

Curve Coefficients	
Intercept:	0
Slope:	0.6341

Error Coefficients	
Standard Error:	3360000
Relative Standard Error:	10.4
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-770932/10	2.0	1.362398	50.0	5609925.0	0.681199	Y
2	IC 680-770932/9	5.0	3.523101	50.0	5150689.0	0.70462	Y
3	IC 680-770932/8	10.0	5.643574	50.0	6279283.0	0.564357	Y
4	ICIS 680-770932/7	20.0	14.33708	50.0	5447082.0	0.716854	Y
5	IC 680-770932/6	50.0	30.526623	50.0	5051127.0	0.610532	Y
6	IC 680-770932/5	80.0	44.608919	50.0	5060015.0	0.557611	Y
7	IC 680-770932/4	100.0	60.370612	50.0	4894306.0	0.603706	Y



Calibration

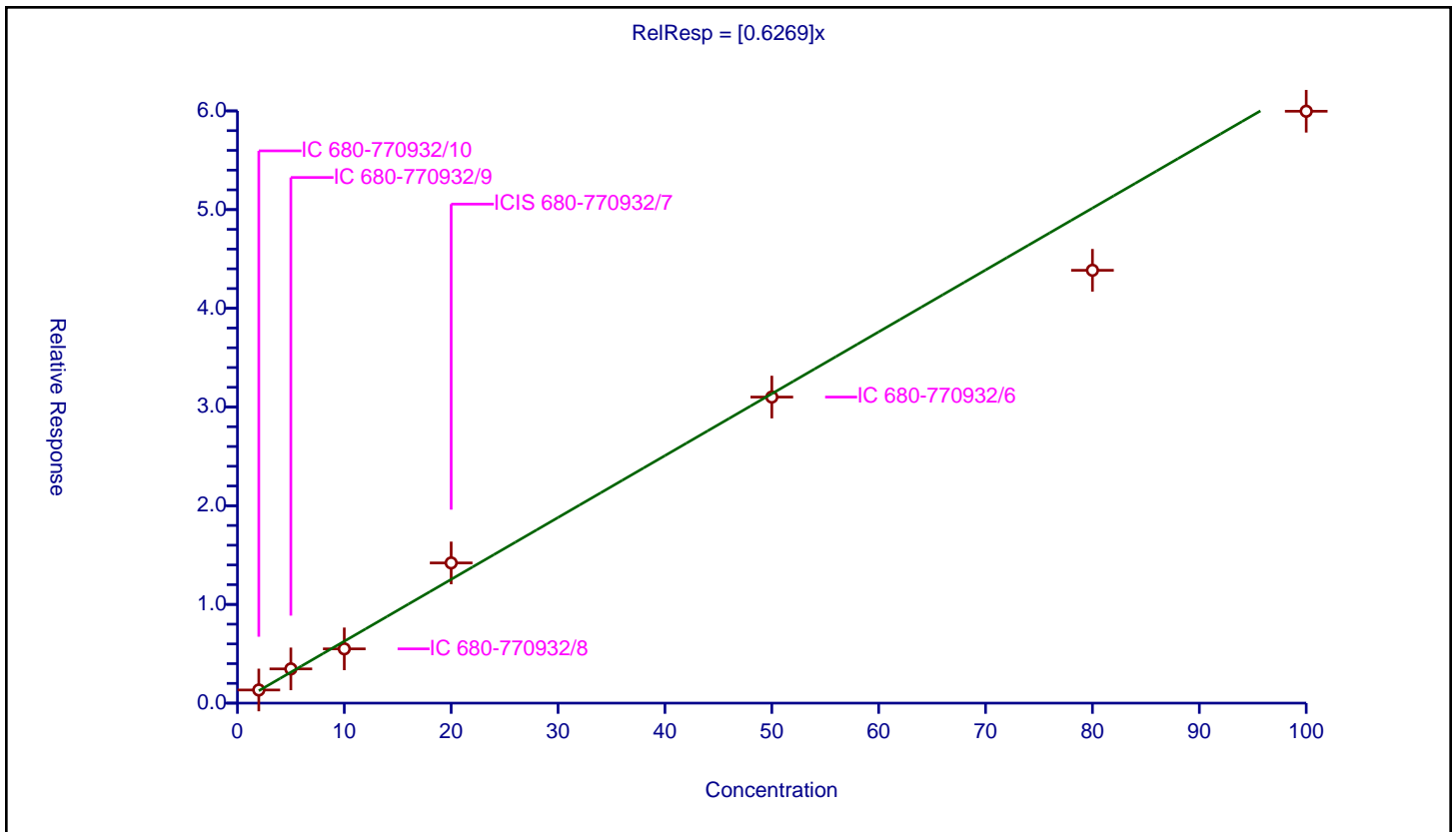
/ 4-Hydroxy-4-methyl-2-pentanone

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

Curve Coefficients	
Intercept:	0
Slope:	0.6269

Error Coefficients	
Standard Error:	3340000
Relative Standard Error:	10.5
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-770932/10	2.0	1.332763	50.0	5609925.0	0.666381	Y
2	IC 680-770932/9	5.0	3.467633	50.0	5150689.0	0.693527	Y
3	IC 680-770932/8	10.0	5.49886	50.0	6279283.0	0.549886	Y
4	ICIS 680-770932/7	20.0	14.206147	50.0	5447082.0	0.710307	Y
5	IC 680-770932/6	50.0	31.006991	50.0	5051127.0	0.62014	Y
6	IC 680-770932/5	80.0	43.851688	50.0	5060015.0	0.548146	Y
7	IC 680-770932/4	100.0	59.965427	50.0	4894306.0	0.599654	Y



Calibration

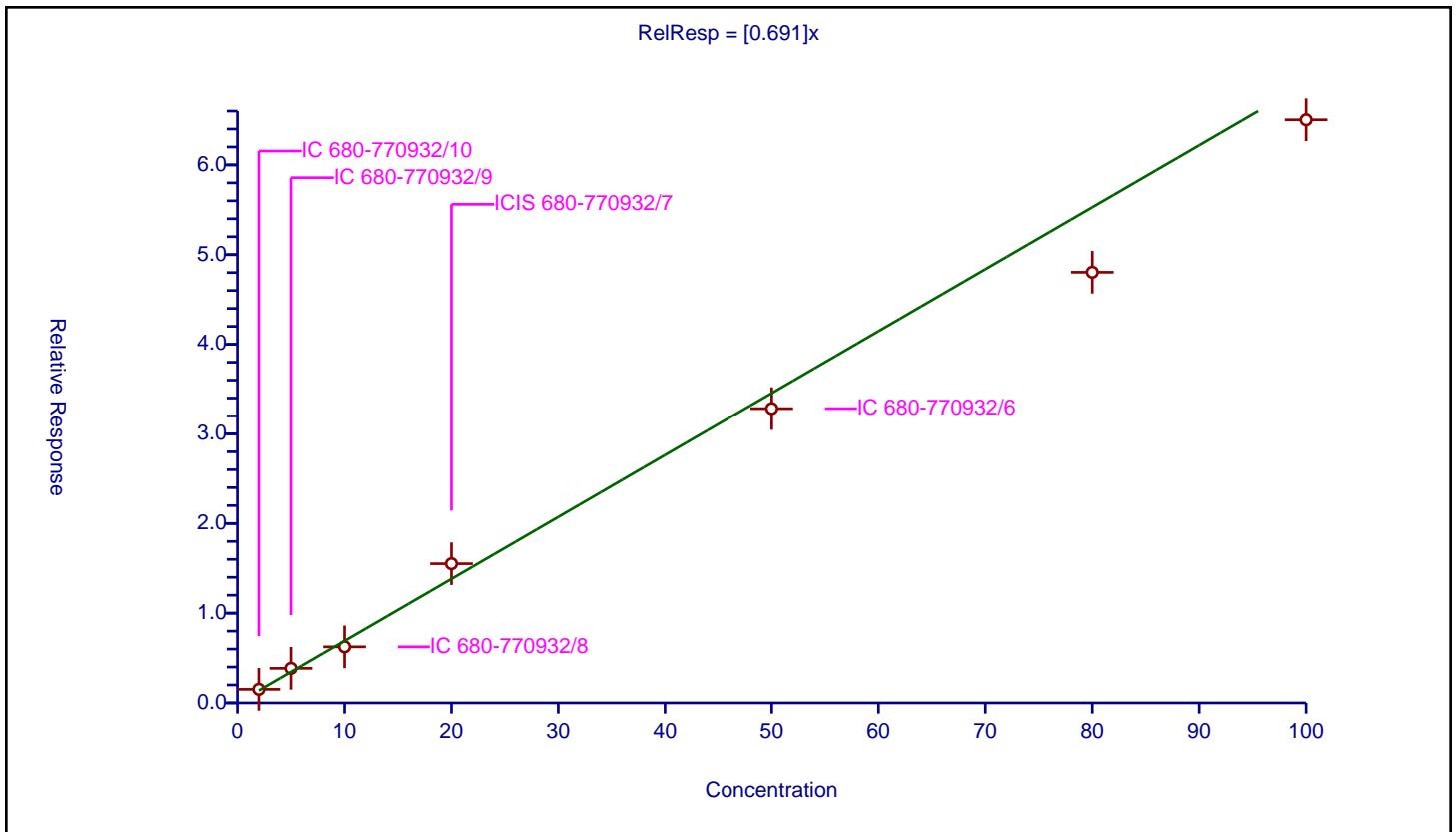
/ 2-Butoxyethanol

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

Curve Coefficients	
Intercept:	0
Slope:	0.691

Error Coefficients	
Standard Error:	3620000
Relative Standard Error:	10.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-770932/10	2.0	1.516651	50.0	5609925.0	0.758326	Y
2	IC 680-770932/9	5.0	3.854853	50.0	5150689.0	0.770971	Y
3	IC 680-770932/8	10.0	6.248142	50.0	6279283.0	0.624814	Y
4	ICIS 680-770932/7	20.0	15.51527	50.0	5447082.0	0.775764	Y
5	IC 680-770932/6	50.0	32.826169	50.0	5051127.0	0.656523	Y
6	IC 680-770932/5	80.0	48.035648	50.0	5060015.0	0.600446	Y
7	IC 680-770932/4	100.0	65.030987	50.0	4894306.0	0.65031	Y



Calibration

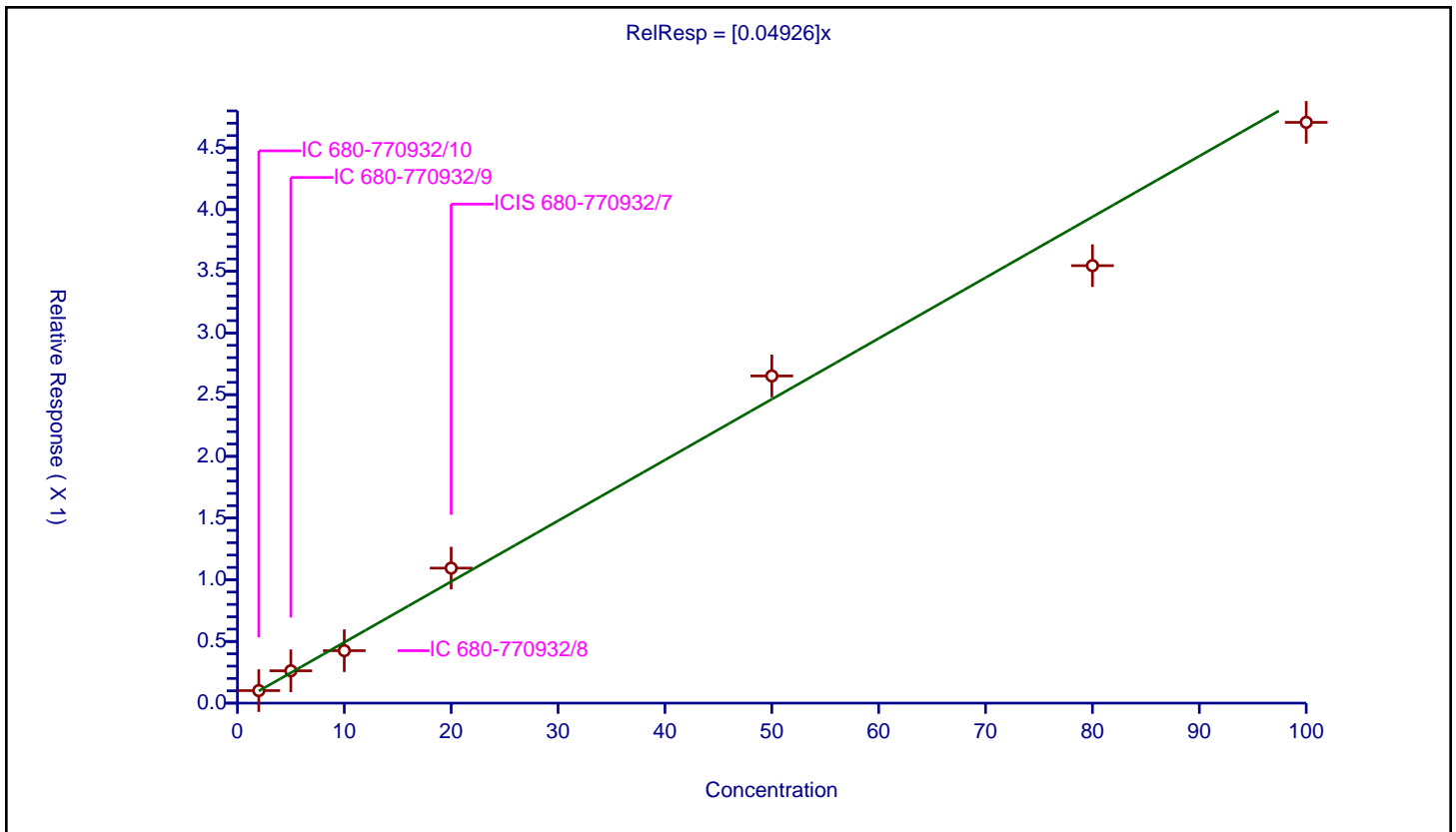
/ Dipropylene Glycol Methyl Ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.04926

Error Coefficients	
Standard Error:	268000
Relative Standard Error:	9.5
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-770932/10	2.0	0.101525	50.0	5609925.0	0.050763	Y
2	IC 680-770932/9	5.0	0.26213	50.0	5150689.0	0.052426	Y
3	IC 680-770932/8	10.0	0.425049	50.0	6279283.0	0.042505	Y
4	ICIS 680-770932/7	20.0	1.094338	50.0	5447082.0	0.054717	Y
5	IC 680-770932/6	50.0	2.651784	50.0	5051127.0	0.053036	Y
6	IC 680-770932/5	80.0	3.545661	50.0	5060015.0	0.044321	Y
7	IC 680-770932/4	100.0	4.707021	50.0	4894306.0	0.04707	Y



Calibration

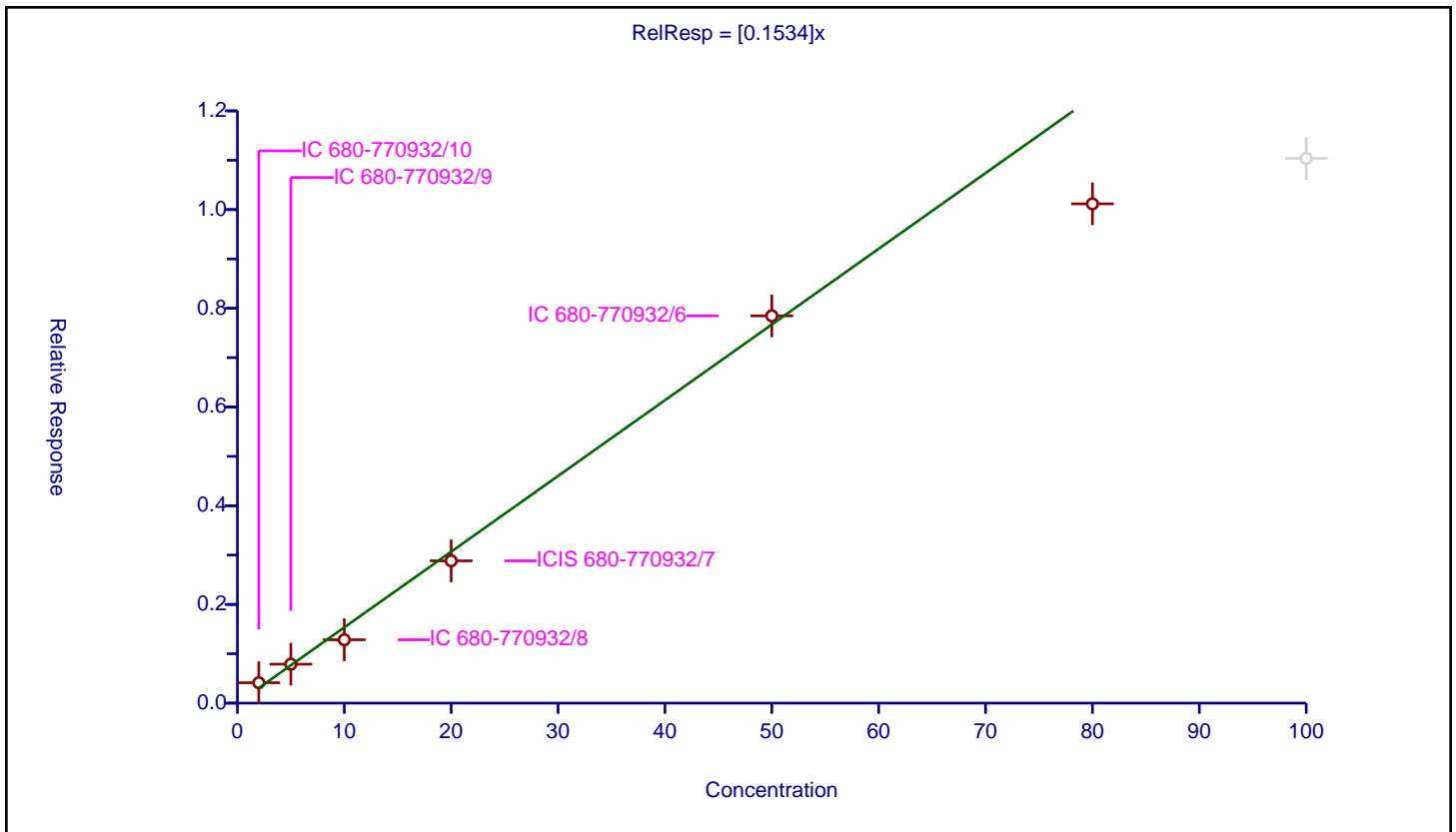
/ Propylene glycol

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

Curve Coefficients	
Intercept:	0
Slope:	0.1534

Error Coefficients	
Standard Error:	602000
Relative Standard Error:	19.1
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.930

