eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Terri Choy
AECOM
1001 Bishop Street
Honolulu HI 96813

Generated 5/19/2023 4:30 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-127195-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

Eurofins Seattle

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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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Authorized for release by
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253 248-4972

Table of Contents

Table of Contents

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
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.
¤	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: 580-127195-1

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

One sample was received on 5/12/2023 10:00 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8º 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

Sample AF-RHMW16-WGN01LF-2305W2 (580-127195-1) was analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 05/14/2023.

2-(2-Butoxyethoxy)ethanol failed the recovery criteria high for the MS of sample AF-RHMW16-WGN01LF-2305W2MS (580-127195-1) in batch 680-778520. 2-(2-Butoxyethoxy)ethanol failed the recovery criteria high for the MSD of sample AF-RHMW16-WGN01LF-2305W2MSD (580-127195-1) in batch 680-778520. The associated LCS/LCSD met acceptance limits.

The continuing calibration verification (CCV) associated with batch 680-778520 recovered above the upper control limit for 2-(2-Butoxyethoxy)ethanol. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

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

Detection Summary

Client: AECOM
Job ID: 580-127195-1
Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW16-WGN01LF-2305W2 **Lab Sample ID: 580-127195-1**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: AF-RHMW16-WGN01LF-2305W2
Lab Sample ID: 580-127195-1
Date Collected: 05/09/23 13:05
Matrix: Water
Date Received: 05/12/23 10:00

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q J1	5.0	1.1	mg/L			05/14/23 02:45	1

Default Detection Limits

Client: AECOM
Job ID: 580-127195-1
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

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

Lab Sample ID: MB 680-778520/9
Matrix: Water
Analysis Batch: 778520

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			05/13/23 17:04	1

Lab Sample ID: LCS 680-778520/1005
Matrix: Water
Analysis Batch: 778520

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	21.4		mg/L		107	50 - 150		

Lab Sample ID: LCSD 680-778520/6
Matrix: Water
Analysis Batch: 778520

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	23.6		mg/L		118	50 - 150	10	50

Lab Sample ID: 580-127195-1 MS
Matrix: Water
Analysis Batch: 778520

Client Sample ID: AF-RHMW16-WGN01LF-2305W2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
2-(2-Butoxyethoxy)ethanol	3.0	U Q J1	20.0	33.7	J1	mg/L		168	50 - 150		

Lab Sample ID: 580-127195-1 MSD
Matrix: Water
Analysis Batch: 778520

Client Sample ID: AF-RHMW16-WGN01LF-2305W2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	3.0	U Q J1	20.0	33.2	J1	mg/L		166	50 - 150	1	50

QC Association Summary

Client: AECOM
Job ID: 580-127195-1
Project/Site: Red Hill - AFFF Assessment Sampling

GC Semi VOA

Analysis Batch: 778520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-127195-1	AF-RHMW16-WGN01LF-2305W2	Total/NA	Water	8015C GLY	
MB 680-778520/9	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-778520/1005	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-778520/6	Lab Control Sample Dup	Total/NA	Water	8015C GLY	
580-127195-1 MS	AF-RHMW16-WGN01LF-2305W2	Total/NA	Water	8015C GLY	
580-127195-1 MSD	AF-RHMW16-WGN01LF-2305W2	Total/NA	Water	8015C GLY	

Lab Chronicle

Client: AECOM
Job ID: 580-127195-1
Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW16-WGN01LF-2305W2
Lab Sample ID: 580-127195-1

Date Collected: 05/09/23 13:05
Matrix: Water
Date Received: 05/12/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	778520	GEM	EET SAV	05/14/23 02:45

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM
Job ID: 580-127195-1
Project/Site: Red Hill - AFFF Assessment Sampling

Laboratory: Eurofins Savannah

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

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

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

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

Method Summary

Client: AECOM
Job ID: 580-127195-1
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: 580-127195-1
Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-127195-1	AF-RHMW16-WGN01LF-2305W2	Water	05/09/23 13:05	05/12/23 10:00

