

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

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AECOM

1001 Bishop Street
Honolulu HI 96813

Generated 5/17/2023 11:24 AM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-127051-1

Eurofins Seattle

Job Notes

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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: 580-127051-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
Q	One or more quality control criteria failed.
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: 580-127051-1

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

Three samples were received on 5/10/2023 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.8° 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-RHMW225401-WGN01B-2305W2 (580-127051-1), AF-RHMW04-WGN01LF-2305W2 (580-127051-2) and AF-RHMW06-WGN01LF-2305W2 (580-127051-3) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 05/12/2023.

The continuing calibration verification (CCV) associated with batch 680-778288 recovered above the upper control limit for 2-(2-Butoxyethoxy)ethanol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data has been reported. The associated samples are impacted: AF-RHMW225401-WGN01B-2305W2 (580-127051-1), AF-RHMW04-WGN01LF-2305W2 (580-127051-2) and AF-RHMW06-WGN01LF-2305W2 (580-127051-3).

No additional 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: 580-127051-1

Client Sample ID: AF-RHMW225401-WGN01B-2305W2

Lab Sample ID: 580-127051-1

No Detections.

Client Sample ID: AF-RHMW04-WGN01LF-2305W2

Lab Sample ID: 580-127051-2

No Detections.

Client Sample ID: AF-RHMW06-WGN01LF-2305W2

Lab Sample ID: 580-127051-3

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: 580-127051-1

Client Sample ID: AF-RHMW225401-WGN01B-2305W2

Lab Sample ID: 580-127051-1

Date Collected: 05/08/23 10:50

Matrix: Water

Date Received: 05/10/23 10:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M Q	5.0	1.1	mg/L			05/12/23 02:26	1

Client Sample ID: AF-RHMW04-WGN01LF-2305W2

Lab Sample ID: 580-127051-2

Date Collected: 05/08/23 10:10

Matrix: Water

Date Received: 05/10/23 10:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			05/12/23 02:49	1

Client Sample ID: AF-RHMW06-WGN01LF-2305W2

Lab Sample ID: 580-127051-3

Date Collected: 05/08/23 11:30

Matrix: Water

Date Received: 05/10/23 10:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			05/12/23 03:13	1

Default Detection Limits

Client: AECOM

Job ID: 580-127051-1

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: 580-127051-1

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

Lab Sample ID: MB 680-778288/9
Matrix: Water
Analysis Batch: 778288

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

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/11/23 18:18	1

Lab Sample ID: LCS 680-778288/5
Matrix: Water
Analysis Batch: 778288

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	20.0	21.8		mg/L		109	50 - 150

Lab Sample ID: LCSD 680-778288/6
Matrix: Water
Analysis Batch: 778288

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	20.0	18.2		mg/L		91	50 - 150	18	50

QC Association Summary

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

Job ID: 580-127051-1

GC Semi VOA

Analysis Batch: 778288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-127051-1	AF-RHMW225401-WGN01B-2305W2	Total/NA	Water	8015C GLY	
580-127051-2	AF-RHMW04-WGN01LF-2305W2	Total/NA	Water	8015C GLY	
580-127051-3	AF-RHMW06-WGN01LF-2305W2	Total/NA	Water	8015C GLY	
MB 680-778288/9	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-778288/5	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-778288/6	Lab Control Sample Dup	Total/NA	Water	8015C GLY	

Lab Chronicle

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

Job ID: 580-127051-1

Client Sample ID: AF-RHMW225401-WGN01B-2305W2

Lab Sample ID: 580-127051-1

Date Collected: 05/08/23 10:50

Matrix: Water

Date Received: 05/10/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	778288	GEM	EET SAV	05/12/23 02:26

Client Sample ID: AF-RHMW04-WGN01LF-2305W2

Lab Sample ID: 580-127051-2

Date Collected: 05/08/23 10:10

Matrix: Water

Date Received: 05/10/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	778288	GEM	EET SAV	05/12/23 02:49

Client Sample ID: AF-RHMW06-WGN01LF-2305W2

Lab Sample ID: 580-127051-3

Date Collected: 05/08/23 11:30

Matrix: Water

Date Received: 05/10/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	778288	GEM	EET SAV	05/12/23 03:13

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 580-127051-1

Laboratory: Eurofins Savannah

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

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
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.

<u>Analysis Method</u>	<u>Prep Method</u>	<u>Matrix</u>	<u>Analyte</u>
8015C GLY		Water	2-(2-Butoxyethoxy)ethanol

Method Summary

Client: AECOM

Job ID: 580-127051-1

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: 580-127051-1

Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-127051-1	AF-RHMW225401-WGN01B-2305W2	Water	05/08/23 10:50	05/10/23 10:30
580-127051-2	AF-RHMW04-WGN01LF-2305W2	Water	05/08/23 10:10	05/10/23 10:30
580-127051-3	AF-RHMW06-WGN01LF-2305W2	Water	05/08/23 11:30	05/10/23 10:30

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127051-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 777832Lab Sample ID: IC 680-777832/4 Client Sample ID: _____Date Analyzed: 05/09/23 17:39 Lab File ID: GE09004.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Hydroxy-4-methyl-2-pentanone	2.37	Baseline Smoothing	SK9U	05/10/23 11:32
2-Butoxyethanol	2.52	Baseline Smoothing	SK9U	05/10/23 11:32
n-Heptyl Alcohol	2.79	Baseline Smoothing	SK9U	05/10/23 11:32
Propylene glycol	4.33	Baseline Smoothing	SK9U	05/10/23 11:33
Ethylene glycol	4.53	Baseline Smoothing	SK9U	05/10/23 11:33

Lab Sample ID: IC 680-777832/5 Client Sample ID: _____Date Analyzed: 05/09/23 18:02 Lab File ID: GE09005.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Hydroxy-4-methyl-2-pentanone	2.37	Baseline Smoothing	SK9U	05/10/23 11:32
2-Butoxyethanol	2.53	Baseline Smoothing	SK9U	05/10/23 11:32
n-Heptyl Alcohol	2.79	Baseline Smoothing	SK9U	05/10/23 11:32
Propylene glycol	4.33	Baseline Smoothing	SK9U	05/10/23 11:33
Ethylene glycol	4.53	Baseline Smoothing	SK9U	05/10/23 11:33

Lab Sample ID: IC 680-777832/6 Client Sample ID: _____Date Analyzed: 05/09/23 18:26 Lab File ID: GE09006.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Hydroxy-4-methyl-2-pentanone	2.38	Baseline Smoothing	SK9U	05/10/23 11:32
2-Butoxyethanol	2.52	Baseline Smoothing	SK9U	05/10/23 11:32
n-Heptyl Alcohol	2.78	Baseline Smoothing	SK9U	05/10/23 11:32

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127051-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 777832Lab Sample ID: ICIS 680-777832/7 Client Sample ID: _____Date Analyzed: 05/09/23 18:49 Lab File ID: GE09007.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Hydroxy-4-methyl-2-pentanone	2.38	Baseline Smoothing	SK9U	05/10/23 11:31
2-Butoxyethanol	2.52	Baseline Smoothing	SK9U	05/10/23 11:31
n-Heptyl Alcohol	2.78	Baseline Smoothing	SK9U	05/10/23 11:31
Propylene glycol	4.34	Baseline Smoothing	SK9U	05/10/23 11:31
Ethylene glycol	4.55	Baseline Smoothing	SK9U	05/10/23 11:31

Lab Sample ID: IC 680-777832/8 Client Sample ID: _____Date Analyzed: 05/09/23 19:12 Lab File ID: GE09008.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Heptyl Alcohol	2.78	Baseline Smoothing	SK9U	05/10/23 11:31
Dipropylene Glycol Methyl Ether	3.46	Baseline Smoothing	SK9U	05/10/23 11:31

Lab Sample ID: IC 680-777832/9 Client Sample ID: _____Date Analyzed: 05/09/23 19:36 Lab File ID: GE09009.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Heptyl Alcohol	2.78	Baseline Smoothing	SK9U	05/10/23 11:31
Dipropylene Glycol Methyl Ether	3.46	Baseline Smoothing	SK9U	05/10/23 11:31
Propylene glycol	4.34	Baseline Smoothing	SK9U	05/10/23 11:34
Ethylene glycol	4.54	Baseline Smoothing	SK9U	05/10/23 11:30

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127051-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 777832

Lab Sample ID: IC 680-777832/10 Client Sample ID: _____

Date Analyzed: 05/09/23 19:59 Lab File ID: GE09010.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	4.34	Baseline Smoothing	SK9U	05/10/23 11:34
Ethylene glycol	4.54	Baseline Smoothing	SK9U	05/10/23 11:30

Lab Sample ID: ICV 680-777832/11 CCV Client Sample ID: _____

Date Analyzed: 05/09/23 20:22 Lab File ID: GE09011.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	4.34	Baseline Smoothing	SK9U	05/10/23 11:30
Ethylene glycol	4.54	Baseline Smoothing	SK9U	05/10/23 11:30

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127051-1

SDG No.: _____

Instrument ID: CVGG2 Analysis Batch Number: 778288

Lab Sample ID: CCVIS 680-778288/4 Client Sample ID: _____

Date Analyzed: 05/11/23 16:21 Lab File ID: GE11004.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol, 2-propoxy	2.09	Baseline Smoothing	SK9U	05/11/23 17:07
Propylene glycol	4.34	Baseline Smoothing	SK9U	05/11/23 17:08
Ethylene glycol	4.54	Baseline Smoothing	SK9U	05/11/23 17:08

Lab Sample ID: CCV 680-778288/23 Client Sample ID: _____

Date Analyzed: 05/11/23 23:43 Lab File ID: GE11023.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	4.34	Baseline Smoothing	SK9U	05/12/23 10:48
Ethylene glycol	4.53	Baseline Smoothing	SK9U	05/12/23 10:48
2-(2-Butoxyethoxy)ethanol	6.12	Baseline Smoothing	SK9U	05/12/23 10:56
Triethylene Glycol	9.88	Baseline Smoothing	SK9U	05/12/23 10:49

Lab Sample ID: 580-127051-1 Client Sample ID: AF-RHMW225401-WGN01B-2305W2

Date Analyzed: 05/12/23 02:26 Lab File ID: GE11030.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	05/12/23 16:27

Lab Sample ID: CCV 680-778288/34 Client Sample ID: _____

Date Analyzed: 05/12/23 03:59 Lab File ID: GE11034.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol, 2-propoxy	2.09	Baseline Smoothing	SK9U	05/12/23 10:46
Propylene glycol	4.33	Baseline Smoothing	SK9U	05/12/23 10:47
Ethylene glycol	4.52	Baseline Smoothing	SK9U	05/12/23 10:47

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127051-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SG_Gly_CAL_00051	08/08/23		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_00116	11/04/23		Agilent, Lot 0006738806			(Purchased Reagent)	n-Heptyl Alcohol	5000 ug/mL
SG_GlyICV_00058	07/01/23		o2si, Lot 454407			(Purchased Reagent)	2-(2-Butoxyethoxy)ethanol	2000 ug/mL

Reagent

SG_Gly_CAL_00051



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



ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Rev 0

Certificate of Analysis

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

Description:

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

Container:

1 ml Ampule, Amber Glass

Certified Values:

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

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

Intended Uses:

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

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

Certificate of Analysis

Page 2 of 3

Catalog No. G34-120070-04

Lot No. 480919

Expiration Date 2 -May-2024

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

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

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

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

Method of Preparation:

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

Packaging and Storage:

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

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

Glassware Calibration:

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

Weights and Balance Calibration:

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

Homogeneity:

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

Hazardous Information:

Refer to MSDS.

Calculation of Uncertainty:

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

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

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

Manufactured By:

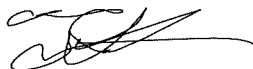


Brian Stokes

3 -May-2022

Production Chemist I

Certified By:



Tyler Sherman

14 -Jun-2022

Quality Control Chemist I

Released By:



Susan Mathews

14 -Jun-2022

Quality Control Team Lead

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

Certificate of Analysis

Catalog No. G34-120070-04

Lot No. 480919

Expiration Date 2 -May-2024

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

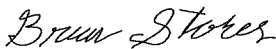
Expiration Information:

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

Quality Standard Documentation:

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

Manufactured By:



Brian Stokes

3 -May-2022

Production Chemist I

Certified By:



Tyler Sherman

14 -Jun-2022

Quality Control Chemist I

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

Released By:



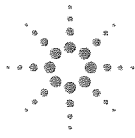
Susan Mathews

14 -Jun-2022

Quality Control Team Lead

Reagent

SG_GLY_ISTD_00116



Agilent

Trusted Answers

ISO 17034

**Reference Material Certificate
Product Information Sheet**

Product Name: Custom Standard

Lot Number: 0006738806

Product Number: CUS-6046

Lot Issue Date: 05-Apr-2023

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

Expiration Date: 31-May-2025

Component Name	Concentration	Uncertainty	CAS#	Analyte Lot
n-heptanol	5008	± 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 (RM) 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. Purity values are taken from approved vendor raw material certificates.

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 (RM) 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:

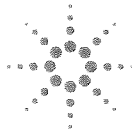
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:

This analytical reference (RM) 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 (RM) 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.



Agilent

Trusted Answers

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_00058



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



ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Rev 0

Certificate of Analysis

Page 1 of 3

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

Description:

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

Container:

1 ml Ampule, Amber Glass

Certified Values:

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

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

Intended Uses:

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

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

Certificate of Analysis

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

Manufactured By:

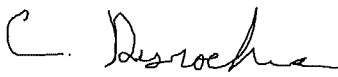


Jared Ball

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

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:

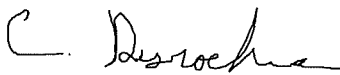


Jared Ball

1 -Jul-2021

Quality Control Chemist I

Certified By:

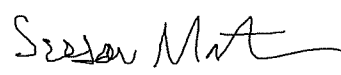


Claire Desrochers

7 -Jul-2021

Quality Control Chemist I

Released By:



Susan Mathews

8 -Jul-2021

Quality Control Team Lead

7290B Investment Drive • North Charleston, SC 29418
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.: 580-127051-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GE11005.D
 Lab ID: LCS 680-778288/5 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy) ethanol	20.0	21.8	109	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.: 580-127051-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: GE11006.D
 Lab ID: LCSD 680-778288/6 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy) ethanol	20.0	18.2	91	18	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.: 580-127051-1
 SDG No.: _____
 Lab Sample ID: MB 680-778288/9
 Matrix: Water Date Extracted: _____
 Lab File ID: (1) GE11009.D Lab File ID: (2) _____
 Date Analyzed: (1) 05/11/2023 18:18 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 680-778288/5	05/11/2023 16:45	
	LCSD 680-778288/6	05/11/2023 17:08	
AF-RHMW225401-WGN01B-230 5W2	580-127051-1	05/12/2023 02:26	
AF-RHMW04-WGN01LF-2305W2	580-127051-2	05/12/2023 02:49	
AF-RHMW06-WGN01LF-2305W2	580-127051-3	05/12/2023 03:13	

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

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Sample No.: ICIS 680-777832/7 Date Analyzed: 05/09/2023 18:49
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm)
 Lab File ID (Standard): GE09007.D Heated Purge: (Y/N) N
 Calibration ID: 90951

	nHPA		#	RT #	#	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	3269947	2.78				
UPPER LIMIT	6539894	3.28				
LOWER LIMIT	1634974	2.28				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 680-777832/11 CCV		5429781	2.79			

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.: 580-127051-1
 SDG No.: _____
 Sample No.: CCVIS 680-778288/4 Date Analyzed: 05/11/2023 16:21
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm)
 Lab File ID (Standard): GE11004.D Heated Purge: (Y/N) N
 Calibration ID: 90951

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		4194198	2.79				
UPPER LIMIT		8388396	3.29				
LOWER LIMIT		2097099	2.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 680-778288/5		4668556	2.79				
LCSD 680-778288/6		3566646	2.79				
MB 680-778288/9		5868179	2.78				
CCV 680-778288/23		2766309	2.78				
580-127051-1	AF-RHMW225401-WGN01 B-2305W2	5144362	2.78				
580-127051-2	AF-RHMW04-WGN01LF-2 305W2	4872056	2.78				
580-127051-3	AF-RHMW06-WGN01LF-2 305W2	5247955	2.78				
CCV 680-778288/34		4989677	2.78				

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

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11030.D
 Lims ID: 580-127051-C-1
 Client ID: AF-RHMW225401-WGN01B-2305W2
 Sample Type: Client
 Inject. Date: 12-May-2023 02:26:31 ALS Bottle#: 0 Worklist Smp#: 30
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085926-030
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-May-2023 16:28:55 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1667

First Level Reviewer: SK9U Date: 12-May-2023 16:27:52

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

* 4 n-Heptyl Alcohol
 2.779 2.790 -0.011 5144362 50.0

Reagents:

SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11030.D

Injection Date: 12-May-2023 02:26:31

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-127051-C-1

Lab Sample ID: 680-127051-1

Worklist Smp#: 30

Client ID: AF-RHMW225401-WGN01B-2305W2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

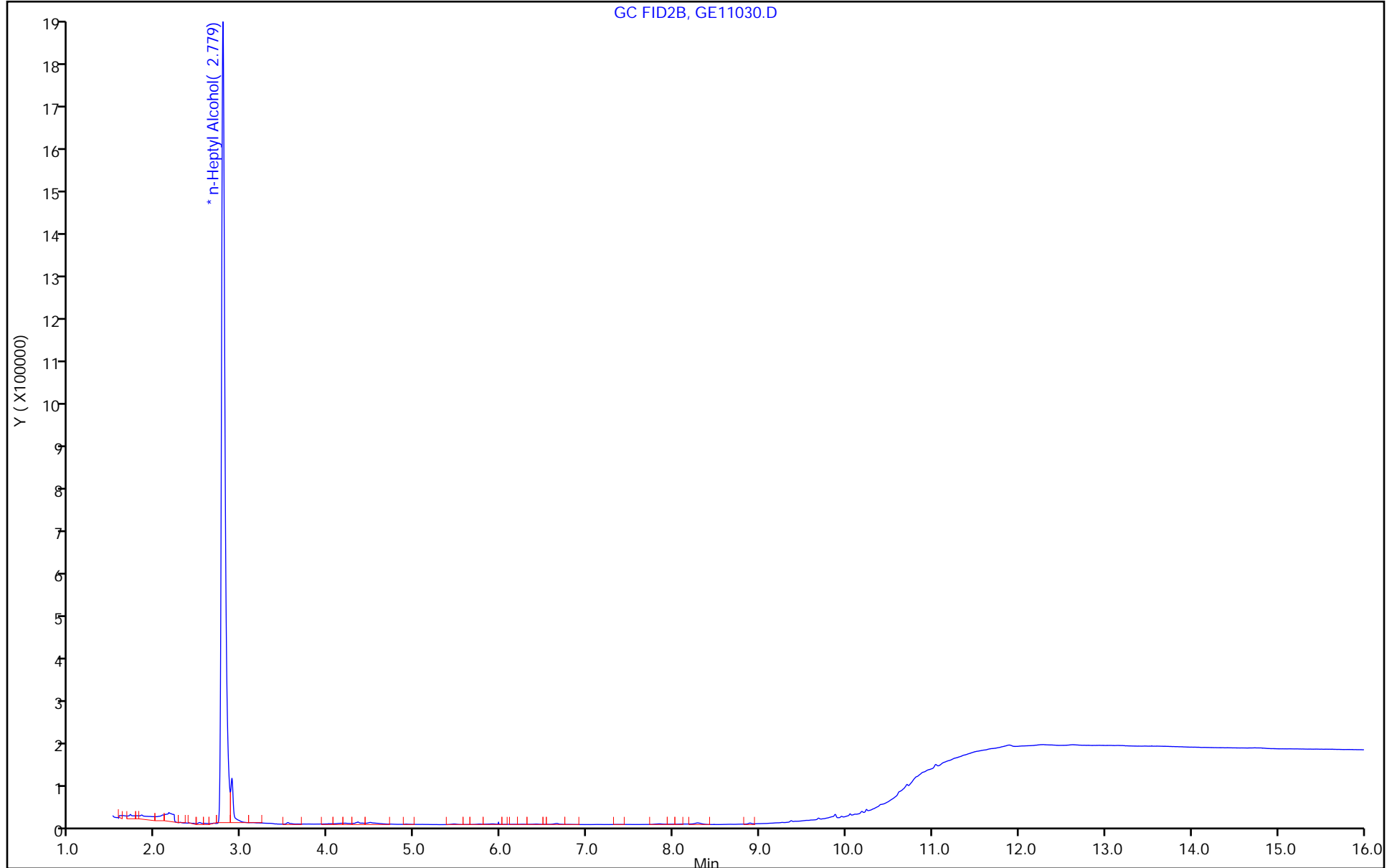
ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)

GC FID2B, GE11030.D



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Client Sample ID: AF-RHMW04-WGN01LF-2305W2 Lab Sample ID: 580-127051-2
 Matrix: Water Lab File ID: GE11031.D
 Analysis Method: 8015C GLY Date Collected: 05/08/2023 10:10
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 05/12/2023 02:49
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 778288 Units: mg/L

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

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11031.D
 Lims ID: 580-127051-B-2
 Client ID: AF-RHMW04-WGN01LF-2305W2
 Sample Type: Client
 Inject. Date: 12-May-2023 02:49:49 ALS Bottle#: 0 Worklist Smp#: 31
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085926-031
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-May-2023 16:28:55 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1667

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

* 4 n-Heptyl Alcohol
 2.778 2.790 -0.012 4872056 50.0

Reagents:

SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11031.D

Injection Date: 12-May-2023 02:49:49

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-127051-B-2

Lab Sample ID: 680-127051-2

Worklist Smp#: 31

Client ID: AF-RHMMW04-WGN01LF-2305W2

Injection Vol: 1.0 ul

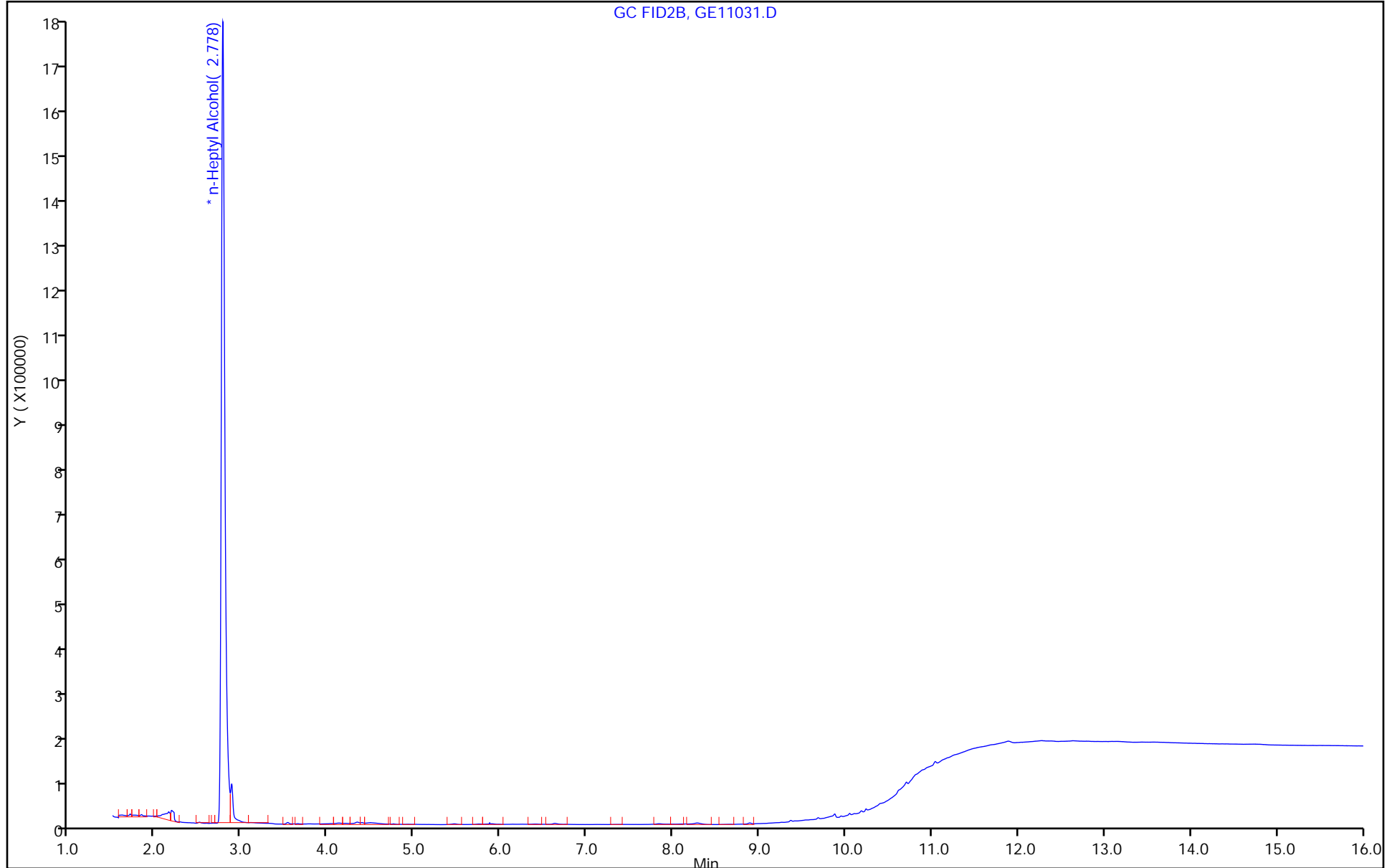
Dil. Factor: 1.0000

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.: 580-127051-1
 SDG No.: _____
 Client Sample ID: AF-RHMW06-WGN01LF-2305W2 Lab Sample ID: 580-127051-3
 Matrix: Water Lab File ID: GE11032.D
 Analysis Method: 8015C GLY Date Collected: 05/08/2023 11:30
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 05/12/2023 03:13
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 778288 Units: mg/L

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

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11032.D
 Lims ID: 580-127051-C-3
 Client ID: AF-RHMW06-WGN01LF-2305W2
 Sample Type: Client
 Inject. Date: 12-May-2023 03:13:13 ALS Bottle#: 0 Worklist Smp#: 32
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085926-032
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-May-2023 16:28:55 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1667

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

* 4 n-Heptyl Alcohol
 2.779 2.790 -0.011 5247955 50.0

Reagents:

SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11032.D

Injection Date: 12-May-2023 03:13:13

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-127051-C-3

Lab Sample ID: 680-127051-3

Worklist Smp#: 32

Client ID: AF-RHMMW06-WGN01LF-2305W2

Injection Vol: 1.0 ul

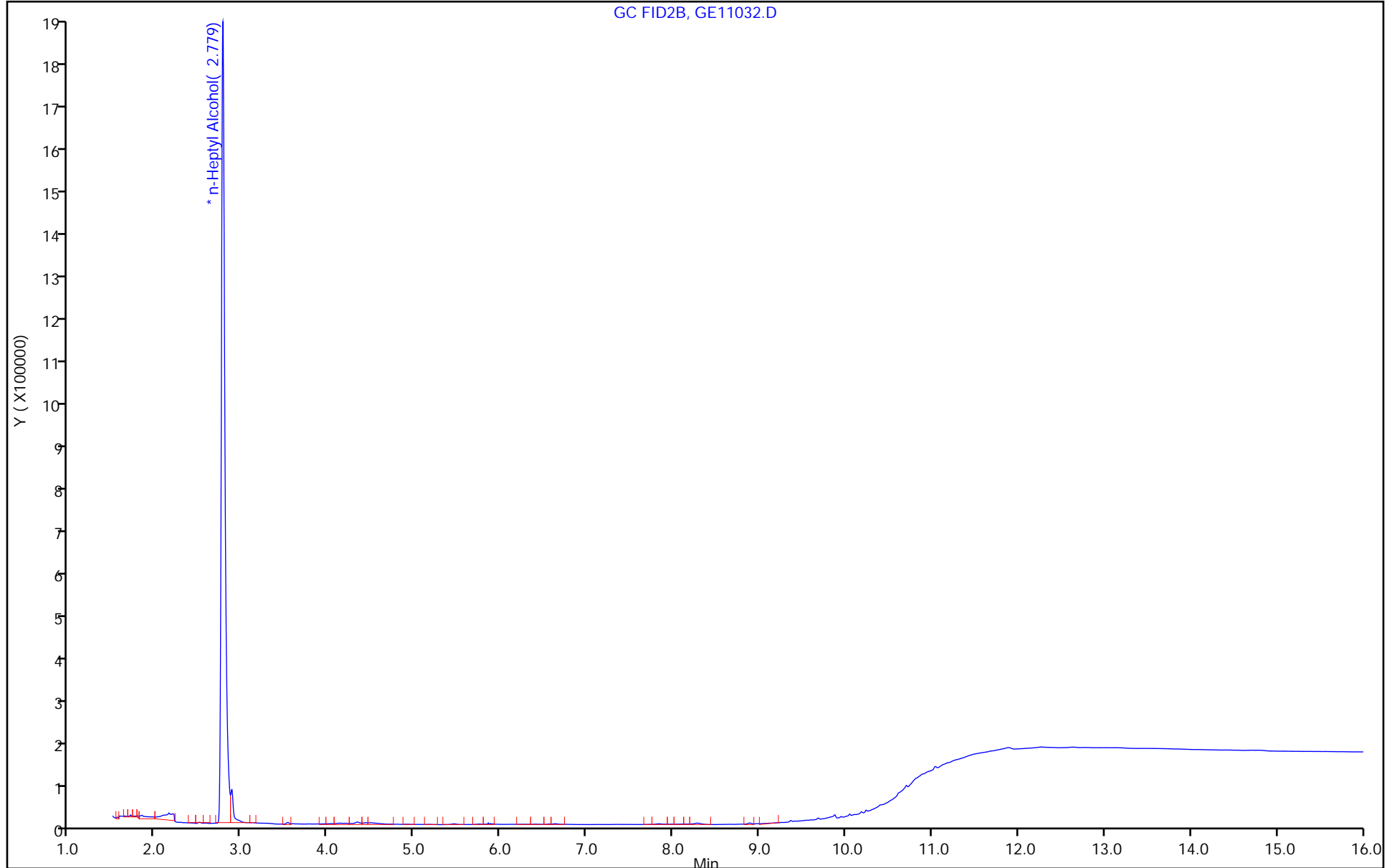
Dil. Factor: 1.0000

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.: 580-127051-1 Analy Batch No.: 777832
 SDG No.: _____
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm) Heated Purge: (Y/N) N
 Calibration Start Date: 05/09/2023 17:39 Calibration End Date: 05/09/2023 19:59 Calibration ID: 90951

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-777832/10	GE09010.D
Level 2	IC 680-777832/9	GE09009.D
Level 3	IC 680-777832/8	GE09008.D
Level 4	ICIS 680-777832/7	GE09007.D
Level 5	IC 680-777832/6	GE09006.D
Level 6	IC 680-777832/5	GE09005.D
Level 7	IC 680-777832/4	GE09004.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	++++ 0.6707	0.9657 0.5988	0.9293	0.7216	0.6664	Lin1	2.263 7	0.610 7						0.9950		0.9900	
4-Hydroxy-4-methyl-2-pentanone	0.6707 0.6183	0.6389 0.5495	0.6769	0.5861	0.6077	Ave		0.621 1			7.3		20.0				
2-Butoxyethanol	0.7546 0.6481	0.6964 0.5918	0.7228	0.6078	0.6483	Ave		0.667 1			9.0		20.0				
Dipropylene Glycol Methyl Ether	0.0482 0.0530	0.0557 0.0486	0.0582	0.0493	0.0534	Ave		0.052 4			7.3		20.0				
Propylene glycol	++++ 0.1423	0.1553 0.1578	0.1743	0.1512	0.1610	QuaF		0.150 3	0.0000323					0.9930		0.9900	
Ethylene glycol	0.4510 0.3582	0.3669 0.3853	0.4683	0.3985	0.4160	Lin1	0.189 1	0.382 2						0.9950		0.9900	
2-(2-Butoxyethoxy)ethanol	0.5538 0.5218	0.5352 0.4867	0.5505	0.4696	0.5351	Ave		0.521 8			6.1		20.0				
2,2'-Oxybisethanol	0.2742 0.2126	0.2181 0.2394	0.2596	0.2115	0.2504	QuaF		0.226 6	0.0000580					0.9920		0.9900	
Triethylene Glycol	0.2057 0.2052	0.1939 0.2329	0.2368	0.1868	0.2394	Ave		0.214 4			10.1		20.0				
Tetraethylene Glycol	0.1634 0.2088	0.1634 0.2381	0.2035	0.1575	0.2467	Ave		0.197 3			18.7		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.: 580-127051-1 Analy Batch No.: 777832

SDG No.: _____

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

Calibration Start Date: 05/09/2023 17:39 Calibration End Date: 05/09/2023 19:59 Calibration ID: 90951

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-777832/10	GE09010.D
Level 2	IC 680-777832/9	GE09009.D
Level 3	IC 680-777832/8	GE09008.D
Level 4	ICIS 680-777832/7	GE09007.D
Level 5	IC 680-777832/6	GE09006.D
Level 6	IC 680-777832/5	GE09005.D
Level 7	IC 680-777832/4	GE09004.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	Lin1	++++ 5336862	537051 6534819	783766	943843	3744798	++++ 80.0	5.00 100	10.0	20.0	50.0
4-Hydroxy-4-methyl-2-pentanone	nHPA	Ave	151793 4919800	355292 5996035	570911	766545	3414820	2.00 80.0	5.00 100	10.0	20.0	50.0
2-Butoxyethanol	nHPA	Ave	170793 5157004	387293 6458365	609600	794997	3642797	2.00 80.0	5.00 100	10.0	20.0	50.0
Dipropylene Glycol Methyl Ether	nHPA	Ave	10908 421545	30977 530732	49093	64544	300020	2.00 80.0	5.00 100	10.0	20.0	50.0
Propylene glycol	nHPA	QuaF	++++ 1132192	86370 1722435	146986	197772	904526	++++ 80.0	5.00 100	10.0	20.0	50.0
Ethylene glycol	nHPA	Lin1	102088 2850353	204053 4204180	394926	521284	2337791	2.00 80.0	5.00 100	10.0	20.0	50.0
2-(2-Butoxyethoxy)ethanol	nHPA	Ave	125351 4152135	297628 5311018	464288	614173	3006673	2.00 80.0	5.00 100	10.0	20.0	50.0
2,2'-Oxybisethanol	nHPA	QuaF	62057 1691460	121314 2612531	218918	276680	1407082	2.00 80.0	5.00 100	10.0	20.0	50.0
Triethylene Glycol	nHPA	Ave	46553 1632546	107845 2541188	199683	244303	1345066	2.00 80.0	5.00 100	10.0	20.0	50.0
Tetraethylene Glycol	nHPA	Ave	73978 3323424	181718 5196577	343215	411906	2772915	4.00 160	10.0 200	20.0	40.0	100

Curve Type Legend

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
QuaF = Quadratic ISTD forced zero

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

Lab Name: Eurofins Savannah Job No.: 580-127051-1 Analy Batch No.: 777832

SDG No.: _____

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

Calibration Start Date: 05/09/2023 17:39 Calibration End Date: 05/09/2023 19:59 Calibration ID: 90951

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-777832/10	GE09010.D
Level 2	IC 680-777832/9	GE09009.D
Level 3	IC 680-777832/8	GE09008.D
Level 4	ICIS 680-777832/7	GE09007.D
Level 5	IC 680-777832/6	GE09006.D
Level 6	IC 680-777832/5	GE09005.D
Level 7	IC 680-777832/4	GE09004.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	++++ -5.6	-16.0	15.1	-0.4	1.7	5.2	20	20	20	20	20	20
4-Hydroxy-4-methyl-2-pentanone	8.0 -11.5	2.9	9.0	-5.6	-2.2	-0.5	20 20	20	20	20	20	20
2-Butoxyethanol	13.1 -11.3	4.4	8.3	-8.9	-2.8	-2.9	20 20	20	20	20	20	20
Dipropylene Glycol Methyl Ether	-7.9 -7.1	6.4	11.2	-5.7	2.0	1.2	20 20	20	20	20	20	20
Ethylene glycol	-6.7 0.3	-13.9	17.6	1.8	7.9	-6.9	20 20	20	20	20	20	20
2-(2-Butoxyethoxy)ethanol	6.1 -6.7	2.6	5.5	-10.0	2.5	0.0	20 20	20	20	20	20	20
Triethylene Glycol	-4.1 8.6	-9.5	10.5	-12.9	11.7	-4.3	20 20	20	20	20	20	20
Tetraethylene Glycol	-17.2 20.7 *	-17.2	3.1	-20.2 *	25.0 *	5.8	20 20	20	20	20	20	20

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09004.D
 Lims ID: ic g7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 09-May-2023 17:39:37 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085868-004
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 10-May-2023 11:56:54 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 10-May-2023 11:33:07

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.081	2.083	-0.002	6534819	100.0	94.4	
2 4-Hydroxy-4-methyl-2-pentanone						
2.374	2.377	-0.003	5996035	100.0	88.5	M
3 2-Butoxyethanol						
2.523	2.524	-0.001	6458365	100.0	88.7	M
* 4 n-Heptyl Alcohol						
2.786	2.783	0.003	5456296	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
3.461	3.464	-0.003	530732	100.0	92.9	
6 Propylene glycol						
4.326	4.340	-0.014	1722435	100.0	102.7	M
7 Ethylene glycol						
4.529	4.546	-0.017	4204180	100.0	100.3	M
8 2-(2-Butoxyethoxy)ethanol						
6.122	6.121	0.001	5311018	100.0	93.3	
9 2,2'-Oxybisethanol						
8.282	8.283	-0.001	2612531	100.0	102.9	
10 Triethylene Glycol						
9.877	9.876	0.001	2541188	100.0	108.6	
11 Tetraethylene Glycol						
10.708	10.708	0.000	5196577	200.0	241.3	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00051

Amount Added: 50.00

Units: uL

SG_GLY_ISTD_00116

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09004.D

Injection Date: 09-May-2023 17:39:37

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g7

Worklist Smp#: 4

Client ID:

Injection Vol: 1.0 ul

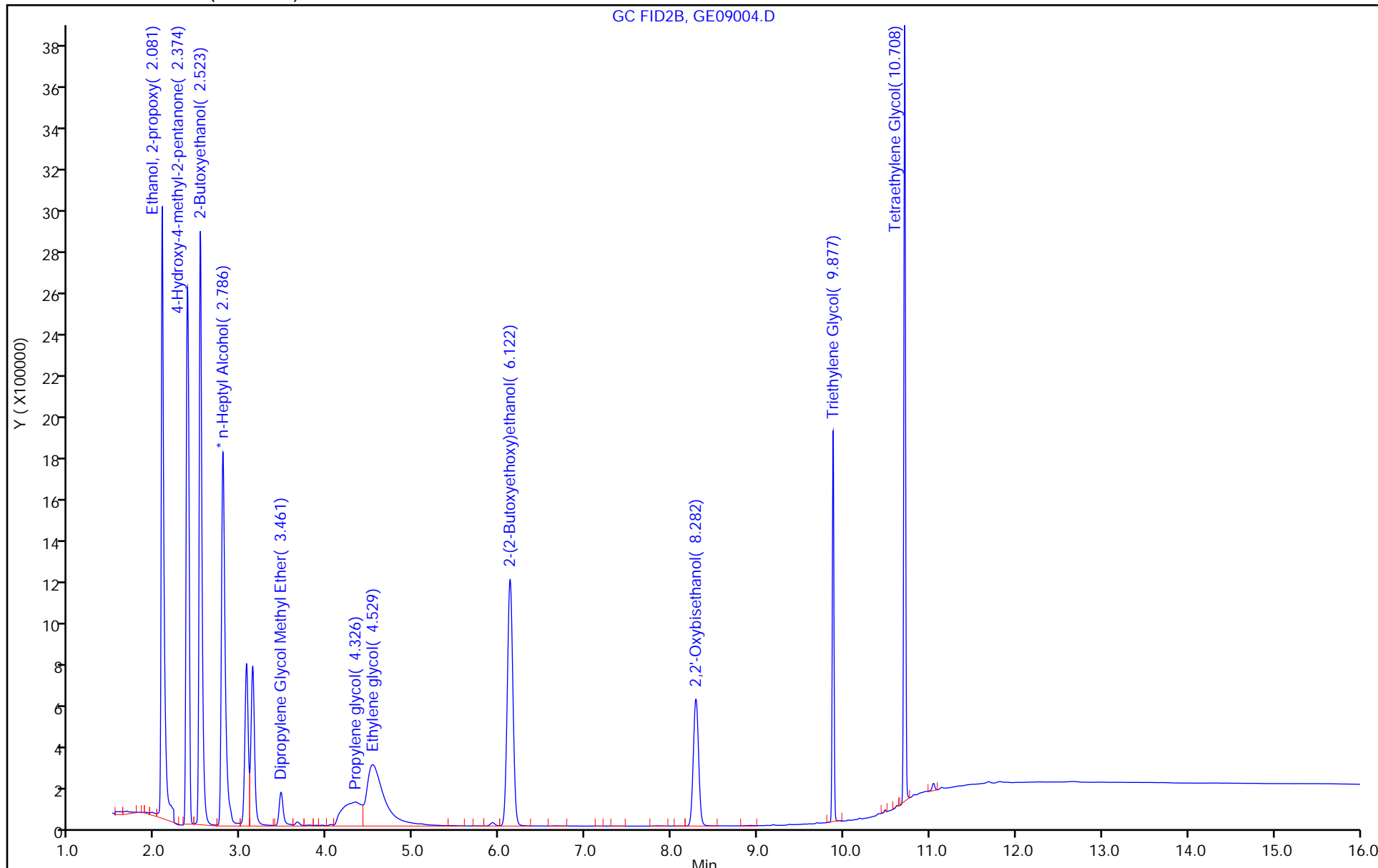
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

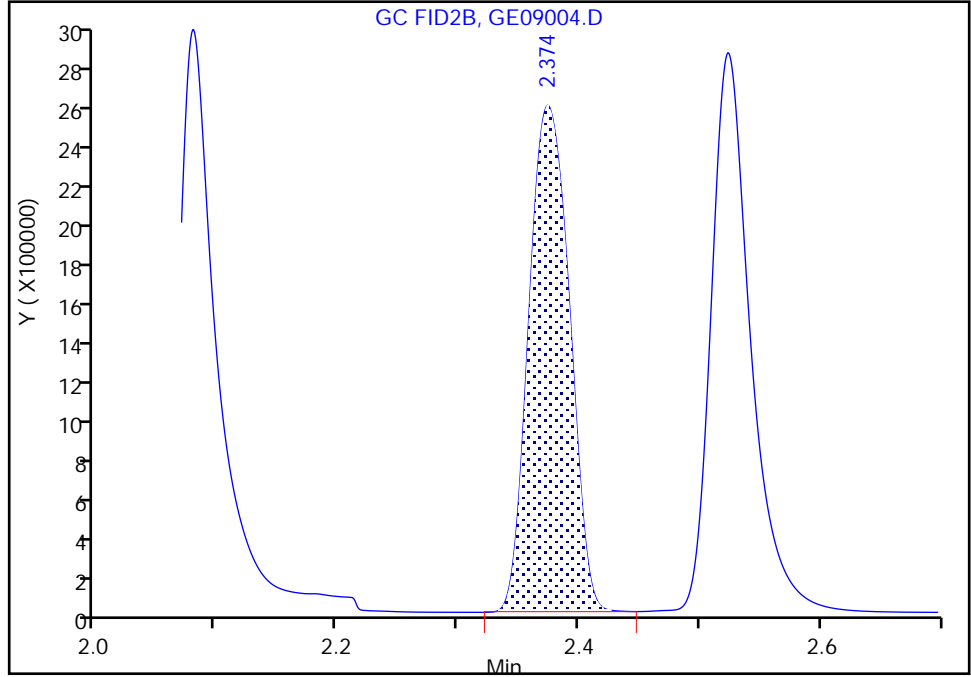
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09004.D
Injection Date: 09-May-2023 17:39:37 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

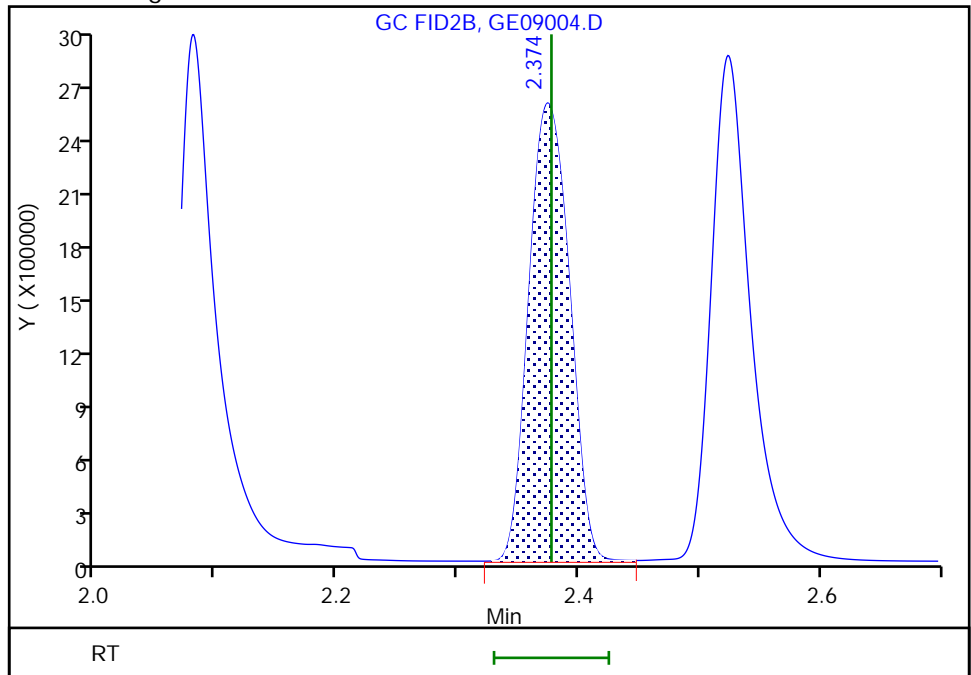
RT: 2.37
Area: 5979232
Amount: 89.320512
Amount Units: ug/ml