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-770932/10	2.0	0.413526	50.0	5609925.0	0.206763	Y
2	IC 680-770932/9	5.0	0.78903	50.0	5150689.0	0.157806	Y
3	IC 680-770932/8	10.0	1.283889	50.0	6279283.0	0.128389	Y
4	ICIS 680-770932/7	20.0	2.883893	50.0	5447082.0	0.144195	Y
5	IC 680-770932/6	50.0	7.846991	50.0	5051127.0	0.15694	Y
6	IC 680-770932/5	80.0	10.116482	50.0	5060015.0	0.126456	Y
7	IC 680-770932/4	100.0	11.036703	50.0	4894306.0	0.110367	N



Calibration

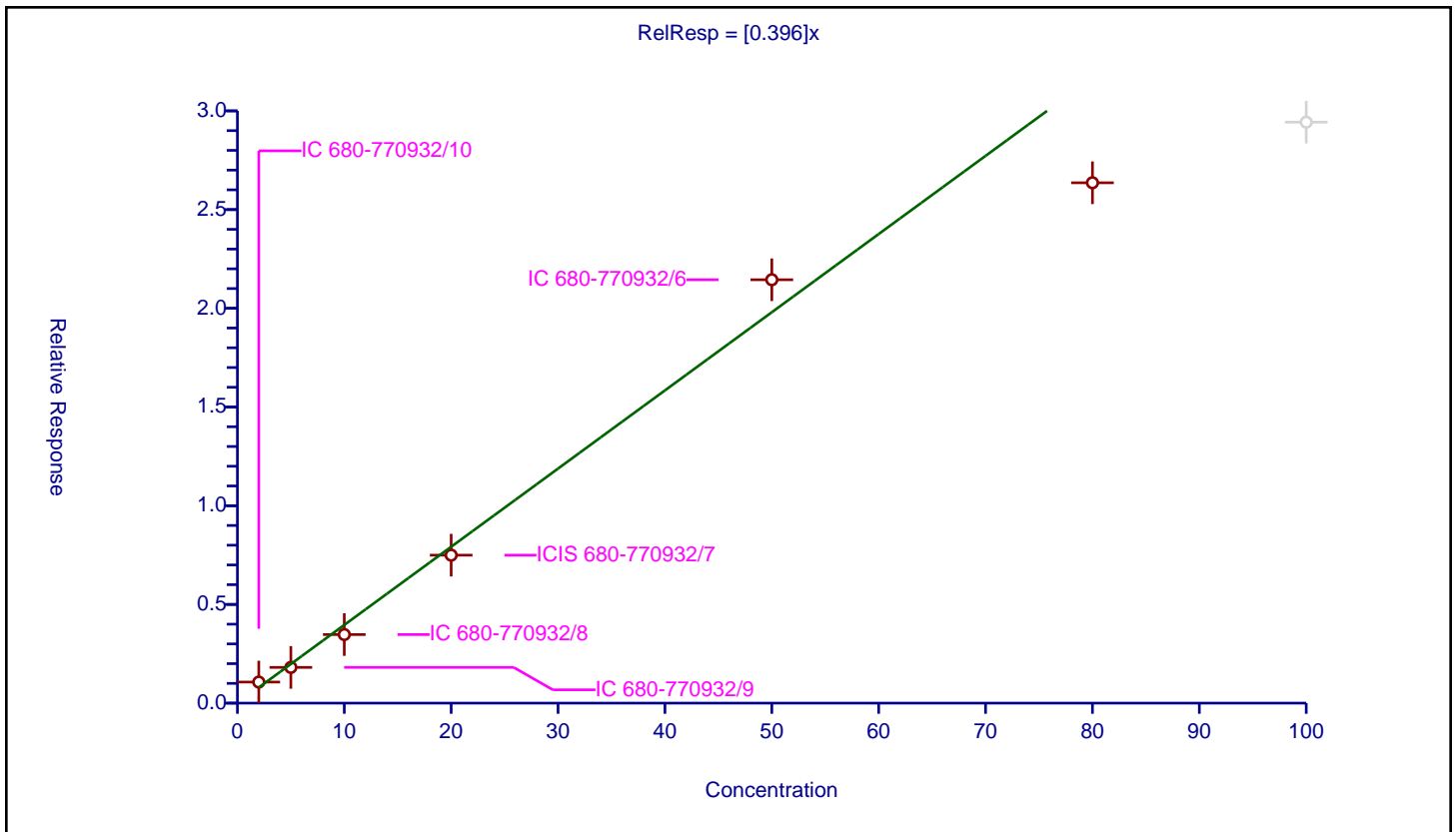
/ Ethylene glycol

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

Curve Coefficients	
Intercept:	0
Slope:	0.396

Error Coefficients	
Standard Error:	1590000
Relative Standard Error:	19.0
Correlation Coefficient:	0.972
Coefficient of Determination (Adjusted):	0.933

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-770932/10	2.0	1.067332	50.0	5609925.0	0.533666	Y
2	IC 680-770932/9	5.0	1.80937	50.0	5150689.0	0.361874	Y
3	IC 680-770932/8	10.0	3.473764	50.0	6279283.0	0.347376	Y
4	ICIS 680-770932/7	20.0	7.495527	50.0	5447082.0	0.374776	Y
5	IC 680-770932/6	50.0	21.445996	50.0	5051127.0	0.42892	Y
6	IC 680-770932/5	80.0	26.358934	50.0	5060015.0	0.329487	Y
7	IC 680-770932/4	100.0	29.428932	50.0	4894306.0	0.294289	N



Calibration

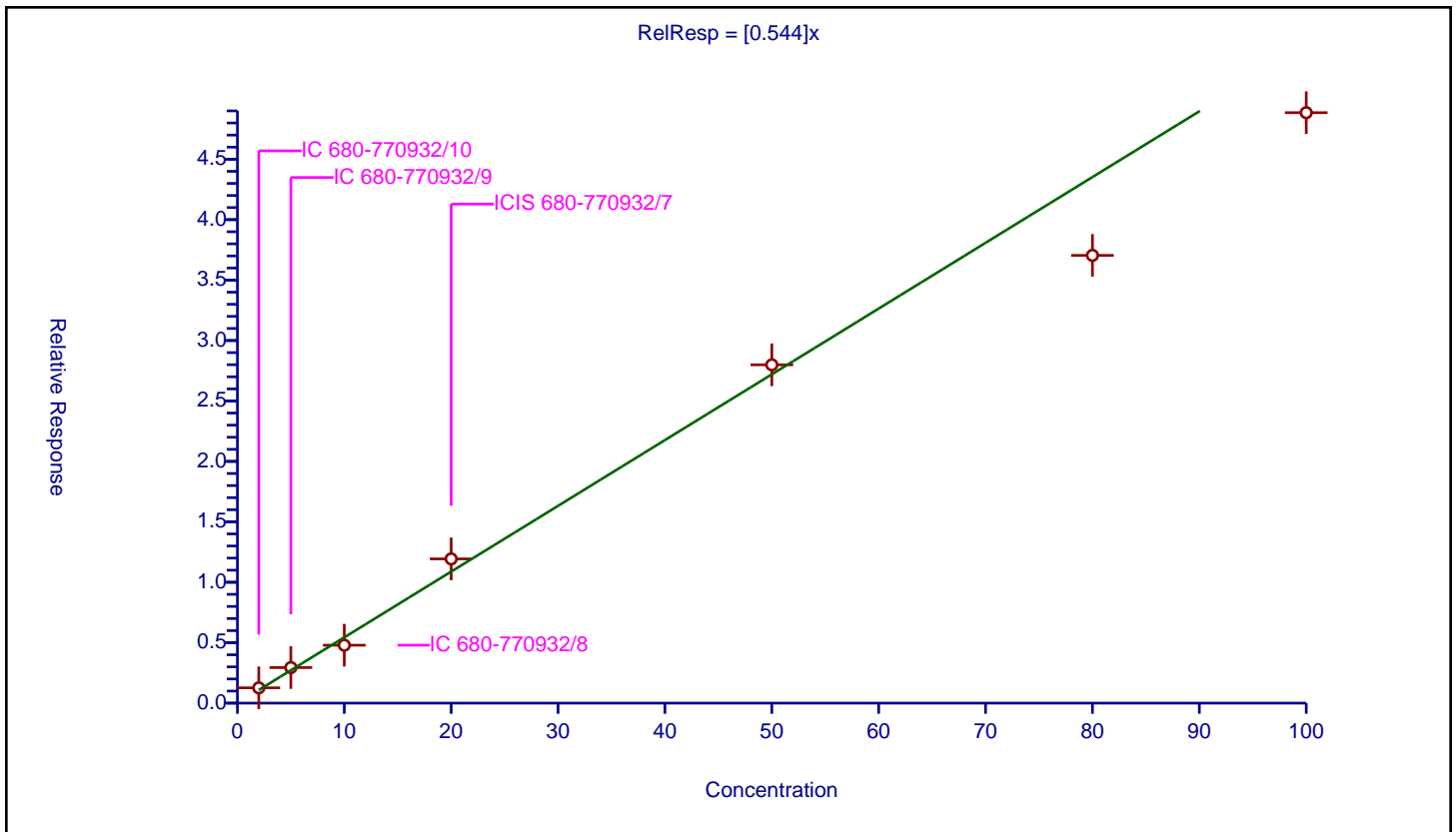
/ 2-(2-Butoxyethoxy)ethanol

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

Curve Coefficients	
Intercept:	0
Slope:	0.544

Error Coefficients	
Standard Error:	2800000
Relative Standard Error:	12.3
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-770932/10	2.0	1.264848	50.0	5609925.0	0.632424	Y
2	IC 680-770932/9	5.0	2.943577	50.0	5150689.0	0.588715	Y
3	IC 680-770932/8	10.0	4.790977	50.0	6279283.0	0.479098	Y
4	ICIS 680-770932/7	20.0	11.93361	50.0	5447082.0	0.59668	Y
5	IC 680-770932/6	50.0	27.991605	50.0	5051127.0	0.559832	Y
6	IC 680-770932/5	80.0	37.045602	50.0	5060015.0	0.46307	Y
7	IC 680-770932/4	100.0	48.851277	50.0	4894306.0	0.488513	Y



Calibration

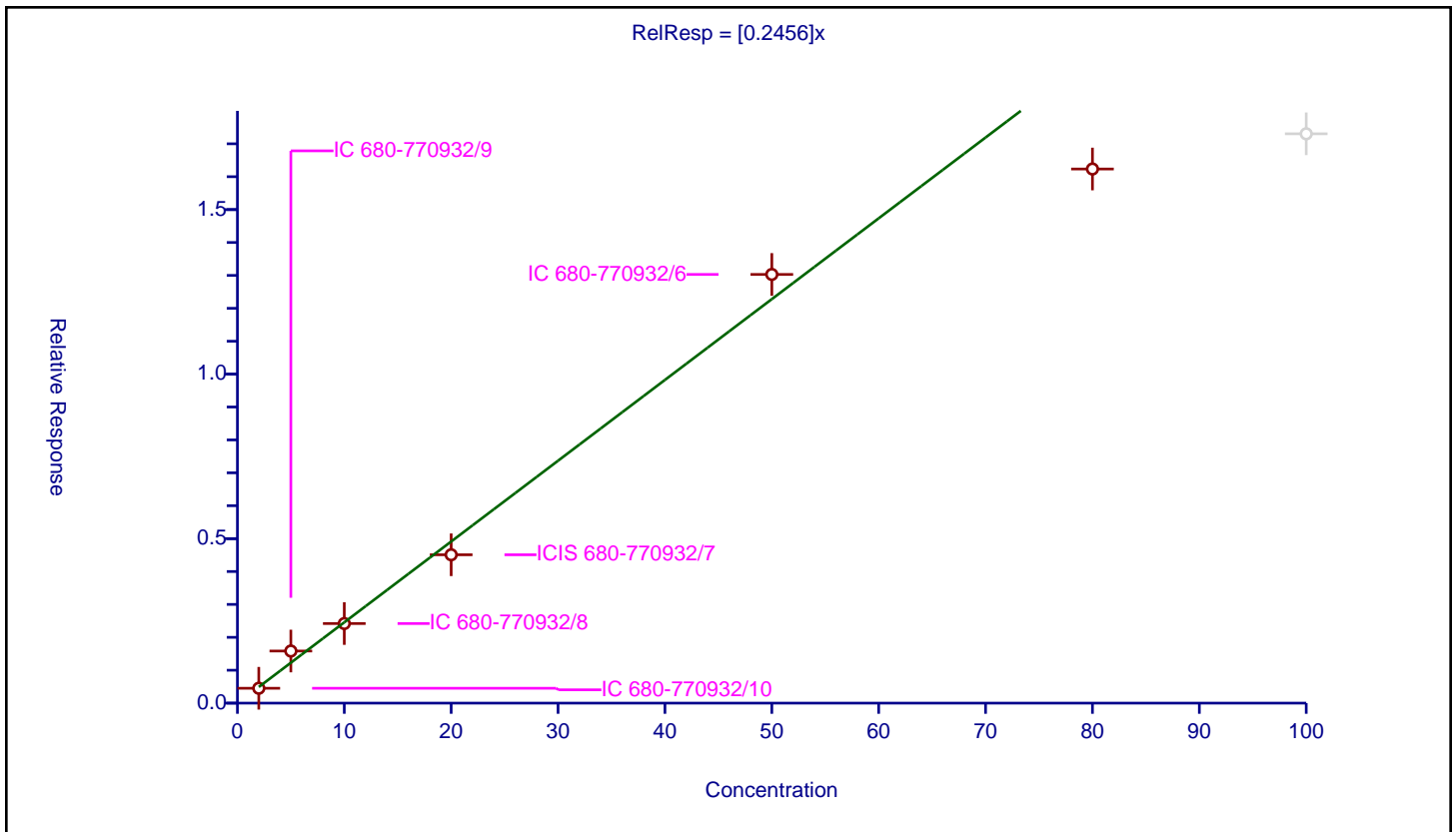
/ 2,2'-Oxybisethanol

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

Curve Coefficients	
Intercept:	0
Slope:	0.2456

Error Coefficients	
Standard Error:	979000
Relative Standard Error:	16.2
Correlation Coefficient:	0.975
Coefficient of Determination (Adjusted):	0.962

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-770932/10	2.0	0.451797	50.0	5609925.0	0.225899	Y
2	IC 680-770932/9	5.0	1.583662	50.0	5150689.0	0.316732	Y
3	IC 680-770932/8	10.0	2.418827	50.0	6279283.0	0.241883	Y
4	ICIS 680-770932/7	20.0	4.509056	50.0	5447082.0	0.225453	Y
5	IC 680-770932/6	50.0	13.029063	50.0	5051127.0	0.260581	Y
6	IC 680-770932/5	80.0	16.233687	50.0	5060015.0	0.202921	Y
7	IC 680-770932/4	100.0	17.303485	50.0	4894306.0	0.173035	N



Calibration

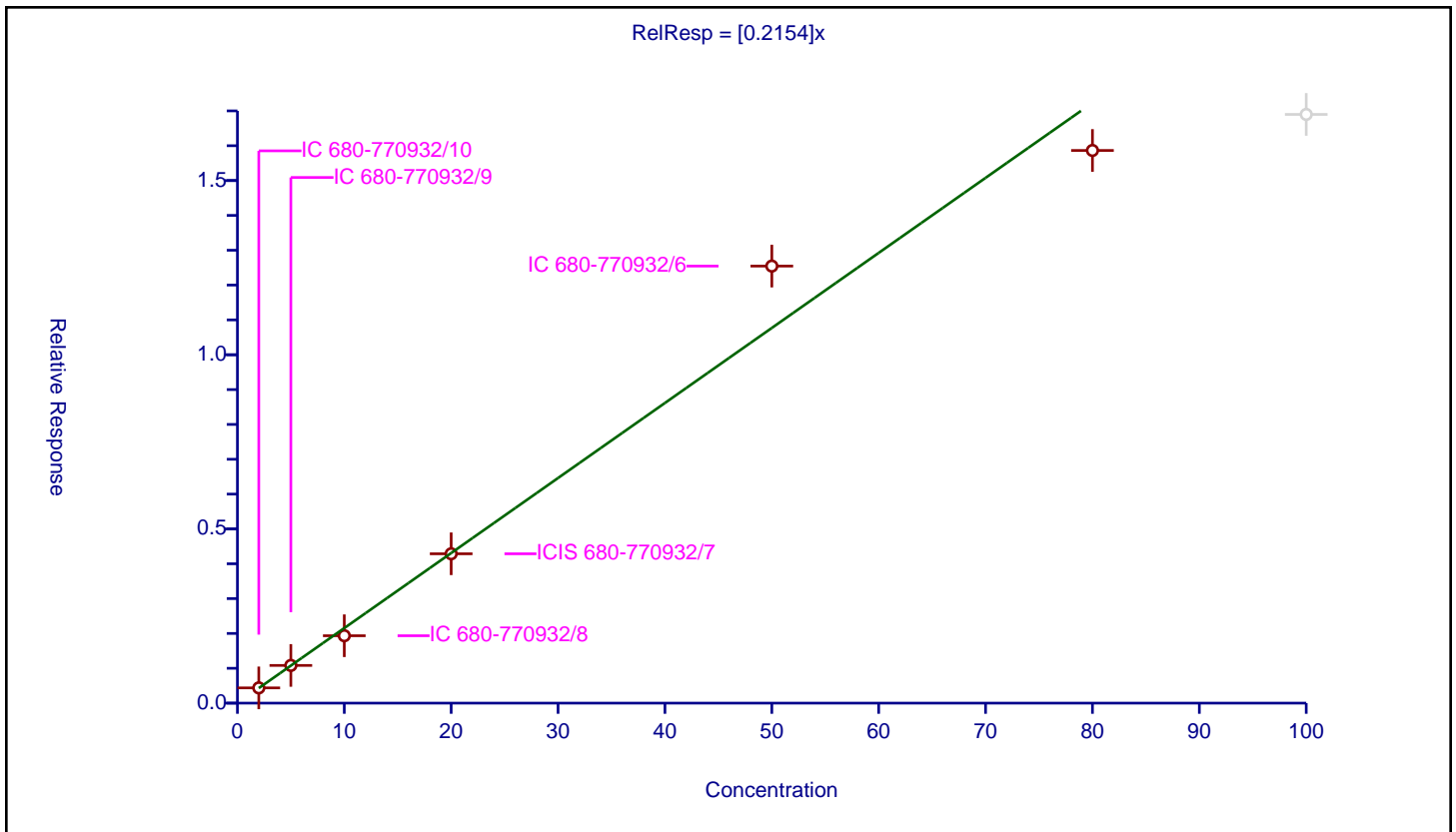
/ Triethylene Glycol

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

Curve Coefficients	
Intercept:	0
Slope:	0.2154

Error Coefficients	
Standard Error:	946000
Relative Standard Error:	9.4
Correlation Coefficient:	0.978
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-770932/10	2.0	0.437804	50.0	5609925.0	0.218902	Y
2	IC 680-770932/9	5.0	1.082389	50.0	5150689.0	0.216478	Y
3	IC 680-770932/8	10.0	1.934249	50.0	6279283.0	0.193425	Y
4	ICIS 680-770932/7	20.0	4.286993	50.0	5447082.0	0.21435	Y
5	IC 680-770932/6	50.0	12.545062	50.0	5051127.0	0.250901	Y
6	IC 680-770932/5	80.0	15.863708	50.0	5060015.0	0.198296	Y
7	IC 680-770932/4	100.0	16.89831	50.0	4894306.0	0.168983	N