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 777832

Lab 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.: 580-127195-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 777832

Lab 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.: 580-127195-1

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.: 580-127195-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 778520

Lab Sample ID: 580-127195-1 Client Sample ID:

Date Analyzed: 05/14/23 02:45 Lab File ID: GE13034.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Heptyl Alcohol	2.76	Baseline Smoothing	SK9U	05/14/23 03:46

Lab Sample ID: 580-127195-1 MS Client Sample ID:

Date Analyzed: 05/14/23 03:08 Lab File ID: GE13035.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Heptyl Alcohol	2.77	Baseline Smoothing	SK9U	05/14/23 03:46

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127195-1

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
							Tetraethylene Glycol	4000 ug/mL
							Triethylene Glycol	2000 ug/mL
SG_GLY_ISTD_00114	11/11/23	Agilent, Lot 0006738806			(Purchased Reagent)		n-Heptyl Alcohol	5000 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

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

o2si
smart solutions®

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Rev 0

Certificate of Analysis

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:

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
$u_c = (u_{char}^2 + u_{tran}^2 + u_{homo}^2 + u_{lts}^2)^{1/2}$ 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:	**Certified By:**	**Released By:**
Brian Stokes	Tyler Sherman	Susan Mathews
3 -May-2022	14 -Jun-2022	14 -Jun-2022
Production Chemist I	**Quality Control Chemist I**	**Quality Control Team Lead**

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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:	**Certified By:**	**Released By:**
Brian Stokes	Tyler Sherman	Susan Mathews
3 -May-2022	14 -Jun-2022	14 -Jun-2022
Production Chemist I	**Quality Control Chemist I**	**Quality Control Team Lead**

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Reagent

SG_GLY_ISTD_00114

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-6046

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

Lot Number: 0006738806

Lot Issue Date: 05-Apr-2023

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

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

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

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

ISO 17025

Reagent

SG_GLY_ISTD_00116

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-6046

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

Lot Number: 0000738806

Lot Issue Date: 05-Apr-2023

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

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

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

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

o2si smart solutions®

ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Certificate of Analysis

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:

Catalog No. G34-120070-04-SS **Lot No.** 454407 **Expiration Date** 1 -Jul-2023

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

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

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

Method of Preparation:

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

Packaging and Storage:

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

Glassware Calibration:

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

Weights and Balance Calibration:

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

Homogeneity:

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

Hazardous Information:

Refer to MSDS.

Calculation of Uncertainty:

The following equations are used to calculate the value of the expanded uncertainty:
$u = ku_c$ u = Expanded Uncertainty, k = the coverage factor at the 95% confidence level, k = 2, u_c = the combined uncertainty
$u_c = (u_{char}^2 + u_{tran}^2 + u_{homo}^2 + u_{lts}^2)^{1/2}$ 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:	**Certified By:**	**Released By:**
Jared Ball	Claire Desrochers	Susan Mathews
1 -Jul-2021	7 -Jul-2021	8 -Jul-2021
Quality Control Chemist I	**Quality Control Chemist I**	**Quality Control Team Lead**

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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:	**Certified By:**	**Released By:**
Jared Ball	Claire Desrochers	Susan Mathews
1 -Jul-2021	7 -Jul-2021	8 -Jul-2021
Quality Control Chemist I	**Quality Control Chemist I**	**Quality Control Team Lead**

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Method 8015C - DAI Glycols

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

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Matrix: Water Level: Low Lab File ID: -GE13005-LCS.d

Lab ID: LCS 680-778520/1005 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	21.4	107	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.: 580-127195-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GE13006.D

Lab ID: LCSD 680-778520/6 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	23.6	118	10	50	50-150	