Processing Integration Results



RT: 2.37
Area: 5996035
Amount: 88.460581
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:32:52
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Euofins Savannah

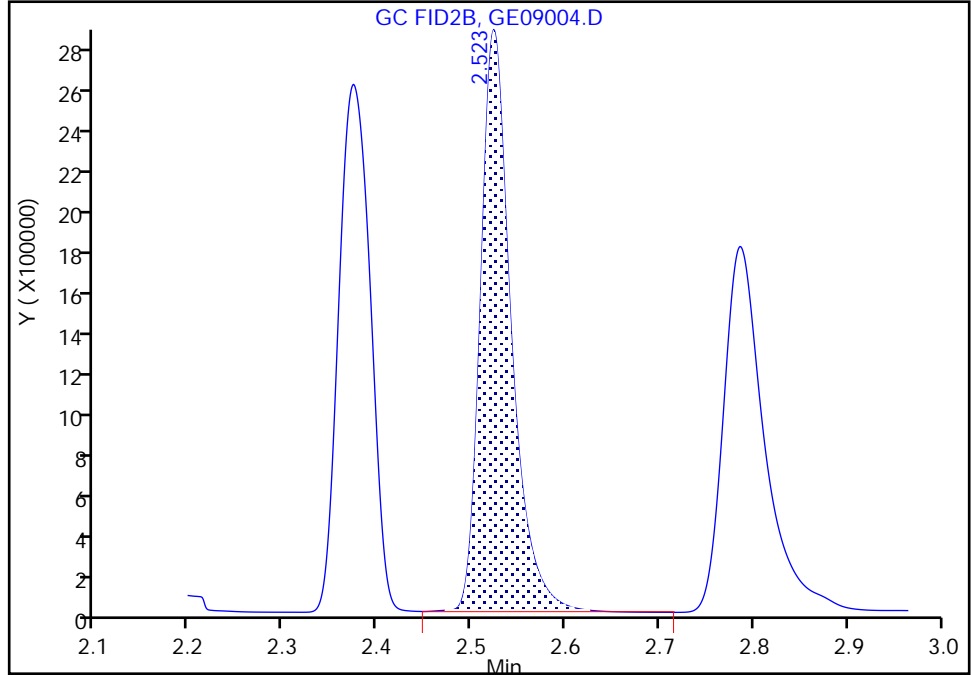
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09004.D
Injection Date: 09-May-2023 17:39:37 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

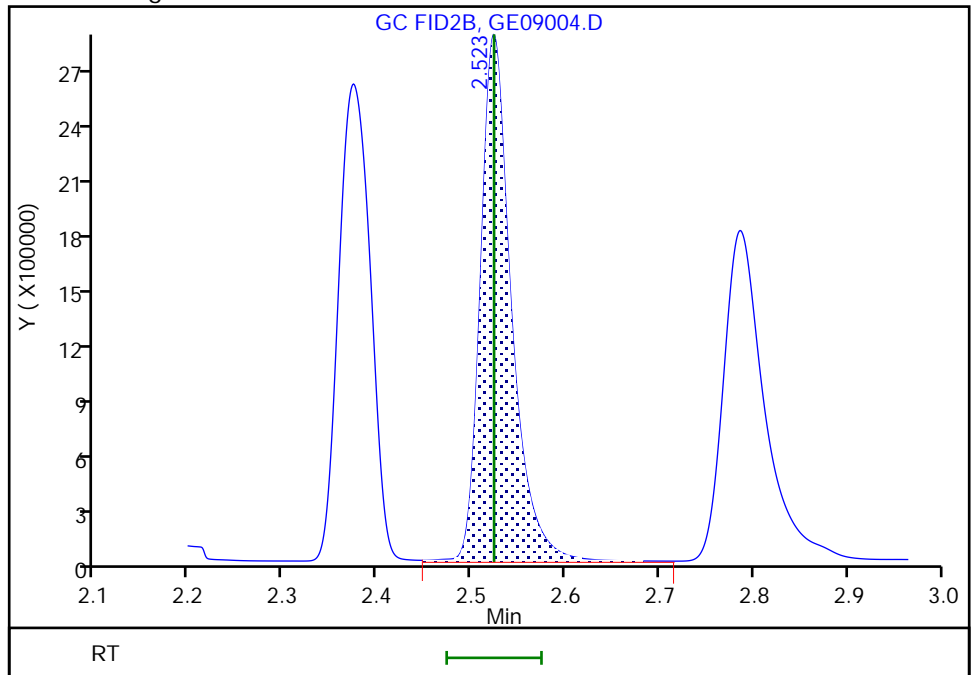
RT: 2.52
Area: 6419877
Amount: 89.328861
Amount Units: ug/ml

Processing Integration Results



RT: 2.52
Area: 6458365
Amount: 88.714226
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:32:52
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Euofins Savannah

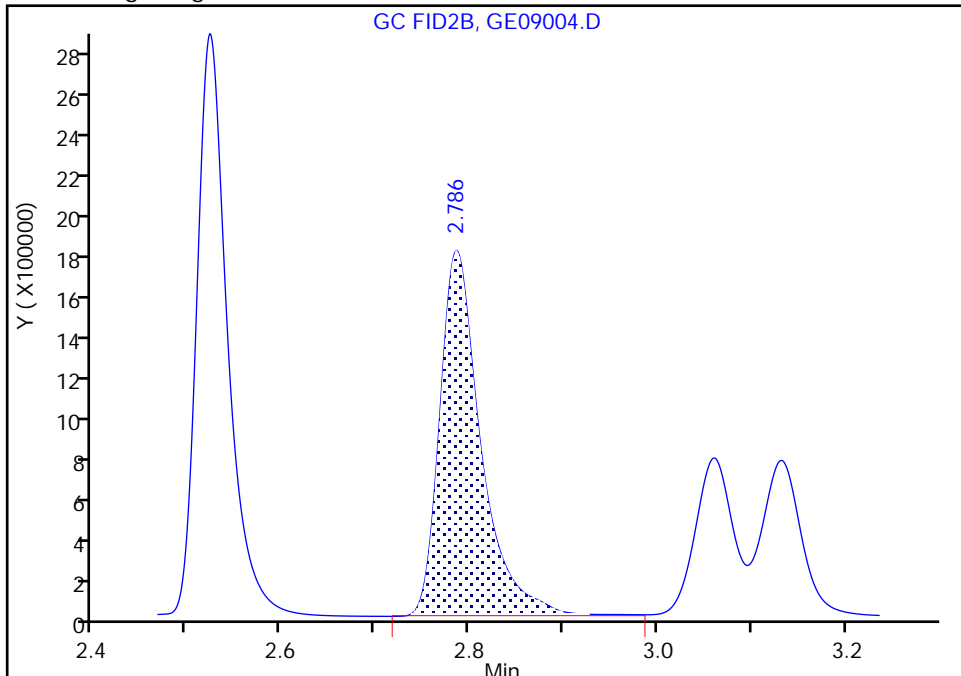
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09004.D
Injection Date: 09-May-2023 17:39:37 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

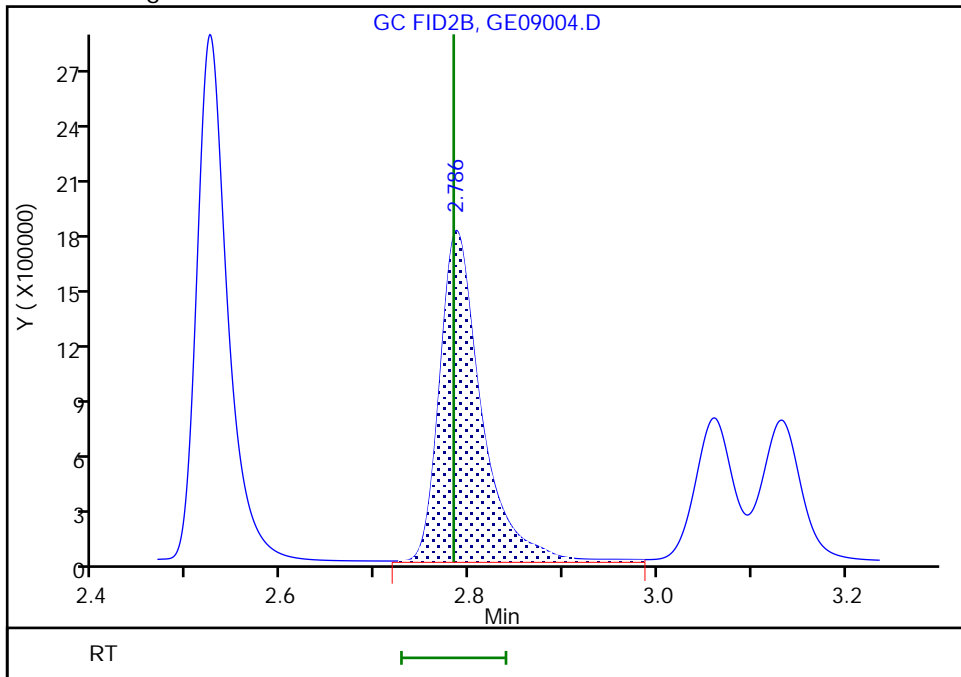
RT: 2.79
Area: 5381045
Amount: 50.000000
Amount Units: ug/ml

Processing Integration Results



RT: 2.79
Area: 5456296
Amount: 50.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:32:52
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

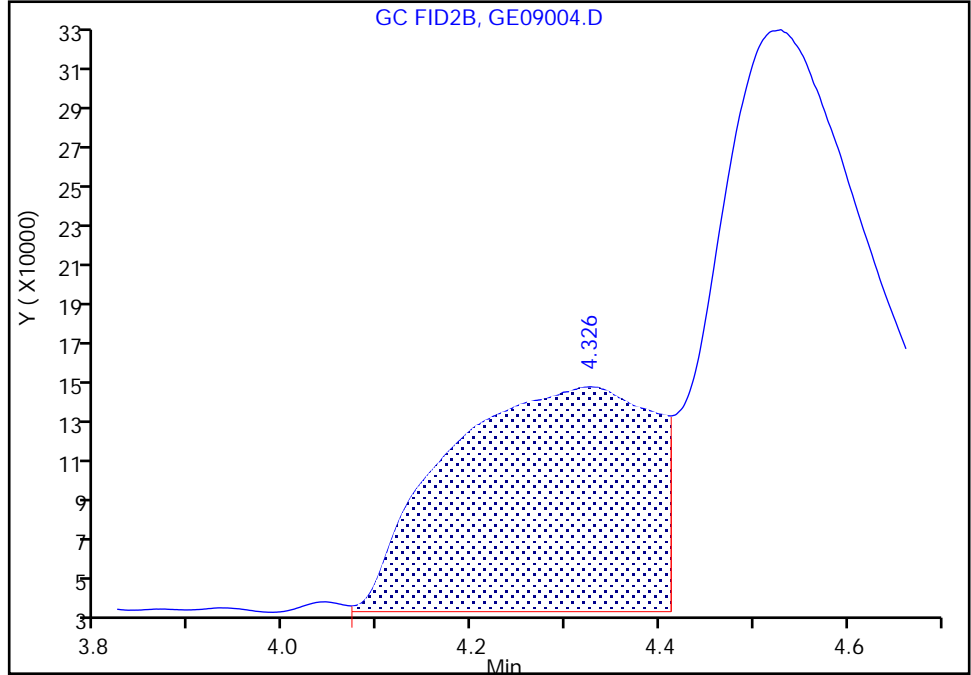
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09004.D
Injection Date: 09-May-2023 17:39:37 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

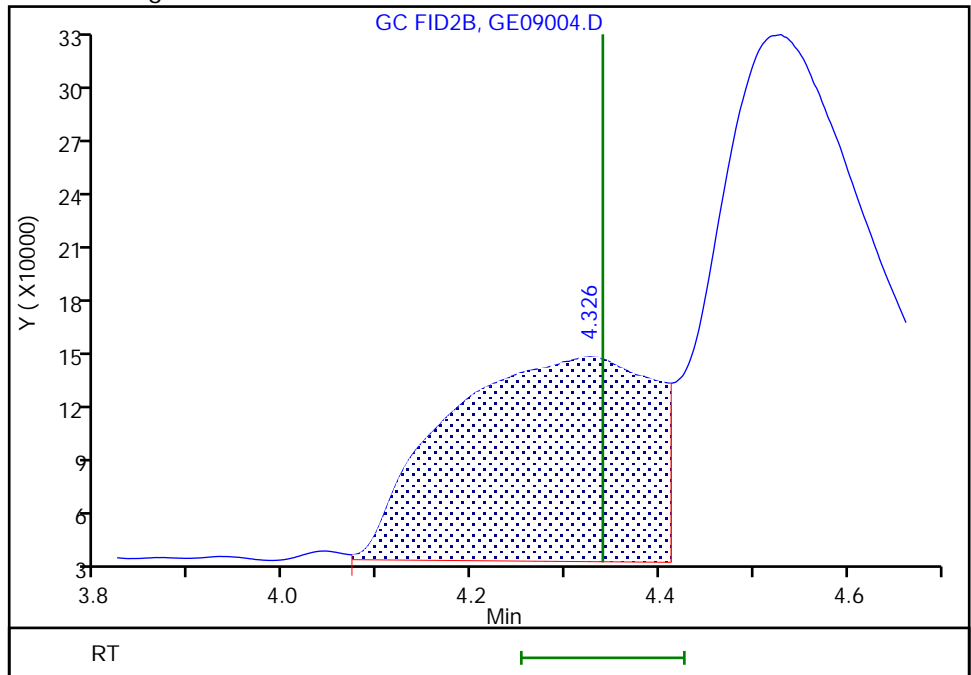
RT: 4.33
Area: 1716754
Amount: 102.6062
Amount Units: ug/ml

Processing Integration Results



RT: 4.33
Area: 1722435
Amount: 102.7319
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

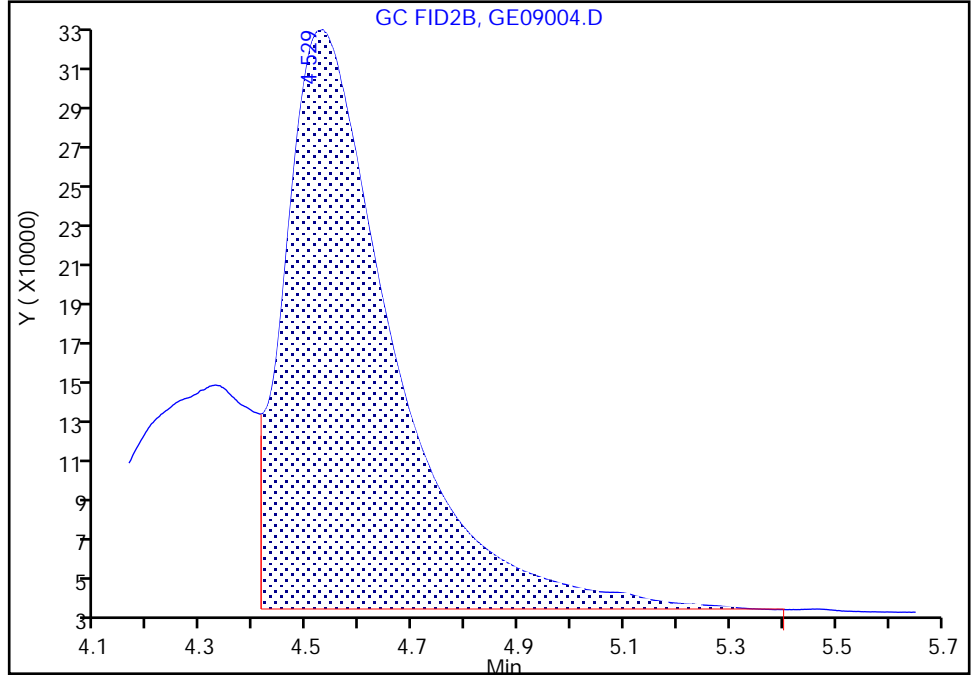
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Injection Date: 09-May-2023 17:39:37 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

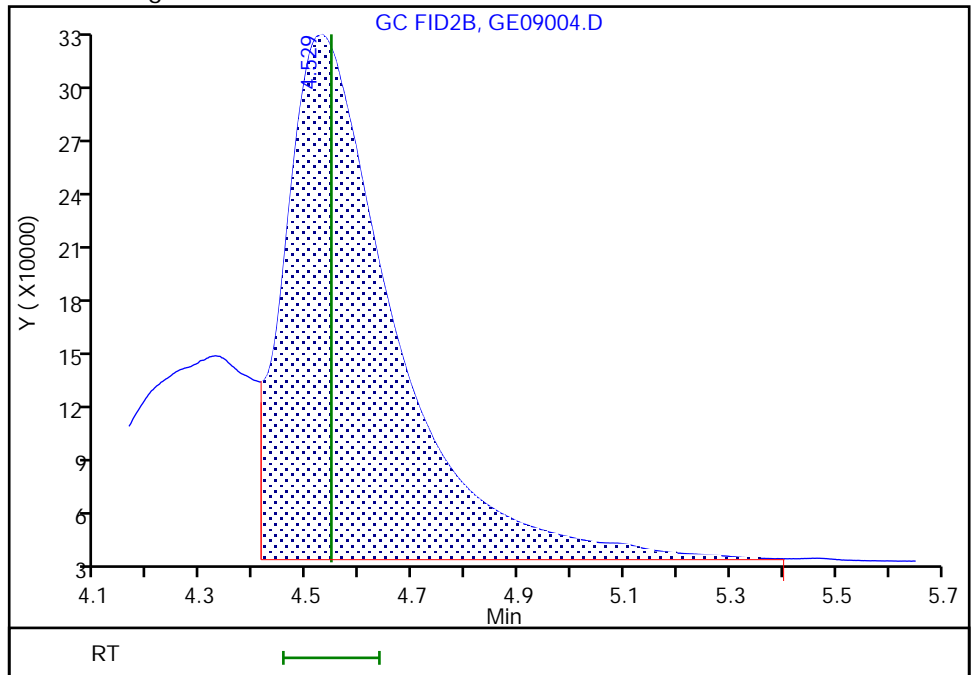
RT: 4.53
Area: 4161922
Amount: 95.939127
Amount Units: ug/ml

Processing Integration Results



RT: 4.53
Area: 4204180
Amount: 100.3032
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:33:05
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D
 Lims ID: ic g6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 09-May-2023 18:02:54 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085868-005
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 10-May-2023 11:56:55 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 10-May-2023 11:32:41

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.082	2.083	-0.001	5336862	80.0	84.2	
2 4-Hydroxy-4-methyl-2-pentanone						
2.374	2.377	-0.003	4919800	80.0	79.6	M
3 2-Butoxyethanol						
2.525	2.524	0.001	5157004	80.0	77.7	M
* 4 n-Heptyl Alcohol						
2.787	2.783	0.004	4973335	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
3.463	3.464	-0.001	421545	80.0	81.0	
6 Propylene glycol						
4.333	4.340	-0.007	1132192	80.0	74.5	M
7 Ethylene glycol						
4.534	4.546	-0.012	2850353	80.0	74.5	M
8 2-(2-Butoxyethoxy)ethanol						
6.123	6.121	0.002	4152135	80.0	80.0	
9 2,2'-Oxybisethanol						
8.281	8.283	-0.002	1691460	80.0	73.7	
10 Triethylene Glycol						
9.876	9.876	0.000	1632546	80.0	76.6	
11 Tetraethylene Glycol						
10.707	10.708	-0.001	3323424	160.0	169.3	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00051

Amount Added: 40.00

Units: uL

SG_GLY_ISTD_00116

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D

Injection Date: 09-May-2023 18:02:54

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g6

Worklist Smp#: 5

Client ID:

Injection Vol: 1.0 ul

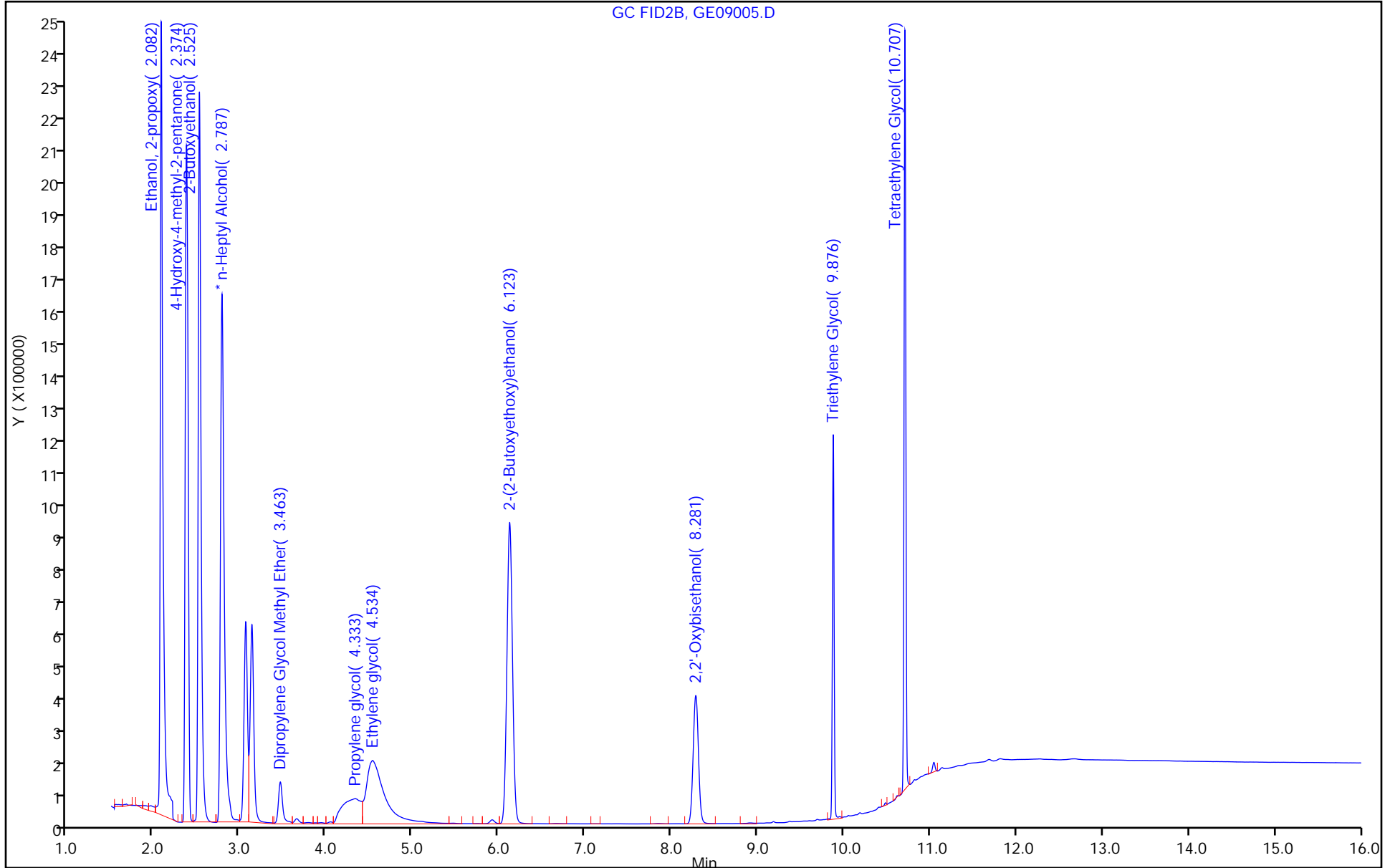
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

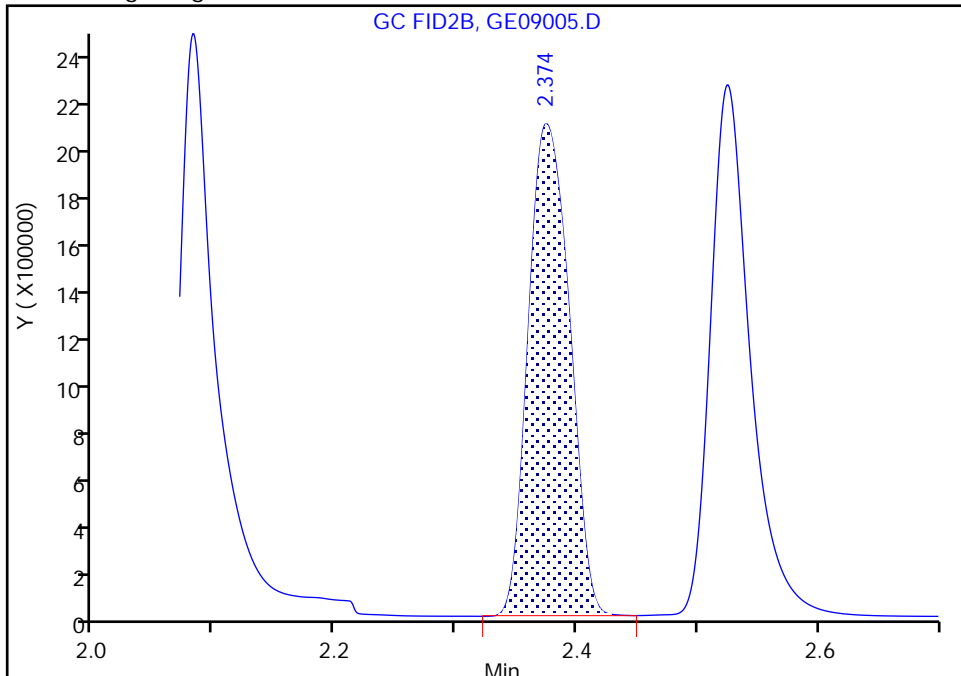
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D
Injection Date: 09-May-2023 18:02:54 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

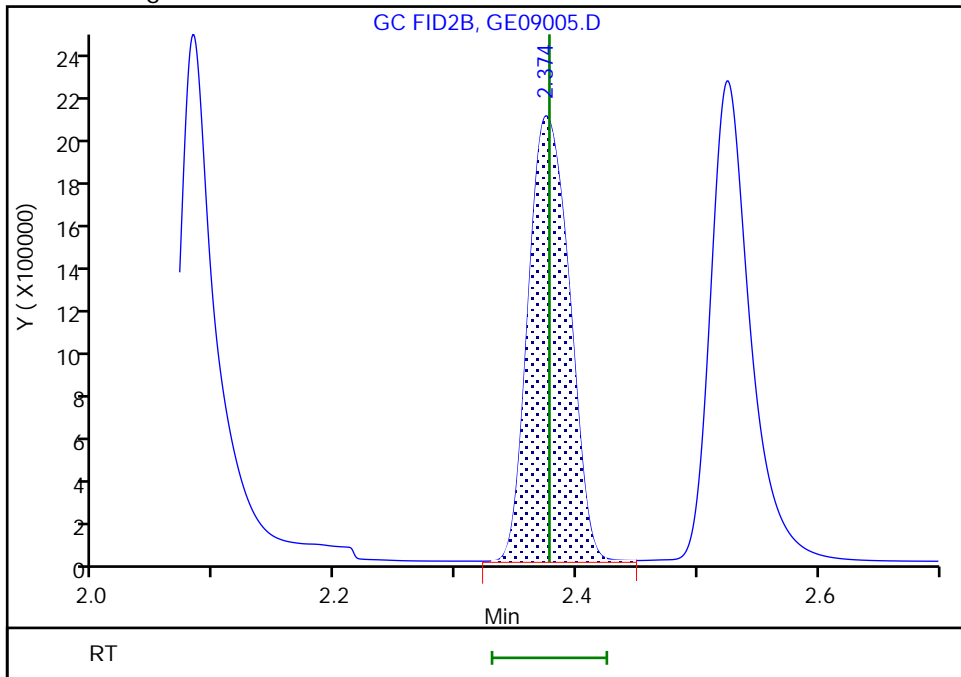
RT: 2.37
Area: 4907908
Amount: 80.210648
Amount Units: ug/ml

Processing Integration Results



RT: 2.37
Area: 4919800
Amount: 79.631204
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:32:38
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

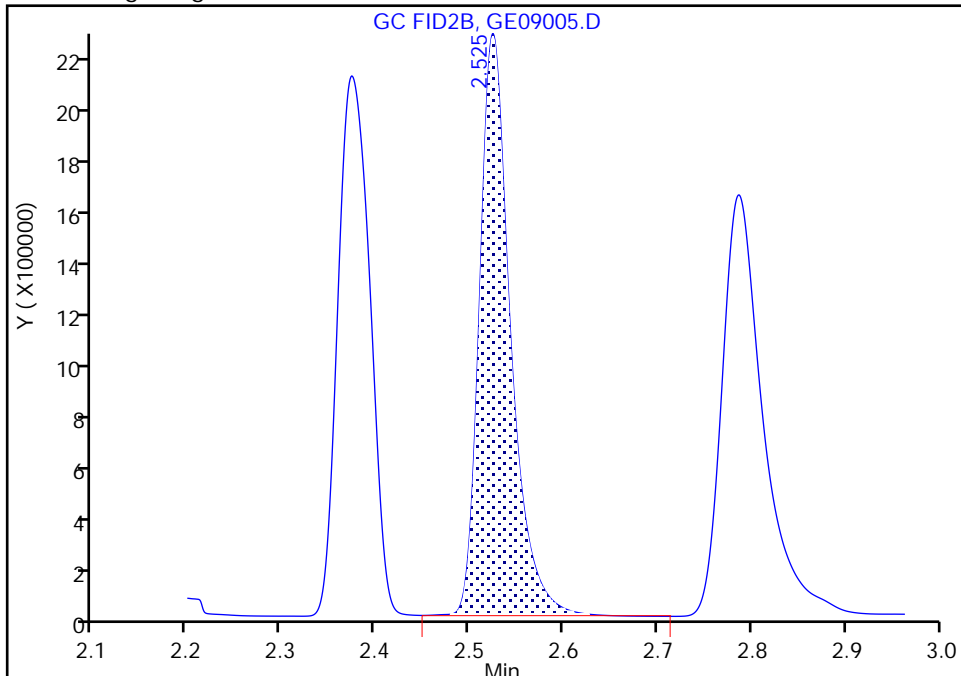
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D
Injection Date: 09-May-2023 18:02:54 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

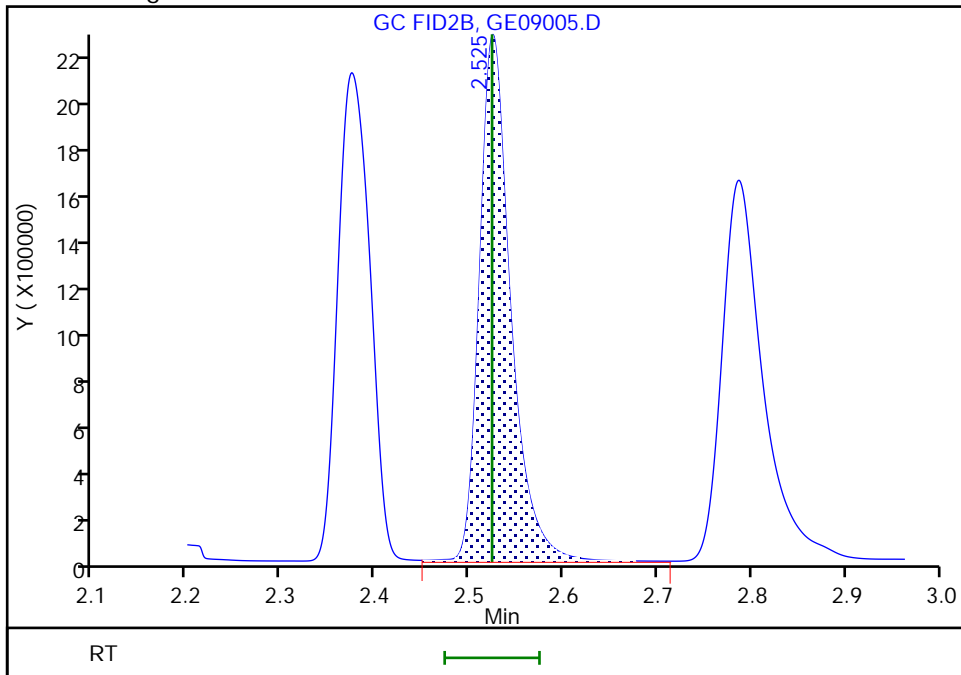
RT: 2.53
Area: 5129861
Amount: 78.124741
Amount Units: ug/ml

Processing Integration Results



RT: 2.53
Area: 5157004
Amount: 77.717417
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:32:38
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

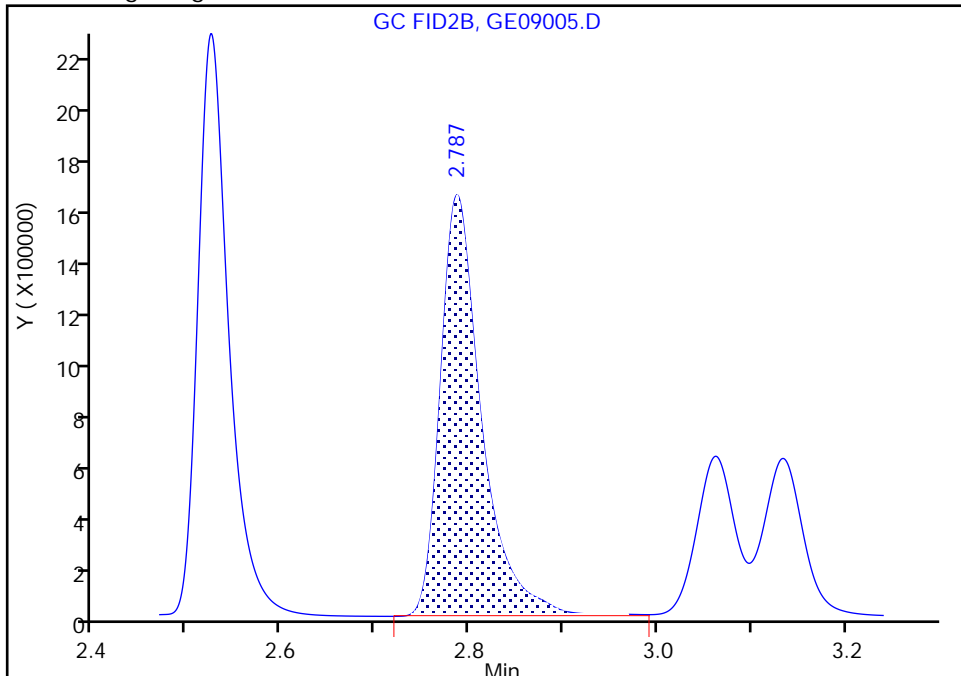
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D
Injection Date: 09-May-2023 18:02:54 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

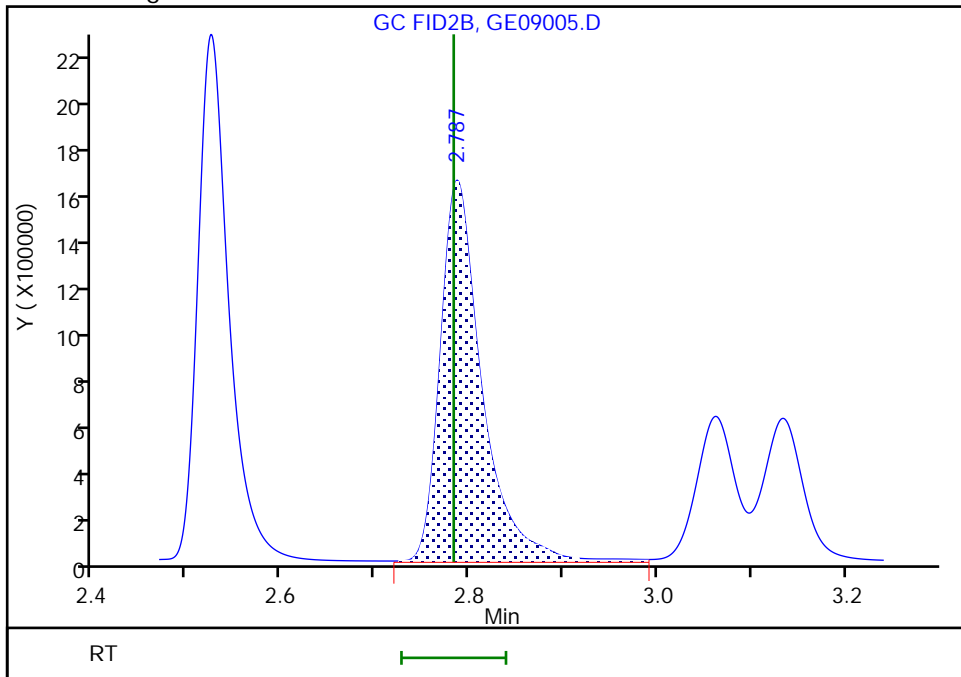
RT: 2.79
Area: 4911469
Amount: 50.000000
Amount Units: ug/ml

Processing Integration Results



RT: 2.79
Area: 4973335
Amount: 50.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:32:38
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

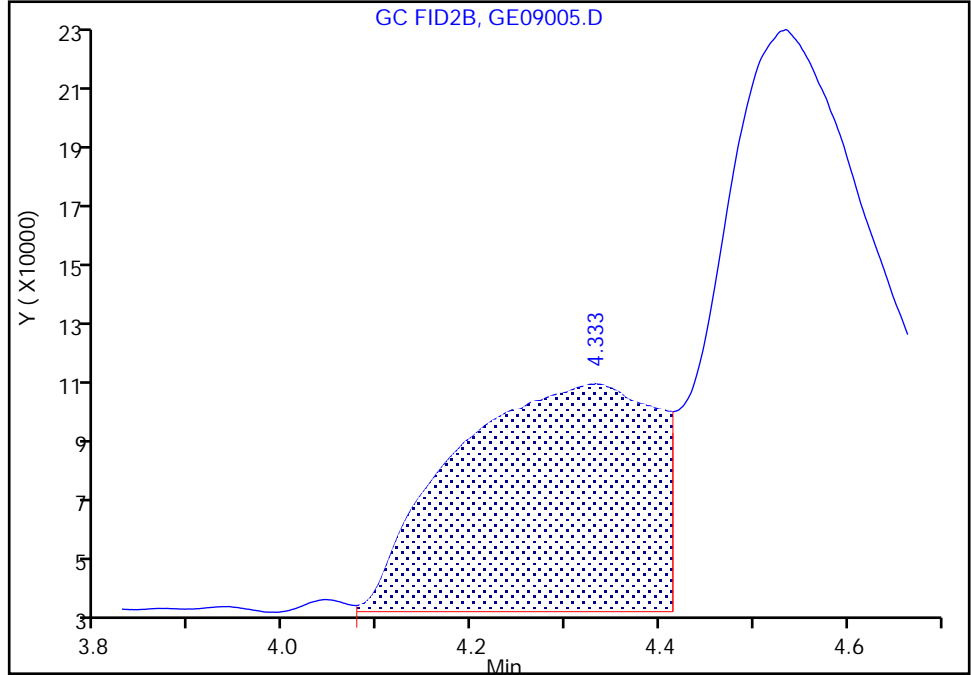
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D
Injection Date: 09-May-2023 18:02:54 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

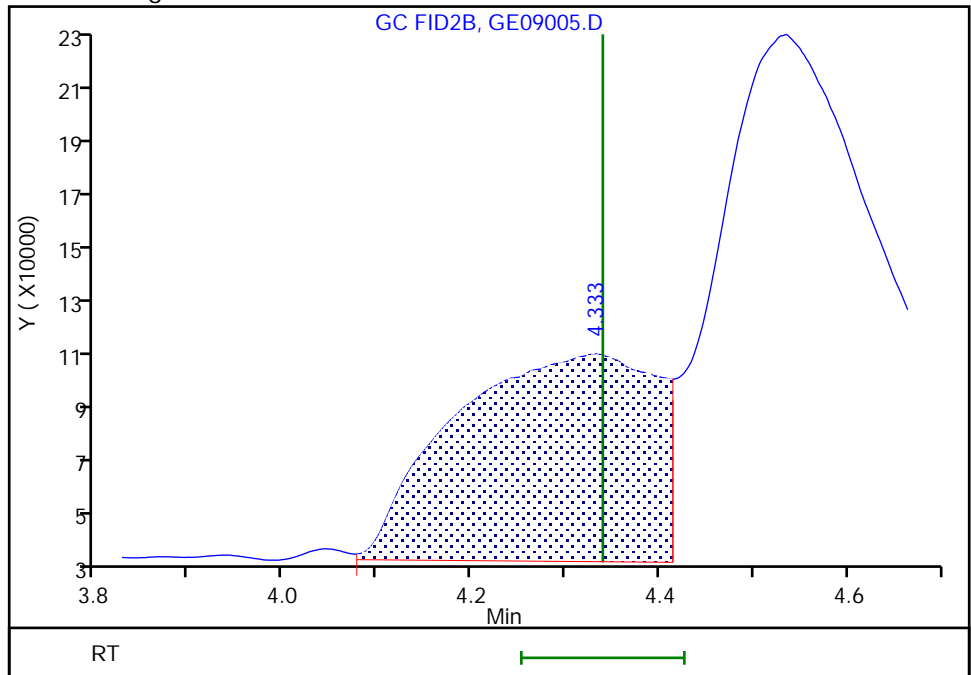
RT: 4.33
Area: 1126849
Amount: 74.503849
Amount Units: ug/ml

Processing Integration Results



RT: 4.33
Area: 1132192
Amount: 74.527120
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

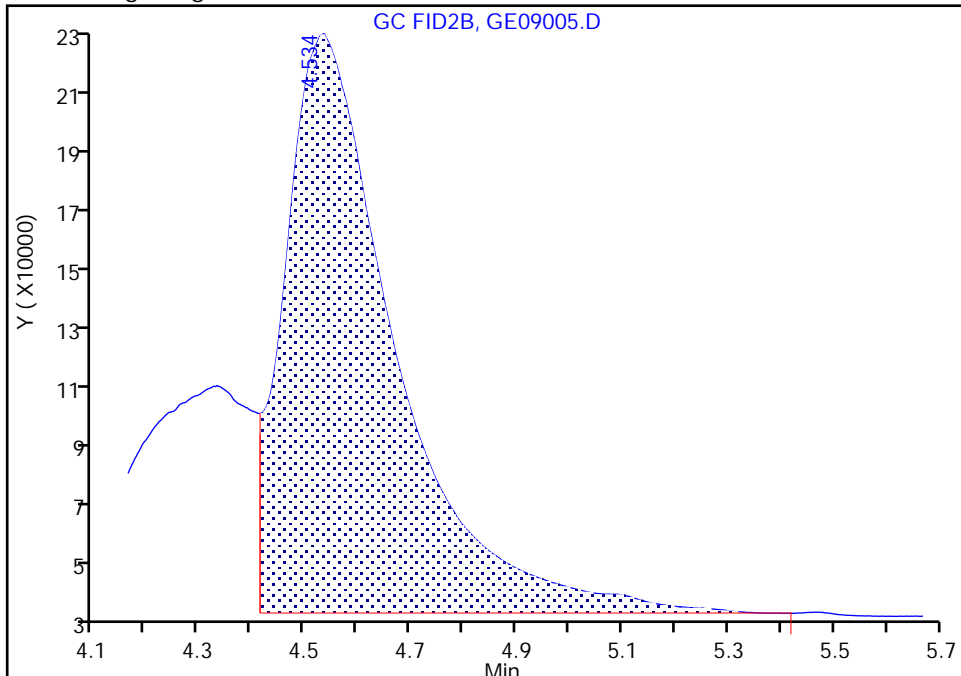
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D
Injection Date: 09-May-2023 18:02:54 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

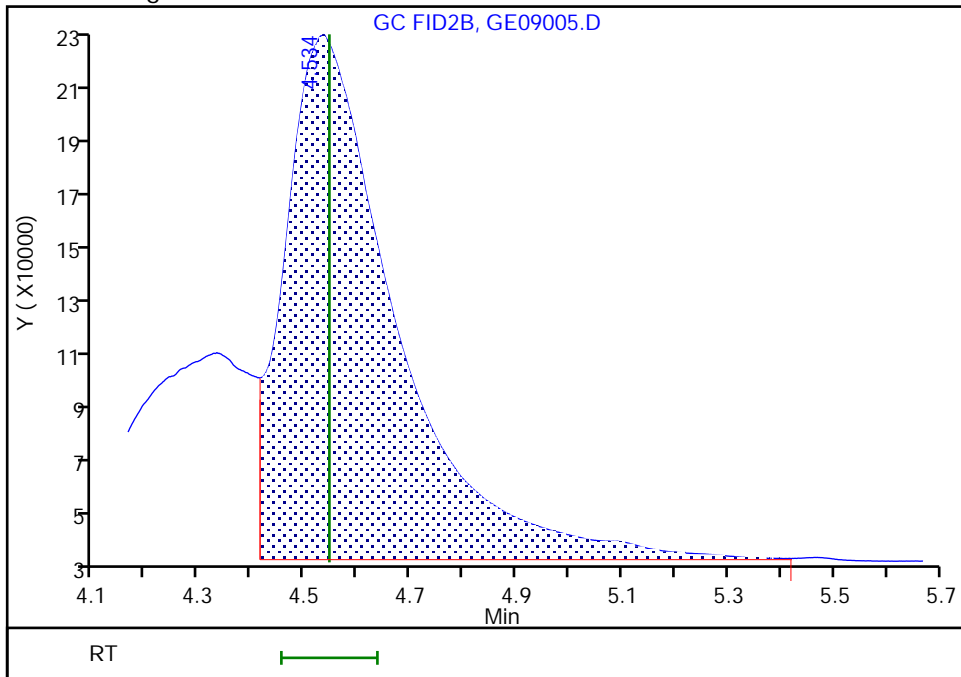
RT: 4.53
Area: 2817158
Amount: 71.130968
Amount Units: ug/ml