Calibration

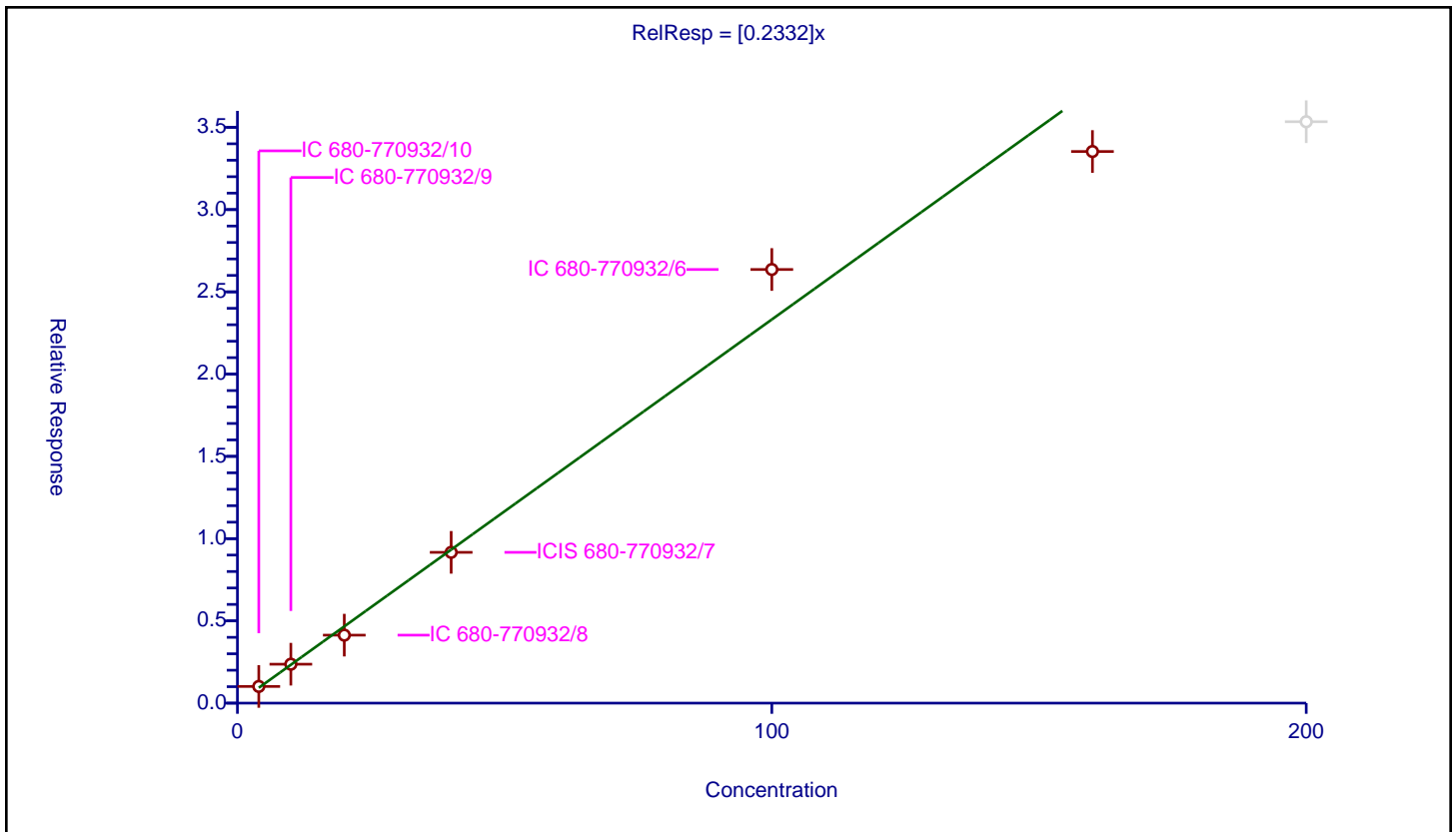
/ Tetraethylene Glycol

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

Curve Coefficients	
Intercept:	0
Slope:	0.2332

Error Coefficients	
Standard Error:	2000000
Relative Standard Error:	9.8
Correlation Coefficient:	0.979
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-770932/10	4.0	1.014666	50.0	5609925.0	0.253666	Y
2	IC 680-770932/9	10.0	2.366509	50.0	5150689.0	0.236651	Y
3	IC 680-770932/8	20.0	4.132008	50.0	6279283.0	0.2066	Y
4	ICIS 680-770932/7	40.0	9.165963	50.0	5447082.0	0.229149	Y
5	IC 680-770932/6	100.0	26.358761	50.0	5051127.0	0.263588	Y
6	IC 680-770932/5	160.0	33.53076	50.0	5060015.0	0.209567	Y
7	IC 680-770932/4	200.0	35.342651	50.0	4894306.0	0.176713	N



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-125379-1
 SDG No.: _____
 Lab Sample ID: ICV 680-770932/11 Calibration Date: 04/02/2023 16:53
 Instrument ID: CVGG2 Calib Start Date: 04/02/2023 14:09
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/02/2023 16:30
 Lab File ID: GD02011.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.6341	0.6131		19.3	20.0	-3.3	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6269	0.5928		18.9	20.0	-5.4	20.0
2-Butoxyethanol	Ave	0.6910	0.7072		20.5	20.0	2.3	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0493	0.0494		20.0	20.0	0.2	20.0
Propylene glycol	Ave	0.1534	0.1328		17.3	20.0	-13.4	20.0
Ethylene glycol	Ave	0.3960	0.4064		20.5	20.0	2.6	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5440	0.5203		19.1	20.0	-4.4	20.0
2,2'-Oxybisethanol	Ave	0.2456	0.2313		18.8	20.0	-5.8	20.0
Triethylene Glycol	Ave	0.2154	0.2477		23.0	20.0	15.0	20.0
Tetraethylene Glycol	Ave	0.2332	0.2586		44.4	40.0	10.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-125379-1
 SDG No.: _____
 Lab Sample ID: ICV 680-770932/11 Calibration Date: 04/02/2023 16:53
 Instrument ID: CVGG2 Calib Start Date: 04/02/2023 14:09
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/02/2023 16:30
 Lab File ID: GD02011.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.75	2.71	2.82
4-Hydroxy-4-methyl-2-pentanone	3.27	3.22	3.35
2-Butoxyethanol	3.54	3.48	3.62
Dipropylene Glycol Methyl Ether	4.88	4.78	4.98
Propylene glycol	6.03	5.91	6.15
Ethylene glycol	6.25	6.12	6.37
2-(2-Butoxyethoxy)ethanol	8.08	7.92	8.24
2,2'-Oxybisethanol	9.48	9.29	9.67
Triethylene Glycol	10.52	10.31	10.73
Tetraethylene Glycol	11.57	11.34	11.80

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02011.D
 Lims ID: icv glycol
 Client ID:
 Sample Type: CCV
 Inject. Date: 02-Apr-2023 16:53:47 ALS Bottle#: 0 Worklist Smp#: 11
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084885-011
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 03-Apr-2023 10:40:48 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1656

First Level Reviewer: SWK1

Date: 03-Apr-2023 10:25:45

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.751	2.760	-0.009	1470032	20.0	19.3	
2 4-Hydroxy-4-methyl-2-pentanone						
3.271	3.282	-0.011	1421365	20.0	18.9	
3 2-Butoxyethanol						
3.542	3.548	-0.006	1695506	20.0	20.5	
* 4 n-Heptyl Alcohol						
3.971	3.970	0.001	5993944	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
4.877	4.880	-0.003	118353	20.0	20.0	
6 Propylene glycol						
6.032	6.028	0.004	318393	20.0	17.3	M
7 Ethylene glycol						
6.246	6.247	-0.001	974438	20.0	20.5	M
8 2-(2-Butoxyethoxy)ethanol						
8.078	8.082	-0.004	1247479	20.0	19.1	
9 2,2'-Oxybisethanol						
9.479	9.480	-0.001	554648	20.0	18.8	
10 Triethylene Glycol						
10.523	10.523	0.000	593951	20.0	23.0	
11 Tetraethylene Glycol						
11.568	11.569	-0.001	1239924	40.0	44.4	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_GlyICV_00059

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02011.D

Injection Date: 02-Apr-2023 16:53:47

Instrument ID: CVGG2

Operator ID:

Lims ID: icv glycol

Worklist Smp#: 11

Client ID:

Injection Vol: 1.0 ul

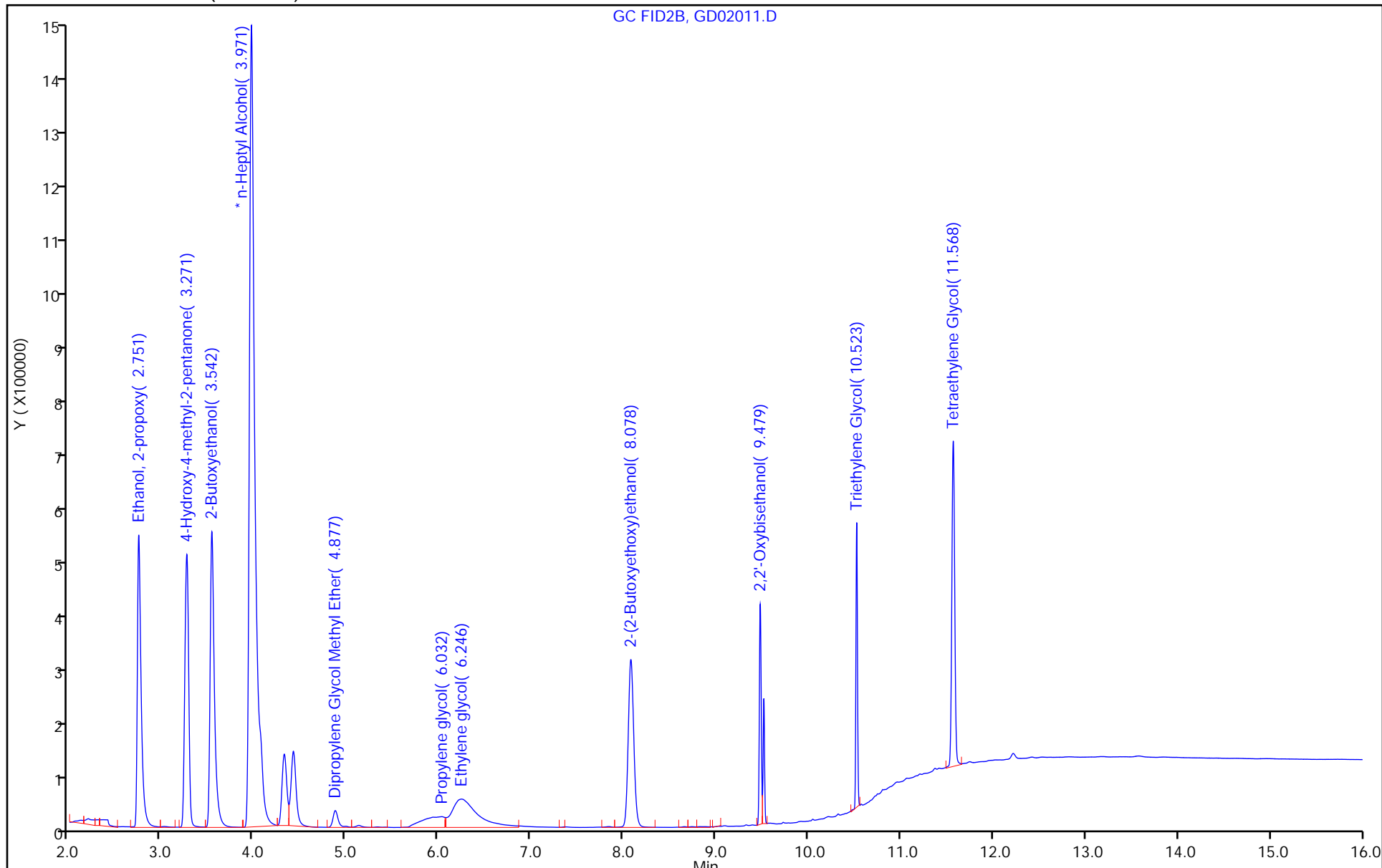
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

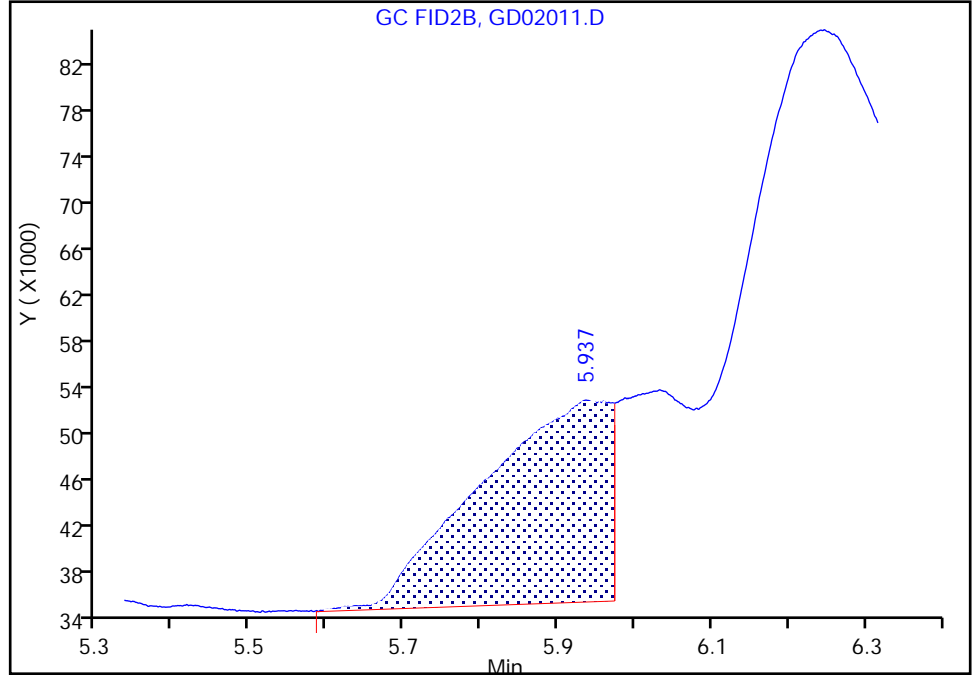
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02011.D
Injection Date: 02-Apr-2023 16:53:47 Instrument ID: CVGG2
Lims ID: icv glycol
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

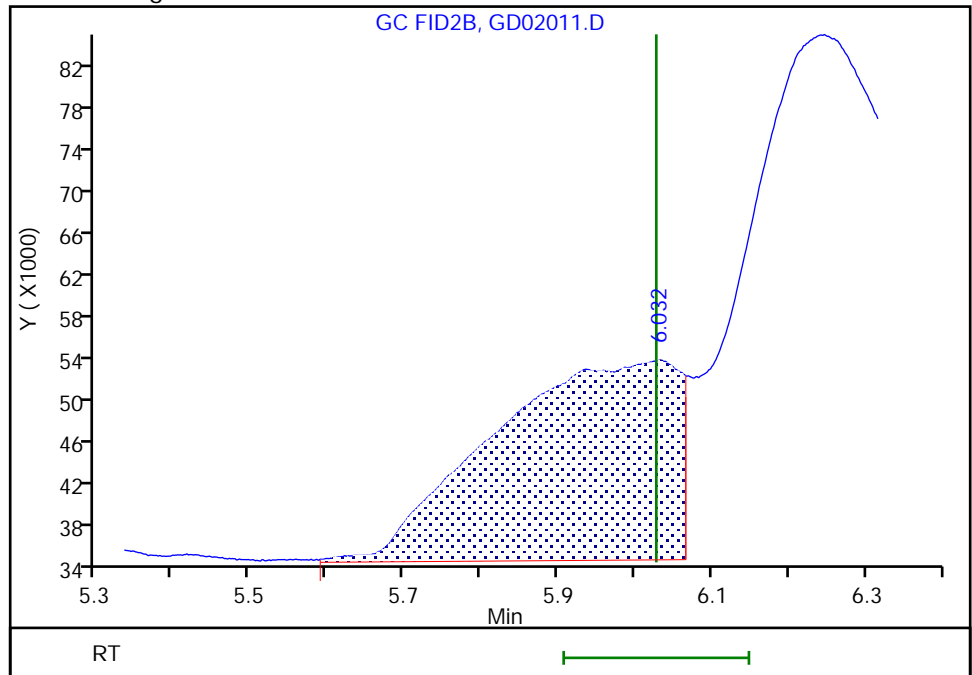
RT: 5.94
Area: 203676
Amount: 10.702681
Amount Units: ug/ml