Processing Integration Results



RT: 4.53
Area: 2850353
Amount: 74.480710
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:33:20
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09006.D
 Lims ID: ic g5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 09-May-2023 18:26:10 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085868-006
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 10-May-2023 11:56:57 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 09-May-2023 19:41:19

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy	2.083	2.083	0.000	3744798	50.0	50.9
2 4-Hydroxy-4-methyl-2-pentanone	2.377	2.377	0.000	3414820	50.0	48.9 M
3 2-Butoxyethanol	2.524	2.524	0.000	3642797	50.0	48.6 M
* 4 n-Heptyl Alcohol	2.784	2.783	0.001	5619339	50.0	50.0 M
5 Dipropylene Glycol Methyl Ether	3.464	3.464	0.000	300020	50.0	51.0
6 Propylene glycol	4.326	4.340	-0.014	904526	50.0	52.9
7 Ethylene glycol	4.529	4.546	-0.017	2337791	50.0	53.9
8 2-(2-Butoxyethoxy)ethanol	6.123	6.121	0.002	3006673	50.0	51.3
9 2,2'-Oxybisethanol	8.281	8.283	-0.002	1407082	50.0	54.5
10 Triethylene Glycol	9.875	9.876	-0.001	1345066	50.0	55.8
11 Tetraethylene Glycol	10.707	10.708	-0.001	2772915	100.0	125.0

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00051

Amount Added: 25.00

Units: uL

SG_GLY_ISTD_00116

Amount Added: 10.00

Units: uL

Run Reagent

Euofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09006.D

Injection Date: 09-May-2023 18:26:10

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g5

Worklist Smp#: 6

Client ID:

Injection Vol: 1.0 ul

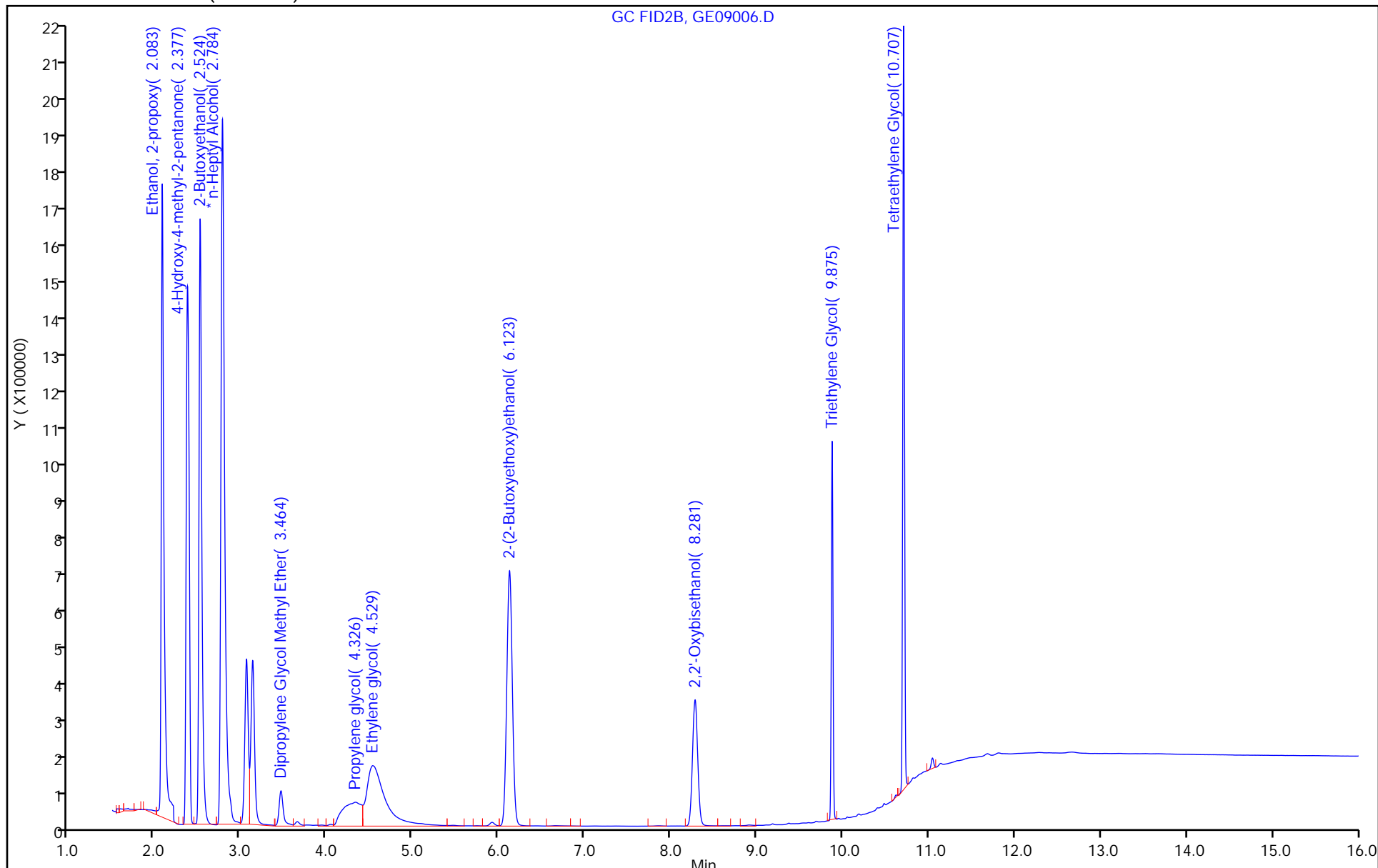
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

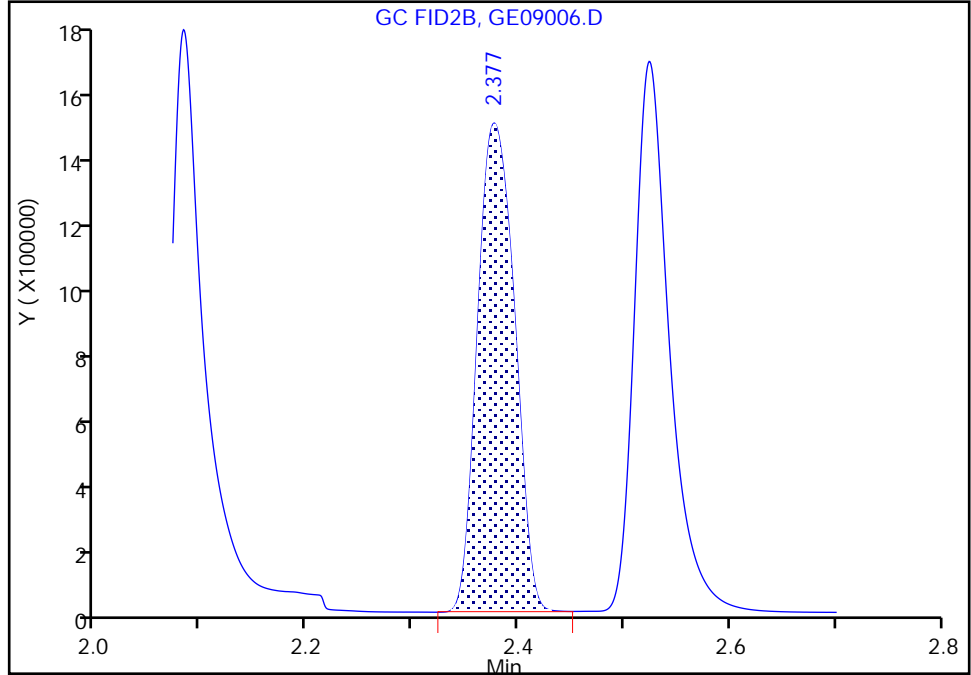
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09006.D
Injection Date: 09-May-2023 18:26:10 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

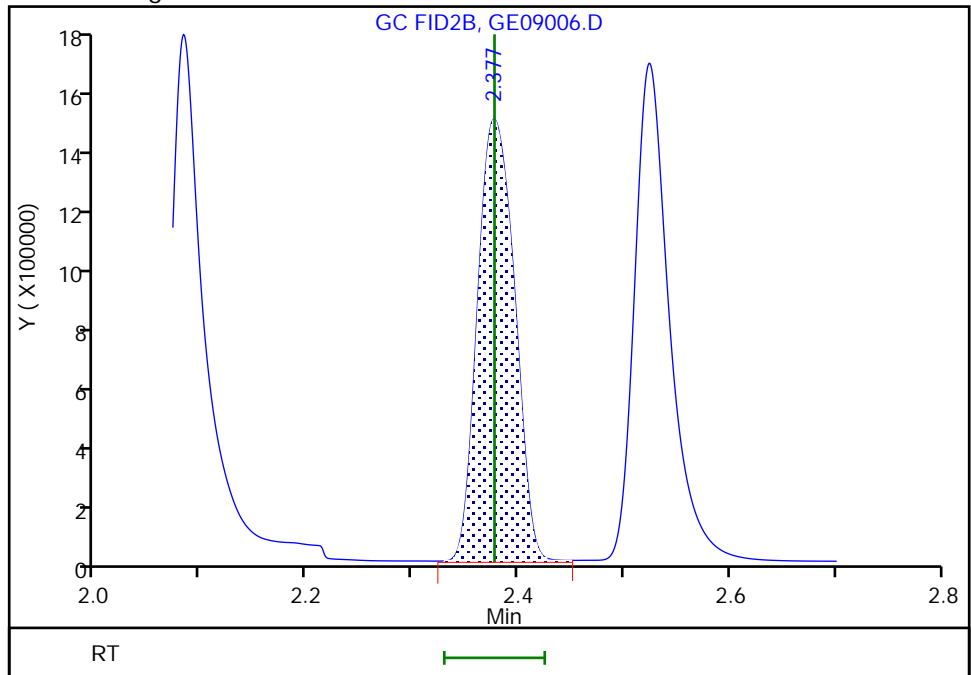
RT: 2.38
Area: 3406385
Amount: 49.024420
Amount Units: ug/ml

Processing Integration Results



RT: 2.38
Area: 3414820
Amount: 48.917712
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:32:27
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

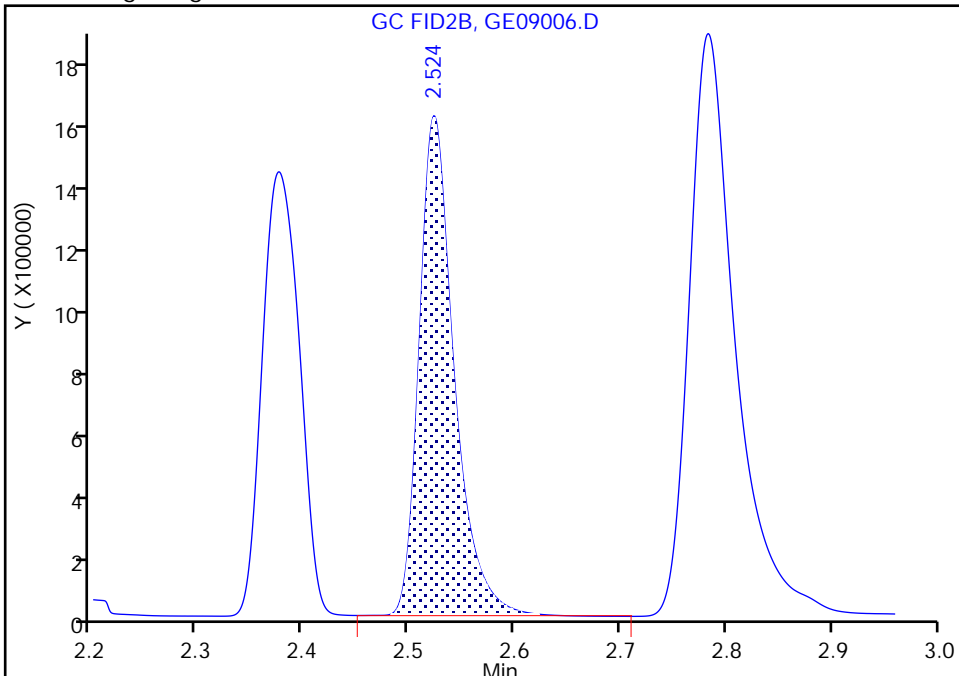
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09006.D		
Injection Date:	09-May-2023 18:26:10	Instrument ID:	CVGG2
Lims ID:	ic g5		
Client ID:			
Operator ID:	ALS Bottle#:	0	Worklist Smp#: 6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI
Column:	J&W DB WAX (0.45 mm)	Detector:	GC FID2B

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

Signal: 1

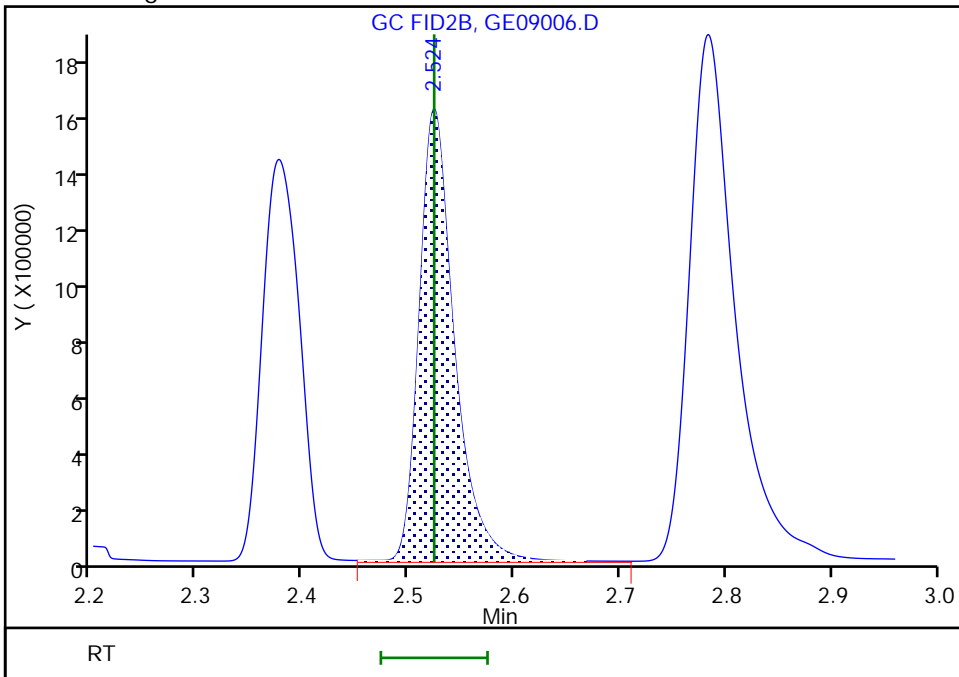
RT: 2.52
 Area: 3624486
 Amount: 48.626123
 Amount Units: ug/ml

Processing Integration Results



RT: 2.52
 Area: 3642797
 Amount: 48.586805
 Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:32:27
 Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

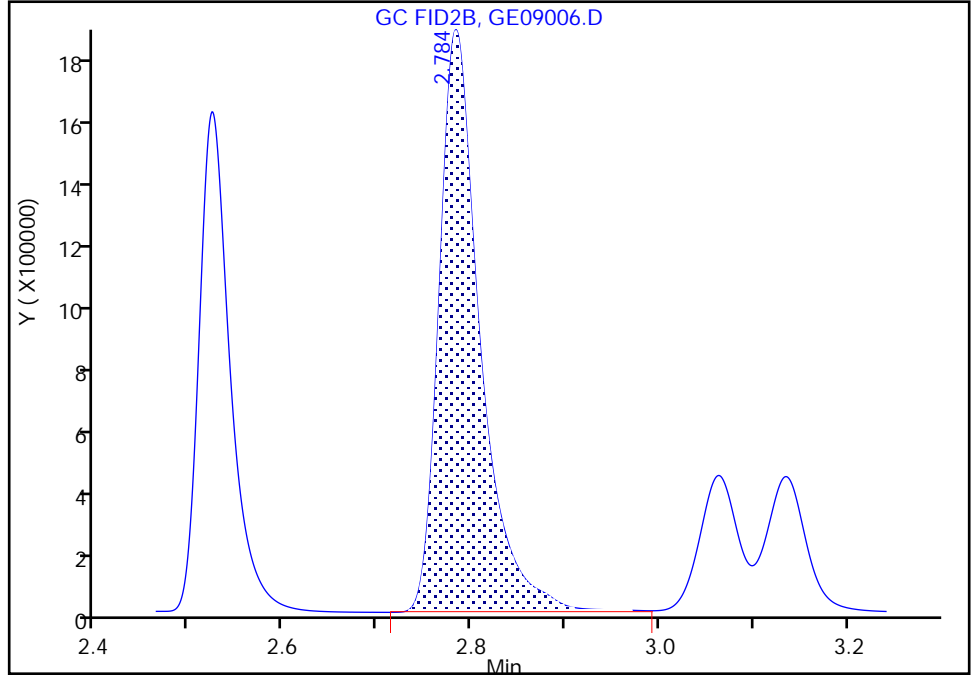
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09006.D
Injection Date: 09-May-2023 18:26:10 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

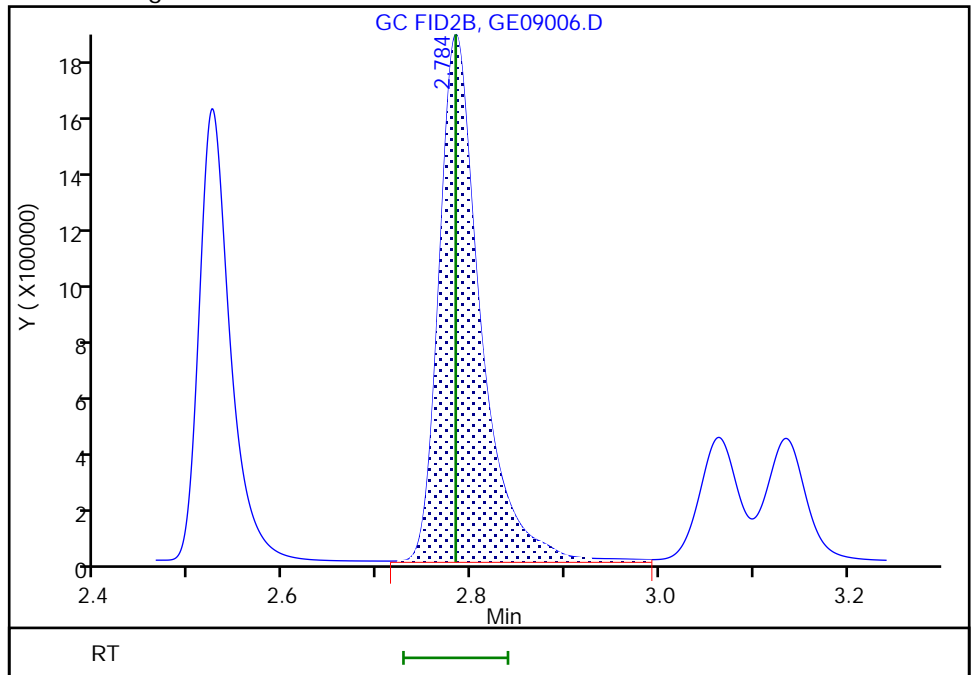
Processing Integration Results

RT: 2.78
Area: 5572804
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 2.78
Area: 5619339
Amount: 50.000000
Amount Units: ug/ml



Reviewer: SK9U, 10-May-2023 11:32:27
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D
 Lims ID: icis g4
 Client ID:
 Sample Type: ICIS Calib Level: 4
 Inject. Date: 09-May-2023 18:49:33 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085868-007
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 10-May-2023 11:56:58 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1620

First Level Reviewer: SK9U

Date: 10-May-2023 11:32:00

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	2.083	2.083	0.000	943843	20.0	19.9	
2 4-Hydroxy-4-methyl-2-pentanone							M
2.377	2.377	0.000	766545	20.0	18.9		M
3 2-Butoxyethanol							M
2.524	2.524	0.000	794997	20.0	18.2		M
* 4 n-Heptyl Alcohol							M
2.783	2.783	0.000	3269947	50.0	50.0		M
5 Dipropylene Glycol Methyl Ether							
3.464	3.464	0.000	64544	20.0	18.9		
6 Propylene glycol							M
4.340	4.340	0.000	197772	20.0	20.0		M
7 Ethylene glycol							M
4.546	4.546	0.000	521284	20.0	20.4		M
8 2-(2-Butoxyethoxy)ethanol							
6.121	6.121	0.000	614173	20.0	18.0		
9 2,2'-Oxybisethanol							
8.283	8.283	0.000	276680	20.0	18.6		
10 Triethylene Glycol							
9.876	9.876	0.000	244303	20.0	17.4		
11 Tetraethylene Glycol							
10.708	10.708	0.000	411906	40.0	31.9		

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00051

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00116

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D

Injection Date: 09-May-2023 18:49:33

Instrument ID: CVGG2

Operator ID:

Lims ID: icis g4

Worklist Smp#: 7

Client ID:

Injection Vol: 1.0 ul

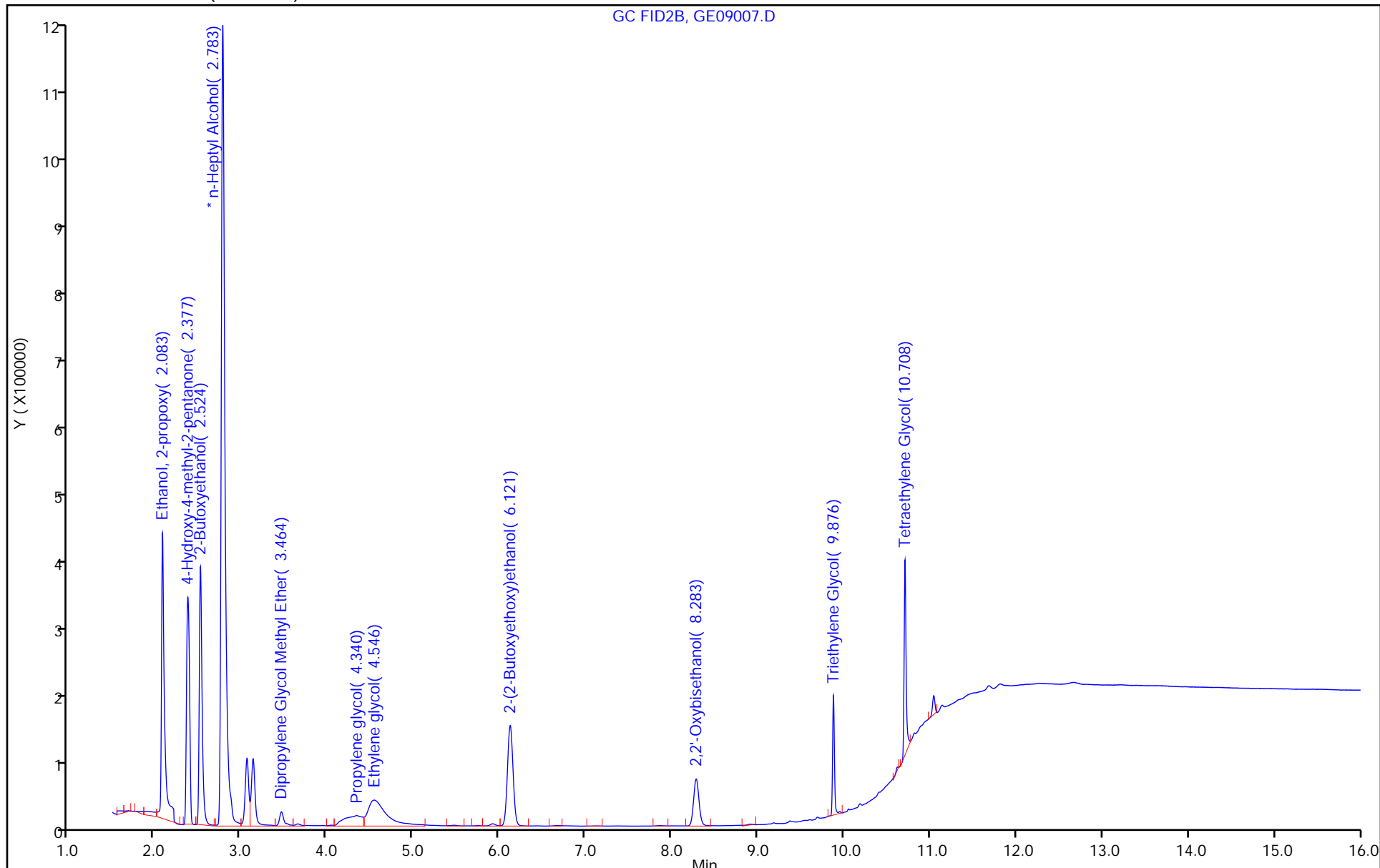
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

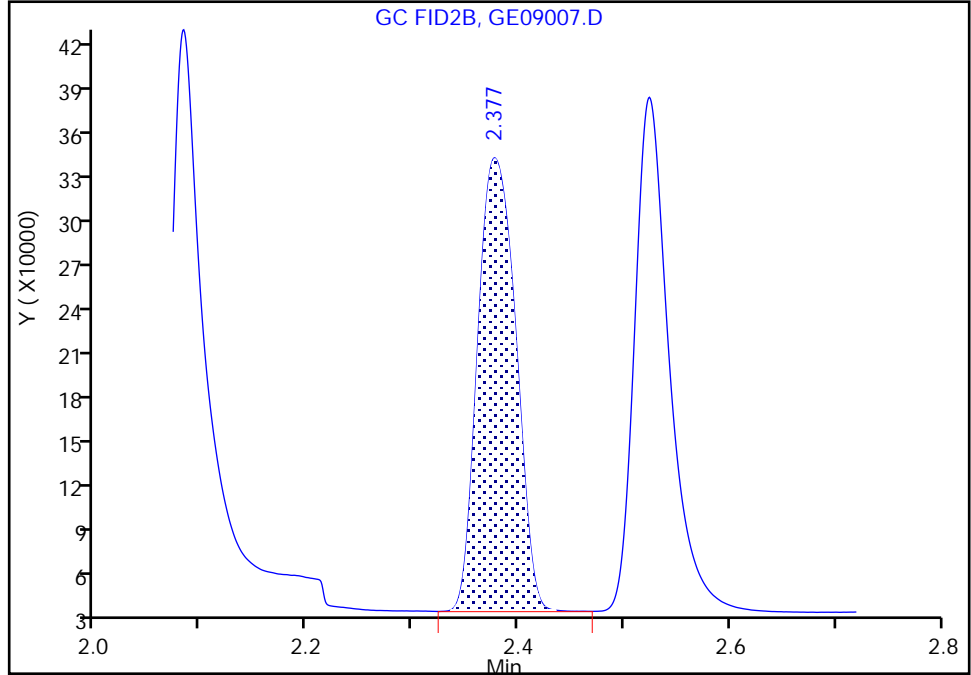
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D
Injection Date: 09-May-2023 18:49:33 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

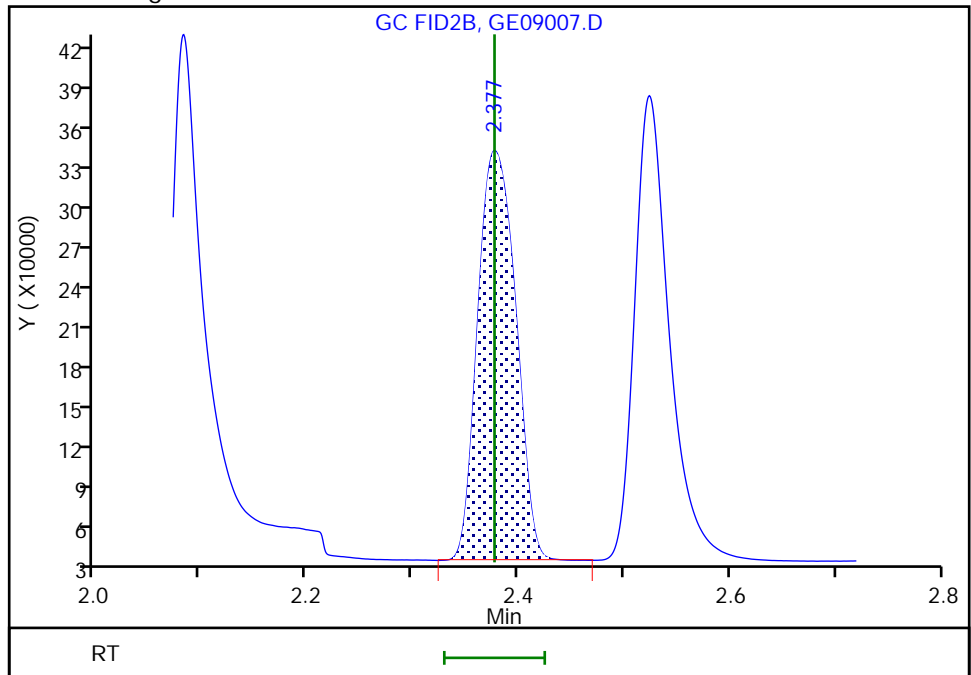
RT: 2.38
Area: 765215
Amount: 18.752979
Amount Units: ug/ml

Processing Integration Results



RT: 2.38
Area: 766545
Amount: 18.870373
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:31:52
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

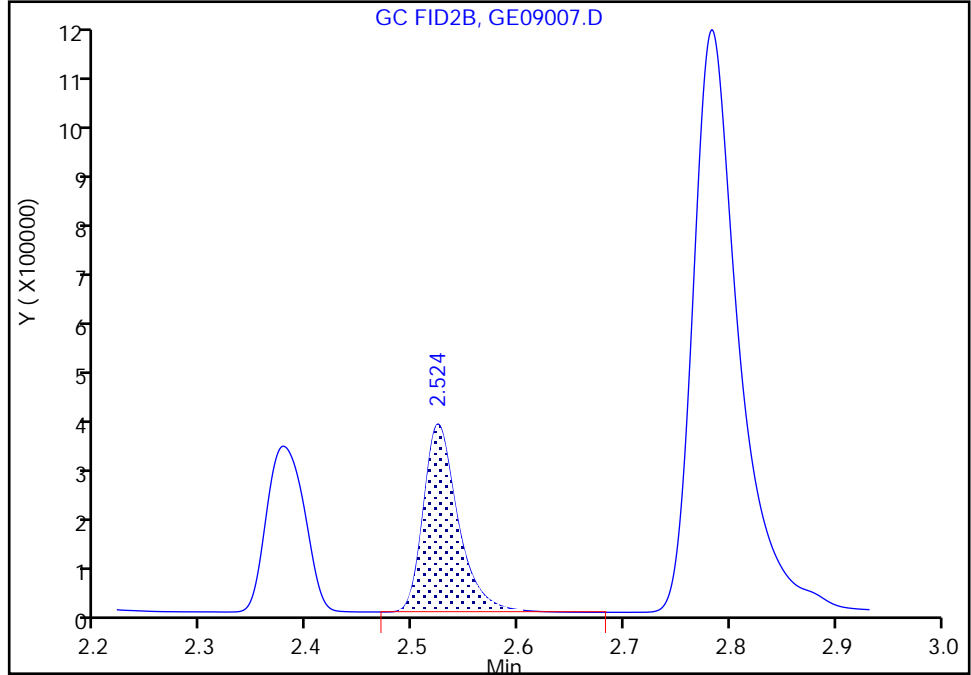
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D
Injection Date: 09-May-2023 18:49:33 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

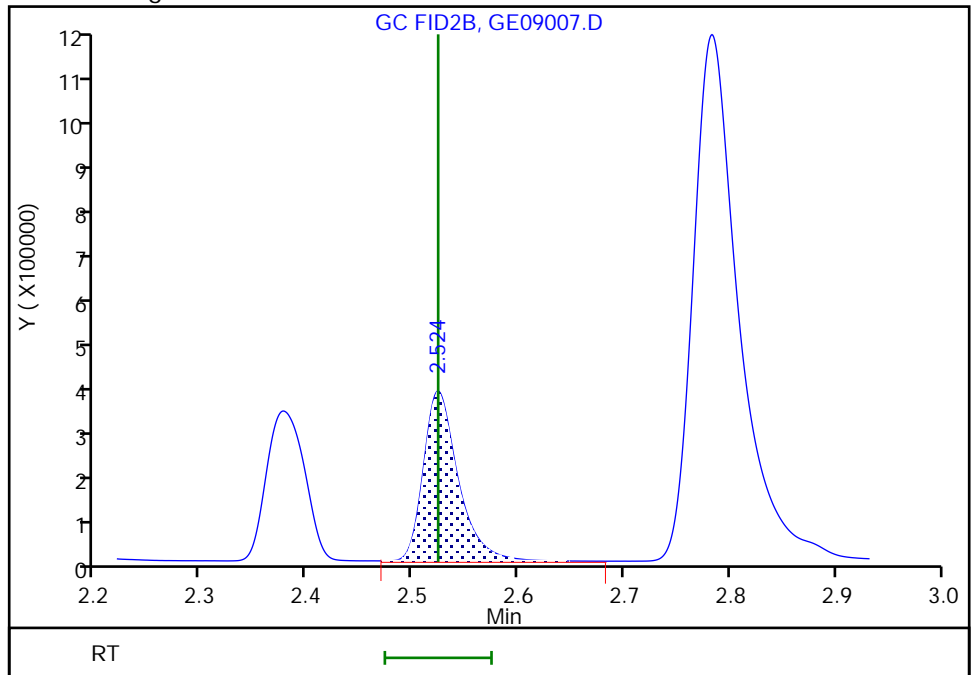
RT: 2.52
Area: 792607
Amount: 18.230027
Amount Units: ug/ml

Processing Integration Results



RT: 2.52
Area: 794997
Amount: 18.221888
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:31:52
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

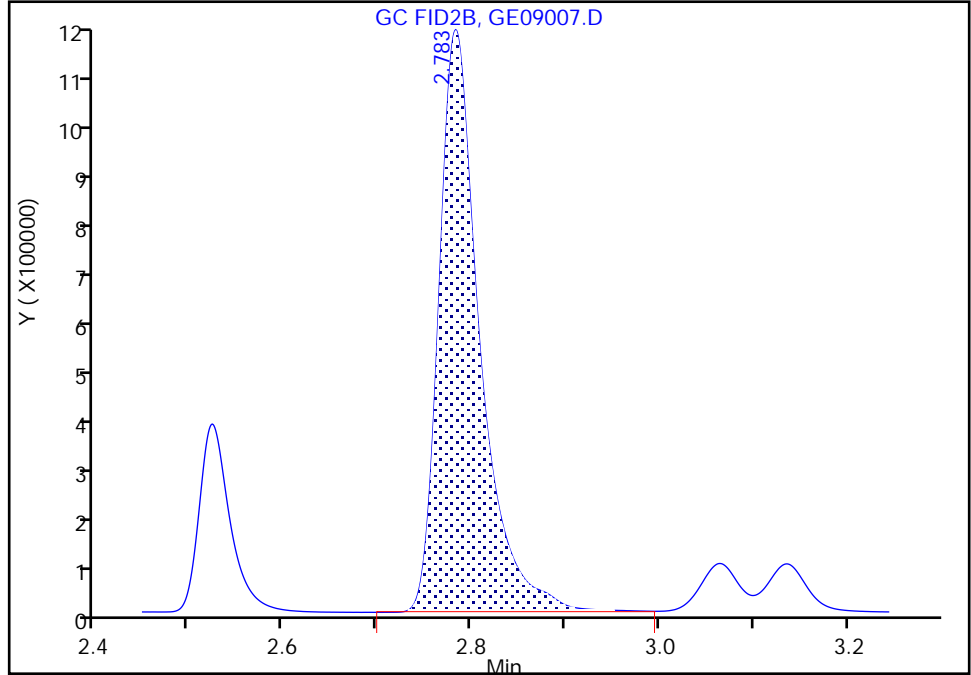
Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D
Injection Date: 09-May-2023 18:49:33 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

* 4 n-Heptyl Alcohol, CAS: 111-70-6
Signal: 1

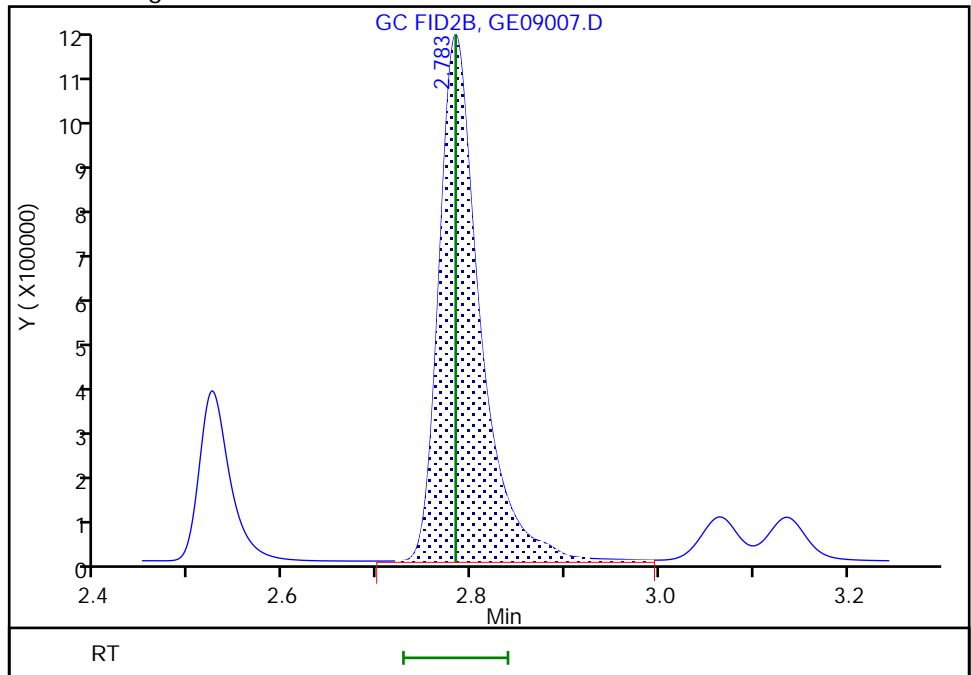
Processing Integration Results

RT: 2.78
Area: 3249215
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 2.78
Area: 3269947
Amount: 50.000000
Amount Units: ug/ml



Eurofins Savannah

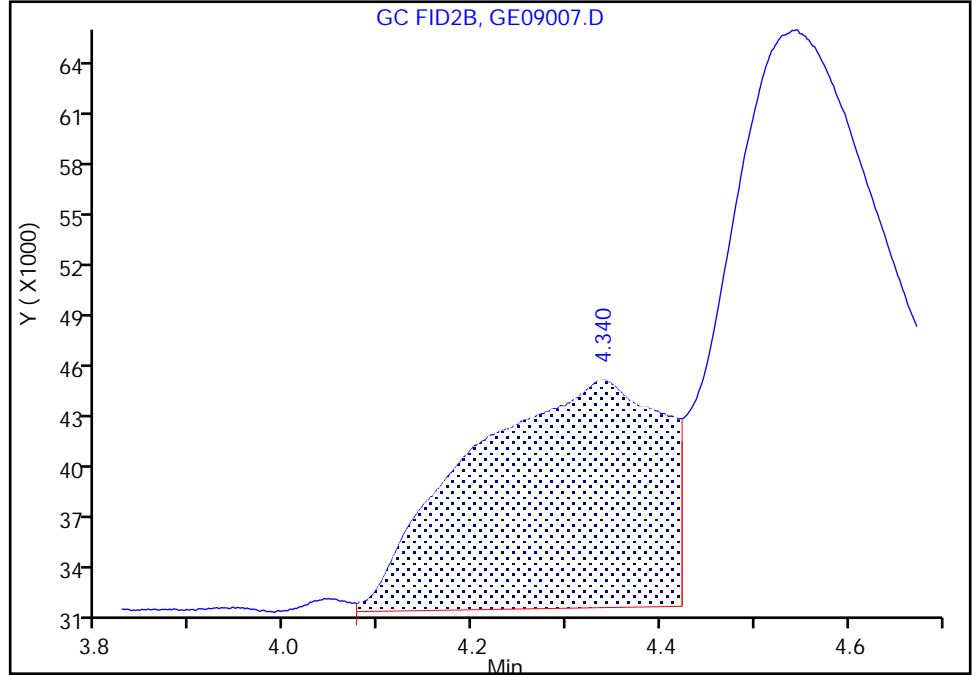
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D
Injection Date: 09-May-2023 18:49:33 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

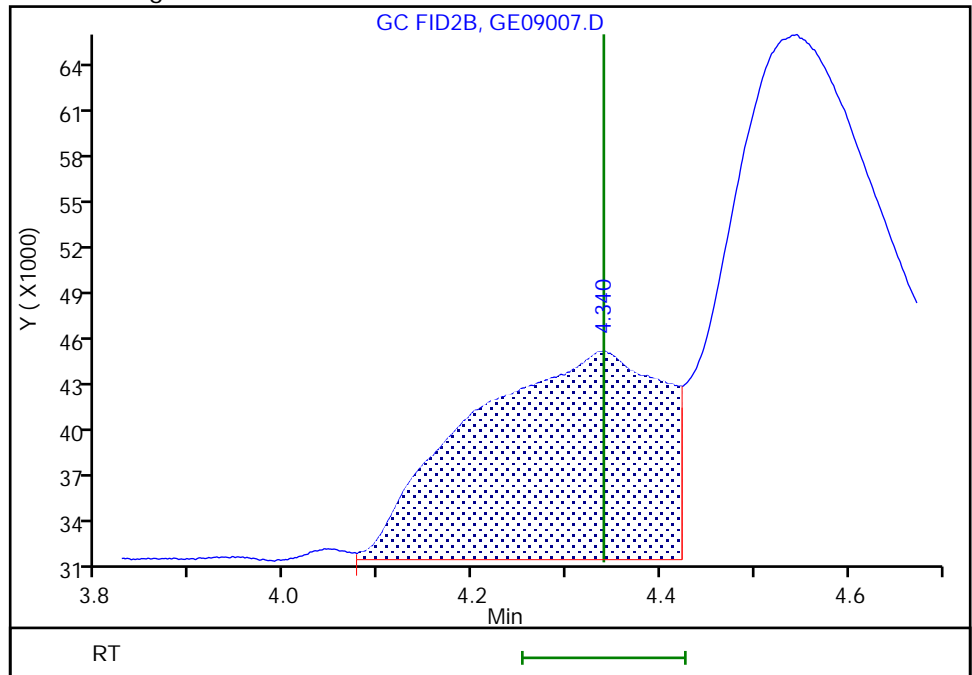
RT: 4.34
Area: 193518
Amount: 19.779843
Amount Units: ug/ml

Processing Integration Results



RT: 4.34
Area: 197772
Amount: 20.030770
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:31:41
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

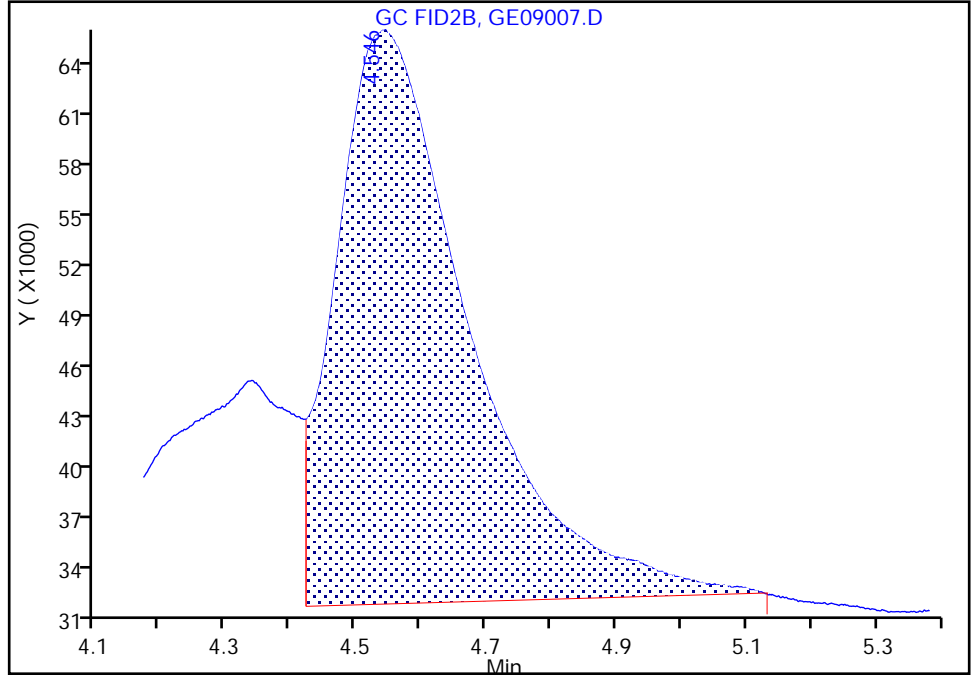
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D
Injection Date: 09-May-2023 18:49:33 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

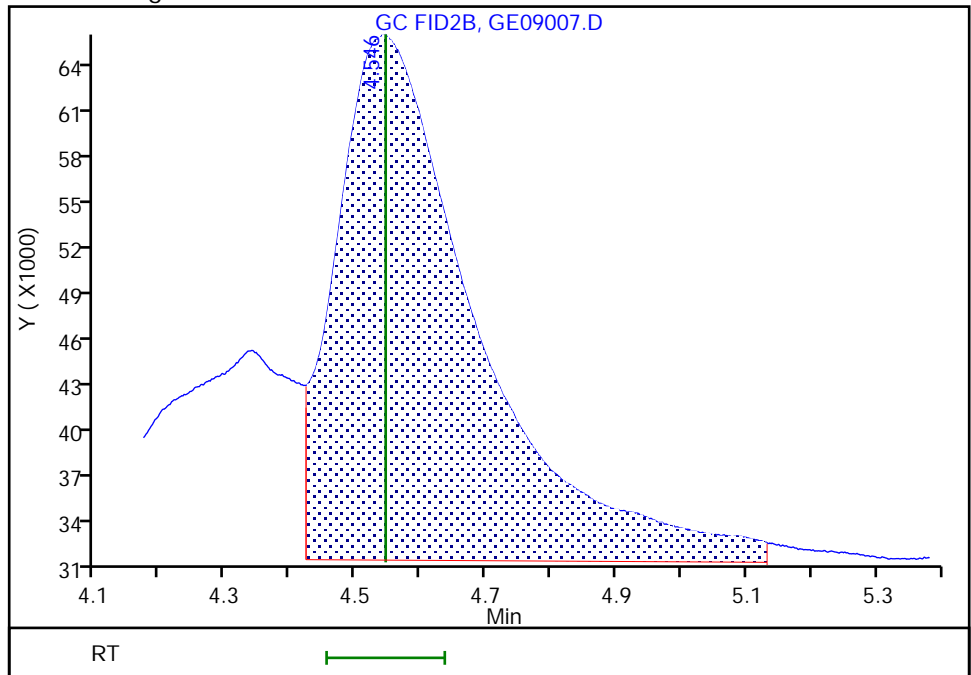
RT: 4.55
Area: 486797
Amount: 18.928945
Amount Units: ug/ml

Processing Integration Results



RT: 4.55
Area: 521284
Amount: 20.359769
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:31:41
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09008.D
 Lims ID: ic g3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 09-May-2023 19:12:47 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085868-008
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 10-May-2023 11:56:59 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 10-May-2023 11:31:29

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.082	2.083	-0.001	783766	10.0	11.5	
2 4-Hydroxy-4-methyl-2-pentanone						
2.376	2.377	-0.001	570911	10.0	10.9	
3 2-Butoxyethanol						
2.524	2.524	0.000	609600	10.0	10.8	
* 4 n-Heptyl Alcohol						
2.784	2.783	0.001	4216874	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
3.463	3.464	-0.001	49093	10.0	11.1	M
6 Propylene glycol						
4.337	4.340	-0.003	146986	10.0	11.6	
7 Ethylene glycol						
4.534	4.546	-0.012	394926	10.0	11.8	
8 2-(2-Butoxyethoxy)ethanol						
6.123	6.121	0.002	464288	10.0	10.6	
9 2,2'-Oxybisethanol						
8.279	8.283	-0.004	218918	10.0	11.4	
10 Triethylene Glycol						
9.877	9.876	0.001	199683	10.0	11.0	
11 Tetraethylene Glycol						
10.708	10.708	0.000	343215	20.0	20.6	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00051

Amount Added: 5.00

Units: uL

SG_GLY_ISTD_00116

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09008.D

Injection Date: 09-May-2023 19:12:47

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g3

Worklist Smp#: 8

Client ID:

Injection Vol: 1.0 ul

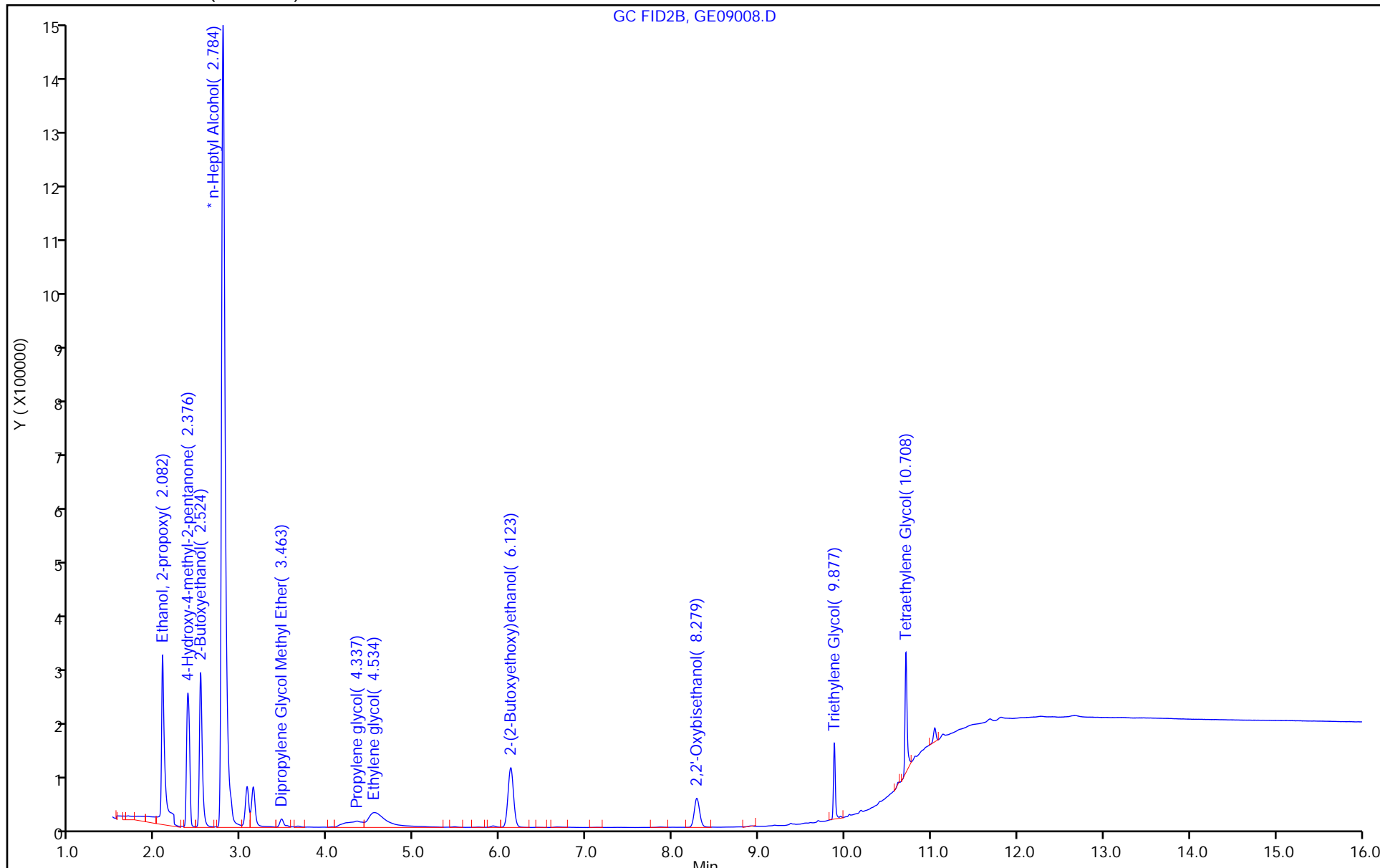
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



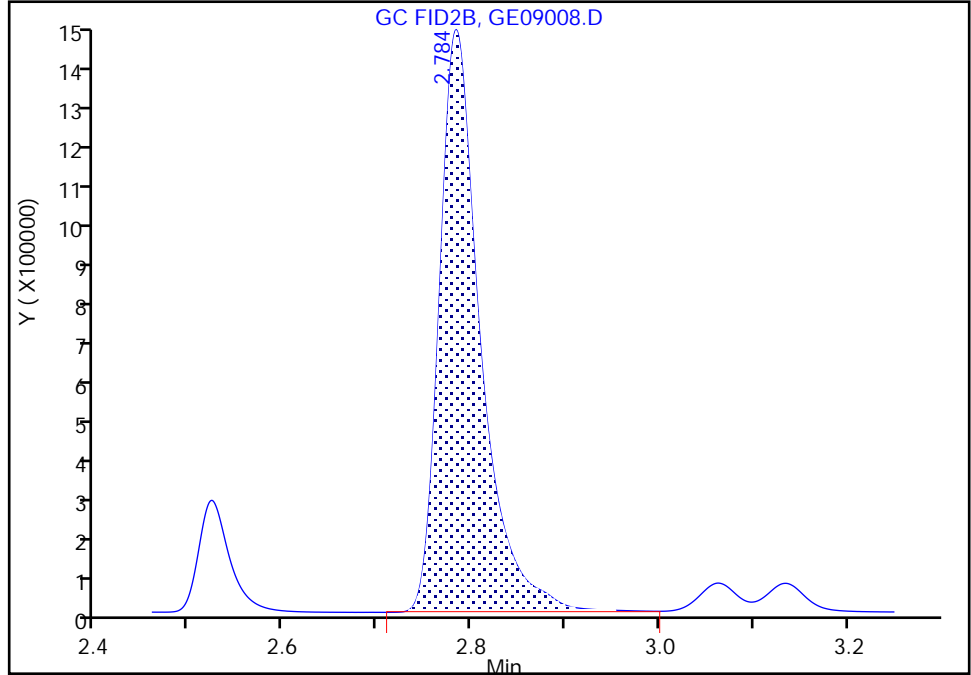
Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09008.D
Injection Date: 09-May-2023 19:12:47 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

* 4 n-Heptyl Alcohol, CAS: 111-70-6
Signal: 1

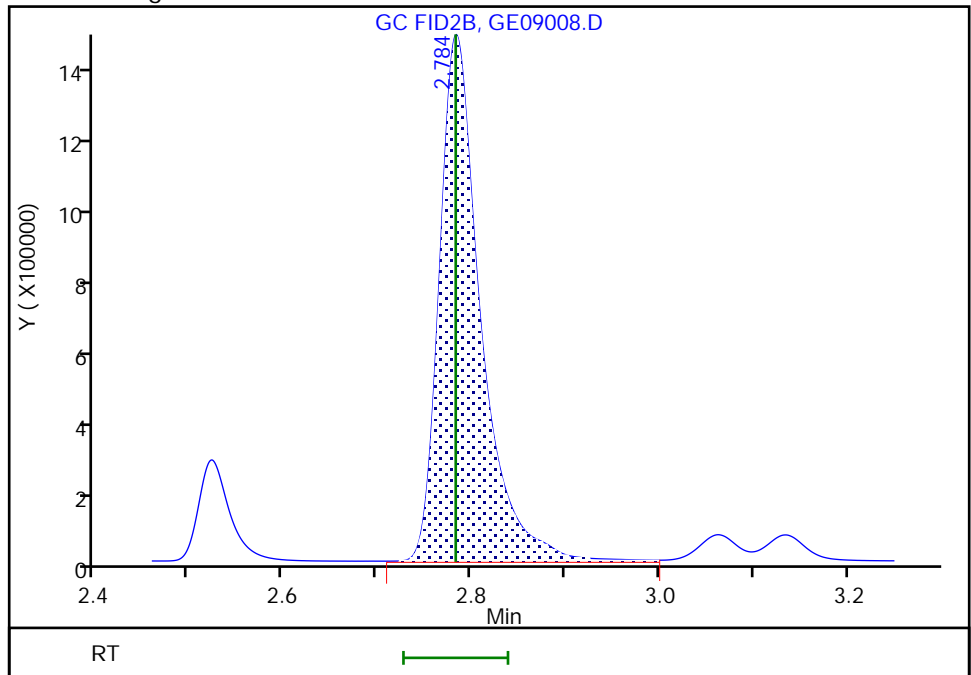
RT: 2.78
Area: 4192654
Amount: 50.000000
Amount Units: ug/ml

Processing Integration Results



RT: 2.78
Area: 4216874
Amount: 50.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:31:23
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

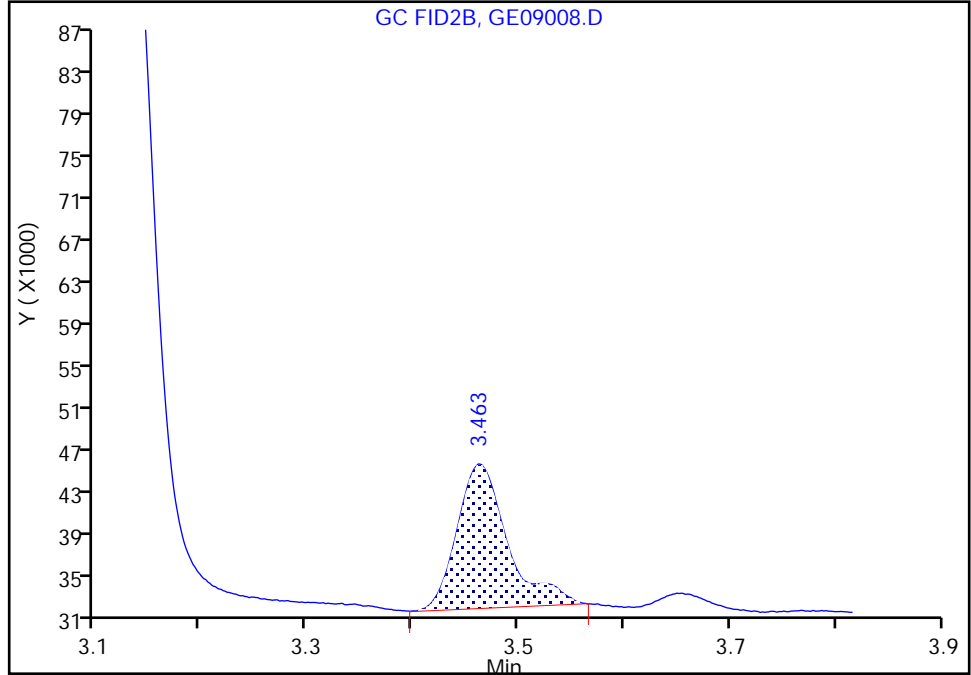
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09008.D
Injection Date: 09-May-2023 19:12:47 Instrument ID: CVGG2
Lims ID: ic g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

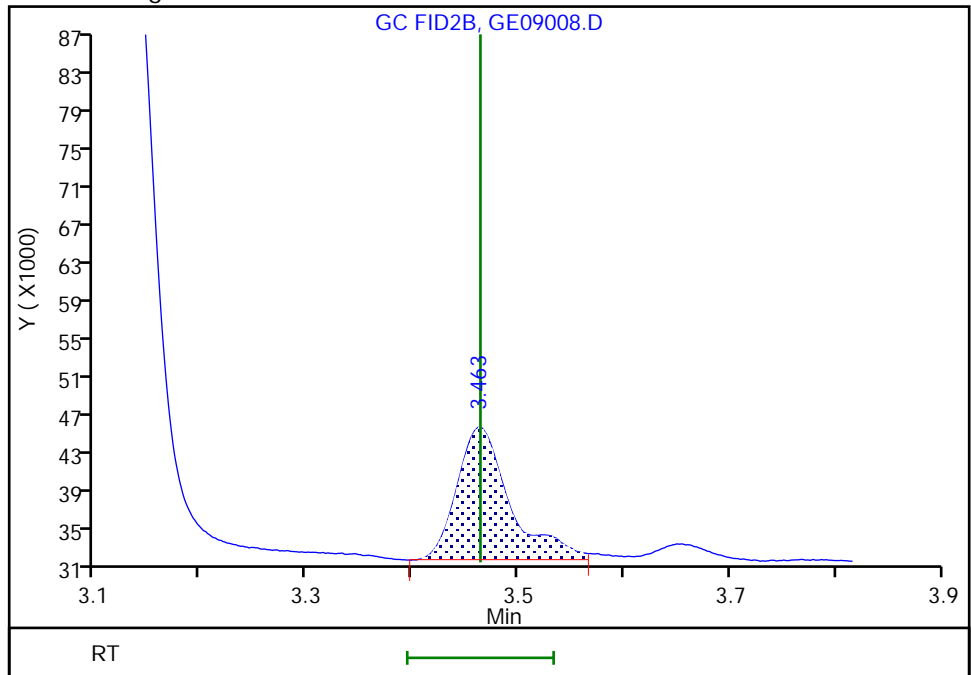
RT: 3.46
Area: 45414
Amount: 10.400593
Amount Units: ug/ml

Processing Integration Results



RT: 3.46
Area: 49093
Amount: 11.119300
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09009.D
 Lims ID: ic g2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 09-May-2023 19:36:03 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085868-009
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 10-May-2023 11:57:00 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1620

First Level Reviewer: SK9U

Date: 10-May-2023 11:31:10

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.081	2.083	-0.002	537051	5.00	4.20	
2 4-Hydroxy-4-methyl-2-pentanone						
2.376	2.377	-0.001	355292	5.00	5.14	
3 2-Butoxyethanol						
2.524	2.524	0.000	387293	5.00	5.22	
* 4 n-Heptyl Alcohol						
2.784	2.783	0.001	5561153	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
3.464	3.464	0.000	30977	5.00	5.32	M
6 Propylene glycol						
4.337	4.340	-0.003	86370	5.00	5.16	M
7 Ethylene glycol						
4.538	4.546	-0.008	204053	5.00	4.31	M
8 2-(2-Butoxyethoxy)ethanol						
6.122	6.121	0.001	297628	5.00	5.13	
9 2,2'-Oxybisethanol						
8.284	8.283	0.001	121314	5.00	4.81	
10 Triethylene Glycol						
9.876	9.876	0.000	107845	5.00	4.52	
11 Tetraethylene Glycol						
10.708	10.708	0.000	181718	10.0	8.28	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00051

Amount Added: 2.50

Units: uL

SG_GLY_ISTD_00116

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09009.D

Injection Date: 09-May-2023 19:36:03

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g2

Worklist Smp#: 9

Client ID:

Injection Vol: 1.0 ul

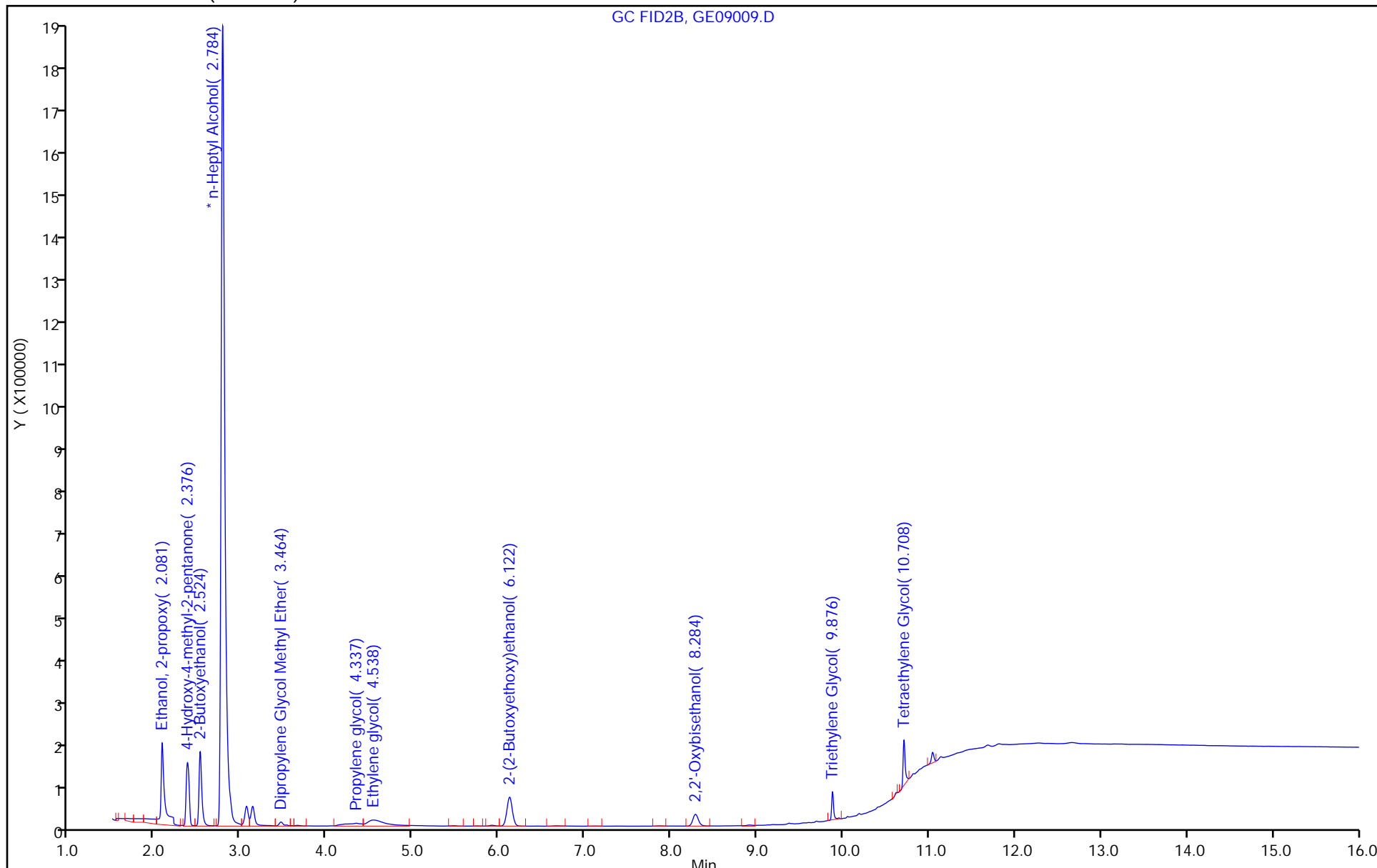
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

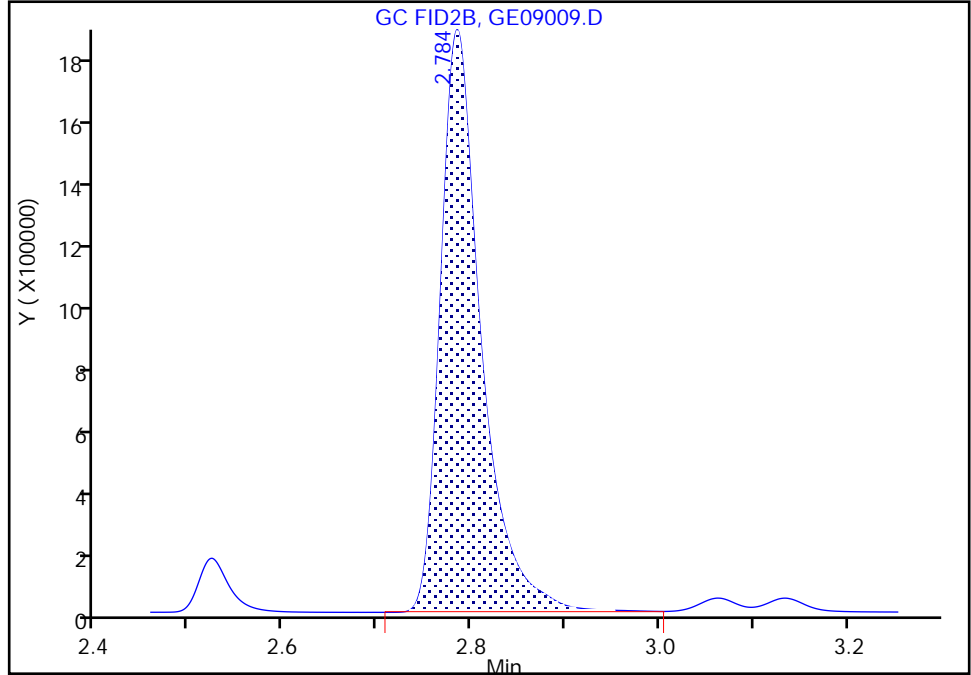
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09009.D
Injection Date: 09-May-2023 19:36:03 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

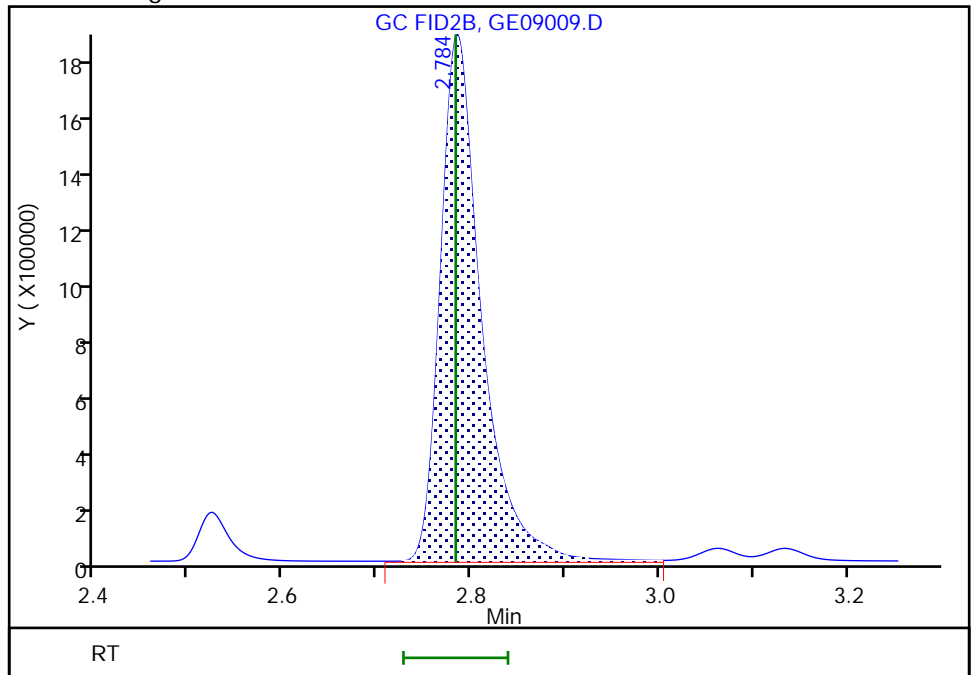
RT: 2.78
Area: 5535014
Amount: 50.000000
Amount Units: ug/ml

Processing Integration Results



RT: 2.78
Area: 5561153
Amount: 50.000000
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

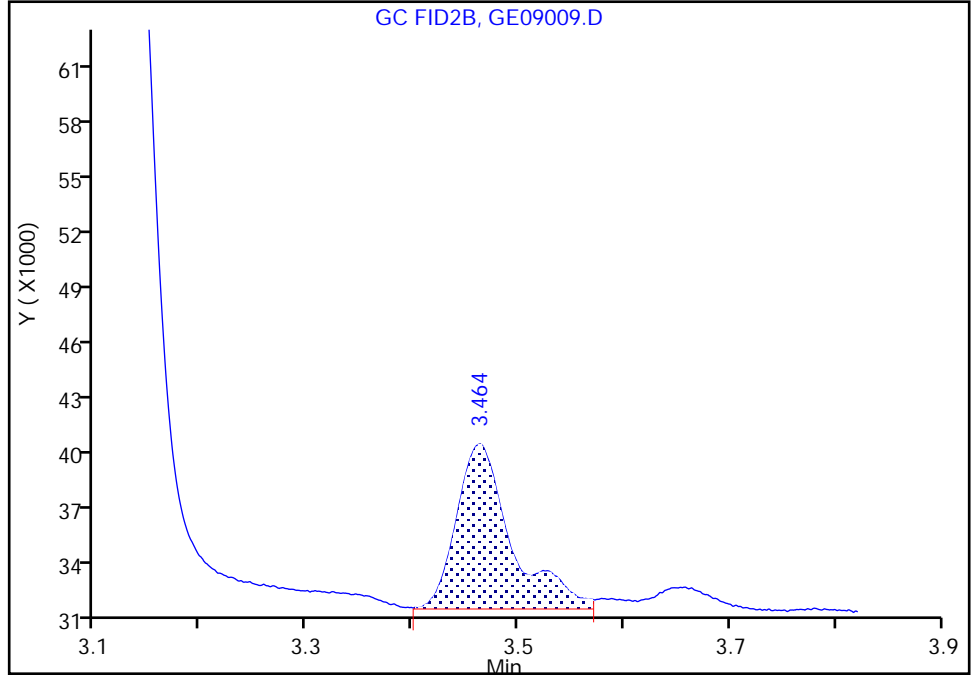
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09009.D
Injection Date: 09-May-2023 19:36:03 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

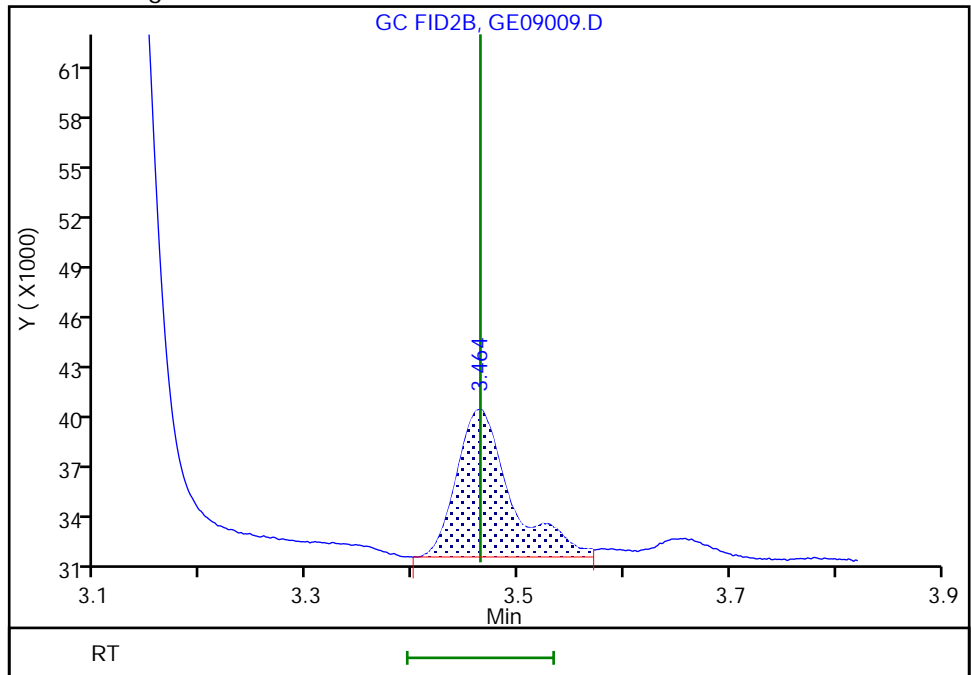
RT: 3.46
Area: 31879
Amount: 5.501665
Amount Units: ug/ml

Processing Integration Results



RT: 3.46
Area: 30977
Amount: 5.320139
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:31:05
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

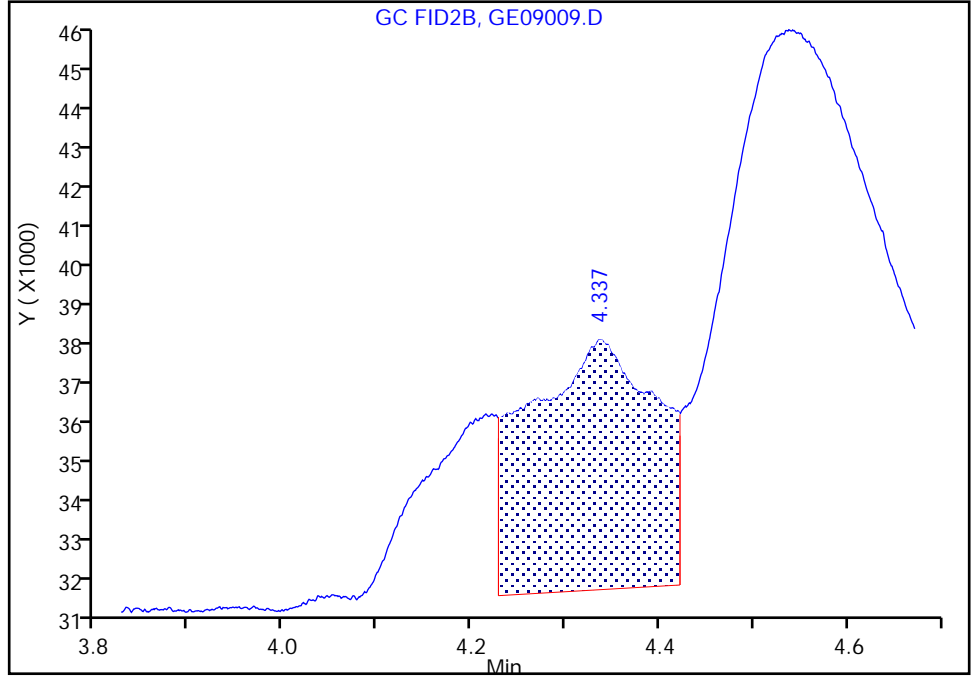
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09009.D
Injection Date: 09-May-2023 19:36:03 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

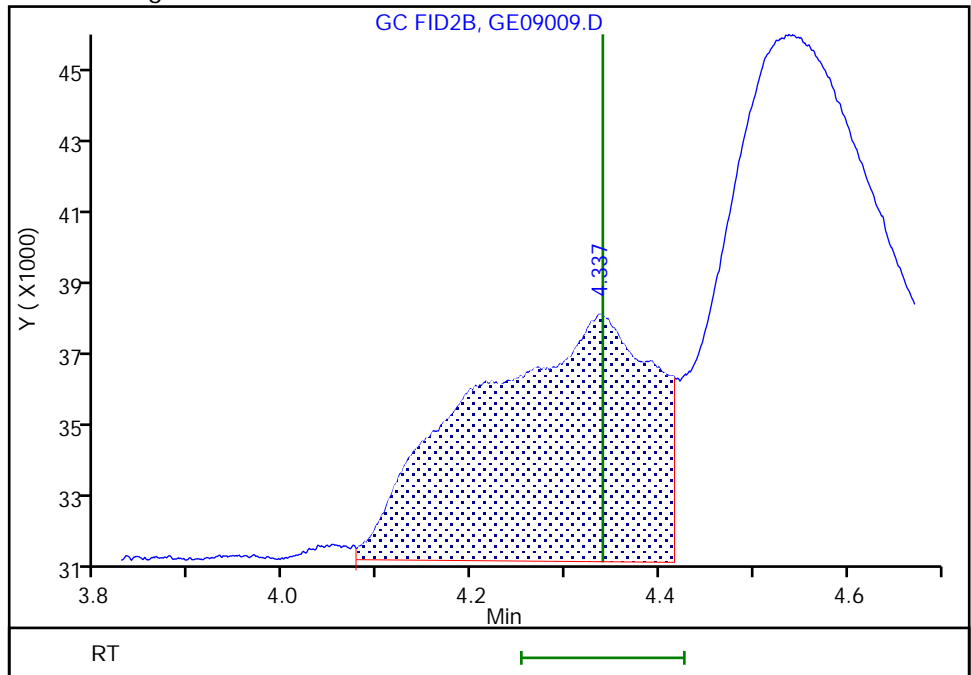
RT: 4.34
Area: 55054
Amount: 3.217246
Amount Units: ug/ml

Processing Integration Results



RT: 4.34
Area: 86370
Amount: 5.160061
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:34:17
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
Page 90 of 164

Eurofins Savannah

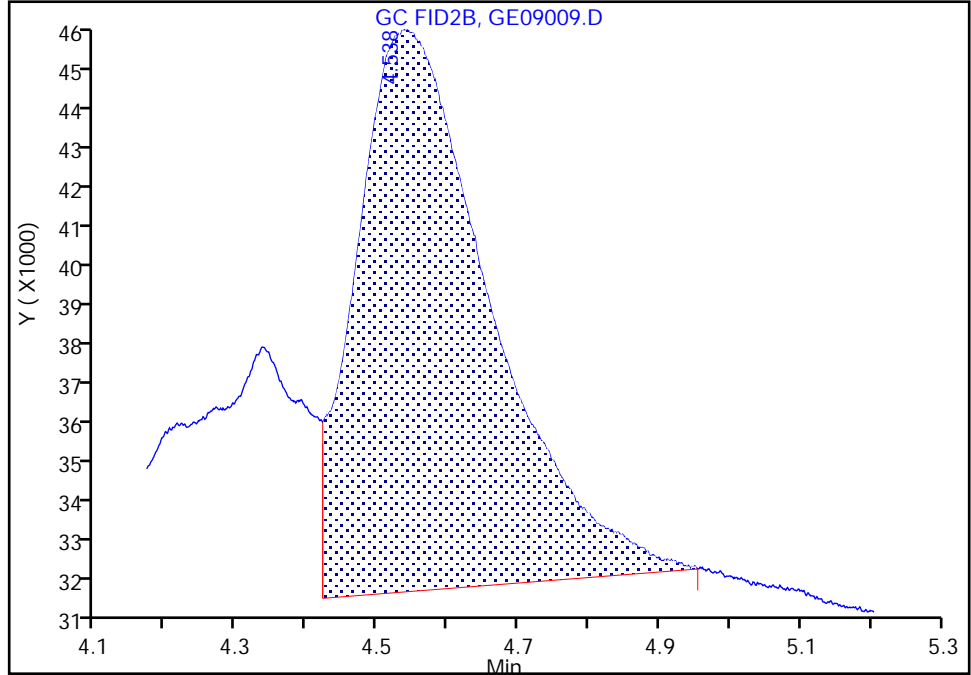
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09009.D
Injection Date: 09-May-2023 19:36:03 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

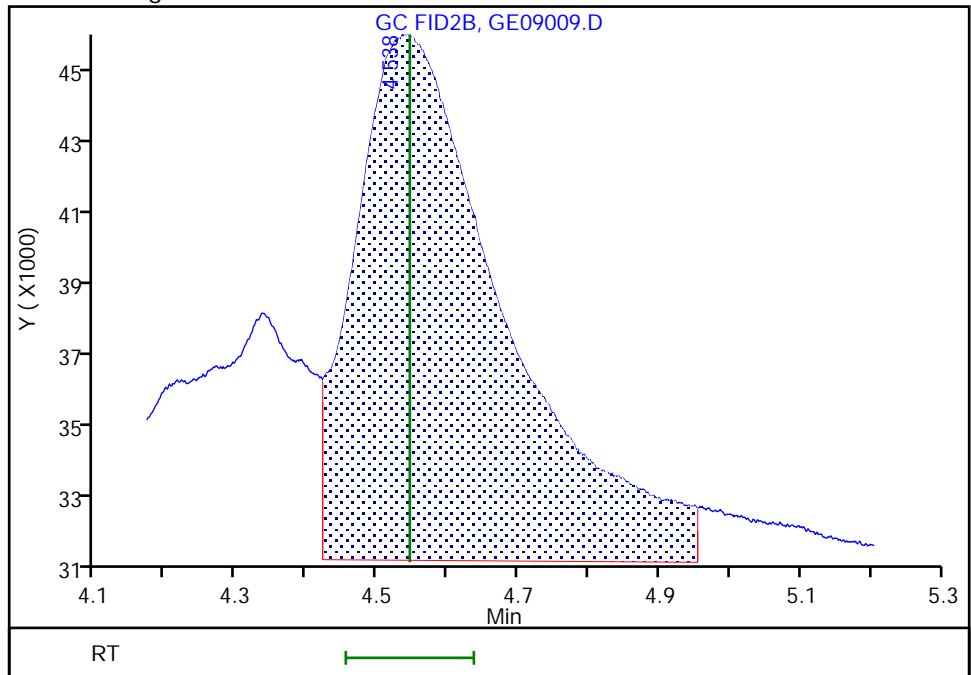
RT: 4.54
Area: 170761
Amount: 3.671938
Amount Units: ug/ml

Processing Integration Results



RT: 4.54
Area: 204053
Amount: 4.305199
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:30:55
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Lims ID: ic g1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 09-May-2023 19:59:40 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085868-010
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 10-May-2023 11:57:02 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 10-May-2023 11:28:23

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

1 Ethanol, 2-propoxy						
2.084	2.083	0.001	256165	2.00	-0.000108	
2 4-Hydroxy-4-methyl-2-pentanone						
2.378	2.377	0.001	151793	2.00	2.16	
3 2-Butoxyethanol						
2.524	2.524	0.000	170793	2.00	2.26	
* 4 n-Heptyl Alcohol						
2.784	2.783	0.001	5658385	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
3.464	3.464	0.000	10908	2.00	1.84	
6 Propylene glycol						
4.341	4.340	0.001	49563	2.00	2.91	M
7 Ethylene glycol						
4.540	4.546	-0.006	102088	2.00	1.87	M
8 2-(2-Butoxyethoxy)ethanol						
6.121	6.121	0.000	125351	2.00	2.12	
9 2,2'-Oxybisethanol						
8.286	8.283	0.003	62057	2.00	2.42	
10 Triethylene Glycol						
9.876	9.876	0.000	46553	2.00	1.92	
11 Tetraethylene Glycol						
10.709	10.708	0.001	73978	4.00	3.31	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00051

Amount Added: 1.00

Units: uL

SG_GLY_ISTD_00116

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D

Injection Date: 09-May-2023 19:59:40

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g1

Worklist Smp#: 10

Client ID:

Injection Vol: 1.0 ul

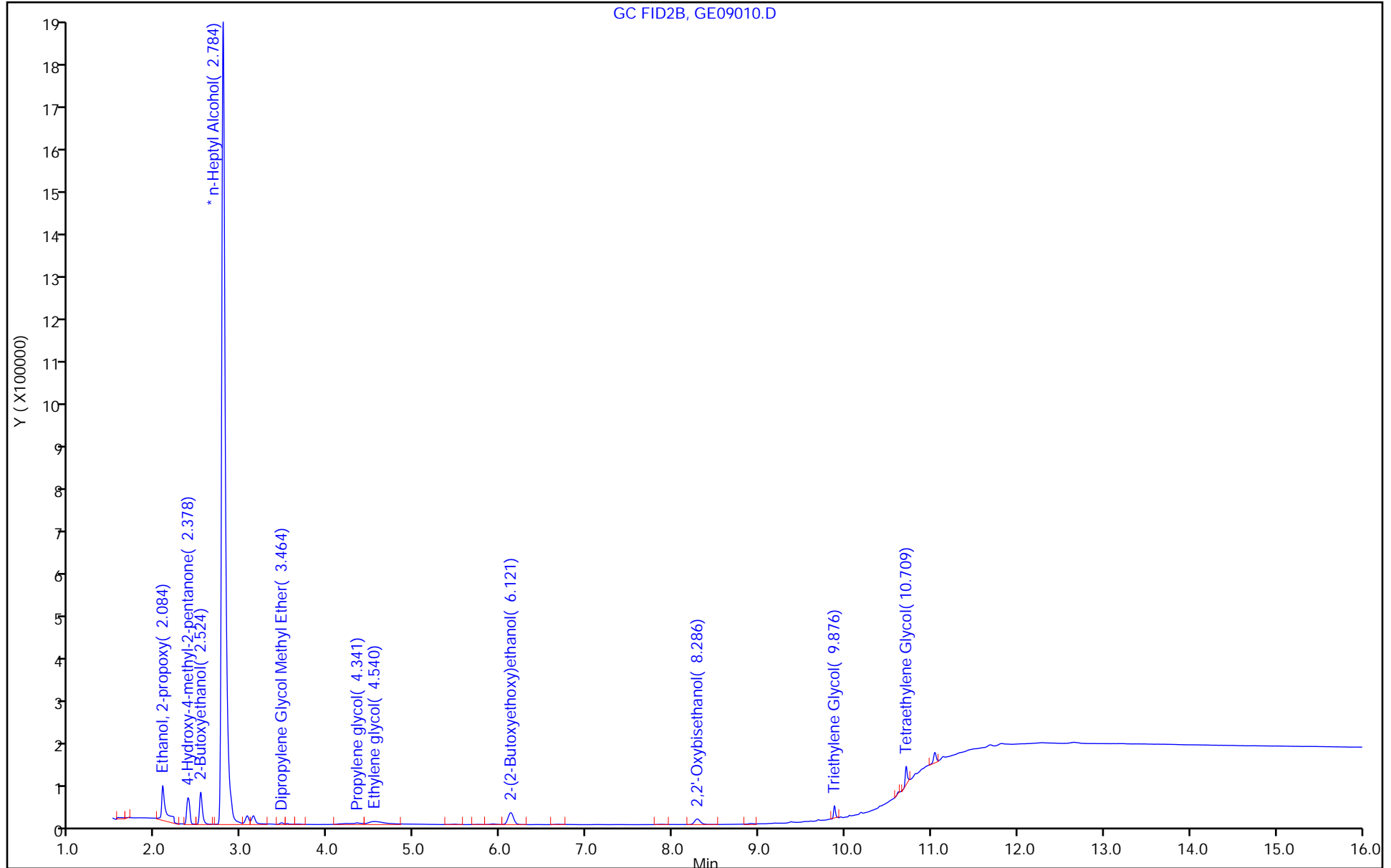
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