Processing Integration Results



RT: 6.03
Area: 318393
Amount: 17.311131
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:25:43
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

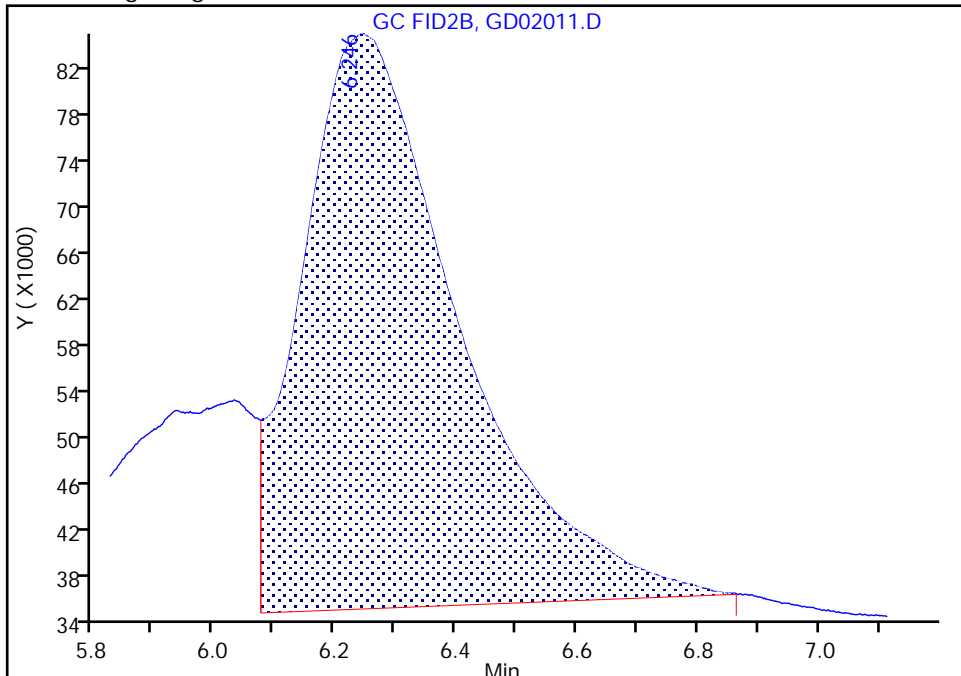
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02011.D
Injection Date: 02-Apr-2023 16:53:47 Instrument ID: CVGG2
Lims ID: icv glycol
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

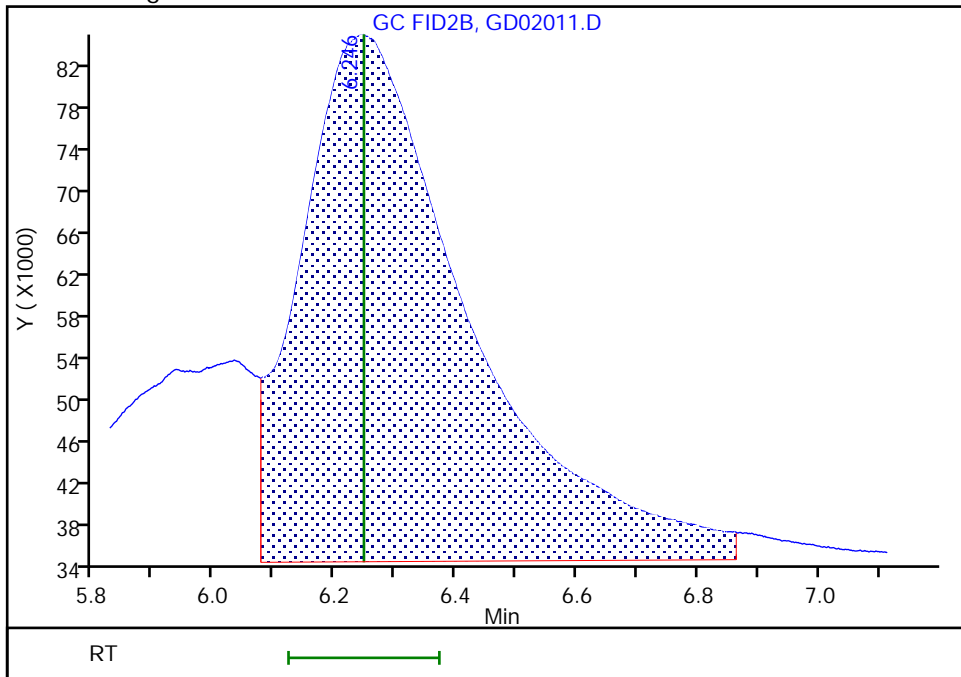
RT: 6.25
Area: 883978
Amount: 21.169677
Amount Units: ug/ml

Processing Integration Results



RT: 6.25
Area: 974438
Amount: 20.525712
Amount Units: ug/ml

Manual Integration Results



Reviewer: SWK1, 03-Apr-2023 10:25:43
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-125379-1
 SDG No.: _____
 Lab Sample ID: CCVIS 680-771309/4 Calibration Date: 04/04/2023 12:30
 Instrument ID: CVGG2 Calib Start Date: 04/02/2023 14:09
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/02/2023 16:30
 Lab File ID: GD04004.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.6341	0.6110		19.3	20.0	-3.6	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6269	0.6084		19.4	20.0	-2.9	20.0
2-Butoxyethanol	Ave	0.6910	0.6805		19.7	20.0	-1.5	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0493	0.0515		20.9	20.0	4.6	20.0
Propylene glycol	Ave	0.1534	0.1326		17.3	20.0	-13.6	20.0
Ethylene glycol	Ave	0.3960	0.5489		27.7	20.0	38.6*	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5440	0.5898		21.7	20.0	8.4	20.0
2,2'-Oxybisethanol	Ave	0.2456	0.2850		23.2	20.0	16.0	20.0
Triethylene Glycol	Ave	0.2154	0.2355		21.9	20.0	9.4	20.0
Tetraethylene Glycol	Ave	0.2332	0.2129		36.5	40.0	-8.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-125379-1
 SDG No.: _____
 Lab Sample ID: CCVIS 680-771309/4 Calibration Date: 04/04/2023 12:30
 Instrument ID: CVGG2 Calib Start Date: 04/02/2023 14:09
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/02/2023 16:30
 Lab File ID: GD04004.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.77	2.71	2.82
4-Hydroxy-4-methyl-2-pentanone	3.28	3.21	3.35
2-Butoxyethanol	3.56	3.49	3.63
Dipropylene Glycol Methyl Ether	4.88	4.78	4.98
Propylene glycol	6.03	5.91	6.15
Ethylene glycol	6.28	6.15	6.40
2-(2-Butoxyethoxy)ethanol	8.08	7.92	8.24
2,2'-Oxybisethanol	9.48	9.29	9.67
Triethylene Glycol	10.53	10.31	10.74
Tetraethylene Glycol	11.57	11.34	11.80

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04004.D
 Lims ID: ccvis g4
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 04-Apr-2023 12:30:44 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-004
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 04-Apr-2023 13:42:50 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1629

First Level Reviewer: SK9U Date: 04-Apr-2023 13:42:50

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Ethanol, 2-propoxy					
2.768	2.768	0.000	1333437	20.0	19.3	
2	4-Hydroxy-4-methyl-2-pentanone					
3.279	3.279	0.000	1327811	20.0	19.4	
3	2-Butoxyethanol					
3.557	3.557	0.000	1485106	20.0	19.7	M
*	4 n-Heptyl Alcohol					
3.989	3.989	0.000	5455876	50.0	50.0	M
5	Dipropylene Glycol Methyl Ether					
4.879	4.879	0.000	112444	20.0	20.9	
6	Propylene glycol					
6.027	6.027	0.000	289360	20.0	17.3	
7	Ethylene glycol					
6.277	6.277	0.000	1197821	20.0	27.7	
8	2-(2-Butoxyethoxy)ethanol					
8.078	8.078	0.000	1287050	20.0	21.7	
9	2,2'-Oxybisethanol					
9.483	9.483	0.000	621874	20.0	23.2	
10	Triethylene Glycol					
10.525	10.525	0.000	514045	20.0	21.9	
11	Tetraethylene Glycol					
11.571	11.571	0.000	929396	40.0	36.5	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00054

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04004.D

Injection Date: 04-Apr-2023 12:30:44

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis g4

Worklist Smp#: 4

Client ID:

Injection Vol: 1.0 ul

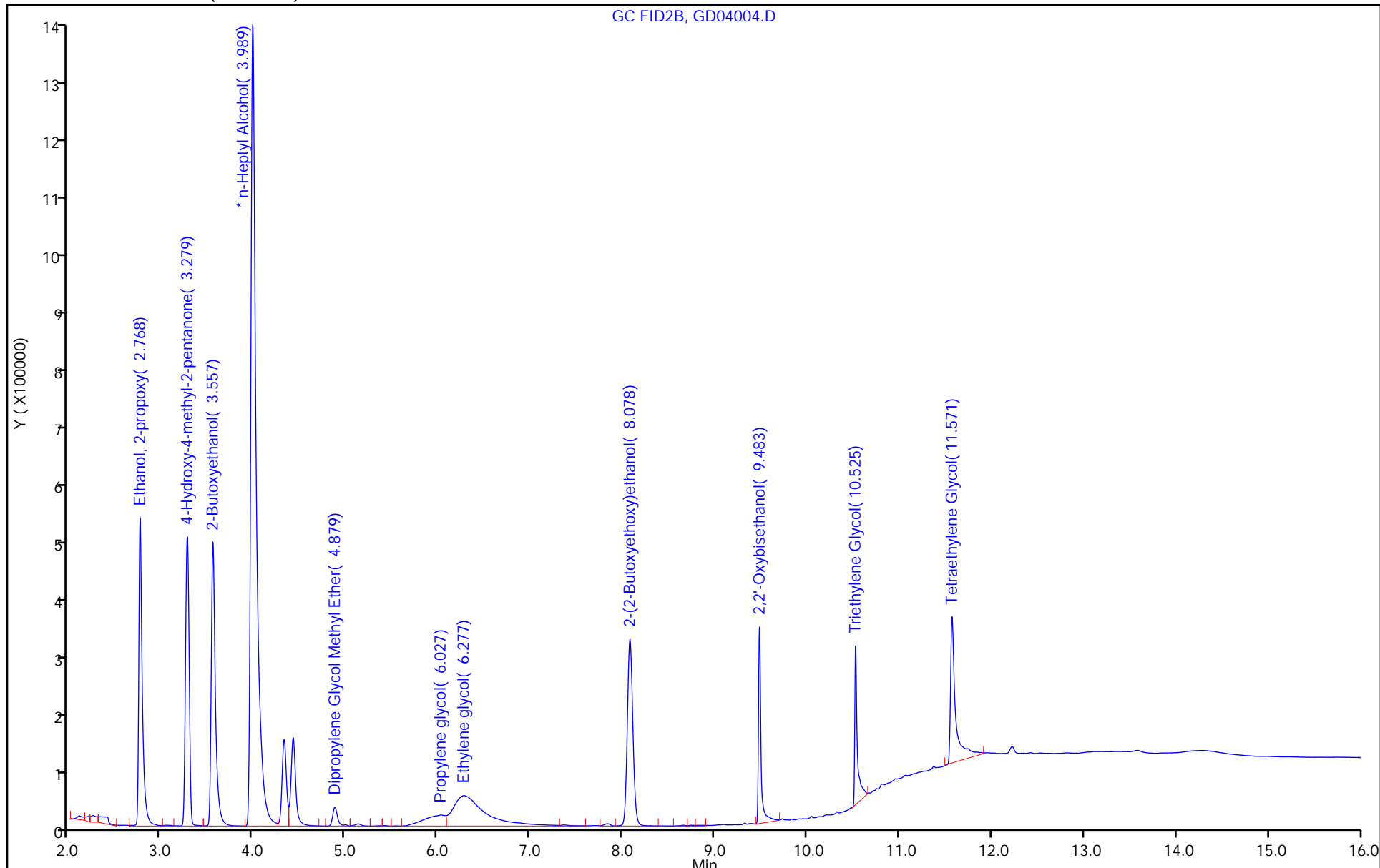
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

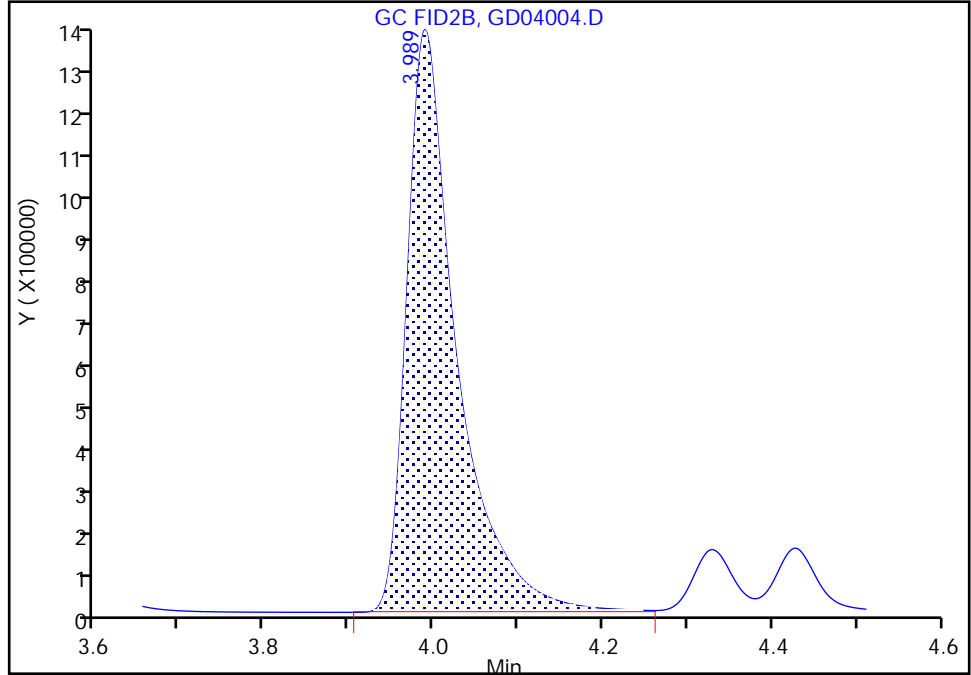
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04004.D
Injection Date: 04-Apr-2023 12:30:44 Instrument ID: CVGG2
Lims ID: ccvis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

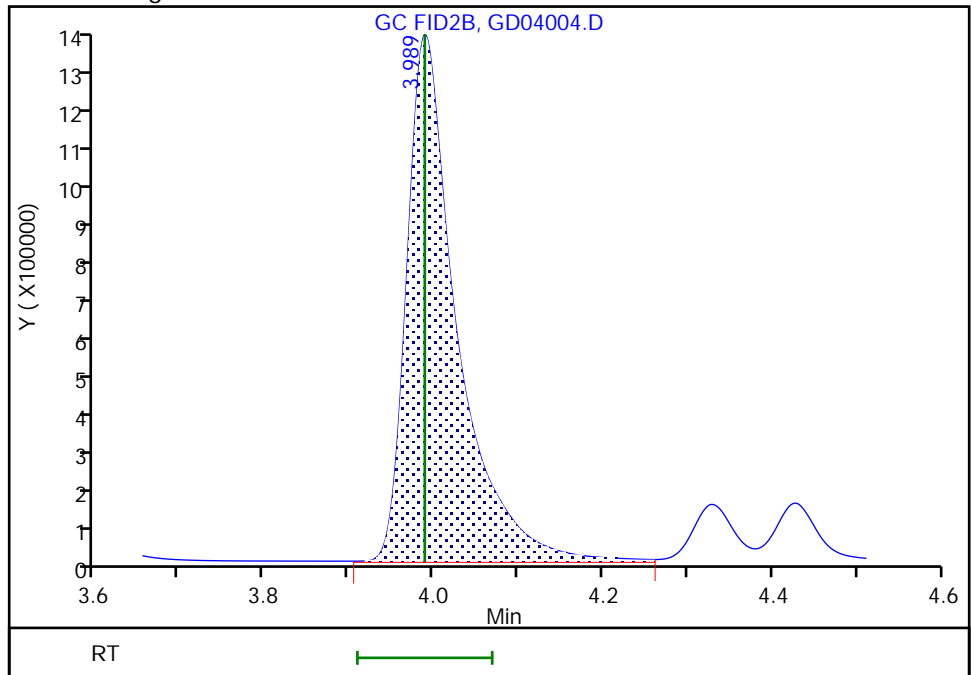
Processing Integration Results

RT: 3.99
Area: 5409353
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 3.99
Area: 5455876
Amount: 50.000000
Amount Units: ug/ml