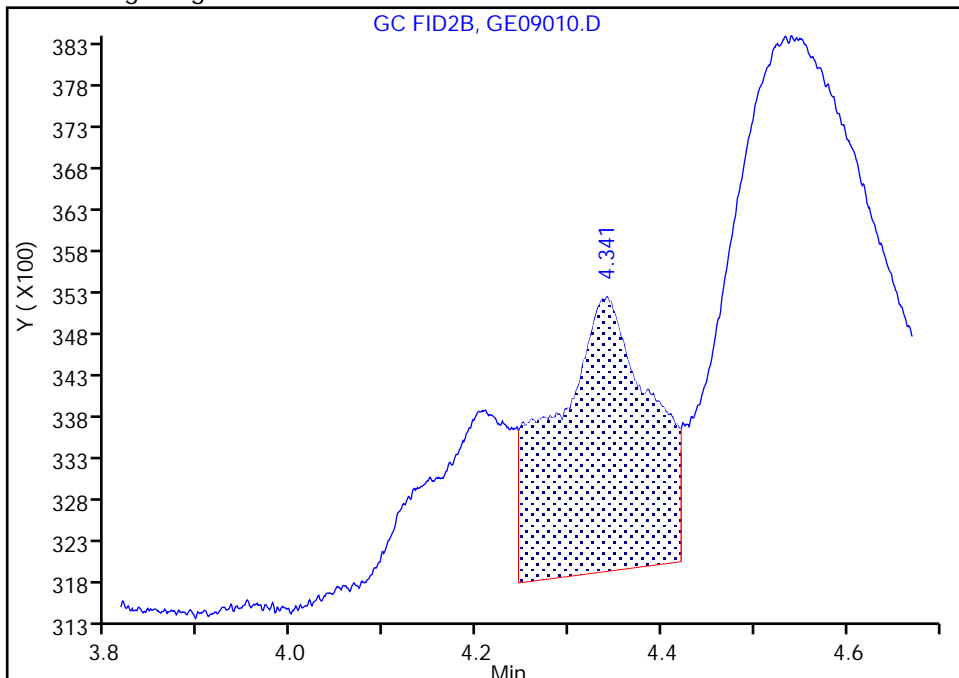
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
Injection Date: 09-May-2023 19:59:40 Instrument ID: CVGG2
Lims ID: ic g1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

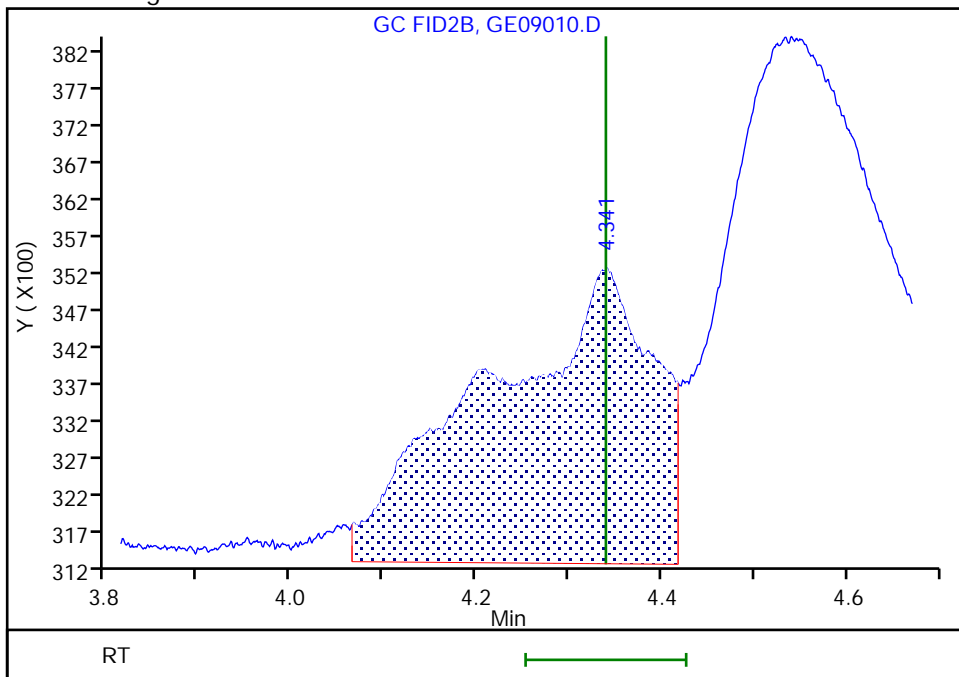
RT: 4.34
Area: 23957
Amount: 1.461724
Amount Units: ug/ml

Processing Integration Results



RT: 4.34
Area: 49563
Amount: 2.911597
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:34:39
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Savannah

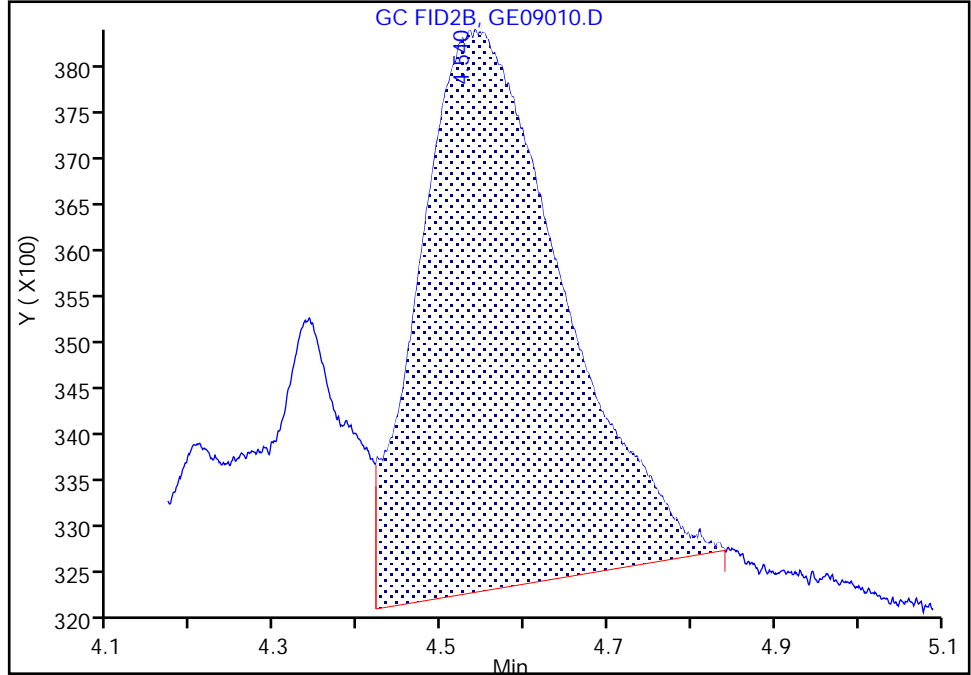
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
Injection Date: 09-May-2023 19:59:40 Instrument ID: CVGG2
Lims ID: ic g1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

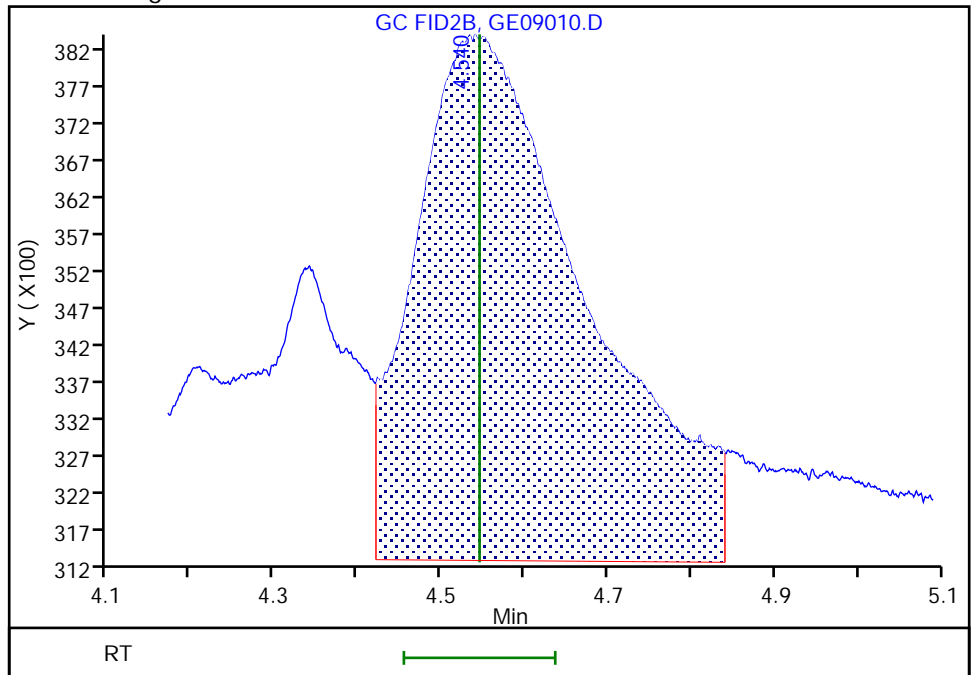
RT: 4.54
Area: 73291
Amount: 1.436099
Amount Units: ug/ml

Processing Integration Results



RT: 4.54
Area: 102088
Amount: 1.865348
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 10-May-2023 11:30:39
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Calibration

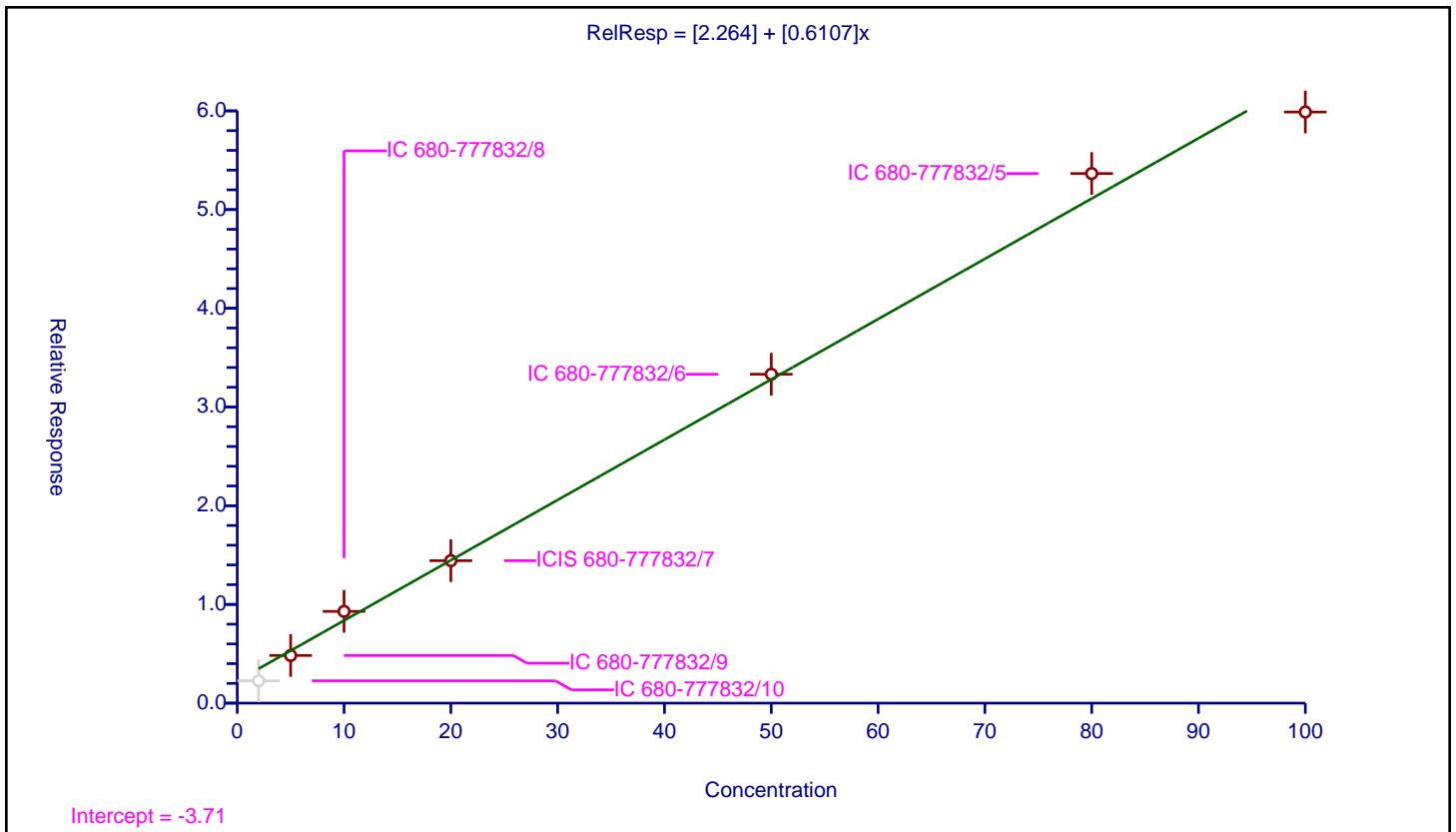
/ Ethanol, 2-propoxy

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

Curve Coefficients	
Intercept:	2.264
Slope:	0.6107

Error Coefficients	
Standard Error:	4660000
Relative Standard Error:	11.7
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777832/10	2.0	2.263588	50.0	5658385.0	1.131794	N
2	IC 680-777832/9	5.0	4.828594	50.0	5561153.0	0.965719	Y
3	IC 680-777832/8	10.0	9.293211	50.0	4216874.0	0.929321	Y
4	ICIS 680-777832/7	20.0	14.432084	50.0	3269947.0	0.721604	Y
5	IC 680-777832/6	50.0	33.320627	50.0	5619339.0	0.666413	Y
6	IC 680-777832/5	80.0	53.654761	50.0	4973335.0	0.670685	Y
7	IC 680-777832/4	100.0	59.883289	50.0	5456296.0	0.598833	Y



Calibration

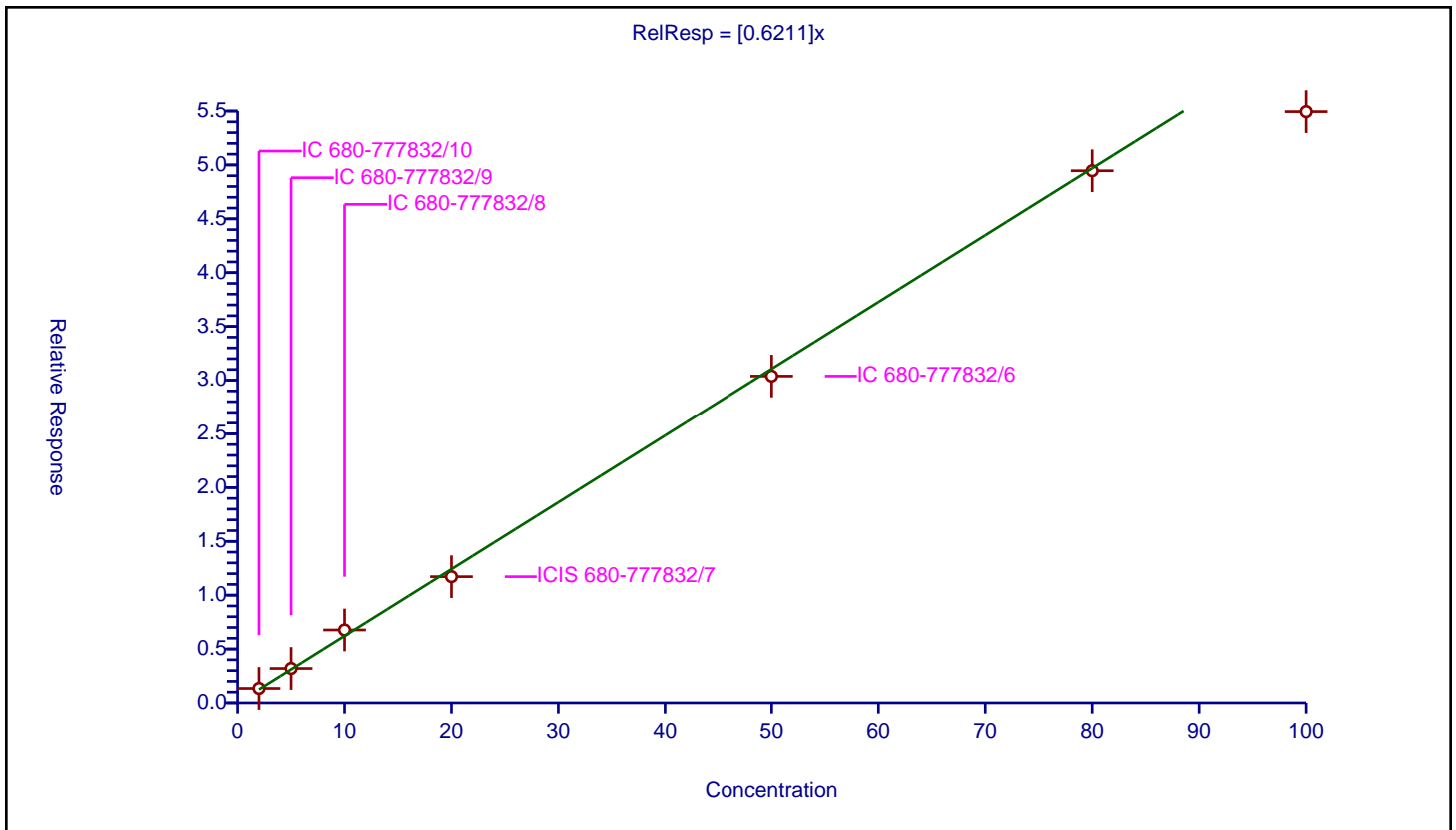
/ 4-Hydroxy-4-methyl-2-pentanone

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

Curve Coefficients	
Intercept:	0
Slope:	0.6211

Error Coefficients	
Standard Error:	3490000
Relative Standard Error:	7.3
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777832/10	2.0	1.34131	50.0	5658385.0	0.670655	Y
2	IC 680-777832/9	5.0	3.19441	50.0	5561153.0	0.638882	Y
3	IC 680-777832/8	10.0	6.769363	50.0	4216874.0	0.676936	Y
4	ICIS 680-777832/7	20.0	11.721062	50.0	3269947.0	0.586053	Y
5	IC 680-777832/6	50.0	30.384535	50.0	5619339.0	0.607691	Y
6	IC 680-777832/5	80.0	49.46178	50.0	4973335.0	0.618272	Y
7	IC 680-777832/4	100.0	54.94602	50.0	5456296.0	0.54946	Y



Calibration

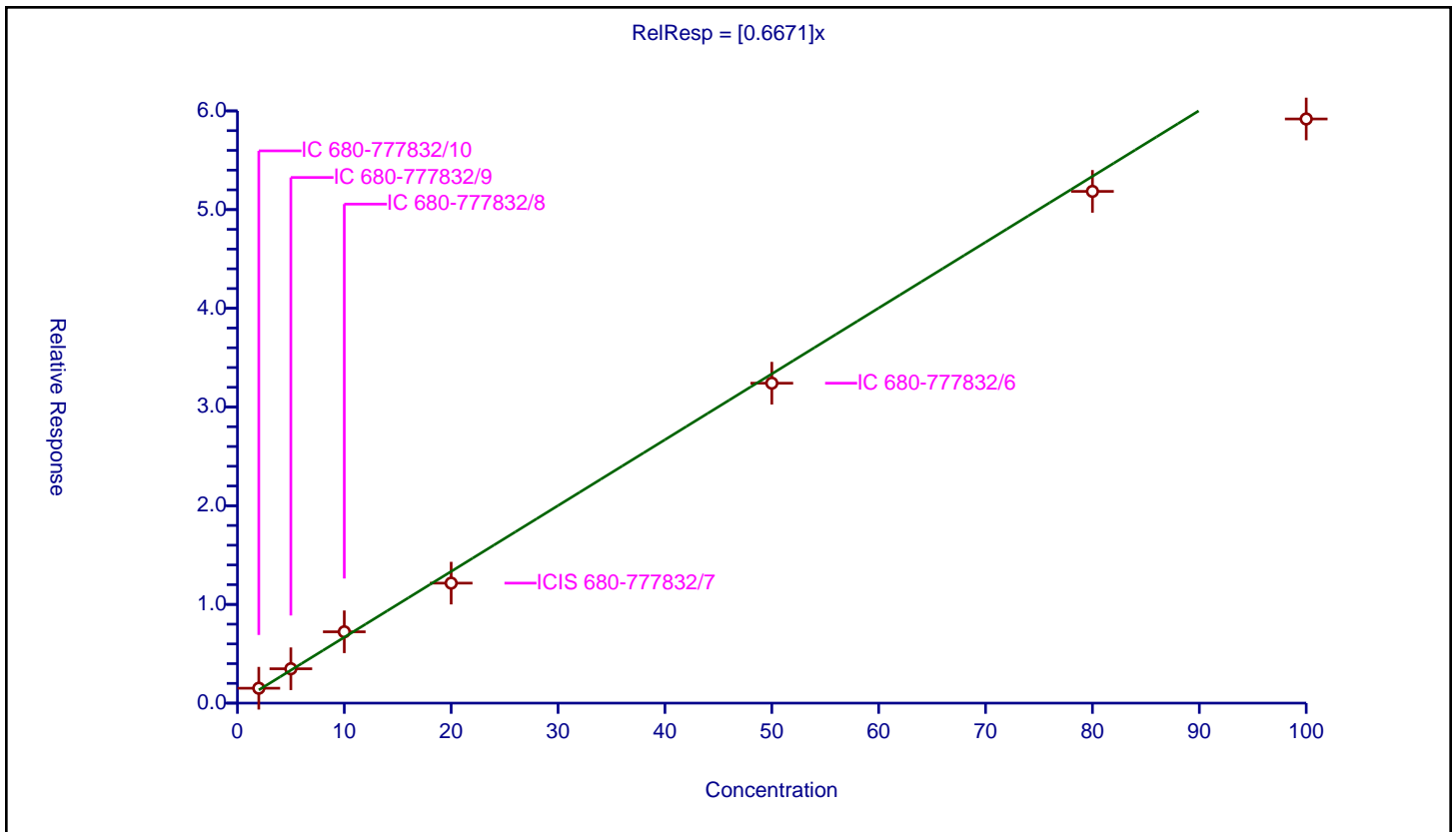
/ 2-Butoxyethanol

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

Curve Coefficients	
Intercept:	0
Slope:	0.6671

Error Coefficients	
Standard Error:	3710000
Relative Standard Error:	9.0
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777832/10	2.0	1.509203	50.0	5658385.0	0.754601	Y
2	IC 680-777832/9	5.0	3.482129	50.0	5561153.0	0.696426	Y
3	IC 680-777832/8	10.0	7.228103	50.0	4216874.0	0.72281	Y
4	ICIS 680-777832/7	20.0	12.156114	50.0	3269947.0	0.607806	Y
5	IC 680-777832/6	50.0	32.413038	50.0	5619339.0	0.648261	Y
6	IC 680-777832/5	80.0	51.846538	50.0	4973335.0	0.648082	Y
7	IC 680-777832/4	100.0	59.182685	50.0	5456296.0	0.591827	Y



Calibration

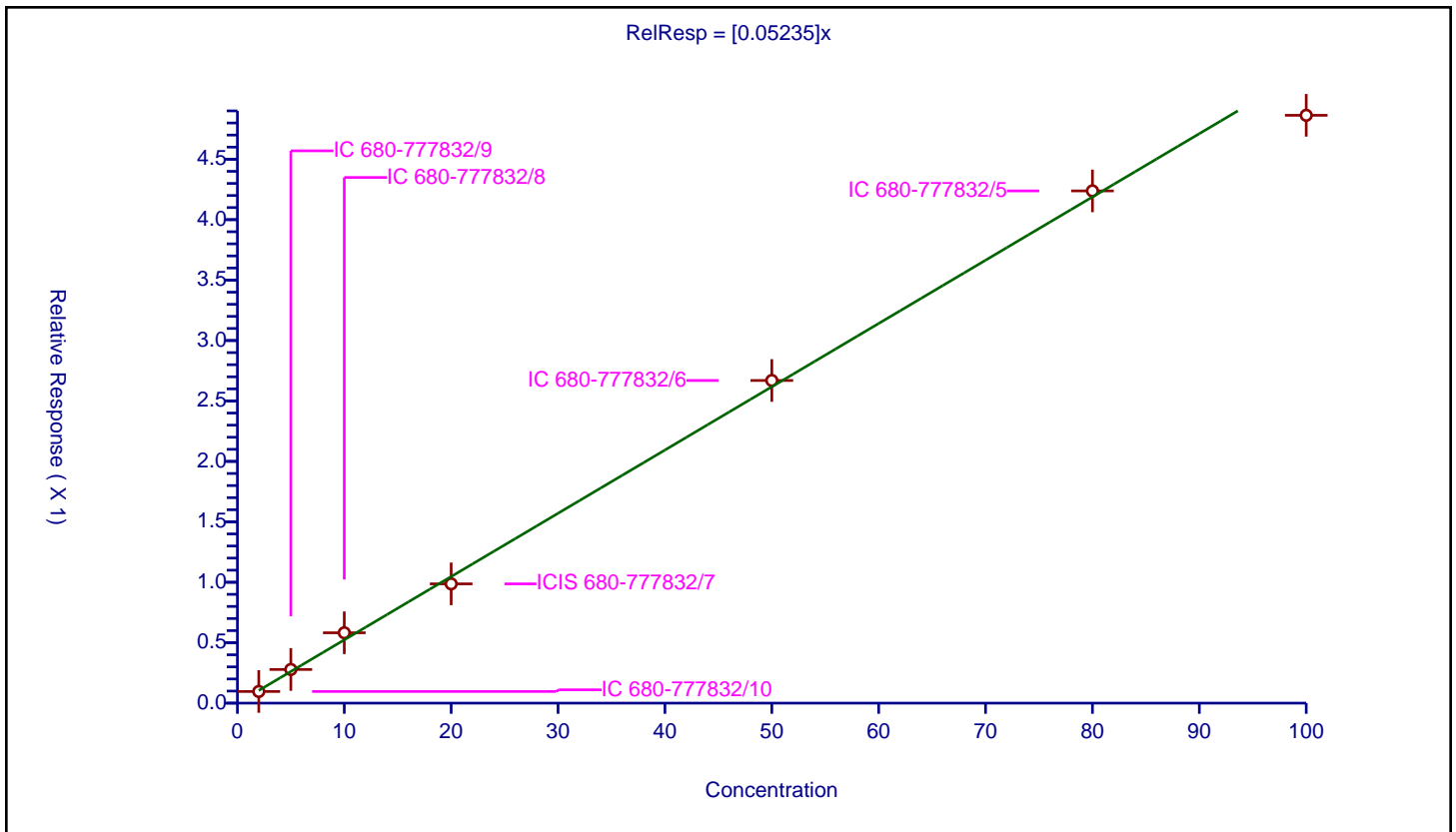
/ Dipropylene Glycol Methyl Ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.05235

Error Coefficients	
Standard Error:	305000
Relative Standard Error:	7.3
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777832/10	2.0	0.096388	50.0	5658385.0	0.048194	Y
2	IC 680-777832/9	5.0	0.278512	50.0	5561153.0	0.055702	Y
3	IC 680-777832/8	10.0	0.582102	50.0	4216874.0	0.05821	Y
4	ICIS 680-777832/7	20.0	0.986927	50.0	3269947.0	0.049346	Y
5	IC 680-777832/6	50.0	2.669531	50.0	5619339.0	0.053391	Y
6	IC 680-777832/5	80.0	4.238052	50.0	4973335.0	0.052976	Y
7	IC 680-777832/4	100.0	4.863482	50.0	5456296.0	0.048635	Y



Calibration

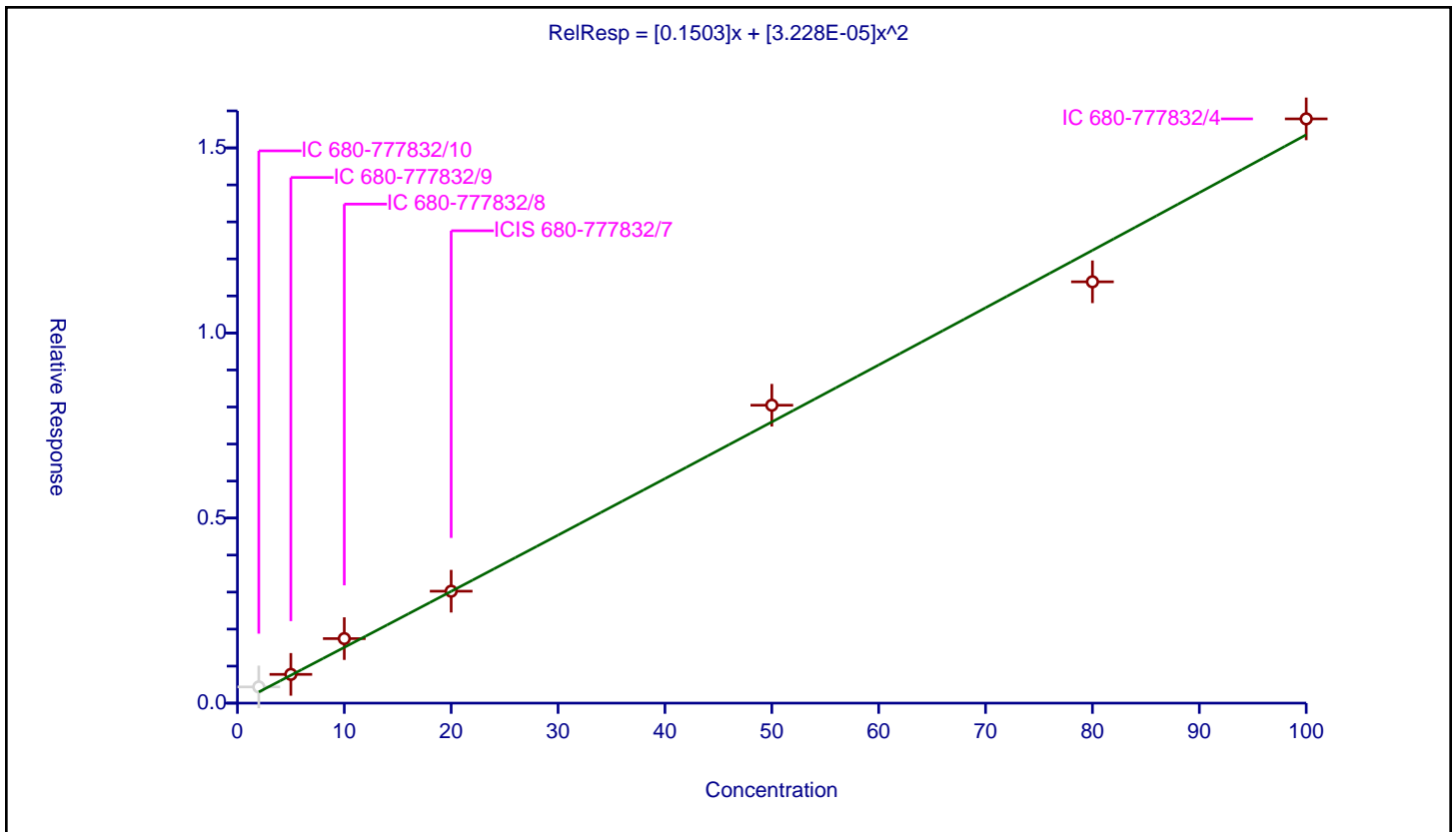
/ Propylene glycol

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

Curve Coefficients	
Intercept:	0
Slope:	0.1503
Second Order:	3.228E-05

Error Coefficients	
Standard Error:	1130000
Relative Standard Error:	9.3
Correlation Coefficient:	0.974
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777832/10	2.0	0.437961	50.0	5658385.0	0.21898	N
2	IC 680-777832/9	5.0	0.776548	50.0	5561153.0	0.15531	Y
3	IC 680-777832/8	10.0	1.742831	50.0	4216874.0	0.174283	Y
4	ICIS 680-777832/7	20.0	3.024086	50.0	3269947.0	0.151204	Y
5	IC 680-777832/6	50.0	8.048331	50.0	5619339.0	0.160967	Y
6	IC 680-777832/5	80.0	11.382624	50.0	4973335.0	0.142283	Y
7	IC 680-777832/4	100.0	15.783922	50.0	5456296.0	0.157839	Y



Calibration

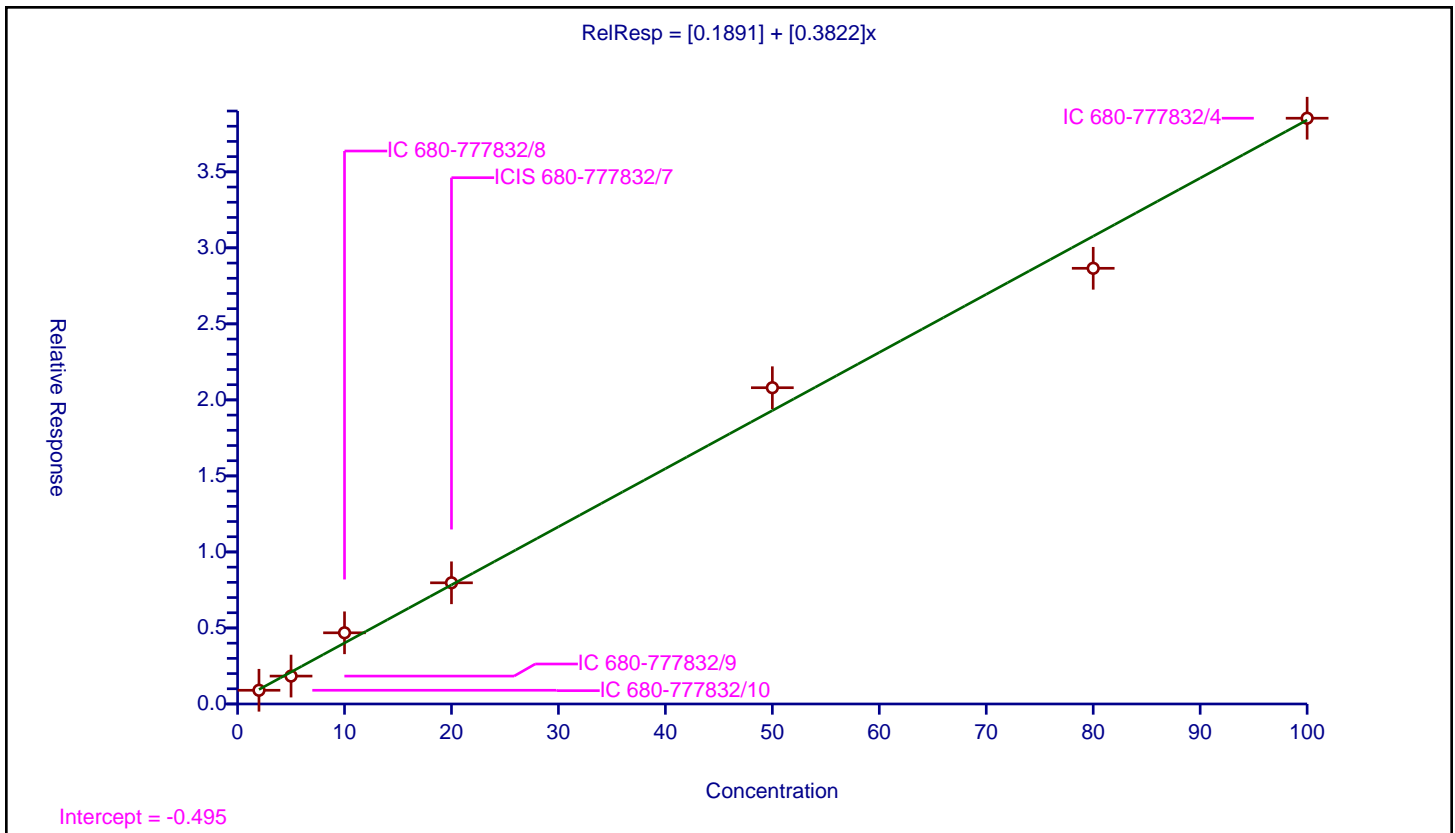
/ Ethylene glycol

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

Curve Coefficients	
Intercept:	0.1891
Slope:	0.3822

Error Coefficients	
Standard Error:	2520000
Relative Standard Error:	11.5
Correlation Coefficient:	0.978
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777832/10	2.0	0.902095	50.0	5658385.0	0.451047	Y
2	IC 680-777832/9	5.0	1.834629	50.0	5561153.0	0.366926	Y
3	IC 680-777832/8	10.0	4.682687	50.0	4216874.0	0.468269	Y
4	ICIS 680-777832/7	20.0	7.970833	50.0	3269947.0	0.398542	Y
5	IC 680-777832/6	50.0	20.801299	50.0	5619339.0	0.416026	Y
6	IC 680-777832/5	80.0	28.656354	50.0	4973335.0	0.358204	Y
7	IC 680-777832/4	100.0	38.525952	50.0	5456296.0	0.38526	Y



Calibration

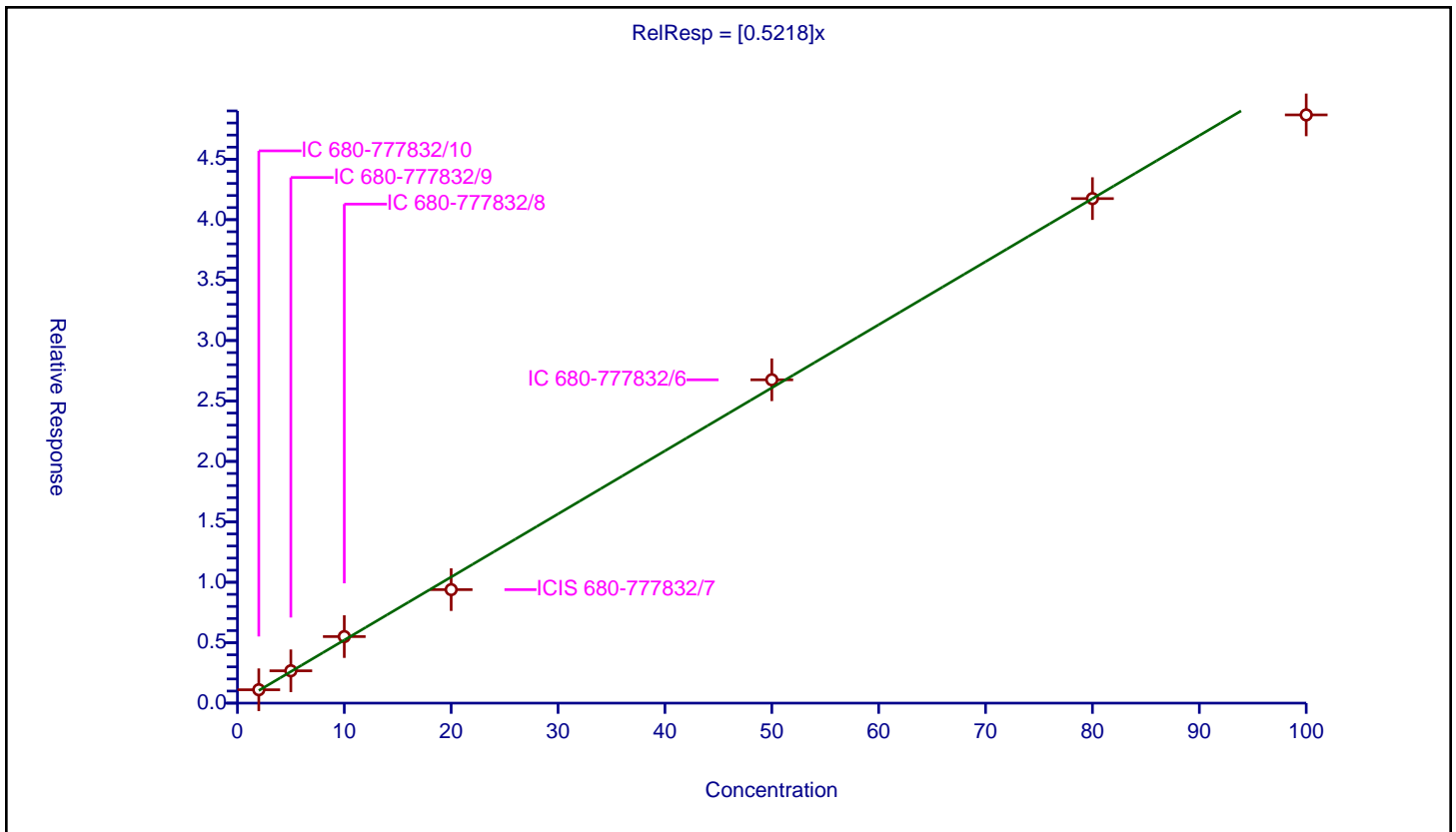
/ 2-(2-Butoxyethoxy)ethanol

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

Curve Coefficients	
Intercept:	0
Slope:	0.5218

Error Coefficients	
Standard Error:	3030000
Relative Standard Error:	6.1
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777832/10	2.0	1.107657	50.0	5658385.0	0.553829	Y
2	IC 680-777832/9	5.0	2.675956	50.0	5561153.0	0.535191	Y
3	IC 680-777832/8	10.0	5.505121	50.0	4216874.0	0.550512	Y
4	ICIS 680-777832/7	20.0	9.391177	50.0	3269947.0	0.469559	Y
5	IC 680-777832/6	50.0	26.752906	50.0	5619339.0	0.535058	Y
6	IC 680-777832/5	80.0	41.743971	50.0	4973335.0	0.5218	Y
7	IC 680-777832/4	100.0	48.668712	50.0	5456296.0	0.486687	Y



Calibration

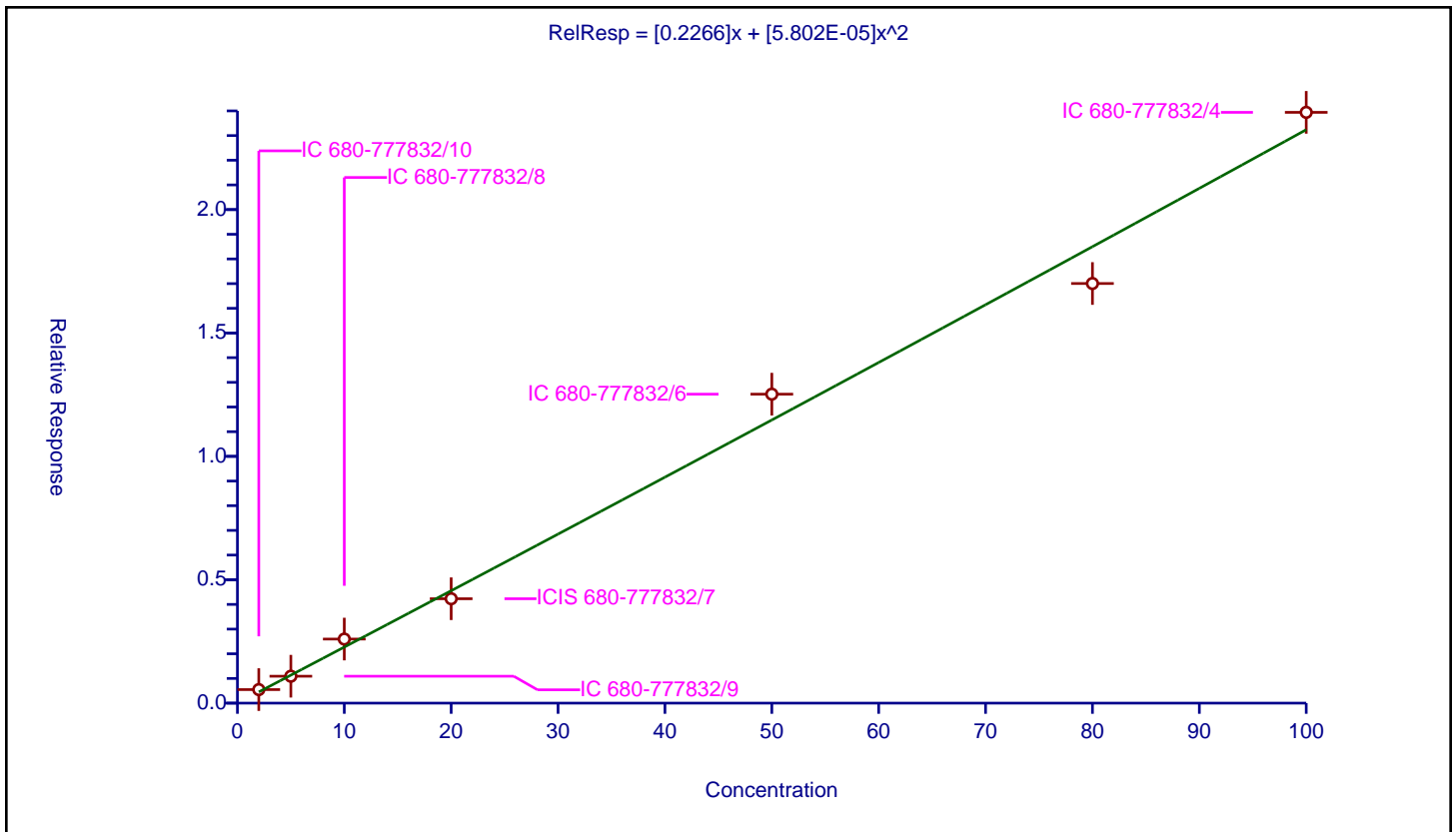
/ 2,2'-Oxybisethanol

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

Curve Coefficients	
Intercept:	0
Slope:	0.2266
Second Order:	5.802E-05

Error Coefficients	
Standard Error:	1540000
Relative Standard Error:	13.1
Correlation Coefficient:	0.972
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777832/10	2.0	0.548363	50.0	5658385.0	0.274182	Y
2	IC 680-777832/9	5.0	1.090727	50.0	5561153.0	0.218145	Y
3	IC 680-777832/8	10.0	2.595738	50.0	4216874.0	0.259574	Y
4	ICIS 680-777832/7	20.0	4.23065	50.0	3269947.0	0.211532	Y
5	IC 680-777832/6	50.0	12.519996	50.0	5619339.0	0.2504	Y
6	IC 680-777832/5	80.0	17.005289	50.0	4973335.0	0.212566	Y
7	IC 680-777832/4	100.0	23.940518	50.0	5456296.0	0.239405	Y



Calibration

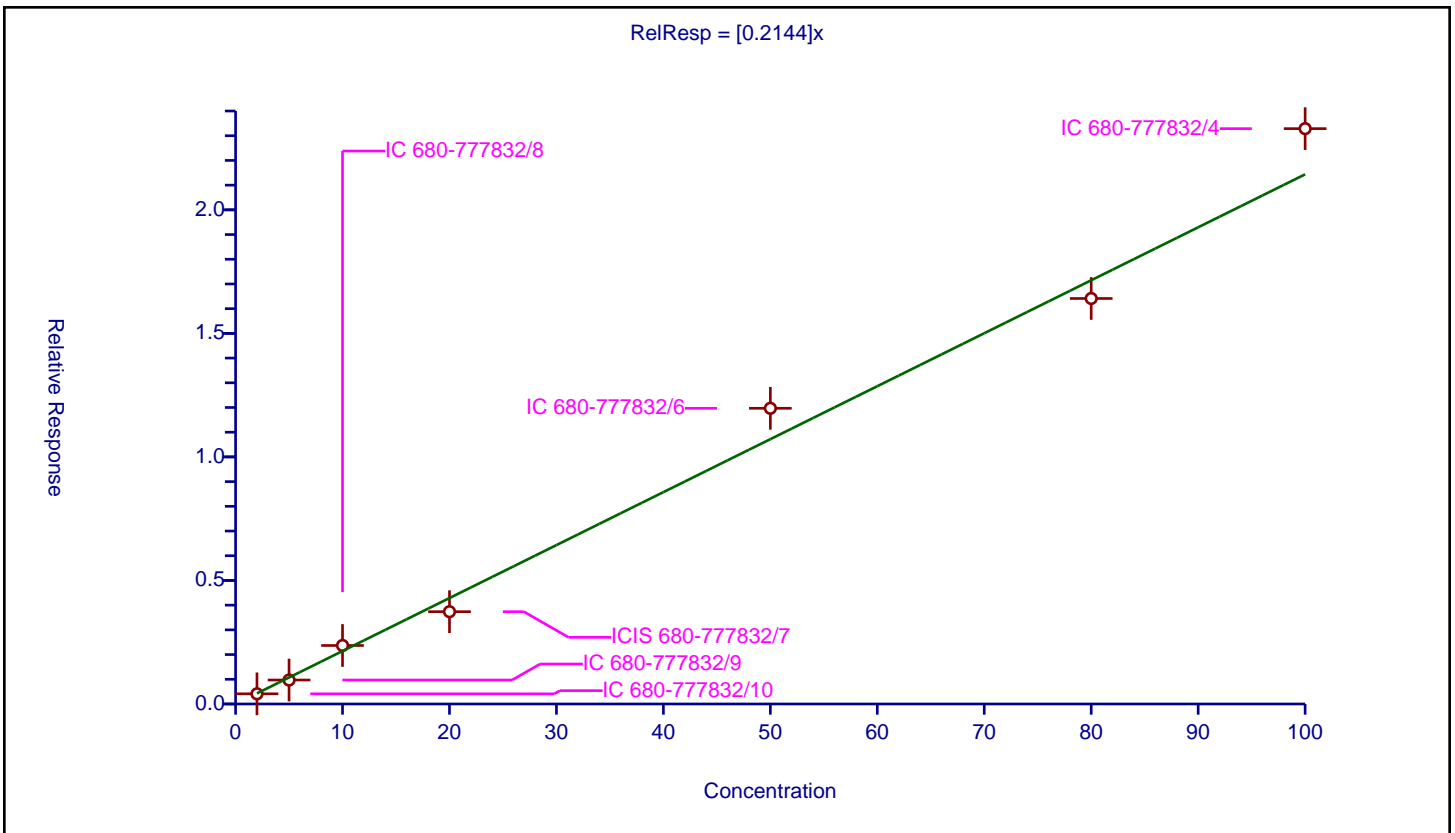
/ Triethylene Glycol

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

Curve Coefficients	
Intercept:	0
Slope:	0.2144

Error Coefficients	
Standard Error:	1360000
Relative Standard Error:	10.1
Correlation Coefficient:	0.971
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777832/10	2.0	0.411363	50.0	5658385.0	0.205681	Y
2	IC 680-777832/9	5.0	0.969628	50.0	5561153.0	0.193926	Y
3	IC 680-777832/8	10.0	2.367666	50.0	4216874.0	0.236767	Y
4	ICIS 680-777832/7	20.0	3.73558	50.0	3269947.0	0.186779	Y
5	IC 680-777832/6	50.0	11.968187	50.0	5619339.0	0.239364	Y
6	IC 680-777832/5	80.0	16.41299	50.0	4973335.0	0.205162	Y
7	IC 680-777832/4	100.0	23.28675	50.0	5456296.0	0.232867	Y



Calibration

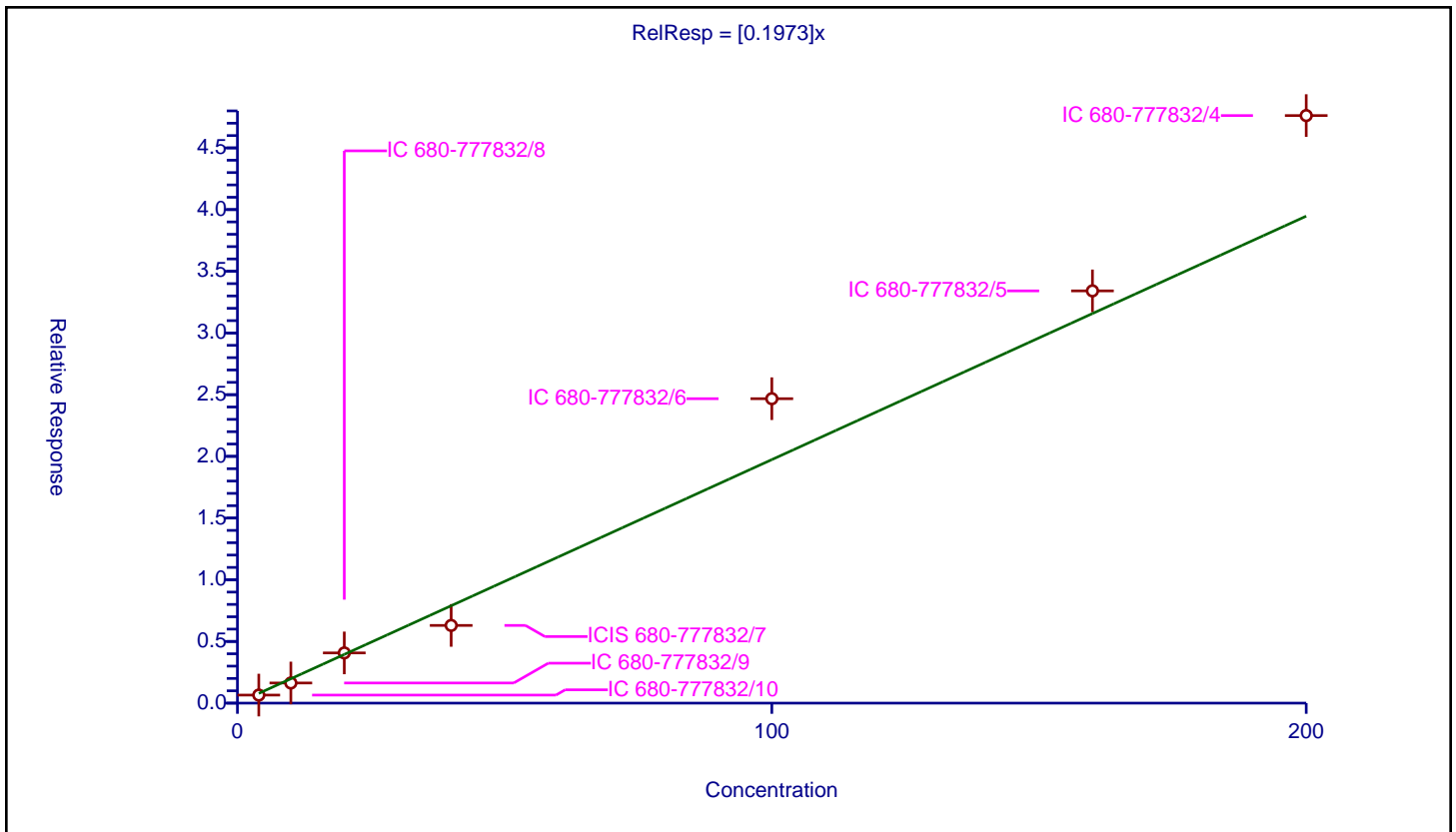
/ Tetraethylene Glycol

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

Curve Coefficients	
Intercept:	0
Slope:	0.1973

Error Coefficients	
Standard Error:	2770000
Relative Standard Error:	18.7
Correlation Coefficient:	0.968
Coefficient of Determination (Adjusted):	0.960

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777832/10	4.0	0.653702	50.0	5658385.0	0.163426	Y
2	IC 680-777832/9	10.0	1.633816	50.0	5561153.0	0.163382	Y
3	IC 680-777832/8	20.0	4.069543	50.0	4216874.0	0.203477	Y
4	ICIS 680-777832/7	40.0	6.298359	50.0	3269947.0	0.157459	Y
5	IC 680-777832/6	100.0	24.672964	50.0	5619339.0	0.24673	Y
6	IC 680-777832/5	160.0	33.412428	50.0	4973335.0	0.208828	Y
7	IC 680-777832/4	200.0	47.620006	50.0	5456296.0	0.2381	Y



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Lab Sample ID: ICV 680-777832/11 Calibration Date: 05/09/2023 20:22
 Instrument ID: CVGG2 Calib Start Date: 05/09/2023 17:39
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 05/09/2023 19:59
 Lab File ID: GE09011.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin1		0.7485		20.8	20.0	4.0	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6211	0.6232		20.1	20.0	0.3	20.0
2-Butoxyethanol	Ave	0.6671	0.7001		21.0	20.0	4.9	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0524	0.0489		18.7	20.0	-6.5	20.0
Propylene glycol	QuaF		0.1239		16.4	20.0	-17.8	20.0
Ethylene glycol	Lin1		0.3225		16.4	20.0	-18.1	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5218	0.5057		19.4	20.0	-3.1	20.0
2,2'-Oxybisethanol	QuaF		0.1841		16.2	20.0	-19.1	20.0
Triethylene Glycol	Ave	0.2144	0.1869		17.4	20.0	-12.8	20.0
Tetraethylene Glycol	Ave	0.1973	0.1831		37.1	40.0	-7.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Lab Sample ID: ICV 680-777832/11 Calibration Date: 05/09/2023 20:22
 Instrument ID: CVGG2 Calib Start Date: 05/09/2023 17:39
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 05/09/2023 19:59
 Lab File ID: GE09011.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.08	2.05	2.13
4-Hydroxy-4-methyl-2-pentanone	2.38	2.33	2.43
2-Butoxyethanol	2.53	2.48	2.58
Dipropylene Glycol Methyl Ether	3.46	3.40	3.54
Propylene glycol	4.34	4.25	4.42
Ethylene glycol	4.54	4.44	4.62
2-(2-Butoxyethoxy)ethanol	6.12	6.00	6.24
2,2'-Oxybisethanol	8.28	8.11	8.44
Triethylene Glycol	9.88	9.68	10.07
Tetraethylene Glycol	10.71	10.49	10.92

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09011.D
 Lims ID: icv glycol
 Client ID:
 Sample Type: CCV
 Inject. Date: 09-May-2023 20:22:54 ALS Bottle#: 0 Worklist Smp#: 11
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085868-011
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 10-May-2023 13:17:51 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 10-May-2023 11:30:26

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.084	2.088	-0.004	1625605	20.0	20.8	
2 4-Hydroxy-4-methyl-2-pentanone						
2.377	2.382	-0.005	1353609	20.0	20.1	
3 2-Butoxyethanol						
2.525	2.525	0.000	1520574	20.0	21.0	
* 4 n-Heptyl Alcohol						
2.786	2.778	0.008	5429781	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
3.464	3.470	-0.006	106303	20.0	18.7	
6 Propylene glycol						
4.340	4.338	0.002	269184	20.0	16.4	M
7 Ethylene glycol						
4.536	4.532	0.004	700377	20.0	16.4	M
8 2-(2-Butoxyethoxy)ethanol						
6.120	6.119	0.001	1098285	20.0	19.4	
9 2,2'-Oxybisethanol						
8.279	8.275	0.004	399956	20.0	16.2	
10 Triethylene Glycol						
9.875	9.875	0.000	405875	20.0	17.4	
11 Tetraethylene Glycol						
10.706	10.708	-0.002	795265	40.0	37.1	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_GlyICV_00058

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00116

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09011.D

Injection Date: 09-May-2023 20:22:54

Instrument ID: CVGG2

Operator ID:

Lims ID: icv glycol

Worklist Smp#: 11

Client ID:

Injection Vol: 1.0 ul

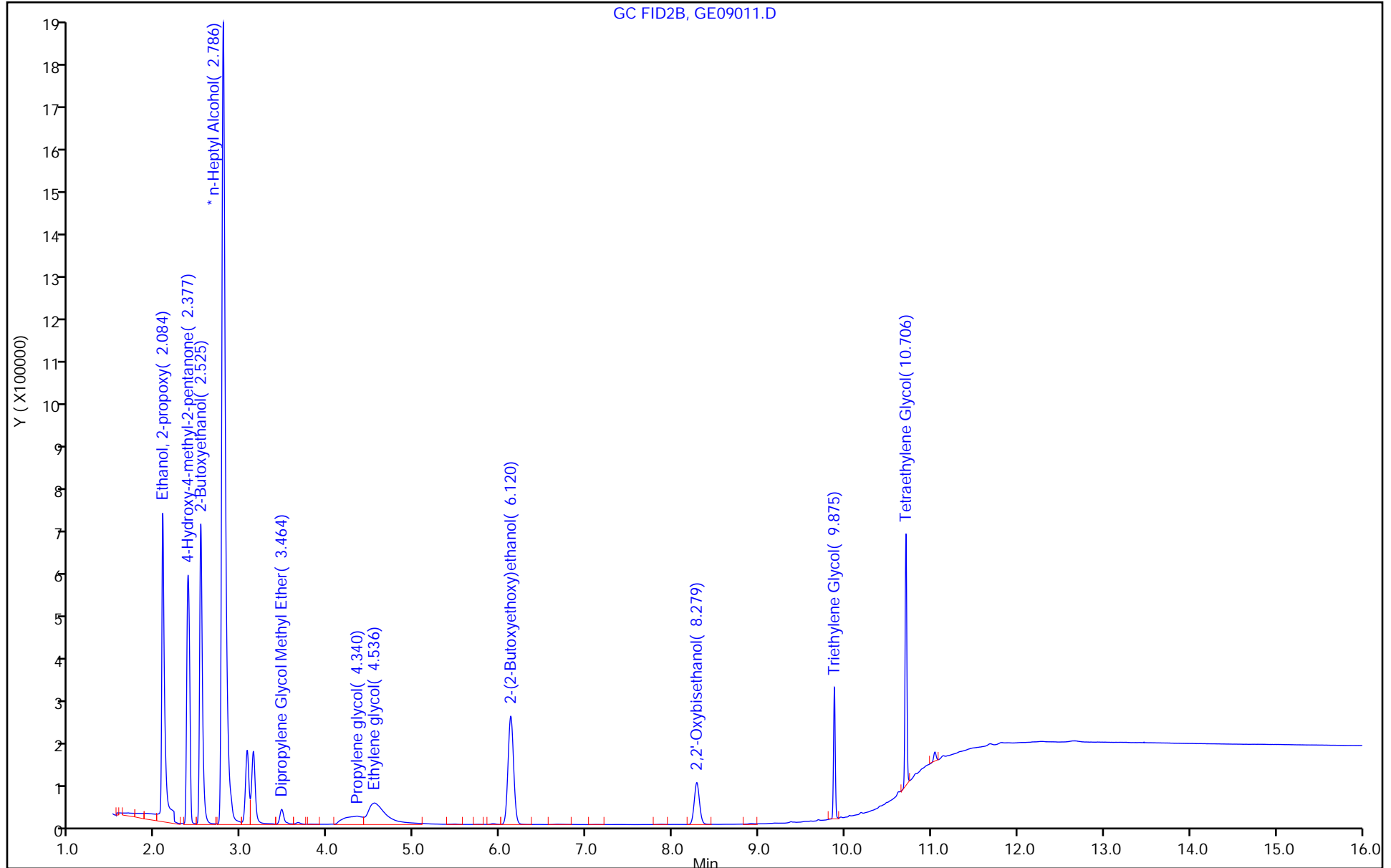
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



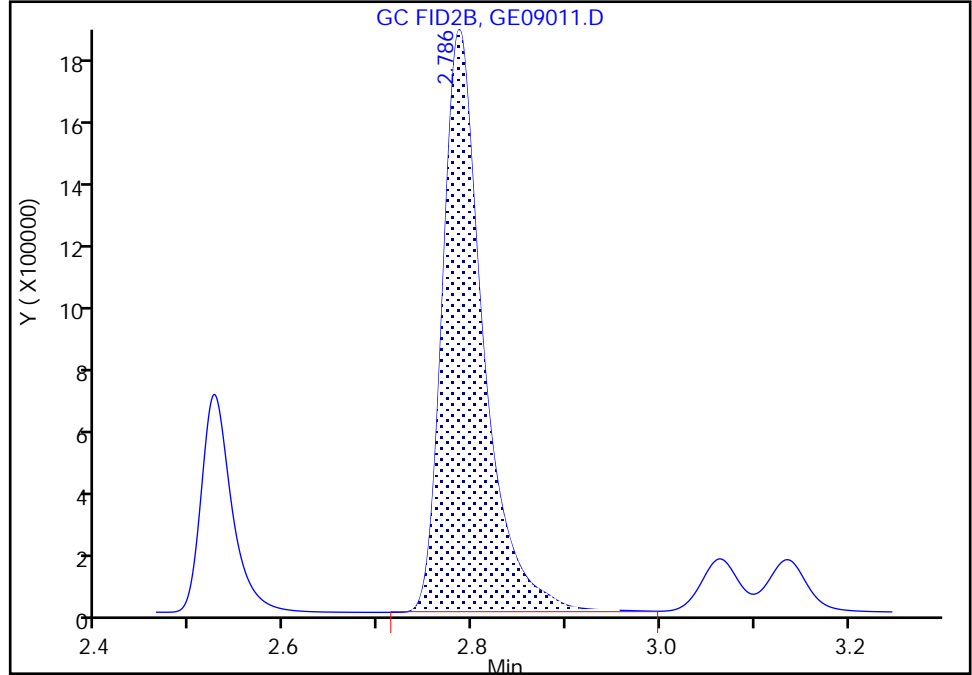
Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09011.D
Injection Date: 09-May-2023 20:22:54 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

* 4 n-Heptyl Alcohol, CAS: 111-70-6
Signal: 1

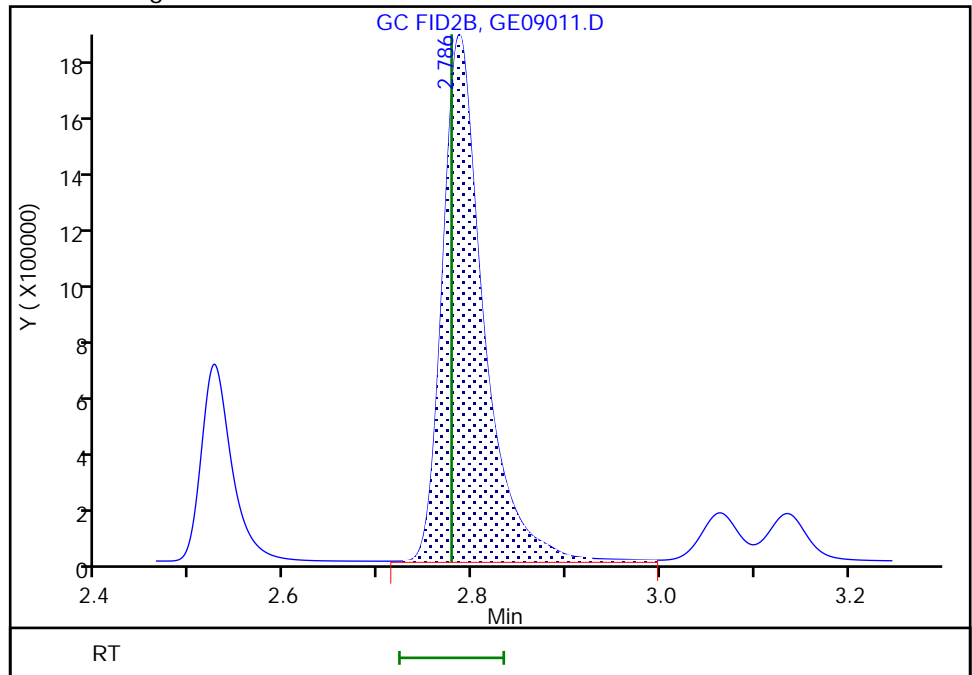
Processing Integration Results

RT: 2.79
Area: 5397471
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 2.79
Area: 5429781
Amount: 50.000000
Amount Units: ug/ml



Eurofins Savannah

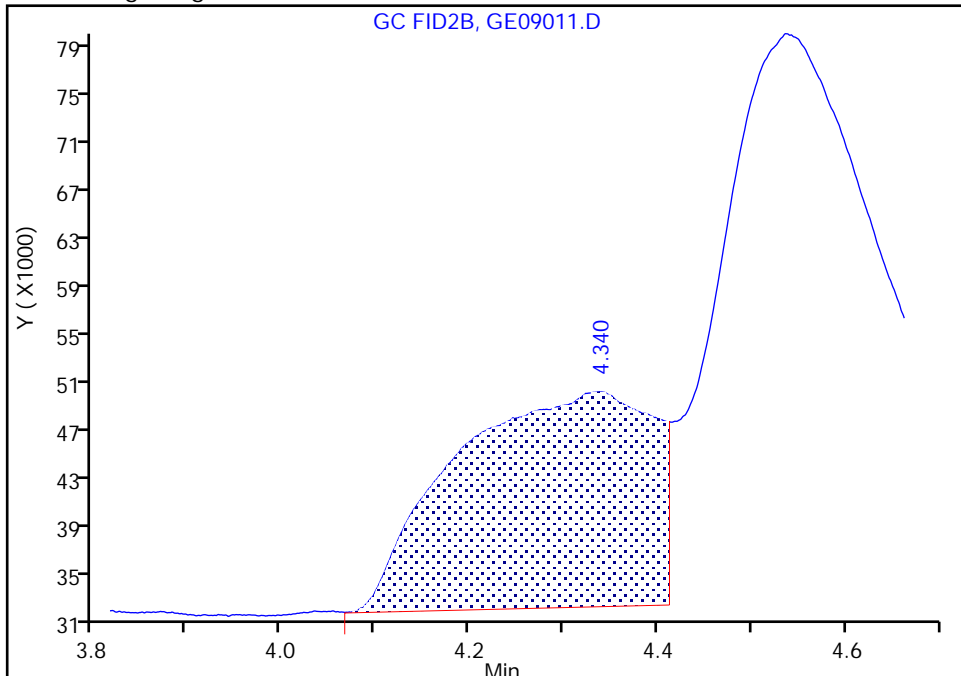
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09011.D
Injection Date: 09-May-2023 20:22:54 Instrument ID: CVGG2
Lims ID: icv glycol
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

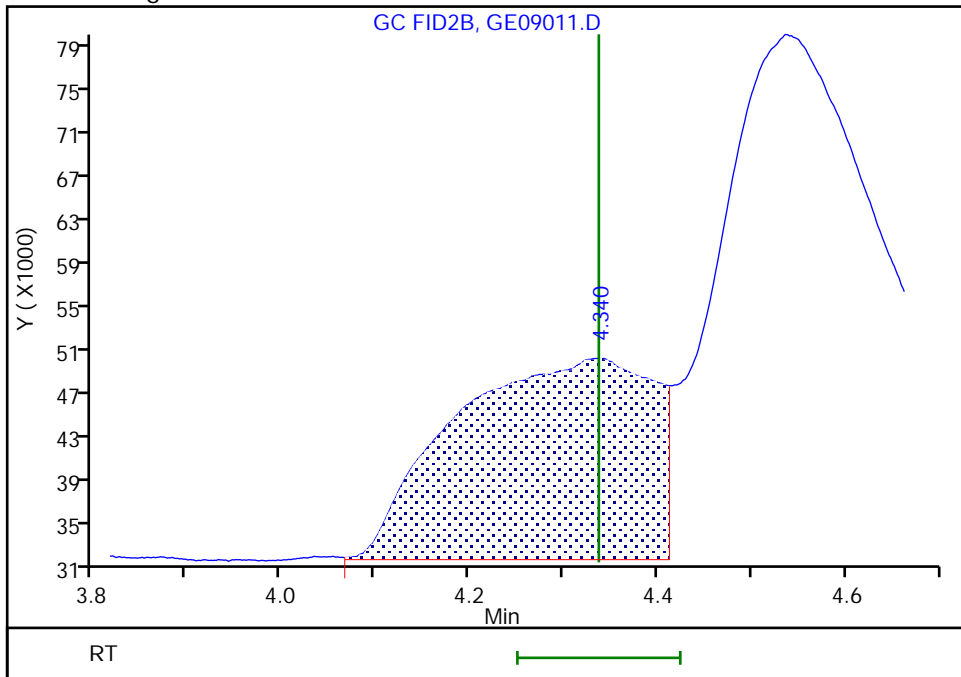
RT: 4.34
Area: 259650
Amount: 16.085473
Amount Units: ug/ml

Processing Integration Results



RT: 4.34
Area: 269184
Amount: 16.431411
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

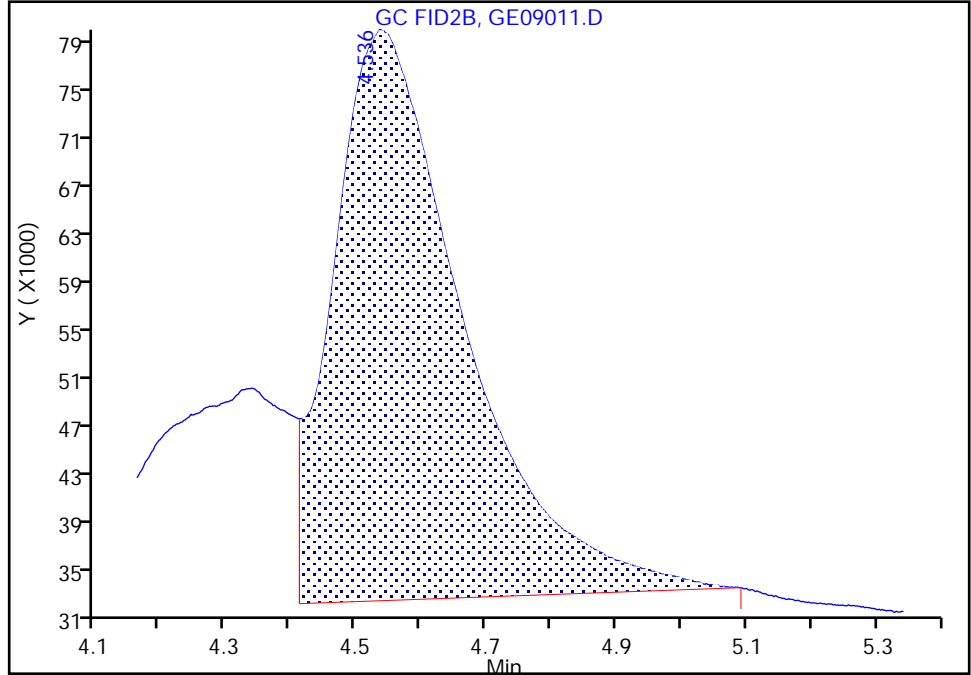
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09011.D
Injection Date: 09-May-2023 20:22:54 Instrument ID: CVGG2
Lims ID: icv glycol
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

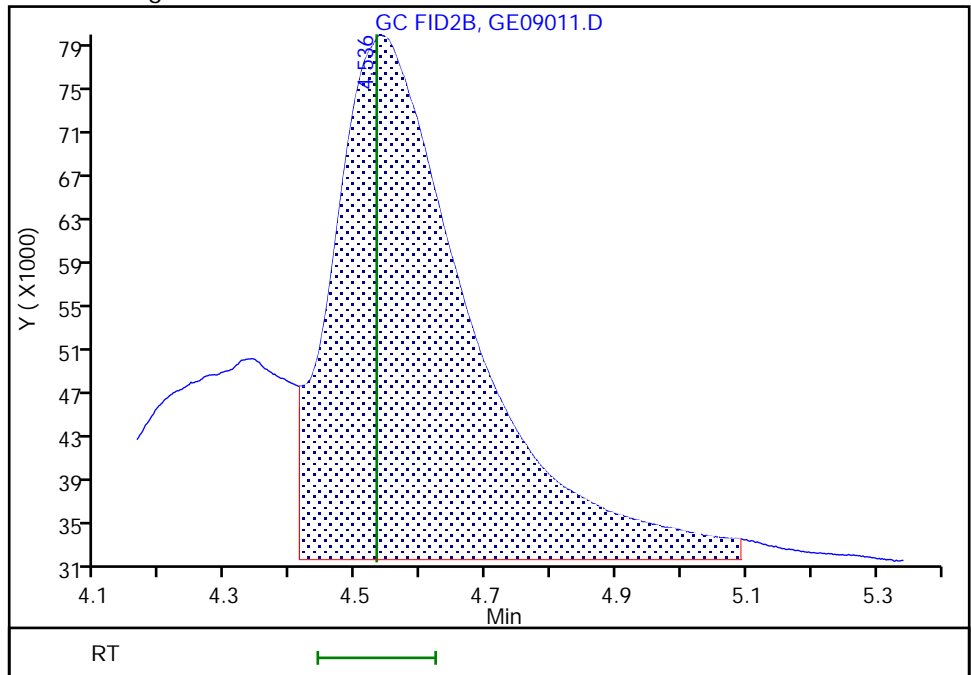
RT: 4.54
Area: 649643
Amount: 14.946585
Amount Units: ug/ml

Processing Integration Results



RT: 4.54
Area: 700377
Amount: 16.379151
Amount Units: ug/ml

Manual Integration Results



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Lab Sample ID: CCVIS 680-778288/4 Calibration Date: 05/11/2023 16:21
 Instrument ID: CVGG2 Calib Start Date: 05/09/2023 17:39
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 05/09/2023 19:59
 Lab File ID: GE11004.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin1		0.8181		23.1	20.0	15.4	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6211	0.6915		22.3	20.0	11.3	20.0
2-Butoxyethanol	Ave	0.6671	0.7566		22.7	20.0	13.4	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0524	0.0537		20.5	20.0	2.7	20.0
Propylene glycol	QuaF		0.1556		20.6	20.0	3.0	20.0
Ethylene glycol	Lin1		0.3913		20.0	20.0	-0.0	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5218	0.5426		20.8	20.0	4.0	20.0
2,2'-Oxybisethanol	QuaF		0.2404		21.1	20.0	5.5	20.0
Triethylene Glycol	Ave	0.2144	0.2212		20.6	20.0	3.2	20.0
Tetraethylene Glycol	Ave	0.1973	0.1786		36.2	40.0	-9.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Lab Sample ID: CCVIS 680-778288/4 Calibration Date: 05/11/2023 16:21
 Instrument ID: CVGG2 Calib Start Date: 05/09/2023 17:39
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 05/09/2023 19:59
 Lab File ID: GE11004.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.09	2.05	2.13
4-Hydroxy-4-methyl-2-pentanone	2.38	2.33	2.43
2-Butoxyethanol	2.53	2.48	2.58
Dipropylene Glycol Methyl Ether	3.46	3.39	3.53
Propylene glycol	4.34	4.25	4.43
Ethylene glycol	4.54	4.45	4.63
2-(2-Butoxyethoxy)ethanol	6.12	6.00	6.24
2,2'-Oxybisethanol	8.28	8.11	8.44
Triethylene Glycol	9.88	9.68	10.07
Tetraethylene Glycol	10.71	10.49	10.92

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11004.D
 Lims ID: ccvis g4
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 11-May-2023 16:21:57 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085926-004
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-May-2023 16:28:55 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1667

First Level Reviewer: SK9U

Date: 11-May-2023 17:09:45

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						M
2.087	2.087	0.000	1372509	20.0	23.1	M
2 4-Hydroxy-4-methyl-2-pentanone						
2.380	2.380	0.000	1160086	20.0	22.3	
3 2-Butoxyethanol						
2.528	2.528	0.000	1269301	20.0	22.7	
* 4 n-Heptyl Alcohol						M
2.790	2.790	0.000	4194198	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
3.463	3.463	0.000	90168	20.0	20.5	
6 Propylene glycol						M
4.340	4.340	0.000	261024	20.0	20.6	M
7 Ethylene glycol						M
4.539	4.539	0.000	656535	20.0	20.0	M
8 2-(2-Butoxyethoxy)ethanol						
6.117	6.117	0.000	910390	20.0	20.8	
9 2,2'-Oxybisethanol						
8.278	8.278	0.000	403335	20.0	21.1	
10 Triethylene Glycol						
9.876	9.876	0.000	371021	20.0	20.6	
11 Tetraethylene Glycol						
10.707	10.707	0.000	599181	40.0	36.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00051

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00116

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11004.D

Injection Date: 11-May-2023 16:21:57

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis g4

Worklist Smp#: 4

Client ID:

Injection Vol: 1.0 ul

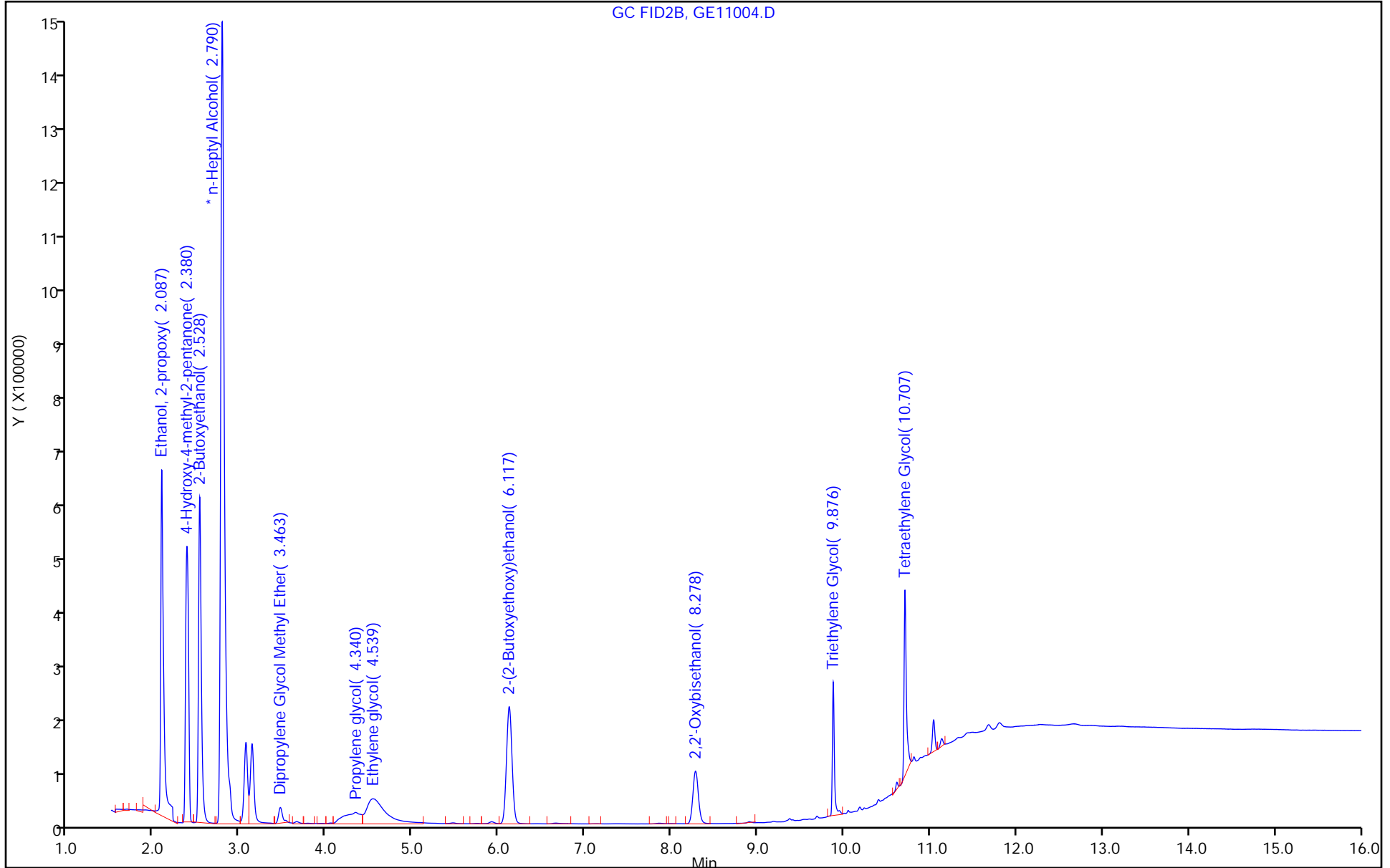
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

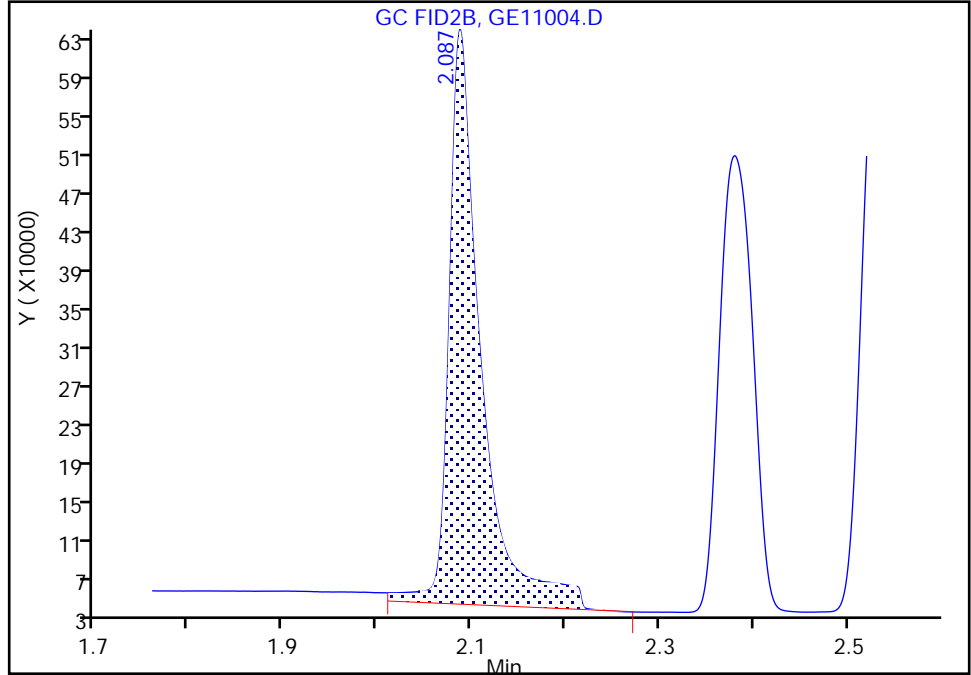
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11004.D
Injection Date: 11-May-2023 16:21:57 Instrument ID: CVGG2
Lims ID: ccvis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

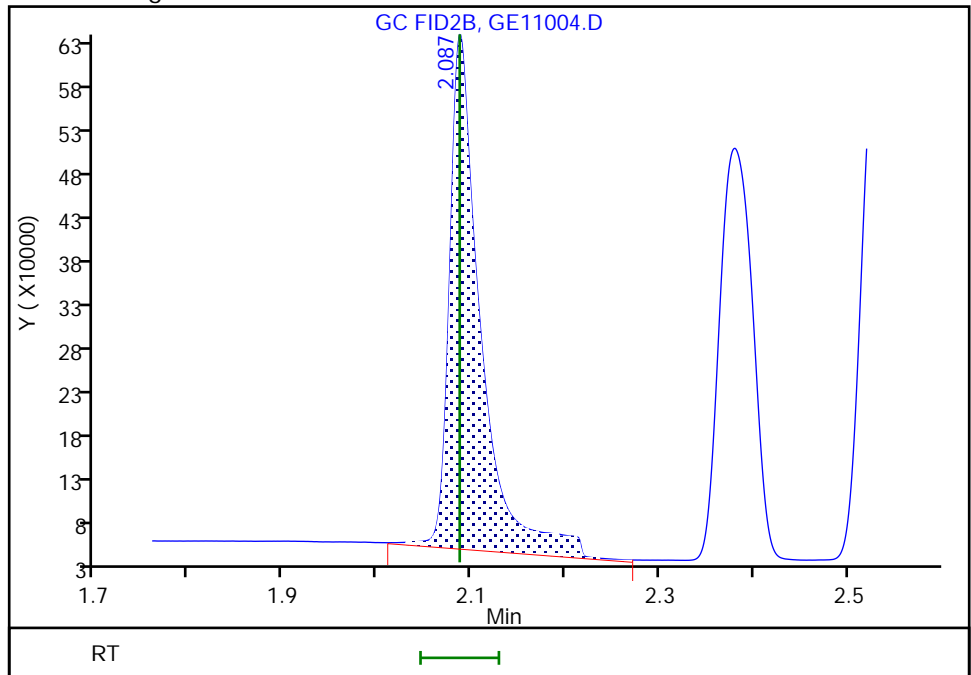
RT: 2.09
Area: 1409654
Amount: 24.027169
Amount Units: ug/ml

Processing Integration Results



RT: 2.09
Area: 1372509
Amount: 23.086238
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 11-May-2023 17:07:29
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

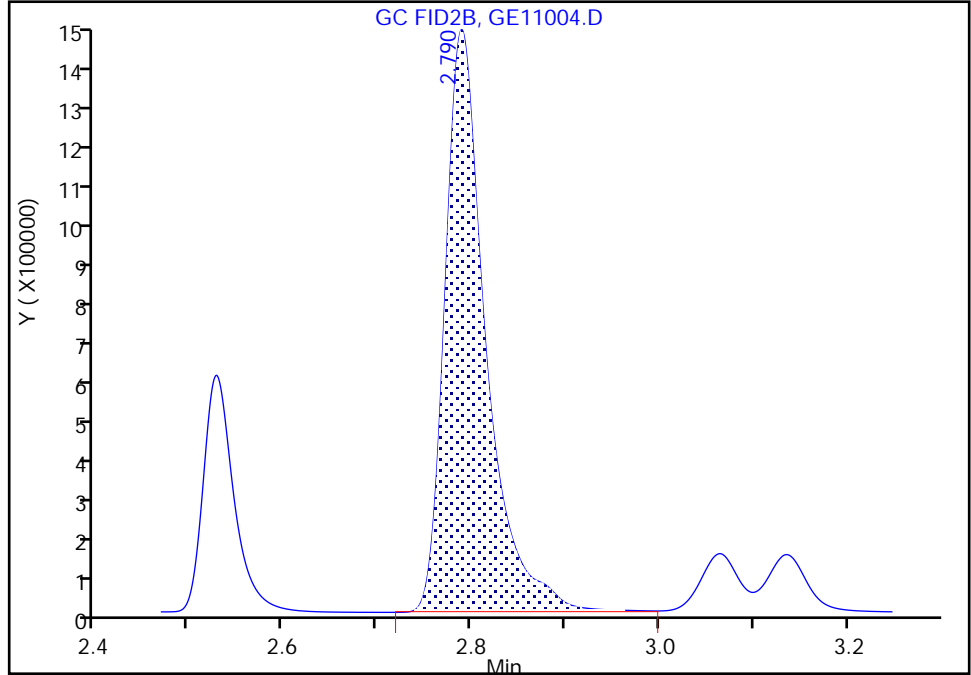
Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11004.D
Injection Date: 11-May-2023 16:21:57 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

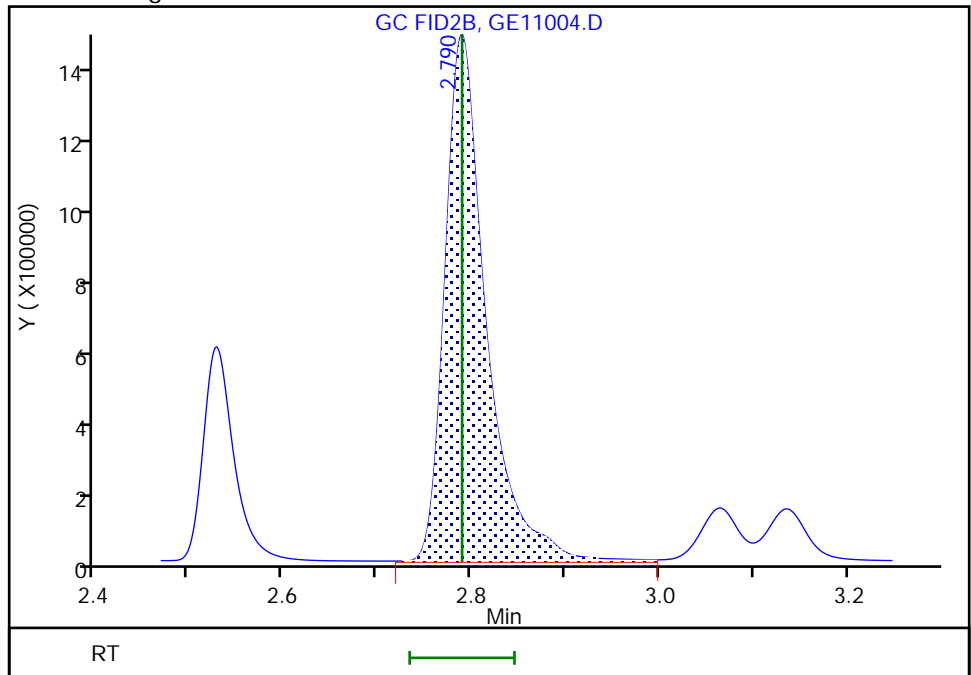
RT: 2.79
Area: 4161560
Amount: 50.000000
Amount Units: ug/ml