Euofins Savannah

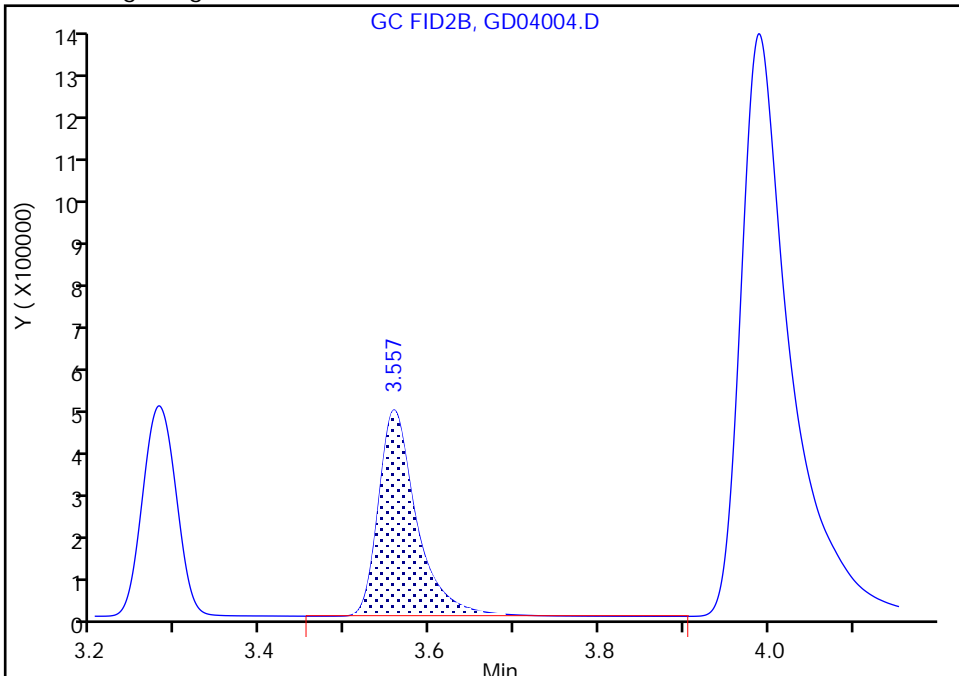
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04004.D		
Injection Date:	04-Apr-2023 12:30:44	Instrument ID:	CVGG2
Lims ID:	ccvis g4		
Client ID:			
Operator ID:		ALS Bottle#:	0
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI
Column:	J&W DB WAX (0.45 mm)	Detector:	GC FID2B
		Worklist Smp#:	4

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

Signal: 1

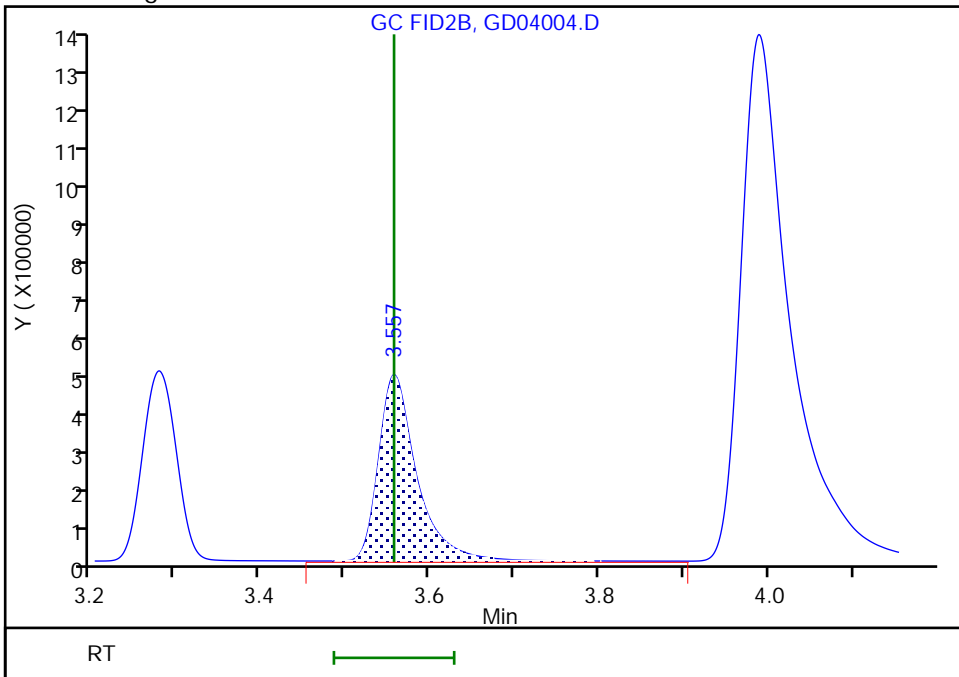
RT: 3.56
 Area: 1475526
 Amount: 19.736938
 Amount Units: ug/ml

Processing Integration Results



RT: 3.56
 Area: 1485106
 Amount: 19.695690
 Amount Units: ug/ml

Manual Integration Results



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-125379-1
 SDG No.: _____
 Lab Sample ID: CCV 680-771309/28 Calibration Date: 04/04/2023 21:51
 Instrument ID: CVGG2 Calib Start Date: 04/02/2023 14:09
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/02/2023 16:30
 Lab File ID: GD04028.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.6341	0.7495		23.6	20.0	18.2	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6269	0.6978		22.3	20.0	11.3	20.0
2-Butoxyethanol	Ave	0.6910	0.8137		23.6	20.0	17.8	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0493	0.0493		20.0	20.0	0.1	20.0
Propylene glycol	Ave	0.1534	0.1189		15.5	20.0	-22.5*	20.0
Ethylene glycol	Ave	0.3960	0.4179		21.1	20.0	5.5	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5440	0.5833		21.4	20.0	7.2	20.0
2,2'-Oxybisethanol	Ave	0.2456	0.2317		18.9	20.0	-5.7	20.0
Triethylene Glycol	Ave	0.2154	0.2368		22.0	20.0	9.9	20.0
Tetraethylene Glycol	Ave	0.2332	0.1746		29.9	40.0	-25.1*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-125379-1
 SDG No.: _____
 Lab Sample ID: CCV 680-771309/28 Calibration Date: 04/04/2023 21:51
 Instrument ID: CVGG2 Calib Start Date: 04/02/2023 14:09
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/02/2023 16:30
 Lab File ID: GD04028.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.75	2.70	2.81
4-Hydroxy-4-methyl-2-pentanone	3.28	3.22	3.35
2-Butoxyethanol	3.54	3.47	3.61
Dipropylene Glycol Methyl Ether	4.88	4.78	4.97
Propylene glycol	6.02	5.90	6.14
Ethylene glycol	6.27	6.14	6.39
2-(2-Butoxyethoxy)ethanol	8.07	7.91	8.23
2,2'-Oxybisethanol	9.48	9.29	9.67
Triethylene Glycol	10.52	10.31	10.73
Tetraethylene Glycol	11.56	11.33	11.80

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04028.D
 Lims ID: ccv g4
 Client ID:
 Sample Type: CCV
 Inject. Date: 04-Apr-2023 21:51:33 ALS Bottle#: 0 Worklist Smp#: 28
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-028
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 05-Apr-2023 10:49:29 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1633

First Level Reviewer: SWK1

Date: 05-Apr-2023 10:48:23

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	2.754	2.754	0.000	1532167	20.0	23.6
2 4-Hydroxy-4-methyl-2-pentanone	3.281	3.281	0.000	1426394	20.0	22.3
3 2-Butoxyethanol	3.544	3.544	0.000	1663413	20.0	23.6
* 4 n-Heptyl Alcohol	3.969	3.969	0.000	5110475	50.0	50.0
5 Dipropylene Glycol Methyl Ether	4.876	4.876	0.000	100837	20.0	20.0
6 Propylene glycol	6.023	6.023	0.000	242959	20.0	15.5
7 Ethylene glycol	6.265	6.265	0.000	854236	20.0	21.1
8 2-(2-Butoxyethoxy)ethanol	8.073	8.073	0.000	1192454	20.0	21.4
9 2,2'-Oxybisethanol	9.478	9.478	0.000	473625	20.0	18.9
10 Triethylene Glycol	10.521	10.521	0.000	483994	20.0	22.0
11 Tetraethylene Glycol	11.564	11.564	0.000	713864	40.0	29.9

QC Flag Legend

Processing Flags

Reagents:

SG_Gly_CAL_00054

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04028.D

Injection Date: 04-Apr-2023 21:51:33

Instrument ID: CVGG2

Operator ID:

Lims ID: ccv g4

Worklist Smp#: 28

Client ID:

Injection Vol: 1.0 ul

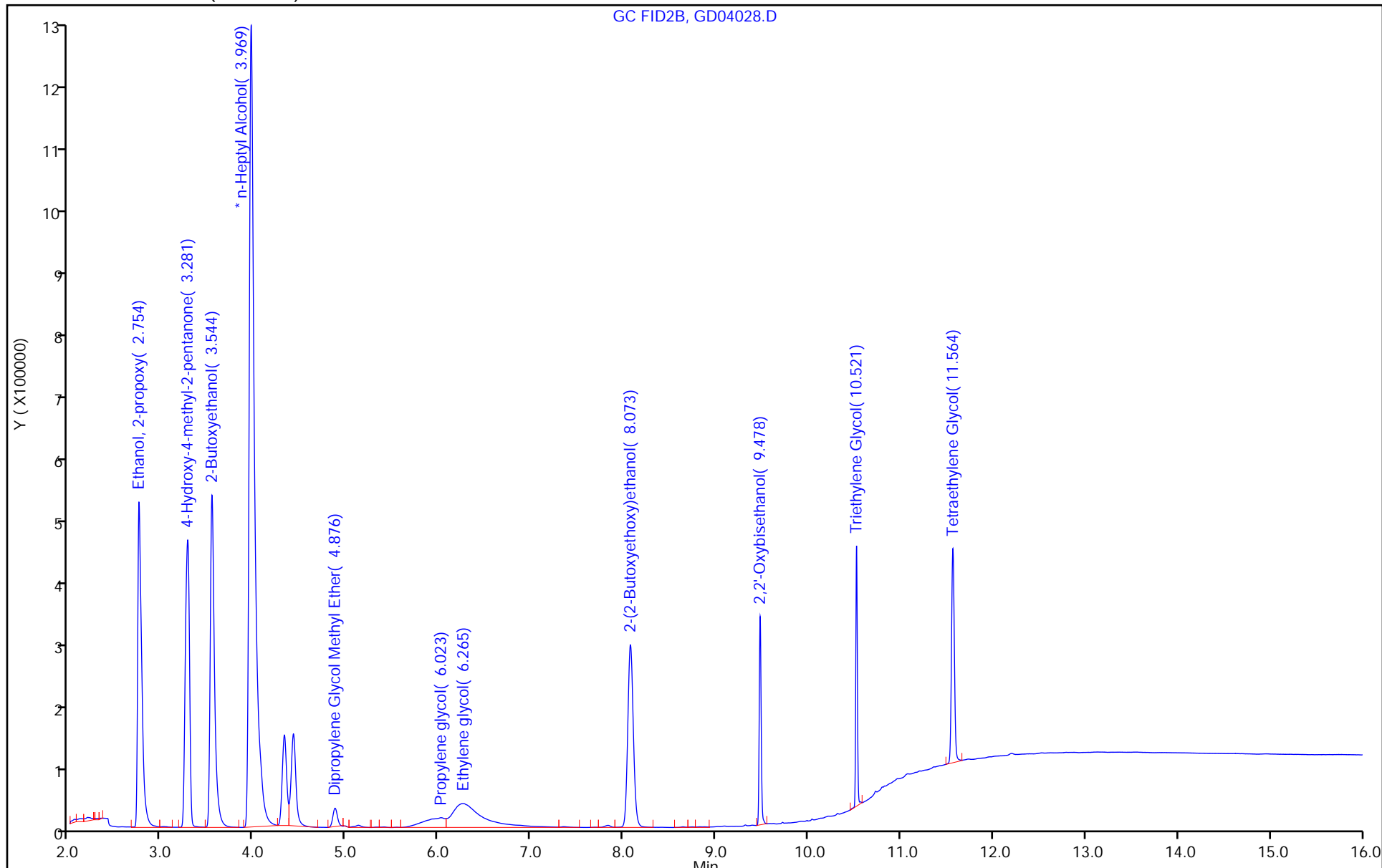
Dil. Factor: 1.0000

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.: 580-125379-1
 SDG No.: _____
 Lab Sample ID: CCV 680-771309/44 Calibration Date: 04/05/2023 04:04
 Instrument ID: CVGG2 Calib Start Date: 04/02/2023 14:09
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/02/2023 16:30
 Lab File ID: GD04044.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.6341	0.7979		25.2	20.0	25.8*	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6269	0.7434		23.7	20.0	18.6	20.0
2-Butoxyethanol	Ave	0.6910	0.8585		24.8	20.0	24.2*	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0493	0.0601		24.4	20.0	22.0*	20.0
Propylene glycol	Ave	0.1534	0.0586		7.64	20.0	-61.8*	20.0
Ethylene glycol	Ave	0.3960	0.4946		25.0	20.0	24.9*	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5440	0.6493		23.9	20.0	19.3	20.0
2,2'-Oxybisethanol	Ave	0.2456	0.2500		20.4	20.0	1.8	20.0
Triethylene Glycol	Ave	0.2154	0.1997		18.5	20.0	-7.3	20.0
Tetraethylene Glycol	Ave	0.2332	0.0973		16.7	40.0	-58.3*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-125379-1
 SDG No.: _____
 Lab Sample ID: CCV 680-771309/44 Calibration Date: 04/05/2023 04:04
 Instrument ID: CVGG2 Calib Start Date: 04/02/2023 14:09
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/02/2023 16:30
 Lab File ID: GD04044.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.76	2.71	2.82
4-Hydroxy-4-methyl-2-pentanone	3.28	3.22	3.35
2-Butoxyethanol	3.55	3.48	3.62
Dipropylene Glycol Methyl Ether	4.88	4.78	4.98
Propylene glycol	6.02	5.90	6.14
Ethylene glycol	6.26	6.14	6.39
2-(2-Butoxyethoxy)ethanol	8.07	7.91	8.24
2,2'-Oxybisethanol	9.48	9.29	9.67
Triethylene Glycol	10.52	10.31	10.73
Tetraethylene Glycol	11.57	11.34	11.80

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04044.D
 Lims ID: ccv g4
 Client ID:
 Sample Type: CCV
 Inject. Date: 05-Apr-2023 04:04:48 ALS Bottle#: 0 Worklist Smp#: 44
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-044
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 05-Apr-2023 10:49:29 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1633

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	2.761	2.761	0.000	1541839	20.0	25.2
2 4-Hydroxy-4-methyl-2-pentanone	3.284	3.284	0.000	1436434	20.0	23.7
3 2-Butoxyethanol	3.549	3.549	0.000	1658857	20.0	24.8
* 4 n-Heptyl Alcohol	3.971	3.971	0.000	4830901	50.0	50.0
5 Dipropylene Glycol Methyl Ether	4.882	4.882	0.000	116127	20.0	24.4
6 Propylene glycol	6.022	6.022	0.000	113221	20.0	7.64
7 Ethylene glycol	6.263	6.263	0.000	955775	20.0	25.0
8 2-(2-Butoxyethoxy)ethanol	8.074	8.074	0.000	1254603	20.0	23.9
9 2,2'-Oxybisethanol	9.480	9.480	0.000	483140	20.0	20.4
10 Triethylene Glycol	10.523	10.523	0.000	385908	20.0	18.5
11 Tetraethylene Glycol	11.568	11.568	0.000	376230	40.0	16.7

Reagents:

SG_Gly_CAL_00054 Amount Added: 10.00 Units: uL
 SG_GLY_ISTD_00106 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04044.D

Injection Date: 05-Apr-2023 04:04:48

Instrument ID: CVGG2

Operator ID:

Lims ID: ccv g4

Worklist Smp#: 44

Client ID:

Injection Vol: 1.0 ul

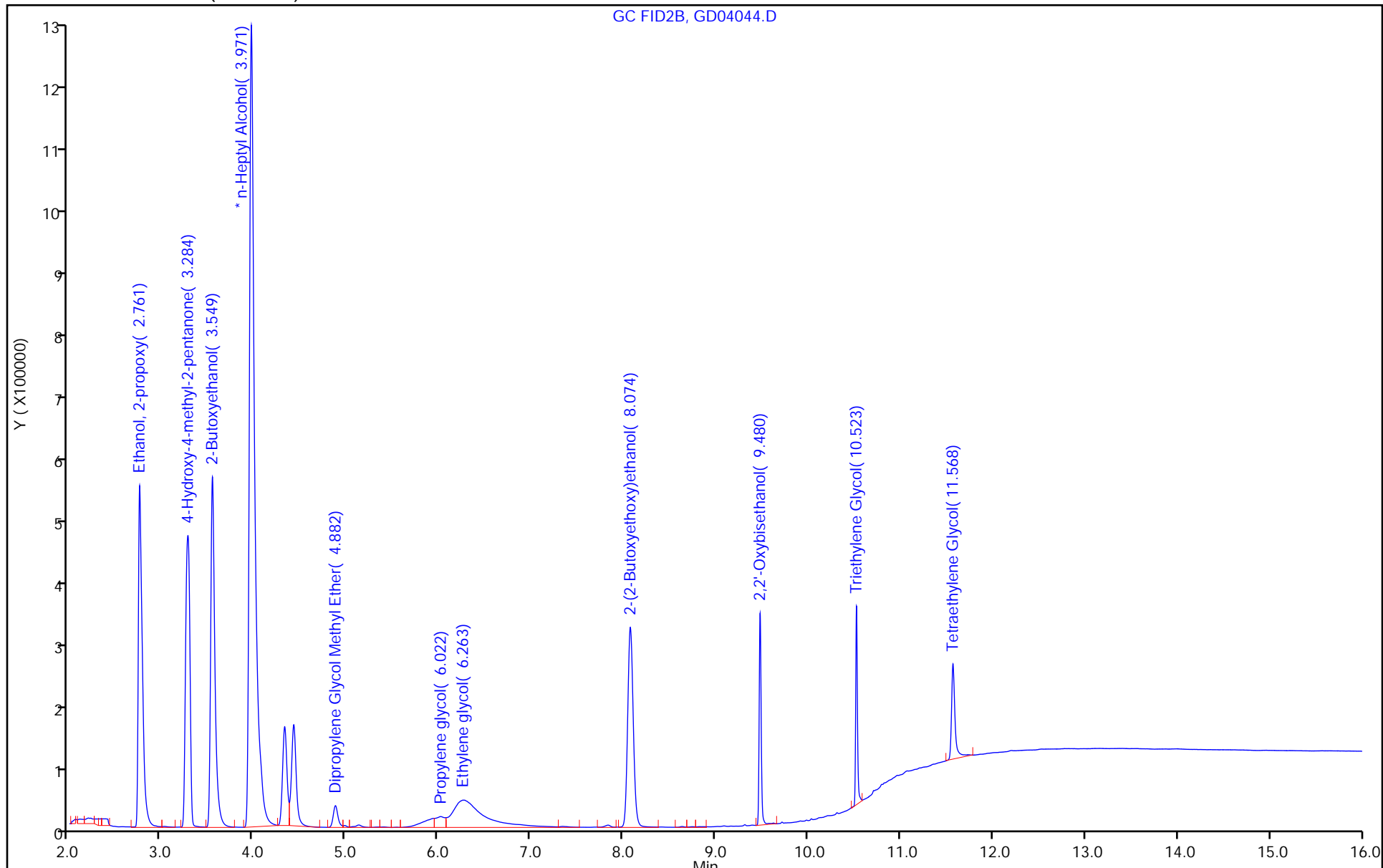
Dil. Factor: 1.0000

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.: 580-125379-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 680-771309/11
 Matrix: Water Lab File ID: GD04011.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 04/04/2023 15:14
 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.: 771309 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\20230404-84931.b\GD04011.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 04-Apr-2023 15:14:08 ALS Bottle#: 0 Worklist Smp#: 11
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-011
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 04-Apr-2023 16:42:06 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1616

First Level Reviewer: SWK1 Date: 04-Apr-2023 18:52:03

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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3 2-Butoxyethanol						
3.565	3.557	0.008	8023		0.0972	7
LOD = 0.5000						
* 4 n-Heptyl Alcohol						
3.978	3.989	-0.011	5970542	50.0	50.0	
6 Propylene glycol						
6.032	6.027	0.005	4172		0.2277	7
LOD = 0.5000						

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00106 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04011.D

Injection Date: 04-Apr-2023 15:14:08

Instrument ID: CVGG2

Operator ID:

Lims ID: mb

Worklist Smp#: 11

Client ID:

Injection Vol: 1.0 ul

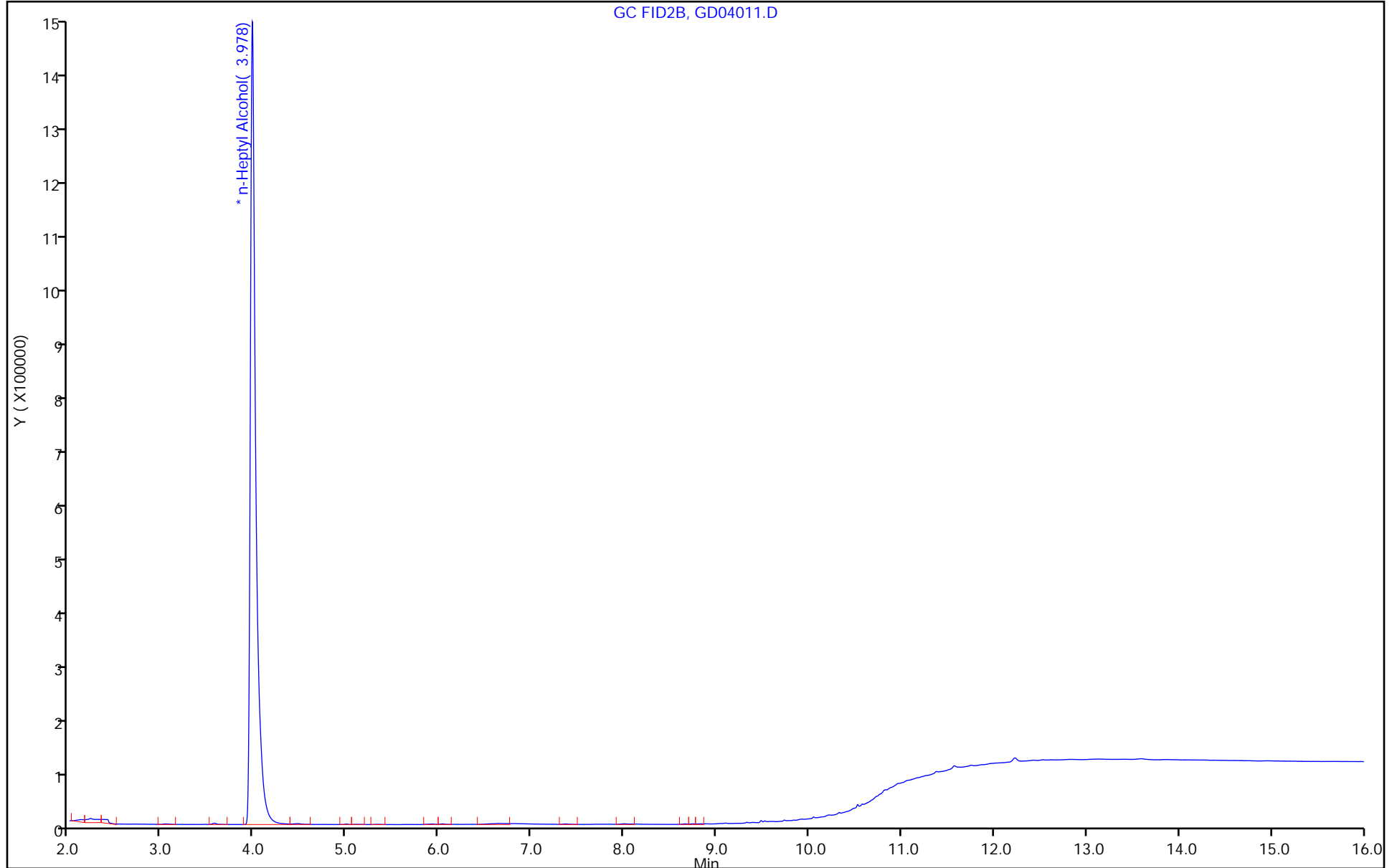
Dil. Factor: 1.0000

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.: 580-125379-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 680-771309/5
 Matrix: Water Lab File ID: GD04005.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 04/04/2023 12:54
 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.: 771309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	20.6		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04005.D
 Lims ID: lcs
 Client ID:
 Sample Type: LCS
 Inject. Date: 04-Apr-2023 12:54:03 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-005
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 04-Apr-2023 13:43:08 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1629

First Level Reviewer: SK9U Date: 04-Apr-2023 13:43:08

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.763	2.768	-0.005	1303397	20.0	19.1	
2 4-Hydroxy-4-methyl-2-pentanone						
3.275	3.279	-0.004	1298395	20.0	19.3	
3 2-Butoxyethanol						
3.554	3.557	-0.003	1436998	20.0	19.3	
* 4 n-Heptyl Alcohol						
3.986	3.989	-0.003	5377829	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
4.876	4.879	-0.003	114011	20.0	21.5	M
6 Propylene glycol						
6.033	6.027	0.006	270823	20.0	16.4	
7 Ethylene glycol						
6.278	6.277	0.001	1189014	20.0	27.9	
8 2-(2-Butoxyethoxy)ethanol						
8.080	8.078	0.002	1203214	20.0	20.6	
9 2,2'-Oxybisethanol						
9.479	9.483	-0.004	669120	20.0	25.3	
10 Triethylene Glycol						
10.523	10.525	-0.002	646282	20.0	27.9	
11 Tetraethylene Glycol						
11.568	11.571	-0.003	1361885	40.0	54.3	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_GlyICV_00059

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04005.D

Injection Date: 04-Apr-2023 12:54:03

Instrument ID: CVGG2

Operator ID:

Lims ID: lcs

Worklist Smp#: 5

Client ID:

Injection Vol: 1.0 ul

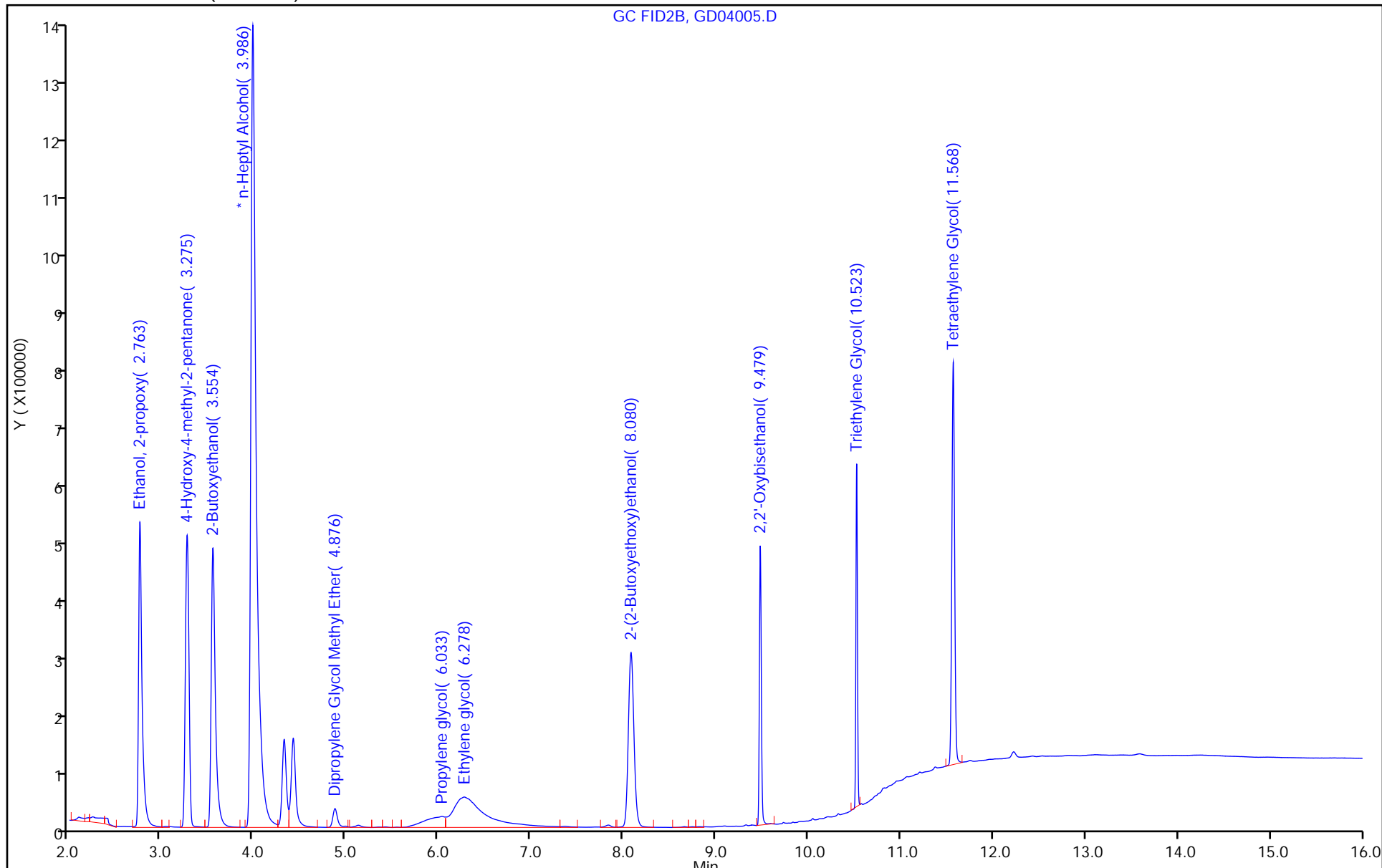
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

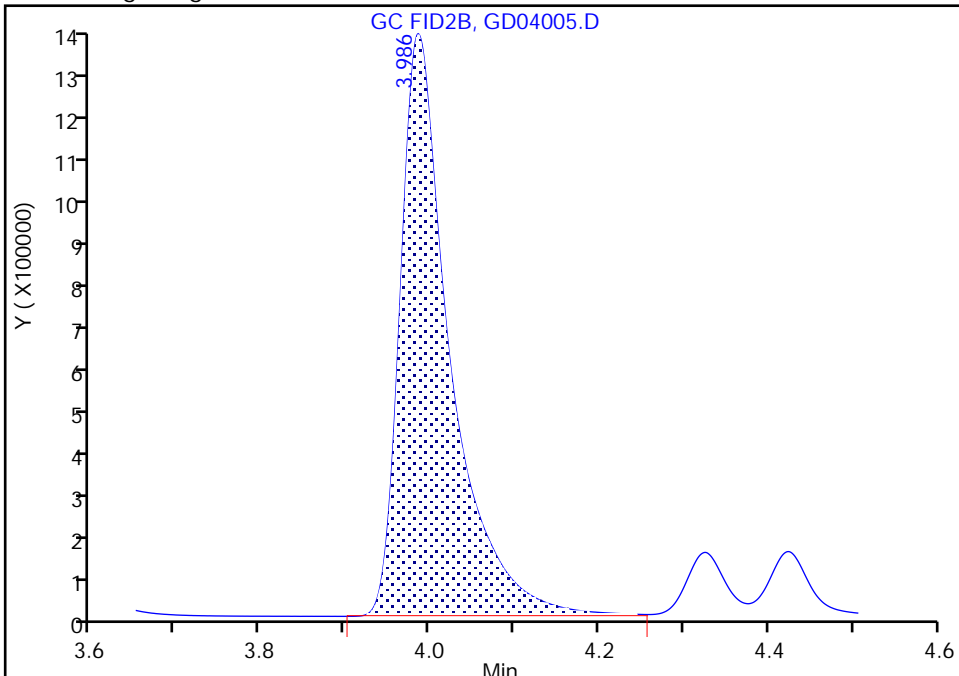
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04005.D
Injection Date: 04-Apr-2023 12:54:03 Instrument ID: CVGG2
Lims ID: lcs
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

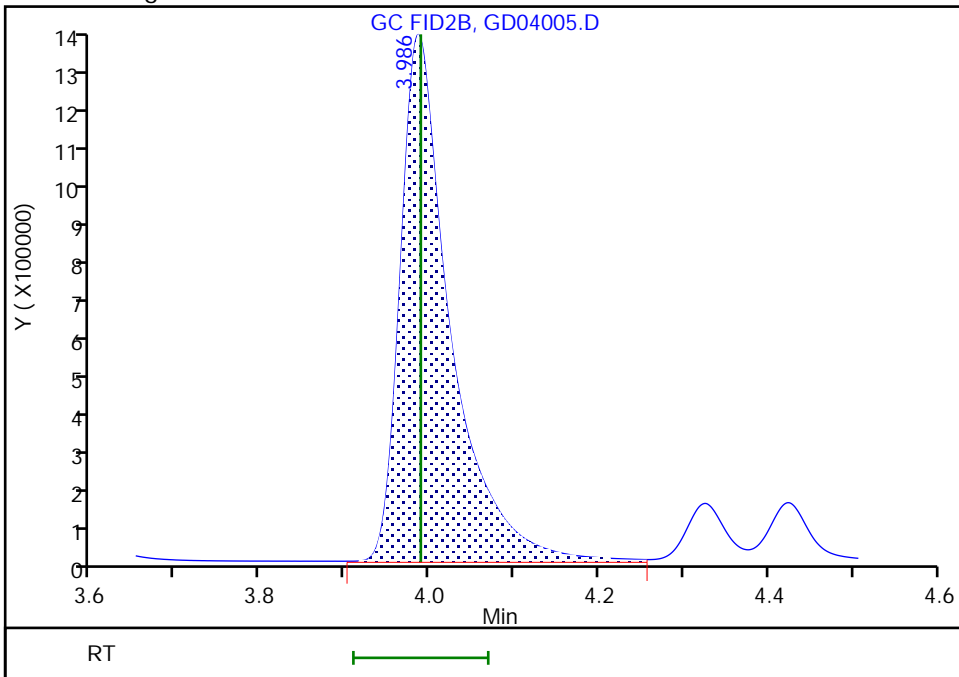
Processing Integration Results

RT: 3.99
Area: 5335091
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 3.99
Area: 5377829
Amount: 50.000000
Amount Units: ug/ml



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-125379-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 680-771309/6
 Matrix: Water Lab File ID: GD04006.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 04/04/2023 13:17
 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.: 771309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	22.0		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04006.D
 Lims ID: lcsd
 Client ID:
 Sample Type: LCSD
 Inject. Date: 04-Apr-2023 13:17:23 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-006
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 04-Apr-2023 13:44:20 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1629

First Level Reviewer: SK9U

Date: 04-Apr-2023 13:44:20

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.765	2.768	-0.003	1514487	20.0	22.5	
2 4-Hydroxy-4-methyl-2-pentanone						
3.283	3.279	0.004	1478389	20.0	22.3	
3 2-Butoxyethanol						
3.553	3.557	-0.004	1658184	20.0	22.6	
* 4 n-Heptyl Alcohol						
3.978	3.989	-0.011	5298494	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
4.878	4.879	-0.001	116096	20.0	22.2	M
6 Propylene glycol						
6.043	6.027	0.016	248995	20.0	15.3	M
7 Ethylene glycol						
6.279	6.277	0.002	986416	20.0	23.5	M
8 2-(2-Butoxyethoxy)ethanol						
8.079	8.078	0.001	1265481	20.0	22.0	
9 2,2'-Oxybisethanol						
9.480	9.483	-0.003	559445	20.0	21.5	
10 Triethylene Glycol						
10.523	10.525	-0.002	534276	20.0	23.4	
11 Tetraethylene Glycol						
11.570	11.571	-0.001	1080776	40.0	43.7	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_GlyICV_00059

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00106

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04006.D

Injection Date: 04-Apr-2023 13:17:23

Instrument ID: CVGG2

Operator ID:

Lims ID: lcsd

Worklist Smp#: 6

Client ID:

Injection Vol: 1.0 ul

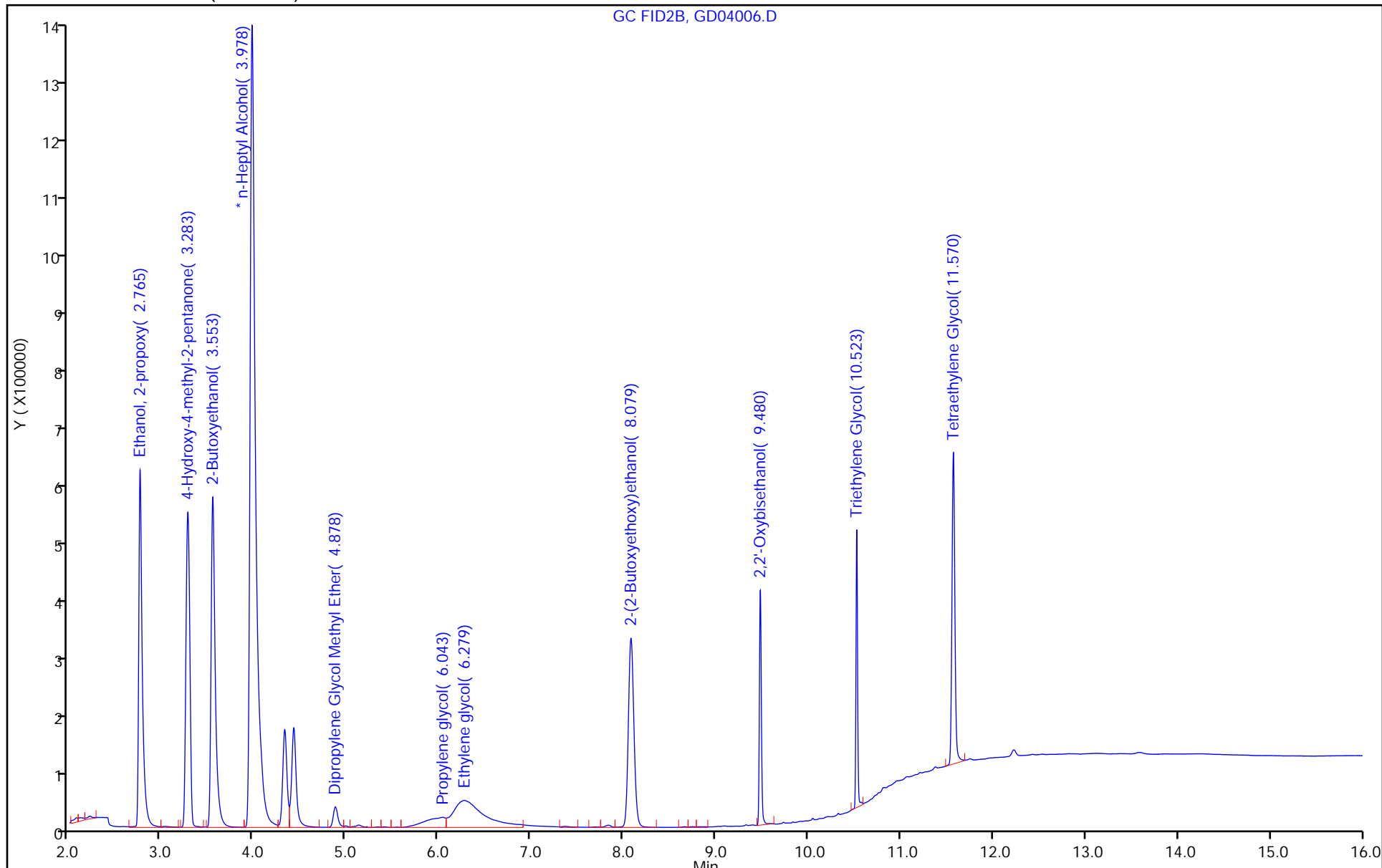
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

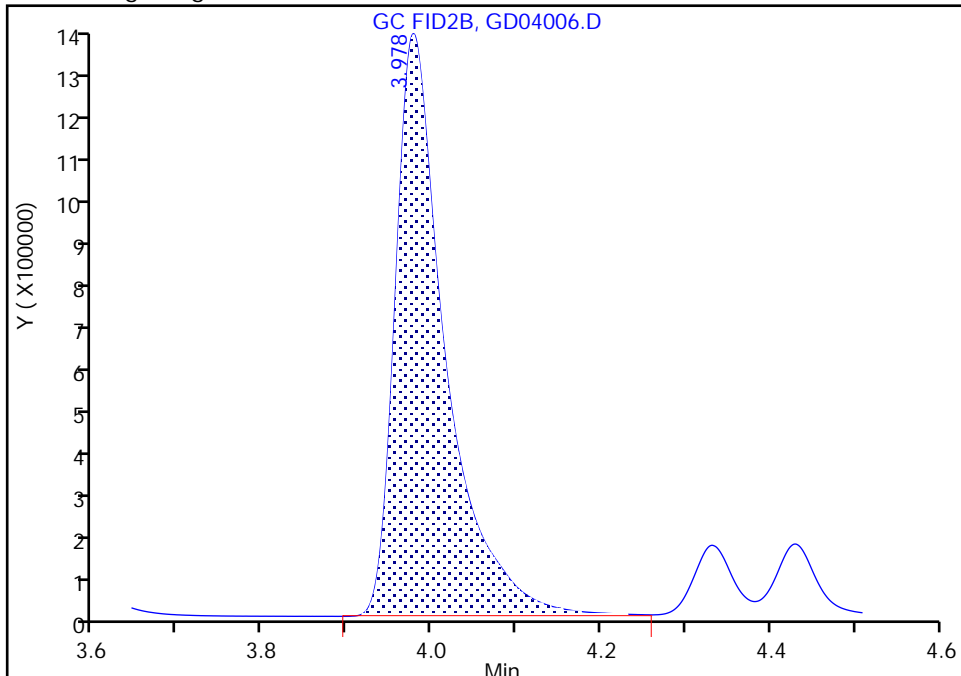
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04006.D
Injection Date: 04-Apr-2023 13:17:23 Instrument ID: CVGG2
Lims ID: lcsd
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

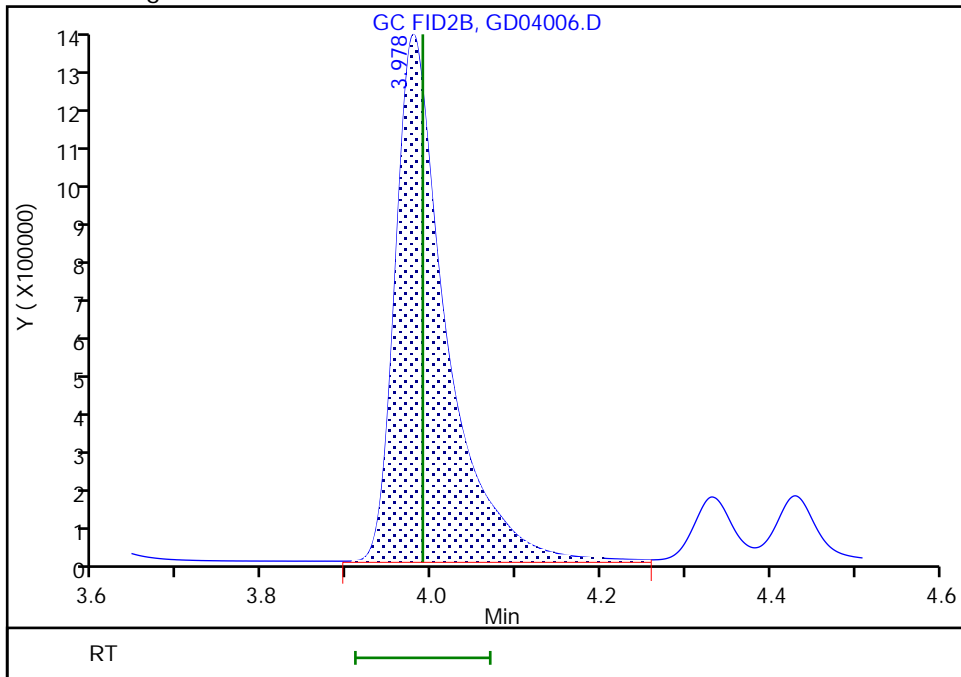
RT: 3.98
Area: 5260979
Amount: 50.000000
Amount Units: ug/ml

Processing Integration Results



RT: 3.98
Area: 5298494
Amount: 50.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 04-Apr-2023 13:43:47
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04041.D
 Lims ID: 580-125379-C-2 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 05-Apr-2023 02:54:55 ALS Bottle#: 0 Worklist Smp#: 41
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-041
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 05-Apr-2023 10:49:00 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1633

First Level Reviewer: SWK1 Date: 05-Apr-2023 10:49:03

RT (min.)	Exp RT (min.)	Diff RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol						
3.965	3.969	-0.004	5008115	50.0	50.0	
8 2-(2-Butoxyethoxy)ethanol						
8.077	8.073	0.004	1481315	20.0	27.2	

QC Flag Legend

Processing Flags

Reagents:

SG_GlyICV_00059	Amount Added: 10.00	Units: uL	
SG_GLY_ISTD_00106	Amount Added: 10.00	Units: uL	Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04041.D

Injection Date: 05-Apr-2023 02:54:55

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-125379-C-2 MS

Worklist Smp#: 41

Client ID:

Injection Vol: 1.0 ul

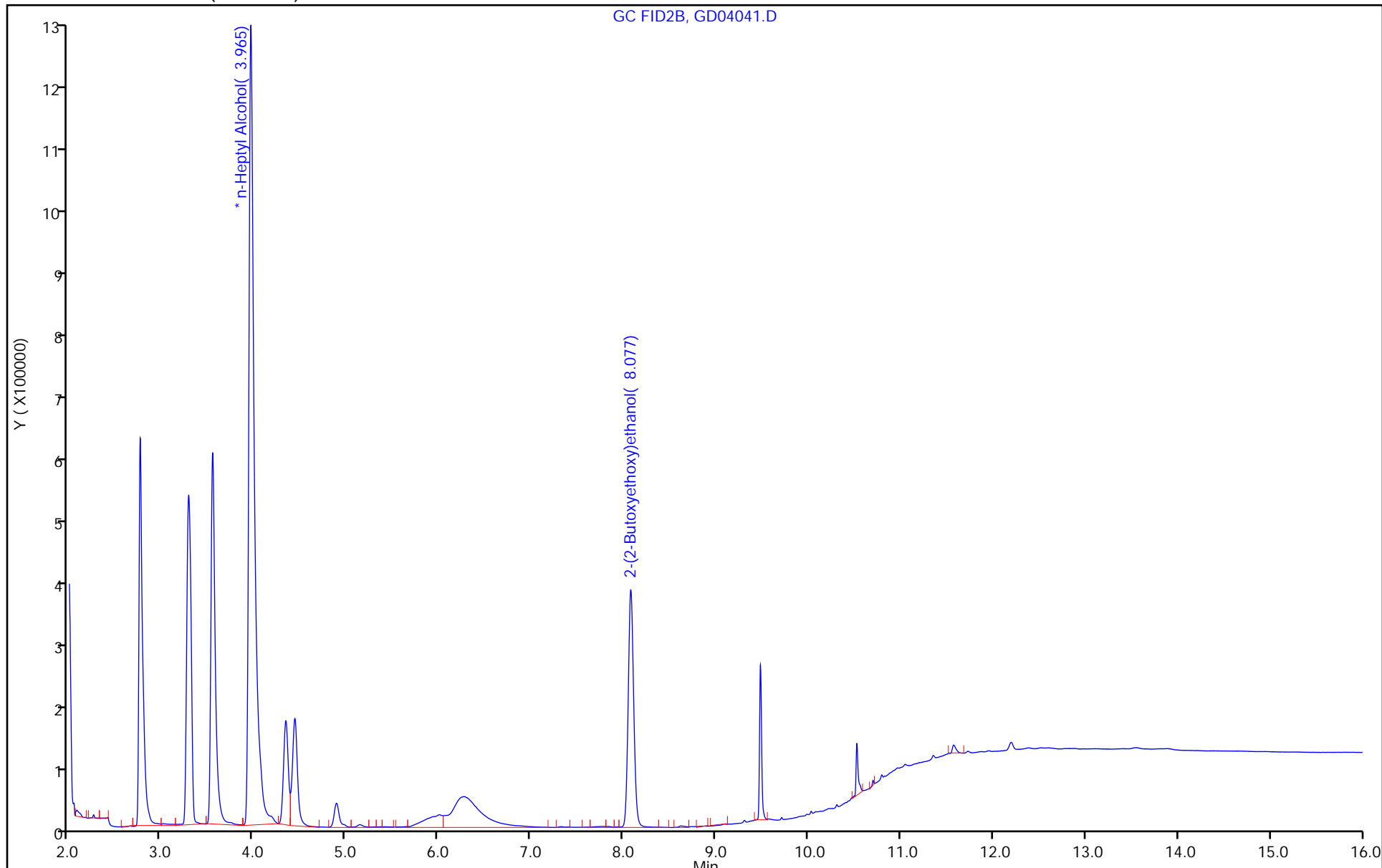
Dil. Factor: 1.0000

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.: 580-125379-1
SDG No.: _____
Client Sample ID: AF-RHMW10-WGN01LF-2303W4 Lab Sample ID: 580-125379-2 MSD
MSD
Matrix: Water Lab File ID: GD04042.D
Analysis Method: 8015C GLY Date Collected: 03/28/2023 12:55
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 1(mL) Date Analyzed: 04/05/2023 03:18
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.: 771309 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	25.2		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04042.D
 Lims ID: 580-125379-C-2 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 05-Apr-2023 03:18:12 ALS Bottle#: 0 Worklist Smp#: 42
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0084931-042
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 05-Apr-2023 10:49:00 Calib Date: 02-Apr-2023 16:30:26
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230402-84885.b\GD02010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1633

First Level Reviewer: SWK1 Date: 05-Apr-2023 10:49:05

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol						
3.969	3.969	0.000	4947367	50.0	50.0	
8 2-(2-Butoxyethoxy)ethanol						
8.078	8.073	0.005	1356825	20.0	25.2	

QC Flag Legend

Processing Flags

Reagents:

SG_GlyICV_00059 Amount Added: 10.00 Units: uL
 SG_GLY_ISTD_00106 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230404-84931.b\GD04042.D

Injection Date: 05-Apr-2023 03:18:12

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-125379-C-2 MSD

Worklist Smp#: 42

Client ID:

Injection Vol: 1.0 ul

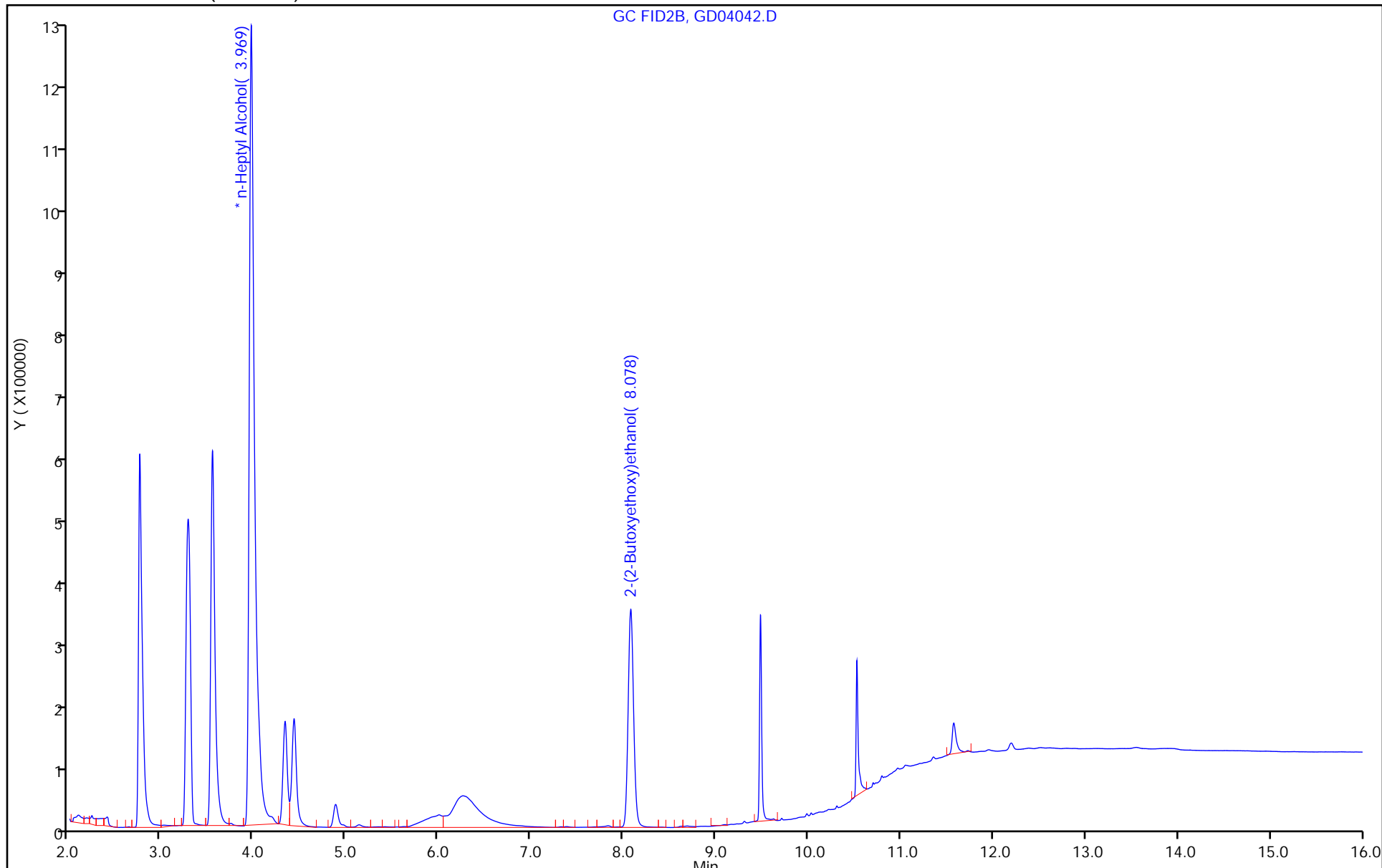
Dil. Factor: 1.0000

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.: 580-125379-1

SDG No.: _____

Instrument ID: CVGG2 Start Date: 04/02/2023 14:09

Analysis Batch Number: 770932 End Date: 04/03/2023 01:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 680-770932/4		04/02/2023 14:09	1	GD02004.D	J&W DB WAX 0.45 (mm)
IC 680-770932/5		04/02/2023 14:33	1	GD02005.D	J&W DB WAX 0.45 (mm)
IC 680-770932/6		04/02/2023 14:56	1	GD02006.D	J&W DB WAX 0.45 (mm)
ICIS 680-770932/7		04/02/2023 15:20	1	GD02007.D	J&W DB WAX 0.45 (mm)
IC 680-770932/8		04/02/2023 15:43	1	GD02008.D	J&W DB WAX 0.45 (mm)
IC 680-770932/9		04/02/2023 16:06	1	GD02009.D	J&W DB WAX 0.45 (mm)
IC 680-770932/10		04/02/2023 16:30	1	GD02010.D	J&W DB WAX 0.45 (mm)
ICV 680-770932/11 CCV		04/02/2023 16:53	1	GD02011.D	J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 17:17	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 17:40	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 18:03	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 18:27	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 18:50	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 19:14	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 20:24	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 20:47	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 21:10	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 21:33	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 21:57	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 22:20	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 23:30	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/02/2023 23:53	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/03/2023 00:17	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/03/2023 00:40	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/03/2023 01:03	1		J&W DB WAX 0.45 (mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-125379-1