Processing Integration Results



RT: 2.79
Area: 4194198
Amount: 50.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 11-May-2023 17:07:58
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

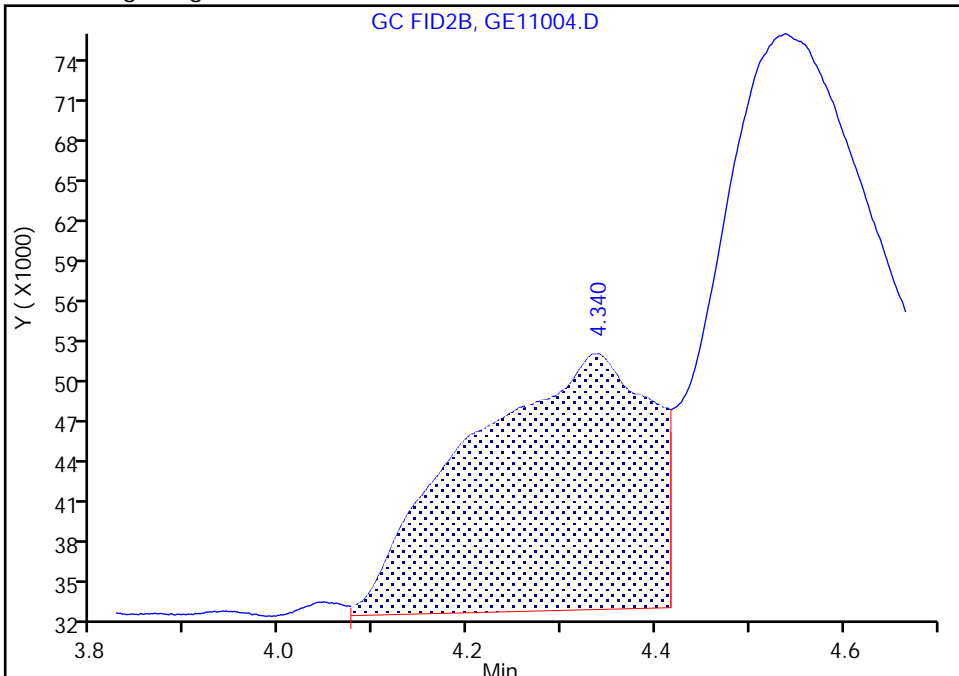
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11004.D
Injection Date: 11-May-2023 16:21:57 Instrument ID: CVGG2
Lims ID: ccvis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

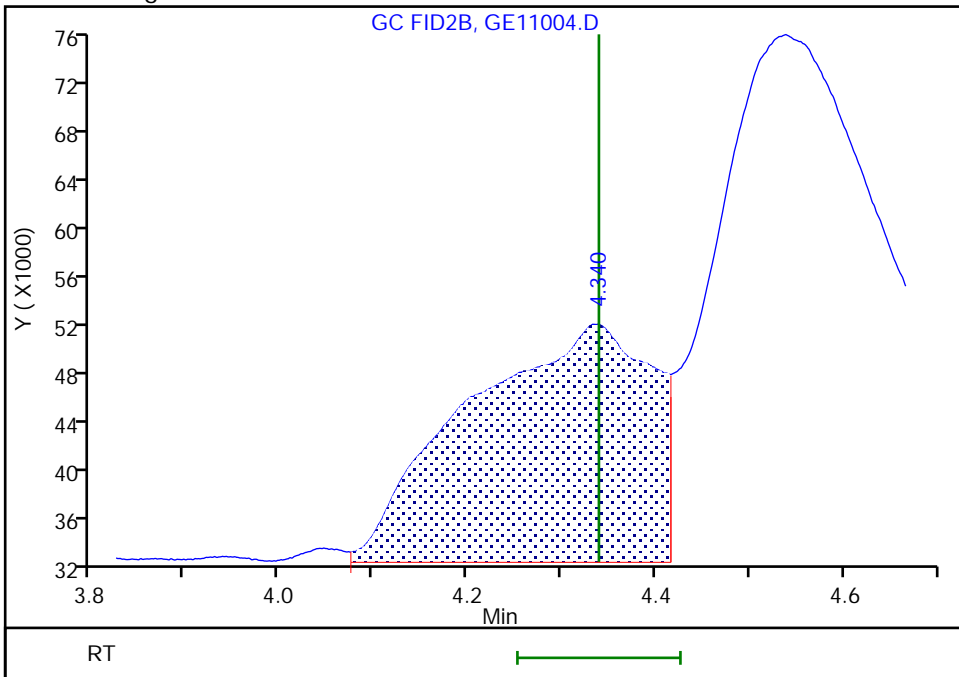
RT: 4.34
Area: 254377
Amount: 20.086178
Amount Units: ug/ml

Processing Integration Results



RT: 4.34
Area: 261024
Amount: 20.608737
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 11-May-2023 17:08:16
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing
Page 122 of 164

Eurofins Savannah

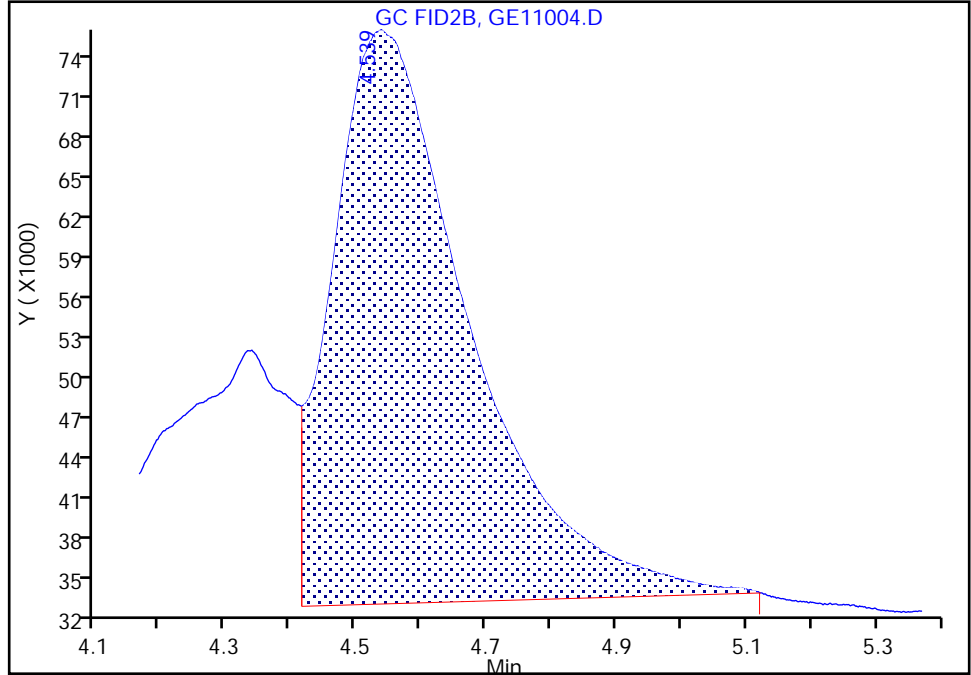
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11004.D
Injection Date: 11-May-2023 16:21:57 Instrument ID: CVGG2
Lims ID: ccvis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

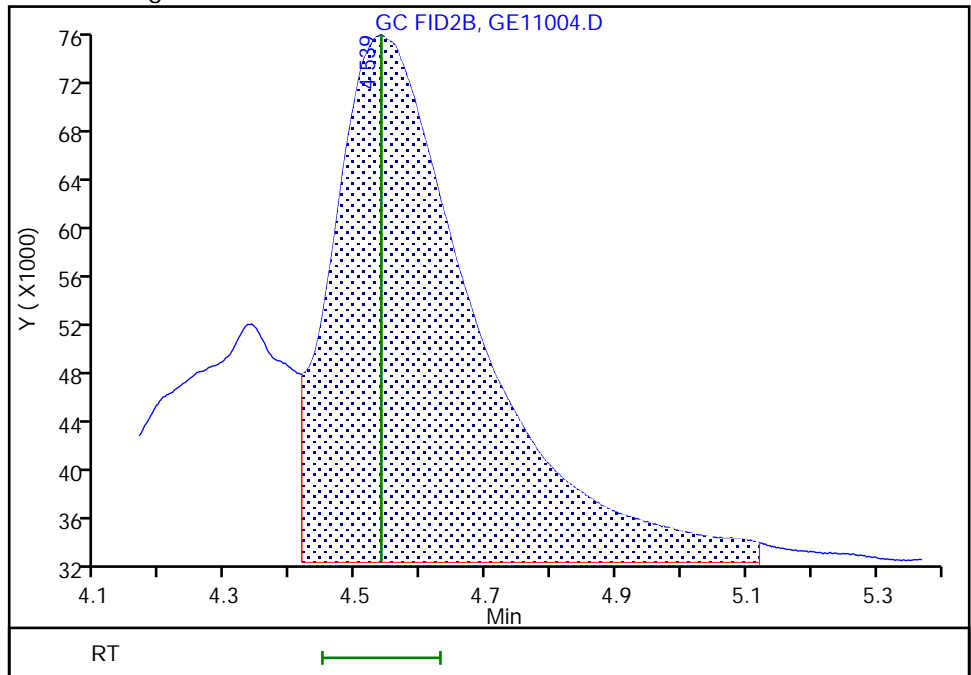
RT: 4.54
Area: 613545
Amount: 18.641805
Amount Units: ug/ml

Processing Integration Results



RT: 4.54
Area: 656535
Amount: 19.982678
Amount Units: ug/ml

Manual Integration Results



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Lab Sample ID: CCV 680-778288/23 Calibration Date: 05/11/2023 23:43
 Instrument ID: CVGG2 Calib Start Date: 05/09/2023 17:39
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 05/09/2023 19:59
 Lab File ID: GE11023.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin1		0.7778		21.8	20.0	8.8	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6211	0.6726		21.7	20.0	8.3	20.0
2-Butoxyethanol	Ave	0.6671	0.6668		20.0	20.0	-0.0	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0524	0.0689		26.3	20.0	31.6*	20.0
Propylene glycol	QuaF		0.2083		27.5	20.0	37.7*	20.0
Ethylene glycol	Lin1		0.2431		12.2	20.0	-38.9*	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5218	0.6351		24.3	20.0	21.7*	20.0
2,2'-Oxybisethanol	QuaF		0.0562		4.96	20.0	-75.2*	20.0
Triethylene Glycol	Ave	0.2144	0.0261		2.43	20.0	-87.8*	20.0
Tetraethylene Glycol	Ave	0.1973	0.0055		10.0	40.0	-97.2*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Lab Sample ID: CCV 680-778288/23 Calibration Date: 05/11/2023 23:43
 Instrument ID: CVGG2 Calib Start Date: 05/09/2023 17:39
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 05/09/2023 19:59
 Lab File ID: GE11023.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.08	2.04	2.12
4-Hydroxy-4-methyl-2-pentanone	2.37	2.32	2.42
2-Butoxyethanol	2.53	2.48	2.58
Dipropylene Glycol Methyl Ether	3.47	3.40	3.54
Propylene glycol	4.34	4.26	4.43
Ethylene glycol	4.53	4.44	4.62
2-(2-Butoxyethoxy)ethanol	6.12	6.00	6.24
2,2'-Oxybisethanol	8.29	8.12	8.45
Triethylene Glycol	9.88	9.68	10.07
Tetraethylene Glycol	10.71	10.49	10.92

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11023.D
 Lims ID: ccv g4
 Client ID:
 Sample Type: CCV
 Inject. Date: 11-May-2023 23:43:59 ALS Bottle#: 0 Worklist Smp#: 23
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085926-023
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-May-2023 16:29:10 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1667

First Level Reviewer: SK9U Date: 12-May-2023 10:50:15

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.082	2.082	0.000	860644	20.0	21.8	
2 4-Hydroxy-4-methyl-2-pentanone						
2.372	2.372	0.000	744298	20.0	21.7	
3 2-Butoxyethanol						
2.525	2.525	0.000	737868	20.0	20.0	
* 4 n-Heptyl Alcohol						
2.781	2.781	0.000	2766309	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
3.466	3.466	0.000	76246	20.0	26.3	
6 Propylene glycol						
4.342	4.342	0.000	230438	20.0	27.5	M
7 Ethylene glycol						
4.531	4.531	0.000	268987	20.0	12.2	M
8 2-(2-Butoxyethoxy)ethanol						
6.120	6.120	0.000	702800	20.0	24.3	M
9 2,2'-Oxybisethanol						
8.285	8.285	0.000	62232	20.0	4.96	
10 Triethylene Glycol						
9.877	9.877	0.000	28845	20.0	2.43	M
11 Tetraethylene Glycol						
10.708	10.708	0.000	12163	40.0	1.11	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00051

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00116

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11023.D

Injection Date: 11-May-2023 23:43:59

Instrument ID: CVGG2

Operator ID:

Lims ID: ccv g4

Worklist Smp#: 23

Client ID:

Injection Vol: 1.0 ul

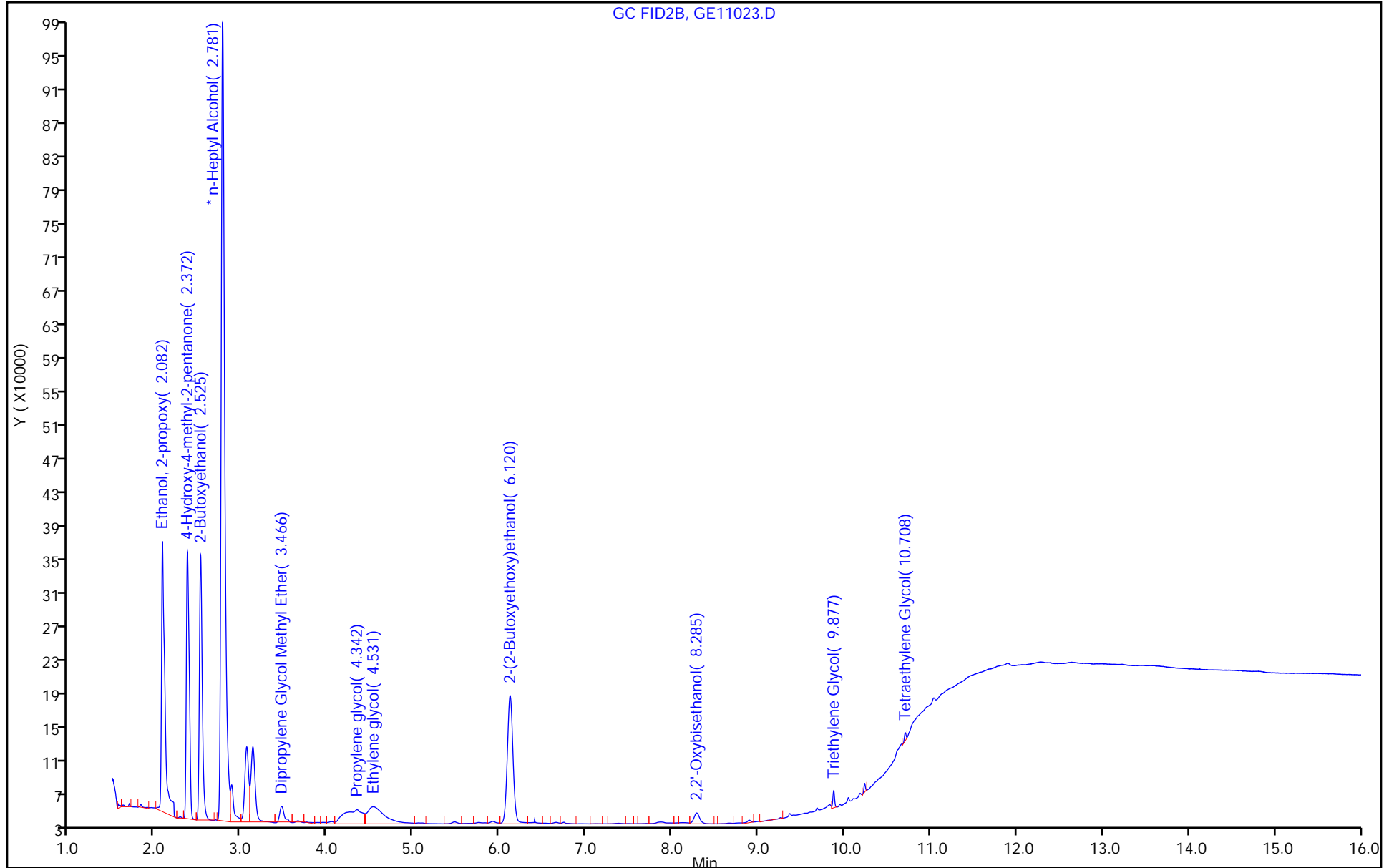
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

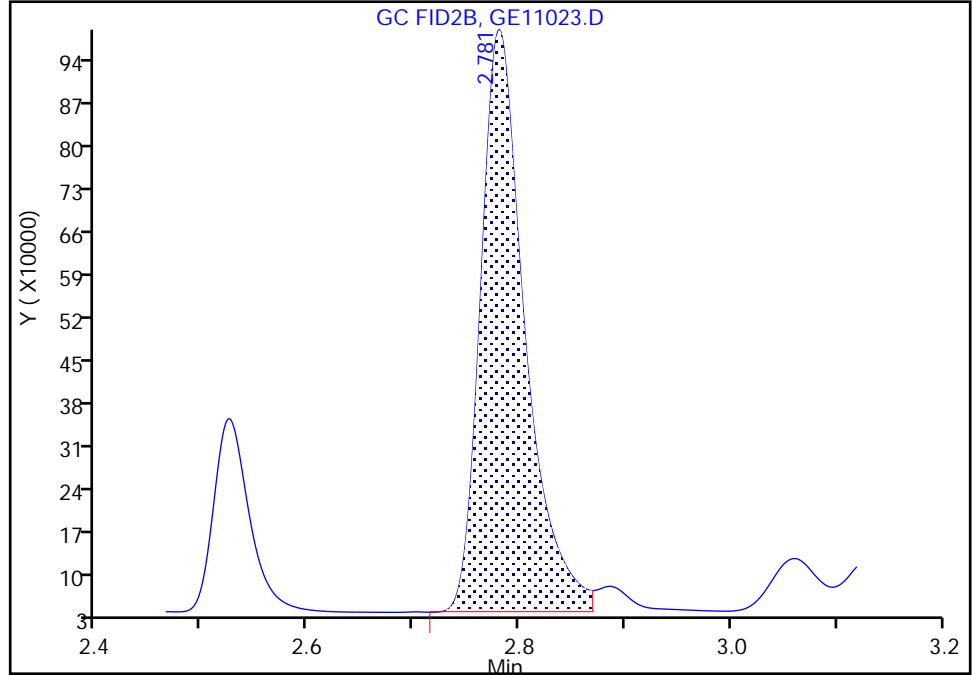
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11023.D
Injection Date: 11-May-2023 23:43:59 Instrument ID: CVGG2
Lims ID: ccv g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

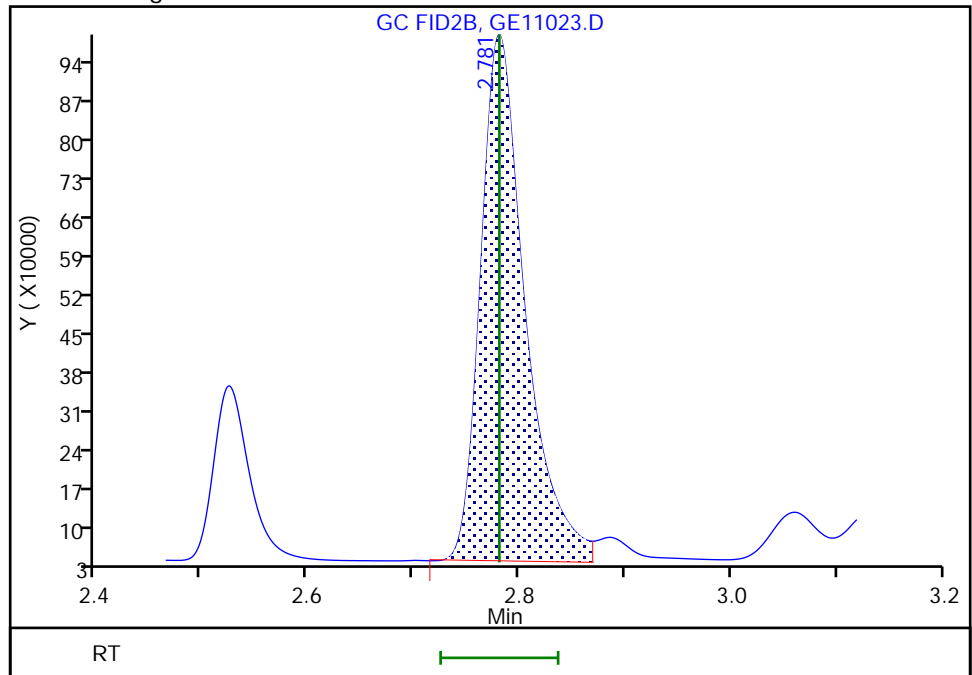
RT: 2.78
Area: 2756615
Amount: 50.000000
Amount Units: ug/ml

Processing Integration Results



RT: 2.78
Area: 2766309
Amount: 50.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 12-May-2023 10:49:36
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

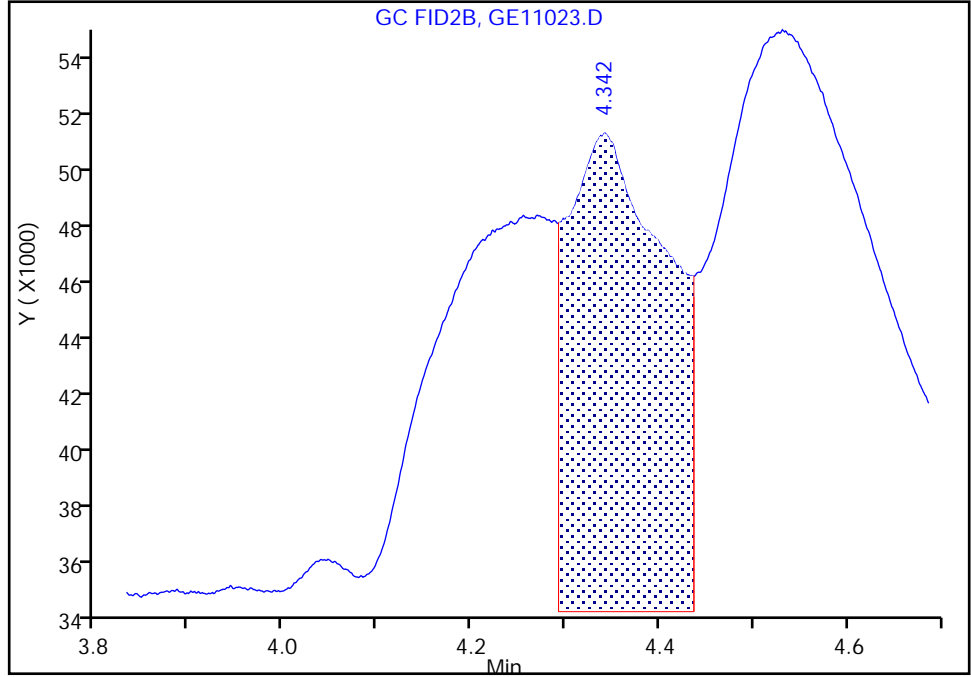
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11023.D
Injection Date: 11-May-2023 23:43:59 Instrument ID: CVGG2
Lims ID: ccv g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

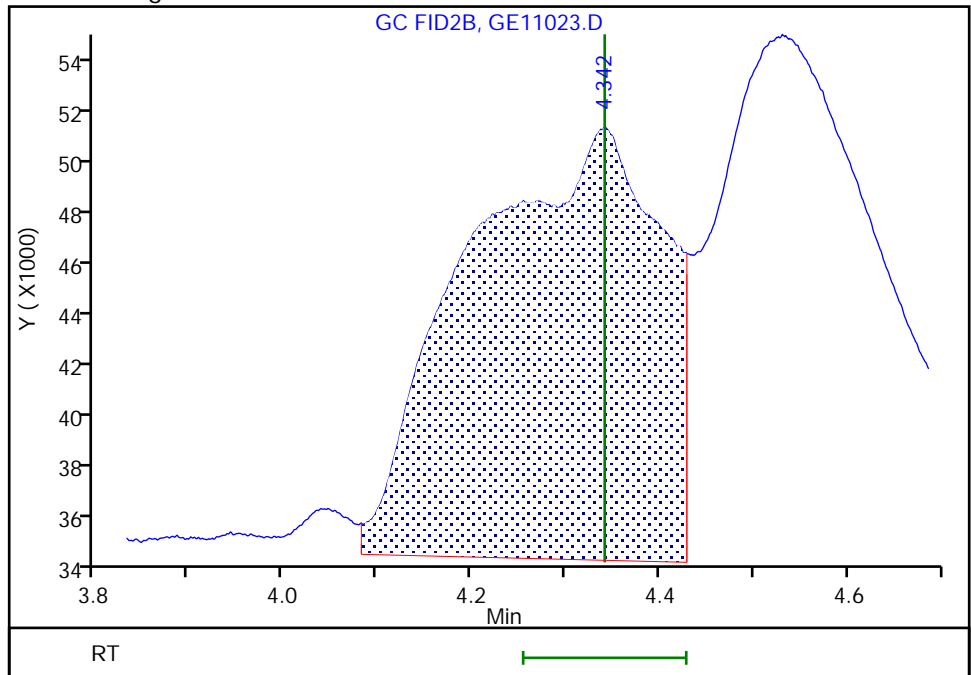
RT: 4.34
Area: 116222
Amount: 13.981312
Amount Units: ug/ml

Processing Integration Results



RT: 4.34
Area: 230438
Amount: 27.544175
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 12-May-2023 10:48:53
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
Page 130 of 164

Eurofins Savannah

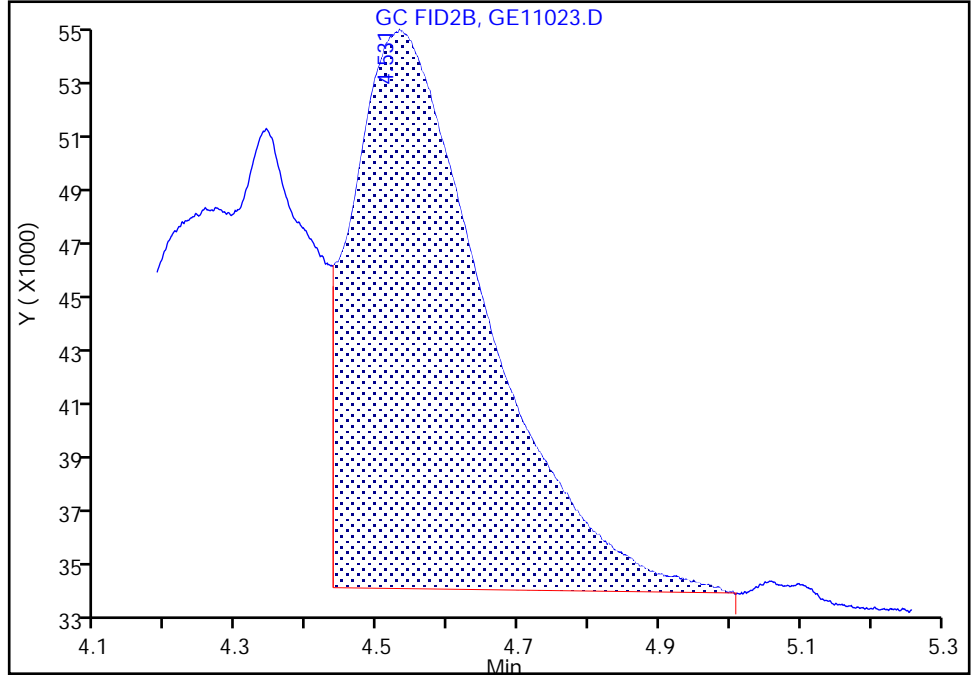
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11023.D
Injection Date: 11-May-2023 23:43:59 Instrument ID: CVGG2
Lims ID: ccv g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

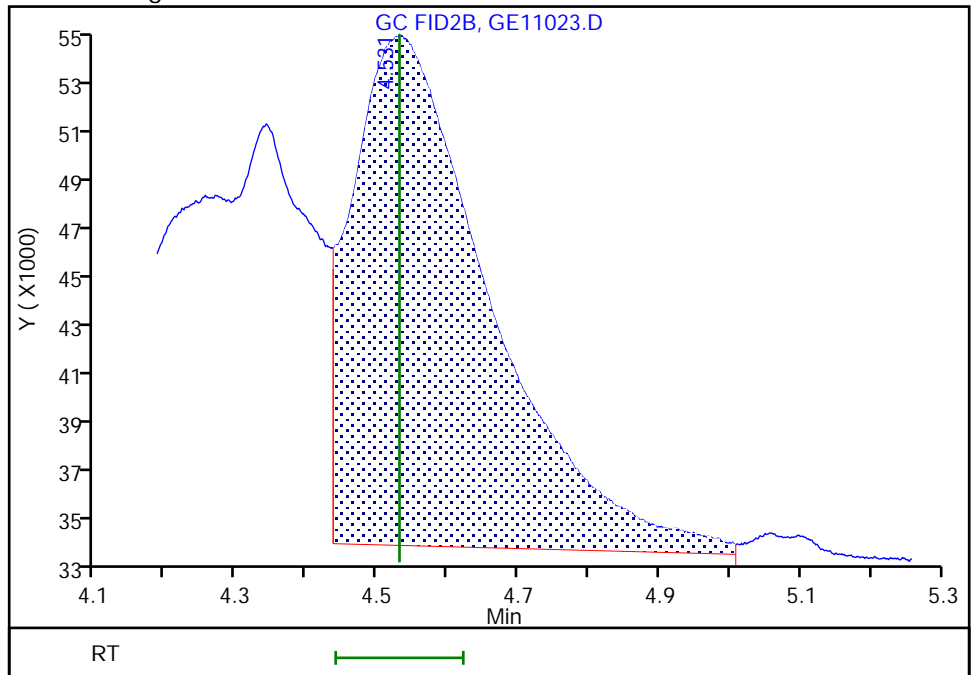
RT: 4.53
Area: 258389
Amount: 11.767290
Amount Units: ug/ml

Processing Integration Results



RT: 4.53
Area: 268987
Amount: 12.225498
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

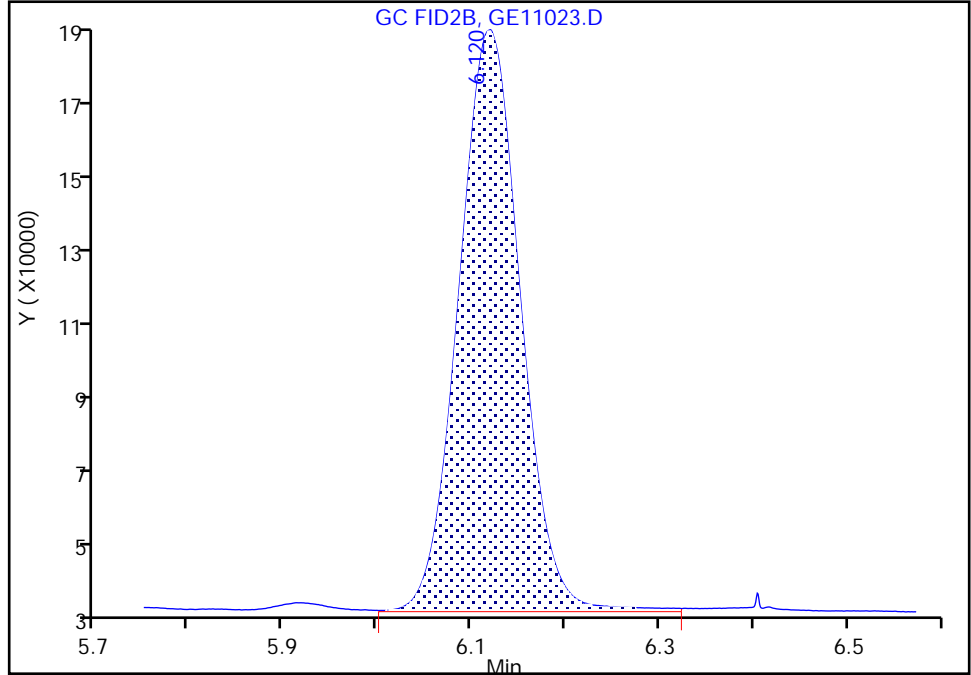
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11023.D
Injection Date: 11-May-2023 23:43:59 Instrument ID: CVGG2
Lims ID: ccv g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

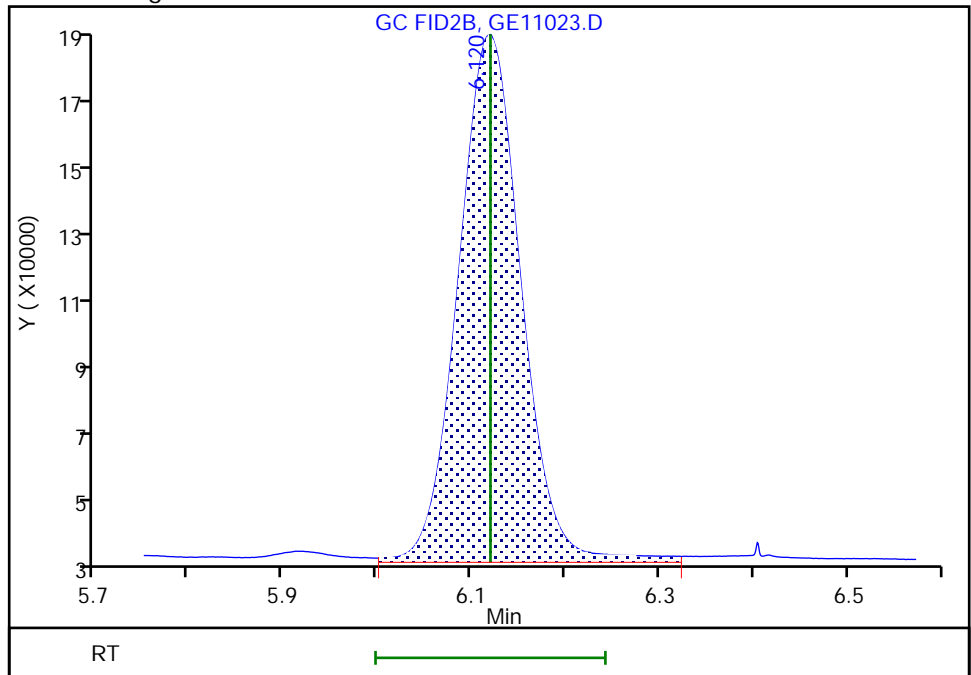
RT: 6.12
Area: 693647
Amount: 24.026999
Amount Units: ug/ml

Processing Integration Results



RT: 6.12
Area: 702800
Amount: 24.344047
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 12-May-2023 10:56:04
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Euofins Savannah

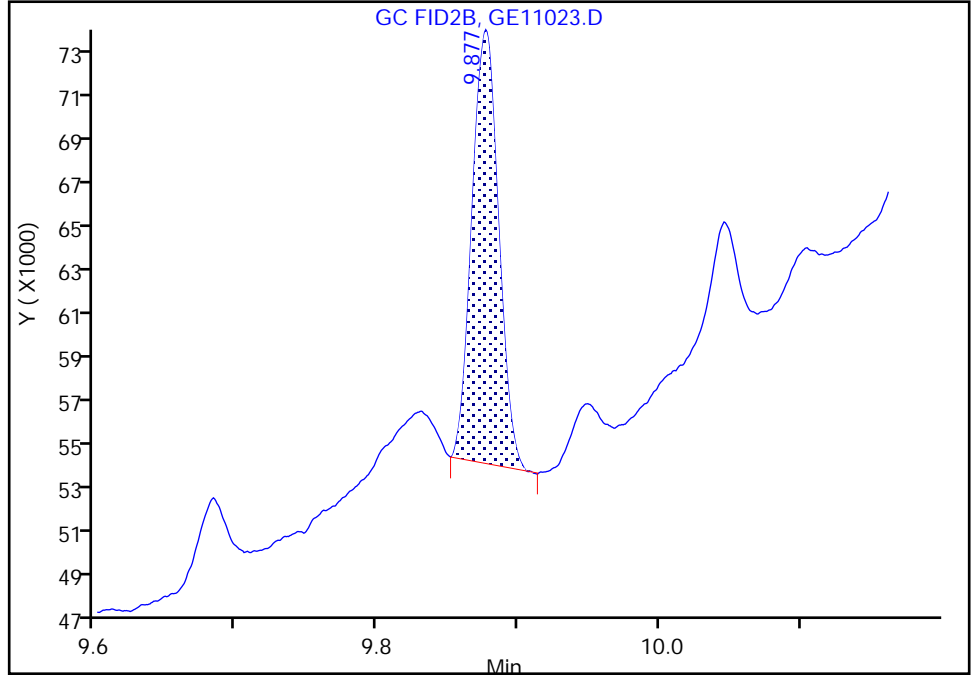
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11023.D
Injection Date: 11-May-2023 23:43:59 Instrument ID: CVGG2
Lims ID: ccv g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

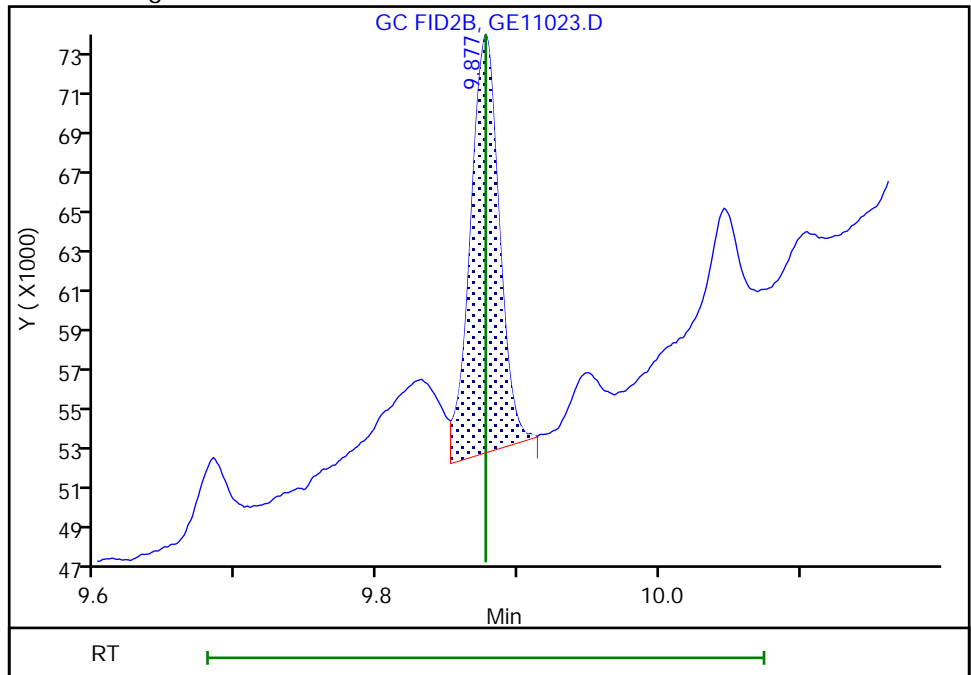
RT: 9.88
Area: 25092
Amount: 2.115696
Amount Units: ug/ml

Processing Integration Results



RT: 9.88
Area: 28845
Amount: 2.432140
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 12-May-2023 10:49:56
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Lab Sample ID: CCV 680-778288/34 Calibration Date: 05/12/2023 03:59
 Instrument ID: CVGG2 Calib Start Date: 05/09/2023 17:39
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 05/09/2023 19:59
 Lab File ID: GE11034.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin1		0.8418		23.9	20.0	19.3	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6211	0.7393		23.8	20.0	19.0	20.0
2-Butoxyethanol	Ave	0.6671	0.7708		23.1	20.0	15.5	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0524	0.0742		28.4	20.0	41.8*	20.0
Propylene glycol	QuaF		0.2109		27.9	20.0	39.5*	20.0
Ethylene glycol	Lin1		0.2923		14.8	20.0	-26.0*	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5218	0.7076		27.1	20.0	35.6*	20.0
2,2'-Oxybisethanol	QuaF		0.0411		3.63	20.0	-81.9*	20.0
Triethylene Glycol	Ave	0.2144	0.0119		2.50	20.0	-94.5*	20.0
Tetraethylene Glycol	Ave	0.1973			10.0	40.0		

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Lab Sample ID: CCV 680-778288/34 Calibration Date: 05/12/2023 03:59
 Instrument ID: CVGG2 Calib Start Date: 05/09/2023 17:39
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 05/09/2023 19:59
 Lab File ID: GE11034.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.09	2.04	2.13
4-Hydroxy-4-methyl-2-pentanone	2.38	2.33	2.43
2-Butoxyethanol	2.53	2.48	2.58
Dipropylene Glycol Methyl Ether	3.47	3.40	3.54
Propylene glycol	4.33	4.25	4.42
Ethylene glycol	4.52	4.43	4.61
2-(2-Butoxyethoxy)ethanol	6.12	5.99	6.24
2,2'-Oxybisethanol	8.28	8.12	8.45
Triethylene Glycol	9.87	9.68	10.07
Tetraethylene Glycol			

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11034.D
 Lims ID: ccv g4
 Client ID:
 Sample Type: CCV
 Inject. Date: 12-May-2023 03:59:40 ALS Bottle#: 0 Worklist Smp#: 34
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085926-034
 Operator ID: Instrument ID: CVGG2
 Sublist: chrom-8015_GLY_VGG*sub2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-May-2023 16:29:08 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1667

First Level Reviewer: SK9U Date: 12-May-2023 10:48:02

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						M
2.086	2.086	0.000	1680123	20.0	23.9	M
2 4-Hydroxy-4-methyl-2-pentanone						
2.379	2.379	0.000	1475583	20.0	23.8	
3 2-Butoxyethanol						
2.526	2.526	0.000	1538484	20.0	23.1	
* 4 n-Heptyl Alcohol						M
2.776	2.776	0.000	4989677	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
3.465	3.465	0.000	148165	20.0	28.4	
6 Propylene glycol						M
4.332	4.332	0.000	421007	20.0	27.9	M
7 Ethylene glycol						M
4.519	4.519	0.000	583441	20.0	14.8	M
8 2-(2-Butoxyethoxy)ethanol						
6.116	6.116	0.000	1412365	20.0	27.1	
9 2,2'-Oxybisethanol						
8.280	8.280	0.000	82130	20.0	3.63	
10 Triethylene Glycol						
9.874	9.874	0.000	23709	20.0	1.11	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00051

Amount Added: 10.00

Units: uL

SG_GLY_ISTD_00116

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11034.D

Injection Date: 12-May-2023 03:59:40

Instrument ID: CVGG2

Operator ID:

Lims ID: ccv g4

Worklist Smp#: 34

Client ID:

Injection Vol: 1.0 ul

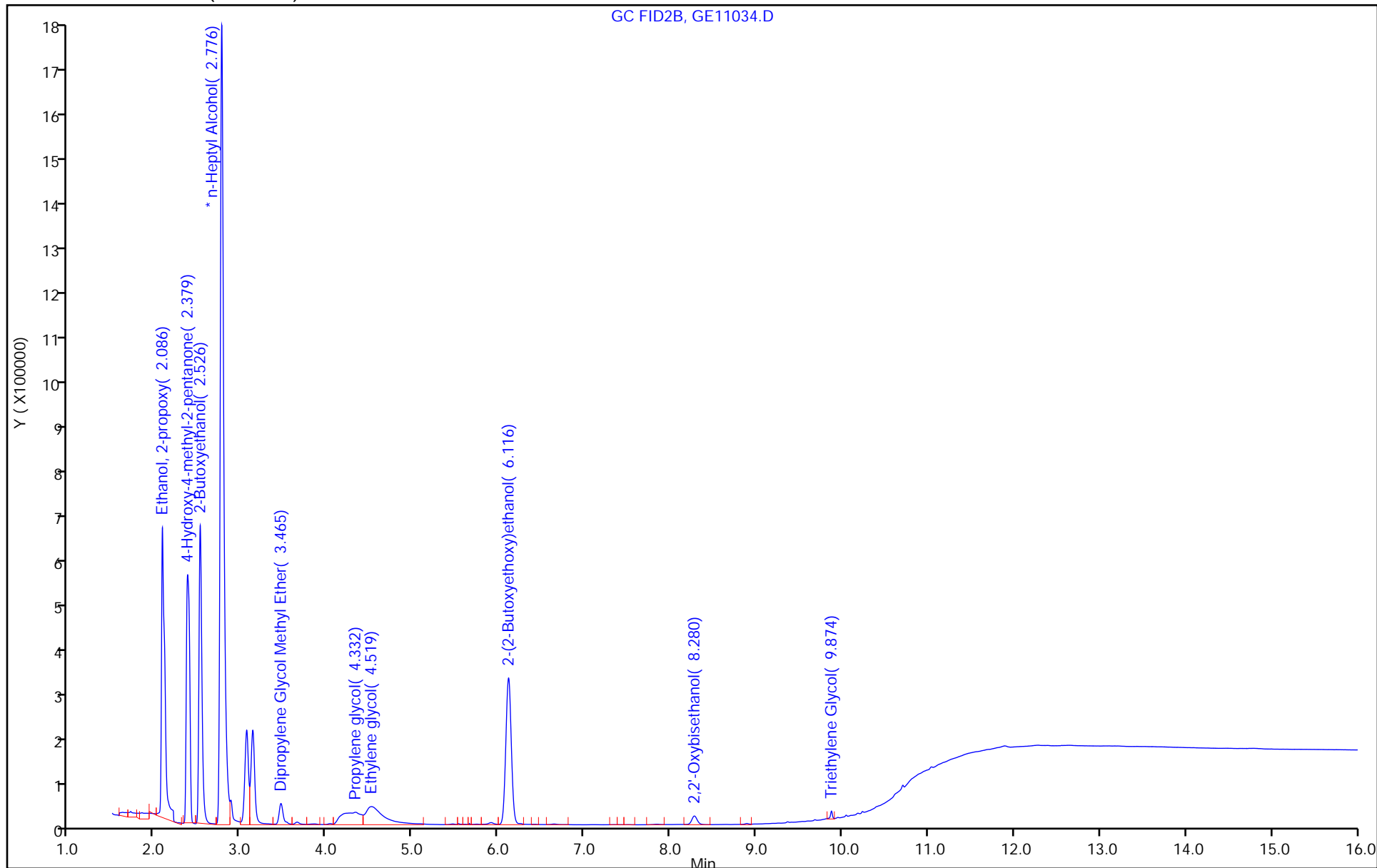
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