SDG No.: _____

Instrument ID: CVGG2 Start Date: 04/04/2023 12:30

Analysis Batch Number: 771309 End Date: 04/05/2023 04:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-771309/4		04/04/2023 12:30	1	GD04004.D	J&W DB WAX 0.45 (mm)
LCS 680-771309/5		04/04/2023 12:54	1	GD04005.D	J&W DB WAX 0.45 (mm)
LCSD 680-771309/6		04/04/2023 13:17	1	GD04006.D	J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 13:40	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 14:04	1		J&W DB WAX 0.45 (mm)
MB 680-771309/11		04/04/2023 15:14	1	GD04011.D	J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 15:37	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 16:00	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 16:24	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 16:47	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 17:11	10		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 17:34	20		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 17:57	20		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 18:21	20		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 18:44	20		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 19:07	20		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 19:54	10		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 20:18	10		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 20:41	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 21:04	1		J&W DB WAX 0.45 (mm)
CCV 680-771309/28		04/04/2023 21:51	1	GD04028.D	J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 23:01	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 23:24	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/04/2023 23:48	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/05/2023 00:11	1		J&W DB WAX 0.45 (mm)
580-125379-1	AF-RHMW16-WGN01LF-2303W4	04/05/2023 00:35	1	GD04035.D	J&W DB WAX 0.45 (mm)
580-125379-2	AF-RHMW10-WGN01LF-2303W4	04/05/2023 00:58	1	GD04036.D	J&W DB WAX 0.45 (mm)
580-125379-3	AF-HDMW225303-WGN01LF-2303W4	04/05/2023 01:21	1	GD04037.D	J&W DB WAX 0.45 (mm)
580-125379-4	AF-RHMW225401-WGN01B-2303W4	04/05/2023 01:45	1	GD04038.D	J&W DB WAX 0.45 (mm)
580-125379-5	AF-RHMW12A-WGN01LF-2303W4	04/05/2023 02:08	1	GD04039.D	J&W DB WAX 0.45 (mm)
580-125379-6	AF-RHMW12A-WGFD01LF-2303W4	04/05/2023 02:31	1	GD04040.D	J&W DB WAX 0.45 (mm)
580-125379-2 MS	AF-RHMW10-WGN01LF-2303W4 MS	04/05/2023 02:54	1	GD04041.D	J&W DB WAX 0.45 (mm)
580-125379-2 MSD	AF-RHMW10-WGN01LF-2303W4 MSD	04/05/2023 03:18	1	GD04042.D	J&W DB WAX 0.45 (mm)
CCV 680-771309/44		04/05/2023 04:04	1	GD04044.D	J&W DB WAX 0.45 (mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-125379-1

SDG No.: _____

Batch Number: 770932 Batch Start Date: 04/02/23 14:09 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 00054	SG_GLY_ISTD 00106	SG_GlyICV 00059		
IC 680-770932/4		8015C GLY		1 mL	50 uL	10 uL			
IC 680-770932/5		8015C GLY		1 mL	40 uL	10 uL			
IC 680-770932/6		8015C GLY		1 mL	25 uL	10 uL			
ICIS 680-770932/7		8015C GLY		1 mL	10 uL	10 uL			
IC 680-770932/8		8015C GLY		1 mL	5 uL	10 uL			
IC 680-770932/9		8015C GLY		1 mL	2.5 uL	10 uL			
IC 680-770932/10		8015C GLY		1 mL	1 uL	10 uL			
ICV 680-770932/11 CCV		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.: 580-125379-1

SDG No.: _____

Batch Number: 771309 Batch Start Date: 04/04/23 12:30 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 00054	SG_GLY_ISTD 00106	SG_GlyICV 00059		
CCVIS 680-771309/4		8015C GLY		1 mL	10 uL	10 uL			
LCS 680-771309/5		8015C GLY		1 mL		10 uL	10 uL		
LCSD 680-771309/6		8015C GLY		1 mL		10 uL	10 uL		
MB 680-771309/11		8015C GLY		1 mL		10 uL			
CCV 680-771309/28		8015C GLY		1 mL	10 uL	10 uL			
580-125379-B-1	AF-RHMW16-WGN01L F-2303W4	8015C GLY	T	1 mL		10 uL			
580-125379-C-2	AF-RHMW10-WGN01L F-2303W4	8015C GLY	T	1 mL		10 uL			
580-125379-A-3	AF-HDMW225303-WG N01LF-2303W4	8015C GLY	T	1 mL		10 uL			
580-125379-A-4	AF-RHMW225401-WG N01B-2303W4	8015C GLY	T	1 mL		10 uL			
580-125379-A-5	AF-RHMW12A-WGN01 LF-2303W4	8015C GLY	T	1 mL		10 uL			
580-125379-A-6	AF-RHMW12A-WGFD0 1LF-2303W4	8015C GLY	T	1 mL		10 uL			
580-125379-C-2 MS	AF-RHMW10-WGN01L F-2303W4	8015C GLY	T	1 mL		10 uL	10 uL		
580-125379-C-2 MSD	AF-RHMW10-WGN01L F-2303W4	8015C GLY	T	1 mL		10 uL	10 uL		
CCV 680-771309/44		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

Chain of Custody Record

United AWRB 016-73973782

Client Information		Sampler: TESSA MURPHY		Lab PM: Elaine Walker		Carrier Tracking No(s): FedEx		COC No: 2303W4AFE03																				
Client Contact:		Phone: 735-882-5209		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		<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Matrix (W=water, S=solid, O=soil/sediment, A=air)</td> <td>8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol</td> <td rowspan="5">Total Number of containers</td> </tr> <tr> <td>TAT Requested (days): Rush - ASAP</td> <td>Preservation Code:</td> <td>A</td> </tr> <tr> <td>Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No</td> <td>Field Filtered Sample (Yes or No)</td> <td>N</td> </tr> <tr> <td>PO #:</td> <td>Matrix</td> <td>N</td> </tr> <tr> <td>WO #:</td> <td>Preservation Code:</td> <td>X</td> </tr> </table>					Field Filtered Sample (Yes or No)	Matrix (W=water, S=solid, O=soil/sediment, A=air)	8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol	Total Number of containers	TAT Requested (days): Rush - ASAP	Preservation Code:	A	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	Field Filtered Sample (Yes or No)	N	PO #:	Matrix	N	WO #:	Preservation Code:	X	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:			
Field Filtered Sample (Yes or No)	Matrix (W=water, S=solid, O=soil/sediment, A=air)	8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol	Total Number of containers																									
TAT Requested (days): Rush - ASAP	Preservation Code:	A																										
Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	Field Filtered Sample (Yes or No)	N																										
PO #:	Matrix	N																										
WO #:	Preservation Code:	X																										
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>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=soil/sediment, A=air)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Matrix</th> <th>8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol</th> <th>Total Number of containers</th> <th>Special Instructions/Note:</th> </tr> <tr> <td>AF-RHMW10-WGN01LF-2303W4</td> <td>3/28/23</td> <td>1255</td> <td>G</td> <td>W</td> <td>N</td> <td>N</td> <td>X</td> <td>3</td> <td></td> </tr> </table>					Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil/sediment, A=air)	Field Filtered Sample (Yes or No)	Matrix	8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:	AF-RHMW10-WGN01LF-2303W4	3/28/23	1255	G	W	N	N	X	3	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)						Matrix (W=water, S=solid, O=soil/sediment, A=air)	Field Filtered Sample (Yes or No)	Matrix	8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:														
AF-RHMW10-WGN01LF-2303W4	3/28/23	1255	G						W	N	N	X	3															
Site: RHSF		SSCW#:																										
Project #: 60697810		SSCW#:																										
SSCW#:		SSCW#:																										
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 1 or 2) - see TAT above. DoD Stage 4 report standard TAT. AECOM EQUIS EDD		Special Instructions/QC Requirements: DOD QSM project.																						
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:																						
Relinquished by: Tessa Murphy		Date/Time: 3/28/23 1357		Company: AECOM		Received by: Brittany Tominez		Date/Time: 3/28/23 1357		Company: AECOM																		
Relinquished by: Brittany Tominez		Date/Time: 3/29/23 1357		Company: AECOM		Received by: [Signature]		Date/Time: 3/30/23 1300		Company: [Blank]																		
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) °C and Other Remarks: 2.2/2.2																								

Chain of Custody Record

United AWB 016 73973782

Client Information		Sampler: <i>Andy Young</i>		Lab PM: Elaine Walker		Carrier Tracking No(s): FOE		COC No: 2303W4AFE07																																					
Client Contact		Phone: 402-871-5712		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		<table border="1"> <tr> <td rowspan="5">Field Filtered Sample (Yes or No)</td> <td rowspan="5">Matrix (W=water, S=solid, O=organic, BT=Total, A=As)</td> <td colspan="6">Analysis Requested</td> <td rowspan="5">Total Number of Containers</td> <td rowspan="5">Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)</td> </tr> <tr> <td colspan="6">TAT Requested (days): Rush - ASAP</td> </tr> <tr> <td colspan="6">Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> <tr> <td colspan="6">PO #:</td> </tr> <tr> <td colspan="6">WO #:</td> </tr> </table>						Field Filtered Sample (Yes or No)	Matrix (W=water, S=solid, O=organic, BT=Total, A=As)	Analysis Requested						Total Number of Containers	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	TAT Requested (days): Rush - ASAP						Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						PO #:						WO #:						Preservation Codes:	
Field Filtered Sample (Yes or No)	Matrix (W=water, S=solid, O=organic, BT=Total, A=As)	Analysis Requested										Total Number of Containers	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)																																
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		WO #:																																											
City: Honolulu		TAT Requested (days): Rush - ASAP		<div style="text-align: center; font-size: 2em; font-weight: bold;"> ASYS 3/29/23 </div>																																									
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		<div style="text-align: center; font-size: 2em; font-weight: bold;"> ASYS 3/29/23 </div>																																									
Site: RHSF		SSOW#:																																											
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=organic, BT=Total, A=As)		Field Filtered Sample (Yes or No)		Total Number of Containers		Special Instructions/Note:																															
AF-RHMW225401-WGN01B-2303W4		3/29/23		1235		G		W		N N X		3																																	
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 EQ/S EDD.				Special Instructions/QC Requirements: DOD QSM project.																																					
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:																																							
Relinquished by: <i>Andy Young</i>		Date/Time: 3/29/23 1314		Company: AECOM		Received by: <i>AP...</i>		Date/Time: 3/29/23 1310		Company: AECOM																																			
Relinquished by: <i>Alex Edwards</i>		Date/Time: 3/29/23 1330		Company: AECOM		Received by: <i>[Signature]</i>		Date/Time: 3/30/23 1200		Company: AECOM																																			
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) °C and Other Remarks: 2.2/2.2																																									

Chain of Custody Record

U.A.A. DWB 01673973782

Client Information Company: AECOM Address: 1001 Bishop St. Suite 1600 City: Honolulu State: HI Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com) Project Name: CTO N6274223F0104 Site: RH5F		Lab P/N: Elaine Walker E-Mail: Elaine Walker@EurofinsET.com State of Origin: Hawaii		Carrier Tracking No(s): FedEx Page: Page 1 of 1 Job #:		COC No: 2303W4AFE06 Preservation Codes: A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:			
Due Date Requested: see subcontract TAT Requested (days): Rush - ASAP Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: WO #: Project #: 60697810 SSOV#:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> A Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> X Total Number of Containers: 3		Special Instructions/Note: 580-125379 Chain of Custody		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
Sample Identification AF-RH5W-16-WGN01LF-2303W4		Sample Date: 5/2/2023 Sample Time: 1:50 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=other, BT=Basin, J=Jug): W	Analysis Requested				Special Instructions/Note: 580-125379 Chain of Custody		
Possible Hazard Identification <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		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested I II III, IV Other (specify)		Special Instructions/QC Requirements DOD QSM project.							
Empty Kit Relinquished by:		Method of Shipment:							
Relinquished by: [Signature]		Date/Time: 5/2/23 5:55		Company: AECOM		Date/Time: 5/2/23 5:55		Company: AECOM	
Relinquished by: [Signature]		Date/Time: 5/30/23 13:00		Company: AECOM		Date/Time: 5/30/23 13:00		Company: AECOM	
Relinquished by: [Signature]		Date/Time:		Company:		Date/Time:		Company:	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: 2-2/2-2		Ver: 01/16/2019		Ver: 01/16/2019	

Chain of Custody Record

United AVB 016-73973782

Client Information		Sampler: TESSA MURPHY		Lab P/N: Elaine Walker		Carrier Tracking No(s): 2303W4AFE03	
Client Contact: Tessa Murphy		Phone: 975-582-5207		E-Mail: M.Elaine.Walker@EurofinsET.com		Page 1 of 1	
Company: AECOM		Address: 1001 Bishop St, Suite 1600		City: Honolulu		State of Origin: Hawaii	
City: Honolulu		State Zip: Hawaii 96813		Phone: 808-954-4512 / 770-331-0794		Job #:	
Email: Watson.Tanji@aecom.com / Mark.Kromis@aecom.com		Project #: 60697810		Project Name: CTO N6274223F0104		Site: RH5F	
Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Due Date Requested: see subcontract		TAT Requested (days): Rush - ASAP		Preservation Codes:	
PO #:		Sample Date: 3/28/23		Sample Time: 1255		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification		Sample Type (C=Comp, G=grab)		Sample Matrix (Newwater, Seawater, Onwater, Air)		M - Hexane N - None O - ASNAC2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
AF-RHMW10-WGN01LF-2303W4		G		W		Total Number of Containers: 3 Special Instructions/Note:	
Possible Hazard Identification		Sample Date		Sample Time		Sample Matrix	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Radiological <input type="checkbox"/> Other (specify)		3/28/23		1255		W	
Deliverable Requested I II III IV Other (specify)		Date		Time		Special Instructions/Note:	
4 report standard TAT. AECOM EQUIS EDD.		3/28/23		1357		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by		Date		Time		Special Instructions/QC Requirements DOD QSM project	
Relinquished by Tessa Murphy		3/28/23		1357		Method of Shipment:	
Relinquished by Tessa Murphy		3/28/23		1300		Received by: Anthony Tomic, MTS	
Relinquished by		Date		Time		Received by: FGS	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Date		Time		Received by: FGS	
Custody Seal No		Date		Time		Cooler Temperature(s) °C and Other Remarks: 2.2/2.2	

Chain of Custody Record

United AWB 016-73573782

Client Information Company: AECOM Address: 1001 Bishop St. Suite 1600 City: Honolulu State, Zip: Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: watson.tanji@aecom.com / Mark.Kromis@aecom.com Project Name: CTO N627423F0104 Site: RSHF		Lab PM: Elaine Walker E-Mail: M.Elaine.Walker@EurofinsET.com Carrier Tracking No(s): FedEx State of Origin: Hawaii Job #:	
Due Date Requested: see subcontract TAT Requested (days): Rush - ASAP Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: WO #: Project #: 60697810 SSO#:		Analysis Requested Total Number of Containers: 3	
Sample Identification AF-HDMW225303-WGN01LF-2303W4 Sample Date: 3/20/23 Sample Time: 1020 Sample Type: G Matrix: W Preservation Code:		Field Filtered Sample (Yes or No): N Perform MS/MSD (Yes or No): A 8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol	
Possible Hazard Identification <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 Deliverable Requested: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other (specify)			
Empty Kit Relinquished by: <i>in DeCarma</i> Relinquished by: <i>Anthony Tominez</i> Relinquished by:			
Date: 3/20/23 1357 Date/Time: 3/20/23 1357 Date/Time: 3/20/23 1300 Date/Time:		Method of Shipment:	
Date: 3/20/23 1357 Date/Time: 3/20/23 1357 Date/Time: 3/20/23 1300 Date/Time:		Company: AECOM Company: AECOM Company: AECOM Company:	
Date: 3/20/23 1357 Date/Time: 3/20/23 1357 Date/Time: 3/20/23 1300 Date/Time:		Cooler Temperature(s) °C and Other Remarks: 2.2/2.2	

Chain of Custody Record

United AWB 016 73973782

Client Information		Lab P/N: Elaine Walker		Carrier Tracking No(s): 2303W4AFE07	
Client Contact: Andy Young		E-Mail: M.Elaine.Walker@EurofinsET.com		Page: Page 1 of 1	
Phone: 402-871-5712		PWSID:		Job #:	
Due Date Requested: see subcontract		TAT Requested (days): Rush - ASAP		Preservation Codes:	
Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		PO #:		A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
WO #:		Project #:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Project Name: CTO N6274223F0104		SSOW #:		Total Number of containers: 3	
Site: RHSF		AF-RHMW225401-WGN01B-2303W4		Special Instructions/Note:	
Sample Identification		Sample Date: 3/29/23		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> A	
Sample Type (C=Comp, G=grab): G		Sample Time: 12:30		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> X	
Matrix (W=water, S=solid, O=organic, BT=base, A=acid): W		Preservation Code: W		8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol	
Possible Hazard Identification		<input 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		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Deliverable Requested I, II, III, IV Other (specify): 4 report standard TAT, AECOM EQUIS EDD.		Date: 3/29/23 13:4		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: Andy Young		Date/Time: 3/29/23 13:4		Special Instructions/QC Requirements: DOD QSM project	
Relinquished by: Andy Young		Date/Time: 3/29/23 12:00		Method of Shipment:	
Relinquished by: Andy Young		Date/Time: 3/29/23 12:00		Received by: Andy Young	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No: 2.2/2.2		Company: AECOM	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-125379-1

Login Number: 125379
List Number: 2
Creator: Johnson, Corey M

List Source: Eurofins Savannah
List Creation: 03/31/23 07:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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 <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	