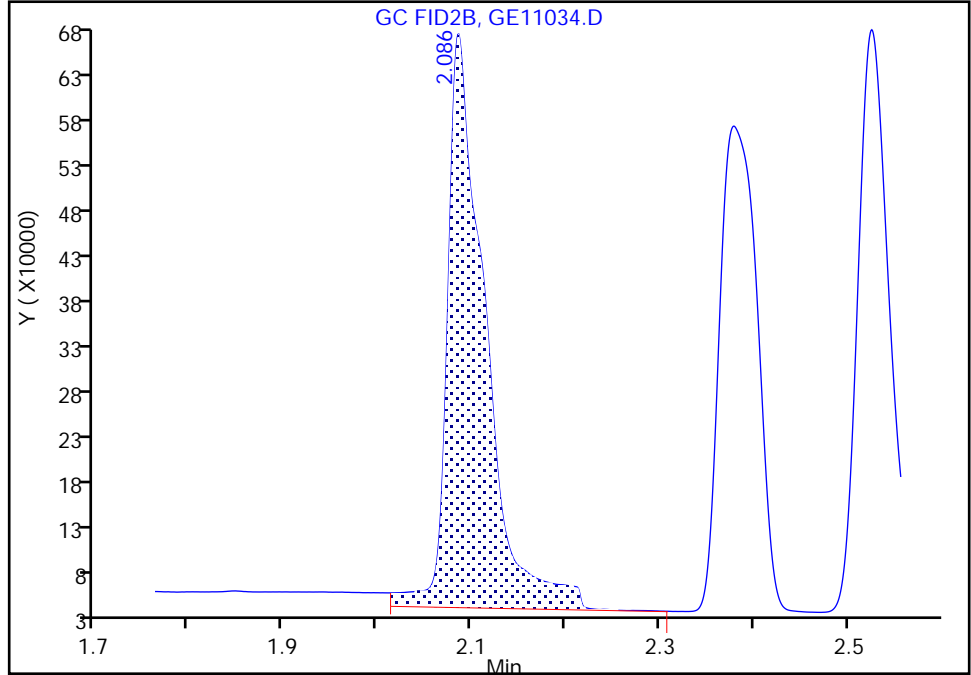
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11034.D
Injection Date: 12-May-2023 03:59:40 Instrument ID: CVGG2
Lims ID: ccv g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

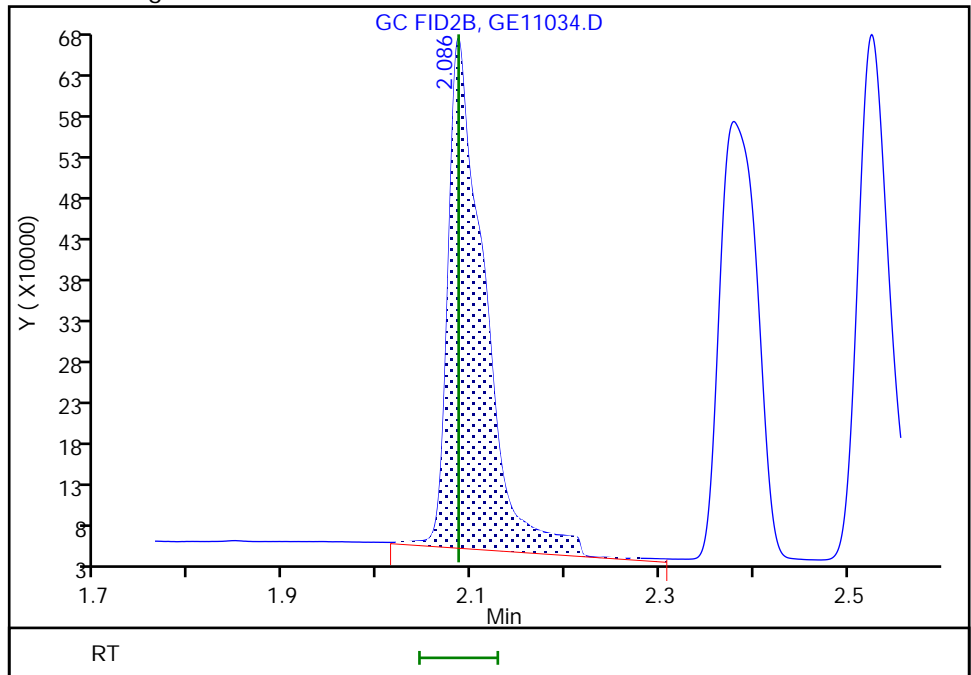
RT: 2.09
Area: 1758728
Amount: 25.152240
Amount Units: ug/ml

Processing Integration Results



RT: 2.09
Area: 1680123
Amount: 23.862409
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

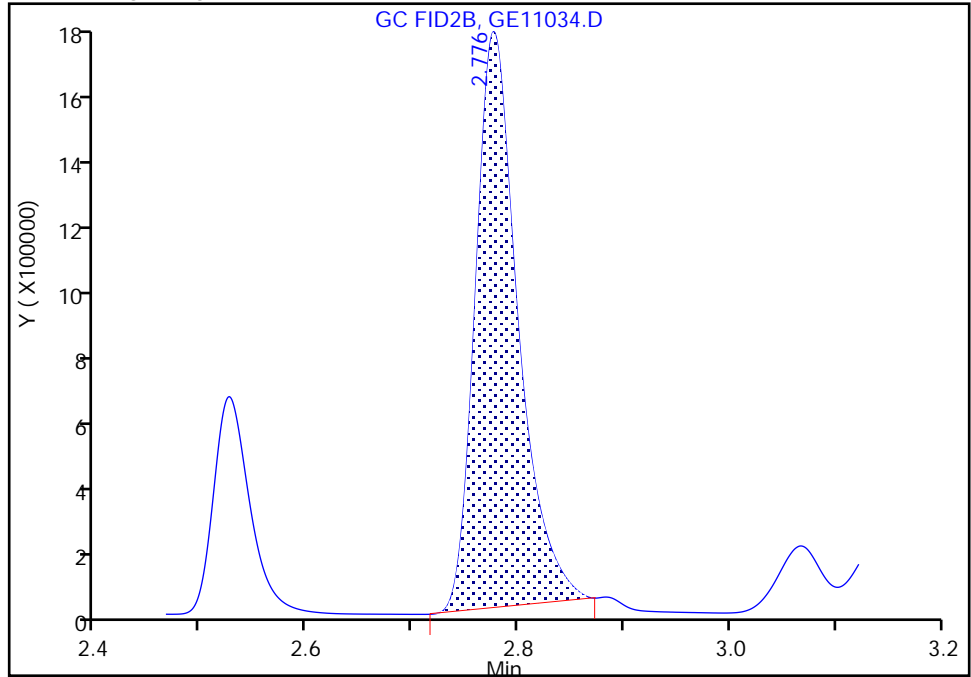
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11034.D
Injection Date: 12-May-2023 03:59:40 Instrument ID: CVGG2
Lims ID: ccv g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

Signal: 1

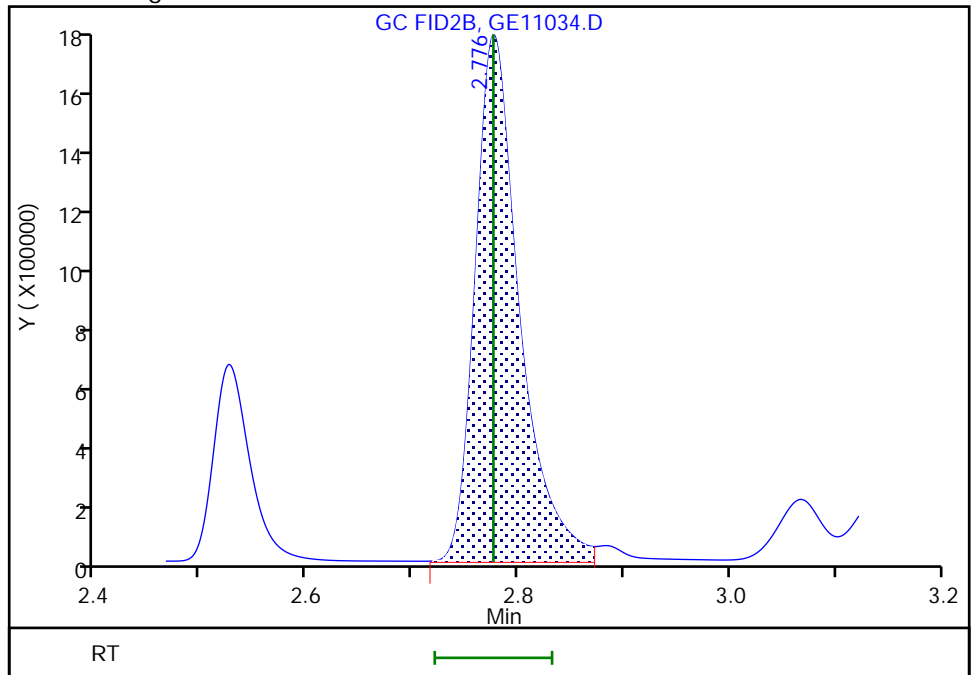
Processing Integration Results

RT: 2.78
Area: 4766493
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 2.78
Area: 4989677
Amount: 50.000000
Amount Units: ug/ml



Reviewer: SK9U, 12-May-2023 10:46:14

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11034.D
Injection Date: 12-May-2023 03:59:40 Instrument ID: CVGG2
Lims ID: ccv g4
Client ID:
Operator ID:
Injection Vol: 1.0 ul
Method: 8015_GLY_VGG
Column: J&W DB WAX (0.45 mm)

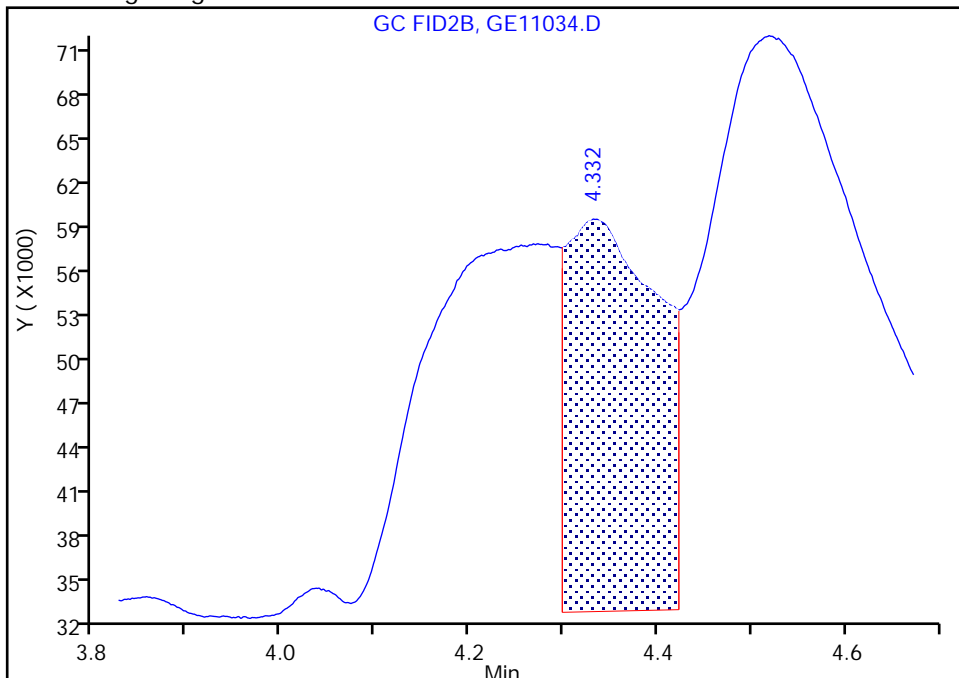
ALS Bottle#: 0 Worklist Smp#: 34
Dil. Factor: 1.0000
Limit Group: 8015C_DAI
Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

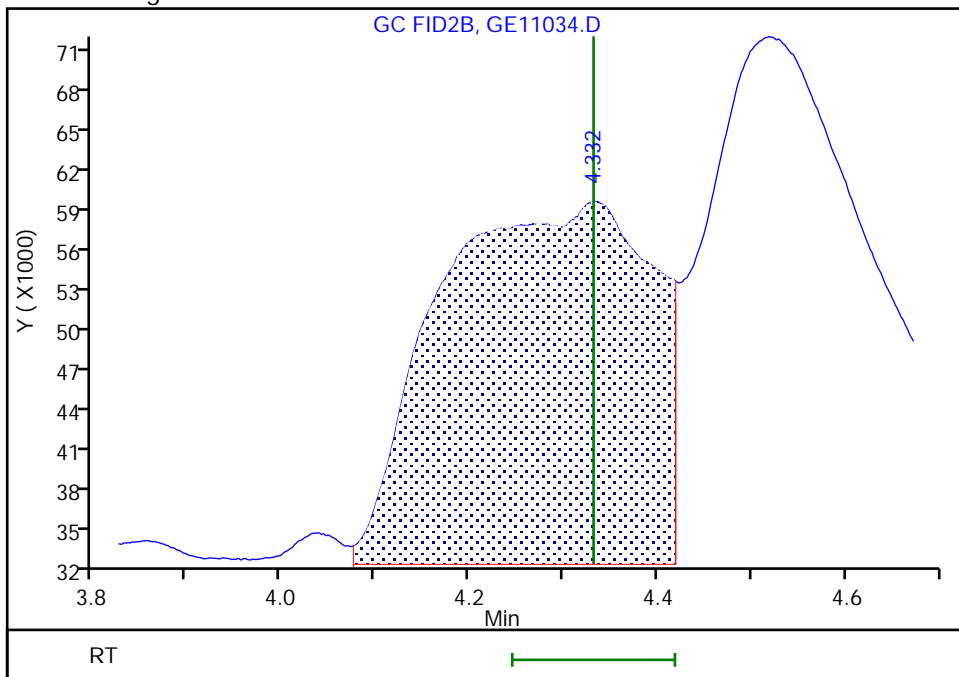
RT: 4.33
Area: 173996
Amount: 11.569826
Amount Units: ug/ml

Processing Integration Results



RT: 4.33
Area: 421007
Amount: 27.897194
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 12-May-2023 10:47:21
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
Page 141 of 164

Eurofins Savannah

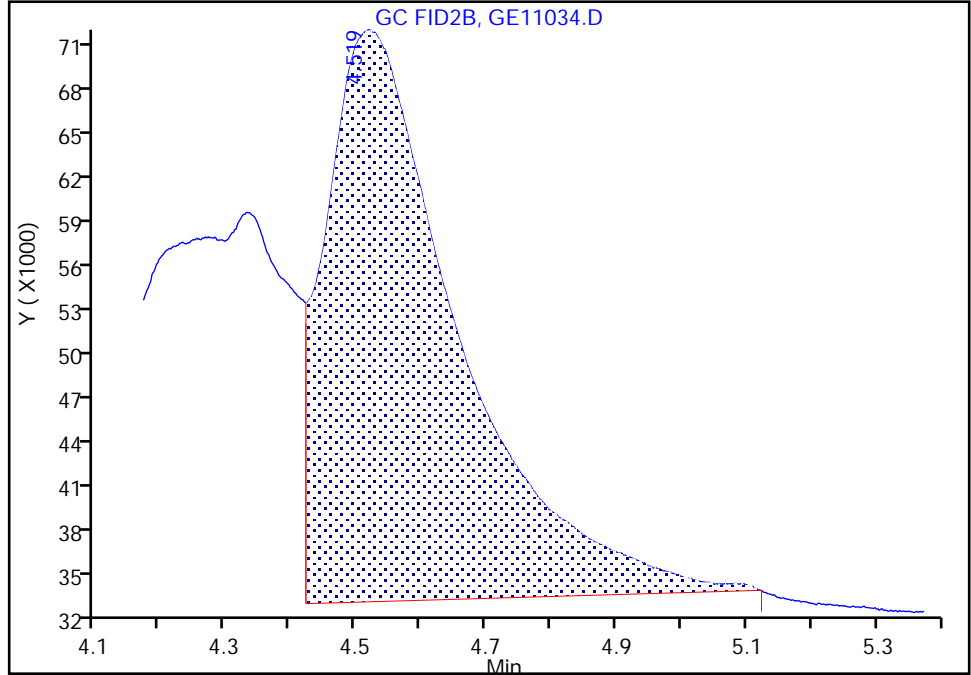
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11034.D
Injection Date: 12-May-2023 03:59:40 Instrument ID: CVGG2
Lims ID: ccv g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

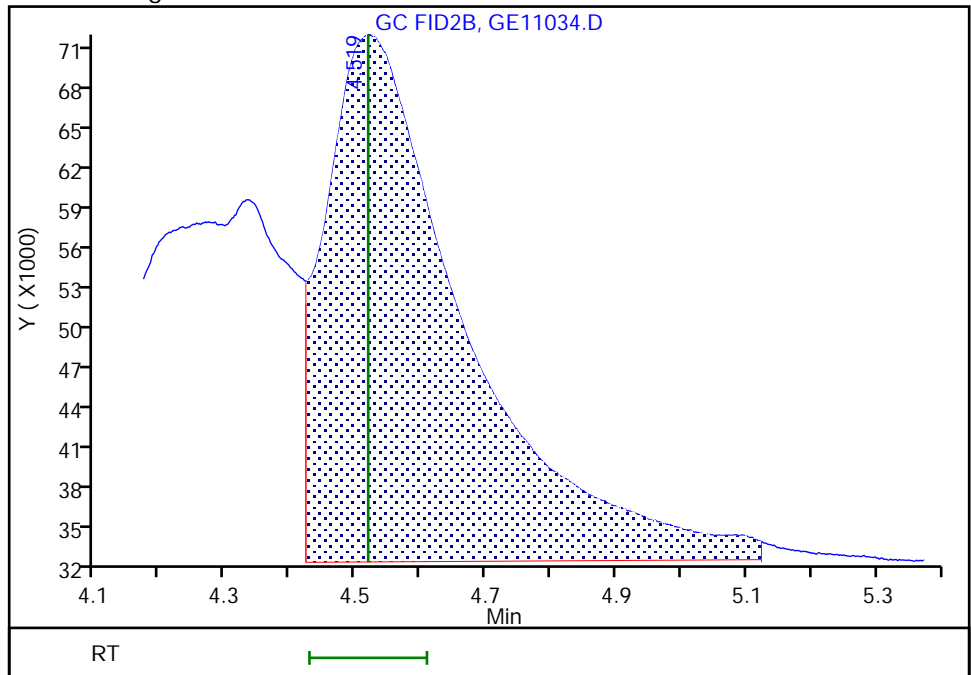
RT: 4.52
Area: 541664
Amount: 13.706380
Amount Units: ug/ml

Processing Integration Results



RT: 4.52
Area: 583441
Amount: 14.801682
Amount Units: ug/ml

Manual Integration Results



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 680-778288/9
 Matrix: Water Lab File ID: GE11009.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 05/11/2023 18:18
 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.: 778288 Units: mg/L

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

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11009.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 11-May-2023 18:18:21 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085926-009
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-May-2023 16:28:55 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1667

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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2	4-Hydroxy-4-methyl-2-pentanone					7
2.361	2.380	-0.019	1086		0.0149	7
LOD = 0.5000						
3	2-Butoxyethanol					7
2.511	2.528	-0.017	6752		0.0862	7
LOD = 0.5000						
*	4 n-Heptyl Alcohol					
2.782	2.790	-0.008	5868179	50.0	50.0	
5	Dipropylene Glycol Methyl Ether					
3.529	3.463	0.066	5233		0.8517	
6	Propylene glycol					7
4.340	4.340	0.000	7345		0.4163	7
LOD = 0.5000						
7	Ethylene glycol					7
4.518	4.539	-0.021	3234		-0.4228	7
LOD = 0.6600						
9	2,2'-Oxybisethanol					7
8.307	8.278	0.029	8147		0.3064	7
LOD = 1.60						
11	Tetraethylene Glycol					7
10.615	10.707	-0.092	13349		0.5764	7
LOD = 4.50						

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11009.D

Injection Date: 11-May-2023 18:18:21

Instrument ID: CVGG2

Operator ID:

Lims ID: mb

Worklist Smp#: 9

Client ID:

Injection Vol: 1.0 ul

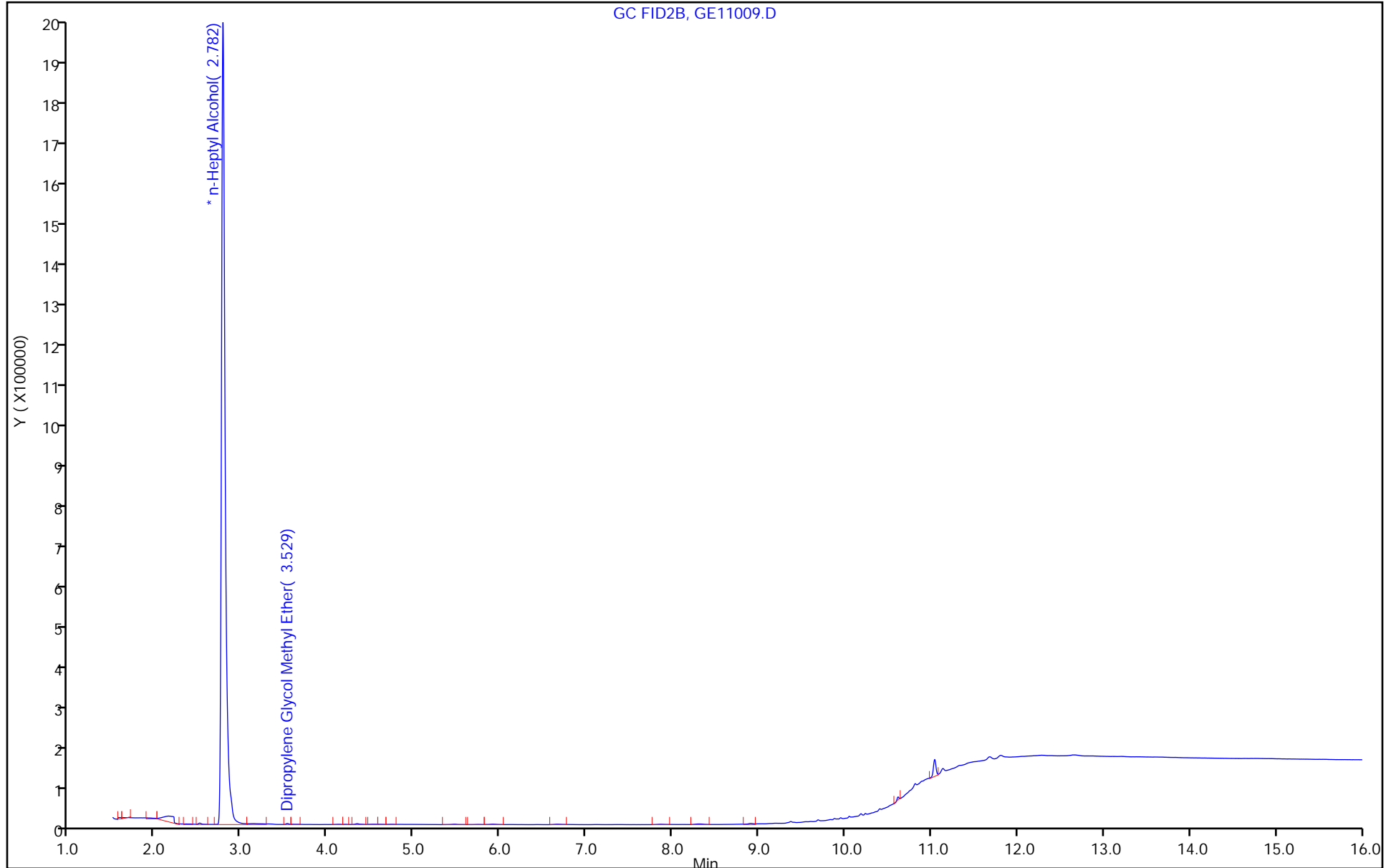
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 680-778288/5
 Matrix: Water Lab File ID: GE11005.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 05/11/2023 16:45
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 778288 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	21.8		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11005.D
 Lims ID: lcs
 Client ID:
 Sample Type: LCS
 Inject. Date: 11-May-2023 16:45:14 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085926-005
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-May-2023 16:27:52 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1667

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	2.088	2.082	0.006	1503143	20.0	22.7
2 4-Hydroxy-4-methyl-2-pentanone	2.383	2.372	0.011	1313897	20.0	22.7
3 2-Butoxyethanol	2.528	2.525	0.003	1423192	20.0	22.8
* 4 n-Heptyl Alcohol	2.787	2.781	0.006	4668556	50.0	50.0
5 Dipropylene Glycol Methyl Ether	3.464	3.466	-0.002	113657	20.0	23.3
6 Propylene glycol	4.341	4.342	-0.001	280928	20.0	19.9
7 Ethylene glycol	4.539	4.531	0.008	701659	20.0	19.2
8 2-(2-Butoxyethoxy)ethanol	6.118	6.120	-0.002	1062802	20.0	21.8
9 2,2'-Oxybisethanol	8.278	8.285	-0.007	467011	20.0	22.0
10 Triethylene Glycol	9.875	9.877	-0.002	444490	20.0	22.2
11 Tetraethylene Glycol	10.707	10.708	-0.001	784270	40.0	42.6

Reagents:

SG_Gly_CAL_00051 Amount Added: 10.00 Units: uL
 SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11005.D

Injection Date: 11-May-2023 16:45:14

Instrument ID: CVGG2

Operator ID:

Lims ID: lcs

Worklist Smp#: 5

Client ID:

Injection Vol: 1.0 ul

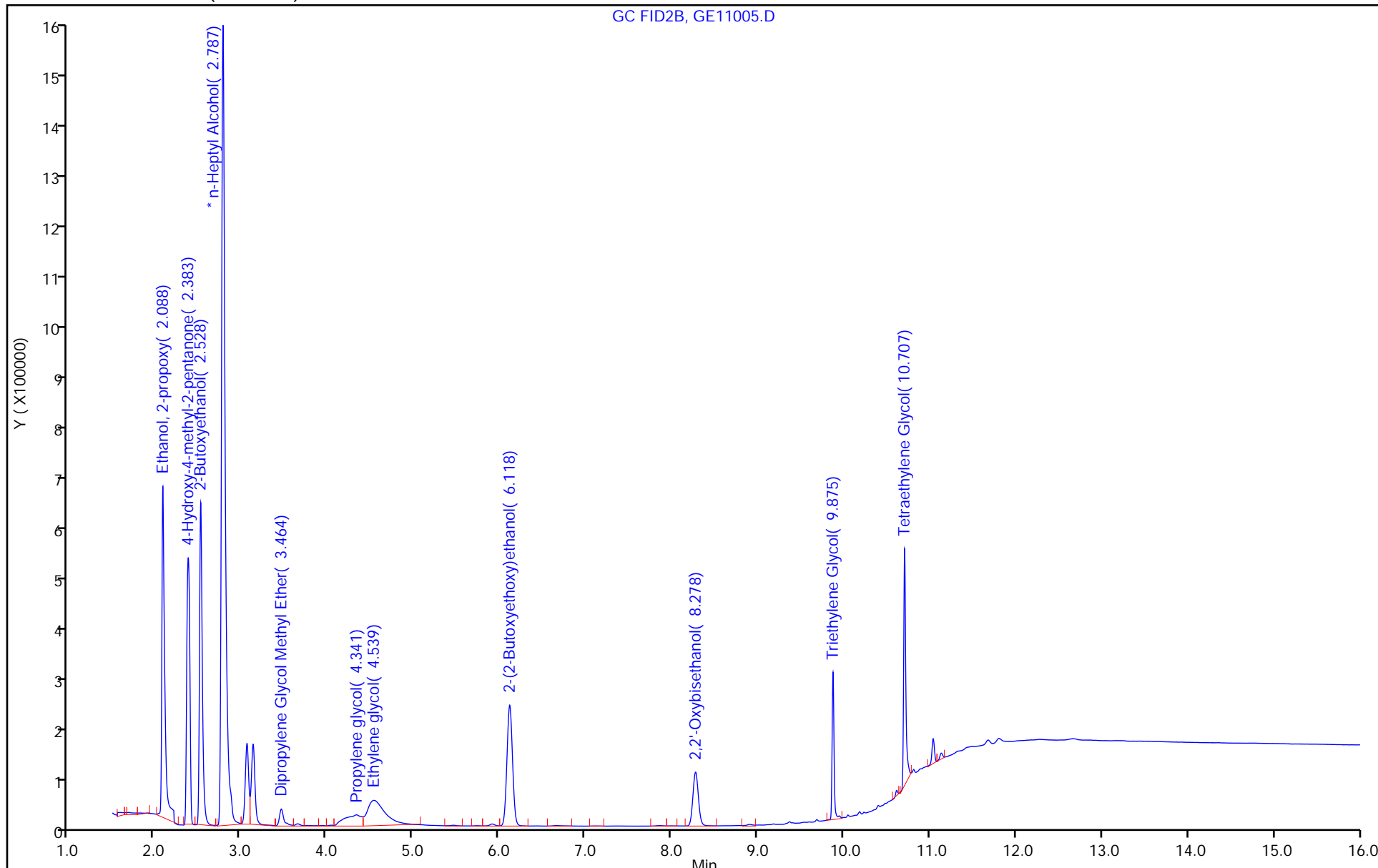
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-127051-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 680-778288/6
 Matrix: Water Lab File ID: GE11006.D
 Analysis Method: 8015C GLY Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 05/11/2023 17:08
 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.: 778288 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	18.2		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11006.D
 Lims ID: lcsd
 Client ID:
 Sample Type: LCSD
 Inject. Date: 11-May-2023 17:08:27 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 680-0085926-006
 Operator ID: Instrument ID: CVGG2
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\8015_GLY_VGG.m
 Limit Group: 8015C_DAI
 Last Update: 12-May-2023 16:27:52 Calib Date: 09-May-2023 19:59:40
 Integrator: Falcon
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
 Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
 Process Host: CTX1667

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

1 Ethanol, 2-propoxy	2.084	2.082	0.002	1000764	20.0	19.3
2 4-Hydroxy-4-methyl-2-pentanone	2.377	2.372	0.005	826266	20.0	18.6
3 2-Butoxyethanol	2.525	2.525	0.000	888140	20.0	18.7
* 4 n-Heptyl Alcohol	2.787	2.781	0.006	3566646	50.0	50.0
5 Dipropylene Glycol Methyl Ether	3.461	3.466	-0.005	73178	20.0	19.6
6 Propylene glycol	4.334	4.342	-0.008	234055	20.0	21.7
7 Ethylene glycol	4.538	4.531	0.007	615788	20.0	22.1
8 2-(2-Butoxyethoxy)ethanol	6.117	6.120	-0.003	675642	20.0	18.2
9 2,2'-Oxybisethanol	8.276	8.285	-0.009	384340	20.0	23.6
10 Triethylene Glycol	9.874	9.877	-0.003	348582	20.0	22.8
11 Tetraethylene Glycol	10.705	10.708	-0.003	593072	40.0	42.1

Reagents:

SG_Gly_CAL_00051 Amount Added: 10.00 Units: uL
 SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230511-85926.b\GE11006.D

Injection Date: 11-May-2023 17:08:27

Instrument ID: CVGG2

Operator ID:

Lims ID: lcsd

Worklist Smp#: 6

Client ID:

Injection Vol: 1.0 ul

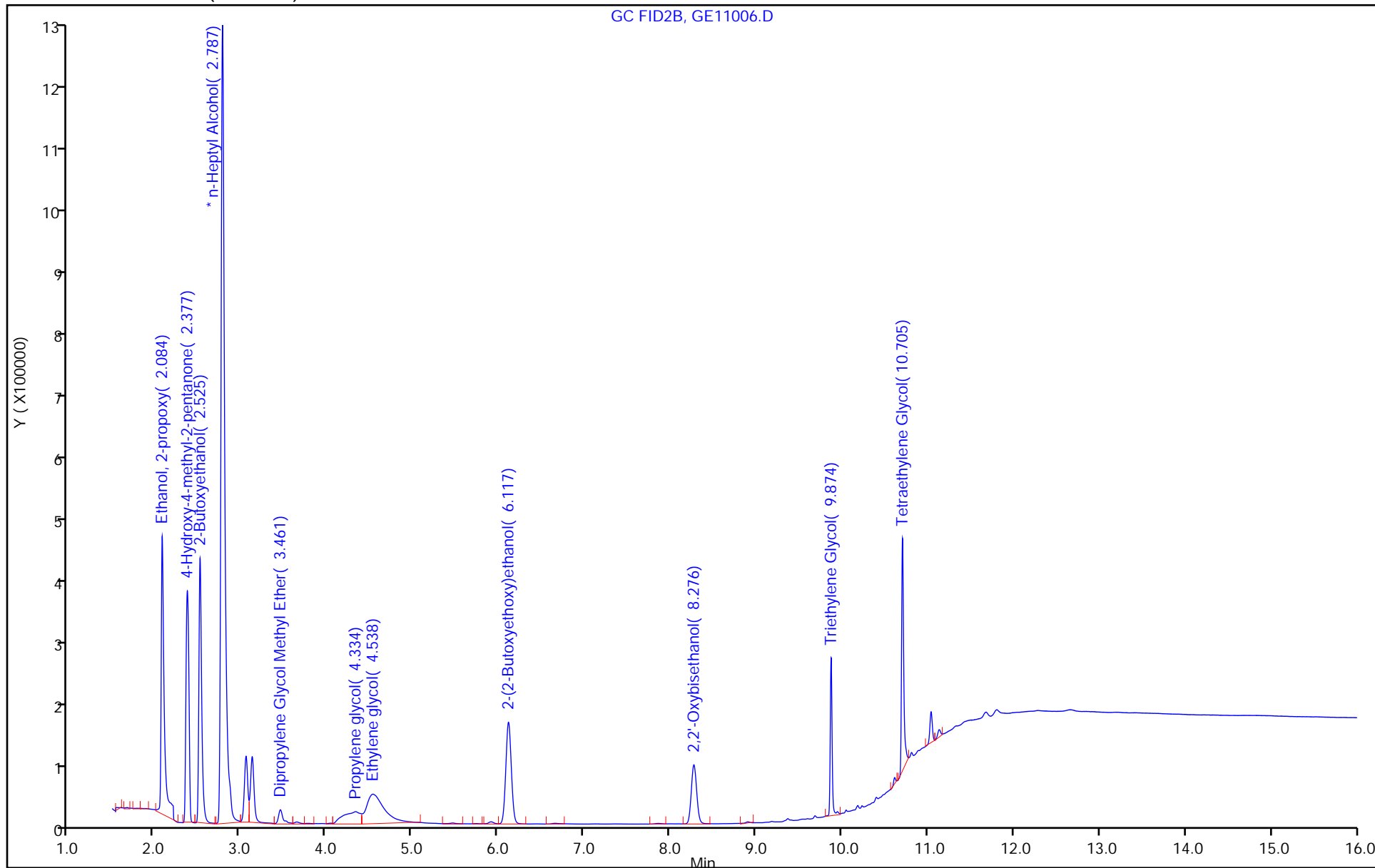
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015_GLY_VGG

Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-127051-1

SDG No.: _____

Instrument ID: CVGG2 Start Date: 05/09/2023 17:39

Analysis Batch Number: 777832 End Date: 05/10/2023 02:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 680-777832/4		05/09/2023 17:39	1	GE09004.D	J&W DB WAX 0.45 (mm)
IC 680-777832/5		05/09/2023 18:02	1	GE09005.D	J&W DB WAX 0.45 (mm)
IC 680-777832/6		05/09/2023 18:26	1	GE09006.D	J&W DB WAX 0.45 (mm)
ICIS 680-777832/7		05/09/2023 18:49	1	GE09007.D	J&W DB WAX 0.45 (mm)
IC 680-777832/8		05/09/2023 19:12	1	GE09008.D	J&W DB WAX 0.45 (mm)
IC 680-777832/9		05/09/2023 19:36	1	GE09009.D	J&W DB WAX 0.45 (mm)
IC 680-777832/10		05/09/2023 19:59	1	GE09010.D	J&W DB WAX 0.45 (mm)
ICV 680-777832/11 CCV		05/09/2023 20:22	1	GE09011.D	J&W DB WAX 0.45 (mm)
ZZZZZ		05/09/2023 20:46	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/09/2023 21:09	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/09/2023 21:32	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/09/2023 21:55	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/09/2023 23:05	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/09/2023 23:29	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/09/2023 23:52	25000		J&W DB WAX 0.45 (mm)
ZZZZZ		05/10/2023 00:15	100		J&W DB WAX 0.45 (mm)
ZZZZZ		05/10/2023 00:38	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/10/2023 01:02	10		J&W DB WAX 0.45 (mm)
ZZZZZ		05/10/2023 01:25	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/10/2023 01:48	10		J&W DB WAX 0.45 (mm)
CCV 680-777832/27		05/10/2023 02:35	1		J&W DB WAX 0.45 (mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-127051-1

SDG No.: _____

Instrument ID: CVGG2 Start Date: 05/11/2023 16:21

Analysis Batch Number: 778288 End Date: 05/12/2023 03:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-778288/4		05/11/2023 16:21	1	GE11004.D	J&W DB WAX 0.45 (mm)
LCS 680-778288/5		05/11/2023 16:45	1	GE11005.D	J&W DB WAX 0.45 (mm)
LCSD 680-778288/6		05/11/2023 17:08	1	GE11006.D	J&W DB WAX 0.45 (mm)
MB 680-778288/9		05/11/2023 18:18	1	GE11009.D	J&W DB WAX 0.45 (mm)
ZZZZZ		05/11/2023 19:04	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/11/2023 19:28	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/11/2023 19:51	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/11/2023 20:14	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/11/2023 20:38	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/11/2023 21:01	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/11/2023 21:24	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/11/2023 21:47	1		J&W DB WAX 0.45 (mm)
CCV 680-778288/23		05/11/2023 23:43	1	GE11023.D	J&W DB WAX 0.45 (mm)
ZZZZZ		05/12/2023 00:53	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/12/2023 01:16	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/12/2023 01:40	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/12/2023 02:03	1		J&W DB WAX 0.45 (mm)
580-127051-1	AF-RHMW225401-WGN01B-2305W2	05/12/2023 02:26	1	GE11030.D	J&W DB WAX 0.45 (mm)
580-127051-2	AF-RHMW04-WGN01LF-2305W2	05/12/2023 02:49	1	GE11031.D	J&W DB WAX 0.45 (mm)
580-127051-3	AF-RHMW06-WGN01LF-2305W2	05/12/2023 03:13	1	GE11032.D	J&W DB WAX 0.45 (mm)
CCV 680-778288/34		05/12/2023 03:59	1	GE11034.D	J&W DB WAX 0.45 (mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-127051-1

SDG No.: _____

Batch Number: 777832 Batch Start Date: 05/09/23 17:39 Batch Analyst: Meincke, Griffin E

Batch Method: 8015C GLY Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00051	SG_GLY_ISTD 00116	SG_GlyICV 00058		
IC 680-777832/4		8015C GLY		1 mL	50 uL	10 uL			
IC 680-777832/5		8015C GLY		1 mL	40 uL	10 uL			
IC 680-777832/6		8015C GLY		1 mL	25 uL	10 uL			
ICIS 680-777832/7		8015C GLY		1 mL	10 uL	10 uL			
IC 680-777832/8		8015C GLY		1 mL	5 uL	10 uL			
IC 680-777832/9		8015C GLY		1 mL	2.5 uL	10 uL			
IC 680-777832/10		8015C GLY		1 mL	1 uL	10 uL			
ICV 680-777832/11 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.: 580-127051-1

SDG No.: _____

Batch Number: 778288 Batch Start Date: 05/11/23 16:21 Batch Analyst: Meincke, Griffin E

Batch Method: 8015C GLY Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00051	SG_GLY_ISTD 00116			
CCVIS 680-778288/4		8015C GLY		1 mL	10 uL	10 uL			
LCS 680-778288/5		8015C GLY		1 mL	10 uL	10 uL			
LCSD 680-778288/6		8015C GLY		1 mL	10 uL	10 uL			
MB 680-778288/9		8015C GLY		1 mL		10 uL			
CCV 680-778288/23		8015C GLY		1 mL	10 uL	10 uL			
580-127051-C-1	AF-RHMW225401-WG N01B-2305W2	8015C GLY	T	1 mL		10 uL			
580-127051-B-2	AF-RHMW04-WGN01L F-2305W2	8015C GLY	T	1 mL		10 uL			
580-127051-C-3	AF-RHMW06-WGN01L F-2305W2	8015C GLY	T	1 mL		10 uL			
CCV 680-778288/34		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

Client Information		Sampler: <i>Ken Shimoda</i>	Lab PM Elaine Walker	Carrier Tracking No(s) FedEx	COC No: 2305W2AFEA09																												
Client Contact:		Phone: 808-393-6607	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1																												
Company: AECOM		PWSID		Analysis Requested																													
Address: 1001 Bishop St Suite 1600		Due Date Requested: see subcontract		<table border="1"> <tr> <td colspan="2">Preservation Codes</td> </tr> <tr> <td>A HCL</td> <td>M Hexane</td> </tr> <tr> <td>B NaOH</td> <td>N None</td> </tr> <tr> <td>C Zn Acetate</td> <td>O AsNaO2</td> </tr> <tr> <td>D Nitric Acid</td> <td>P Na2O4S</td> </tr> <tr> <td>E NaHSO4</td> <td>Q Na2SO3</td> </tr> <tr> <td>F MeOH</td> <td>R Na2S2O3</td> </tr> <tr> <td>G Amchlor</td> <td>S H2SO4</td> </tr> <tr> <td>H Ascorbic Acid</td> <td>T TSP Dodecahydrate</td> </tr> <tr> <td>I Ice</td> <td>U Acetone</td> </tr> <tr> <td>J DI Water</td> <td>V MCAA</td> </tr> <tr> <td>K EDTA</td> <td>W pH 4-5</td> </tr> <tr> <td>L EDA</td> <td>Z other (specify)</td> </tr> <tr> <td colspan="2">Other:</td> </tr> </table>		Preservation Codes		A HCL	M Hexane	B NaOH	N None	C Zn Acetate	O AsNaO2	D Nitric Acid	P Na2O4S	E NaHSO4	Q Na2SO3	F MeOH	R Na2S2O3	G Amchlor	S H2SO4	H Ascorbic Acid	T TSP Dodecahydrate	I Ice	U Acetone	J DI Water	V MCAA	K EDTA	W pH 4-5	L EDA	Z other (specify)	Other:	
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J DI Water	V MCAA																																
K EDTA	W pH 4-5																																
L EDA	Z other (specify)																																
Other:																																	
City: Honolulu		TAT Requested (days): Rush - 5 Day																															
State Zip: Hawaii 96813		Compliance Project. Δ Yes Δ No																															
Phone: 808-954-4512 / 770-331-0794		PO #																															
Email: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)		WO #																															
Project Name: CTO N6274223F0104		Project #: 60697810																															
Site: RHSF		SSOW#																															
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAL_GL_D5/2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note																							
AF-RHMW06-WGN01LF-2305W2		5/8/23	11:20D	G	W	N	N	X	3																								
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 checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																															
Deliverable Requested: I, II, III, IV, Other (specify)		Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM EQUIS FDD.		Special Instructions/QC Requirements DOD QSM project																													
Empty Kit Relinquished by:		Date	Time	Method of Shipment:																													
Relinquished by: <i>Ken Shimoda</i>	Date/Time: 5/8/23 1230	Company: AECOM	Received by: <i>Alex Edwards</i>	Date/Time: 5/10/23 1230	Company: AECOM																												
Relinquished by: <i>Alex Edwards</i>	Date/Time: 5/8/23 1330	Company: AECOM	Received by:	Date/Time: 5/10/23 1030	Company:																												
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:																												
Custody Seals Intact. Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 18/24																															

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-127051-1

Login Number: 127051
List Number: 2
Creator: Johnson, Corey M

List Source: Eurofins Savannah
List Creation: 05/11/23 07:58 PM

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