Column to be used to flag recovery and RPD values

FORM III 8015C GLY

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GE13035.D

Lab ID: 580-127195-1 MS Client ID: AF-RHMW16-WGN01LF-2305W2 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	3.0 U	33.7	168	50-150	J1

Column to be used to flag recovery and RPD values

FORM III 8015C GLY

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GE13036.D

Lab ID: 580-127195-1 MSD Client ID: AF-RHMW16-WGN01LF-2305W2 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	33.2	166	1	50	50-150	J1

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.: 580-127195-1

SDG No.:

Lab Sample ID: MB 680-778520/9

Matrix: Water Date Extracted:

Lab File ID:(1) GE13009.D Lab File ID:(2)

Date Analyzed:(1) 05/13/2023 17:04 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 680-778520/1005	05/13/2023 15:31	
	LCSD 680-778520/6	05/13/2023 15:54	
AF-RHMW16-WGN01LF-2305W2	580-127195-1	05/14/2023 02:45	
AF-RHMW16-WGN01LF-2305W2 MS	580-127195-1 MS	05/14/2023 03:08	
AF-RHMW16-WGN01LF-2305W2 MSD	580-127195-1 MSD	05/14/2023 03:32	

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

Lab Name: Eurofins Savannah Job No.: 580-127195-1

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					
		AREA #	RT #	#	RT #	#	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.: 580-127195-1

SDG No.:

Sample No.: CCVIS 680-778520/5 Date Analyzed: 05/13/2023 15:31

Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45(mm)

Lab File ID (Standard): GE13005.D Heated Purge: (Y/N) N

Calibration ID: 90951

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		4877899	2.78				
UPPER LIMIT		9755798	3.28				
LOWER LIMIT		2438950	2.28				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 680-778520/1005		4877899	2.78				
LCSD 680-778520/6		5575015	2.78				
MB 680-778520/9		6082494	2.78				
CCV 680-778520/30		5214001	2.77				
580-127195-1	AF-RHMW16-WGN01LF-2 305W2	5019109	2.76				
580-127195-1 MS	AF-RHMW16-WGN01LF-2 305W2 MS	4849758	2.77				
580-127195-1 MSD	AF-RHMW16-WGN01LF-2 305W2 MSD	4522977	2.77				
CCV 680-778520/44		5064776	2.77				

nHPA = n-Heptyl Alcohol

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

Column used to flag values outside QC limits

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Client Sample ID: AF-RHMW16-WGN01LF-2305W2 Lab Sample ID: 580-127195-1

Matrix: Water Lab File ID: GE13034.D

Analysis Method: 8015C GLY Date Collected: 05/09/2023 13:05

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/14/2023 02:45

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.: 778520 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U Q J1	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13034.D
Lims ID: 580-127195-B-1
Client ID: AF-RHMW16-WGN01LF-2305W2
Sample Type: Client
Inject. Date: 14-May-2023 02:45:41 ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085961-034
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 14-May-2023 03:47:39 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: CTX1631

First Level Reviewer: SK9U Date: 14-May-2023 03:46:20

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1	Ethanol, 2-propoxy					7
	2.103	2.079	0.024	106729	-1.97	7
	LOD =	0.5000				
* 4	n-Heptyl Alcohol					M
	2.763	2.770	-0.007	5019109	50.0	M
6	Propylene glycol					
	4.314	4.314	0.000	137483	9.09	
8	2-(2-Butoxyethoxy)ethanol					7
	6.113	6.095	0.018	17618	0.3364	7
	LOD =	0.5000				
9	2,2'-Oxybisethanol					
	8.261	8.264	-0.003	569469	24.9	
10	Triethylene Glycol					
	9.869	9.869	0.000	645461	30.0	
11	Tetraethylene Glycol					7
	10.698	10.699	-0.001	38196	1.93	7
	LOD =	4.50				

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00051 Amount Added: 10.00 Units: uL
SG_GLY_ISTD_00114 Amount Added: 10.00 Units: uL Run Reagent

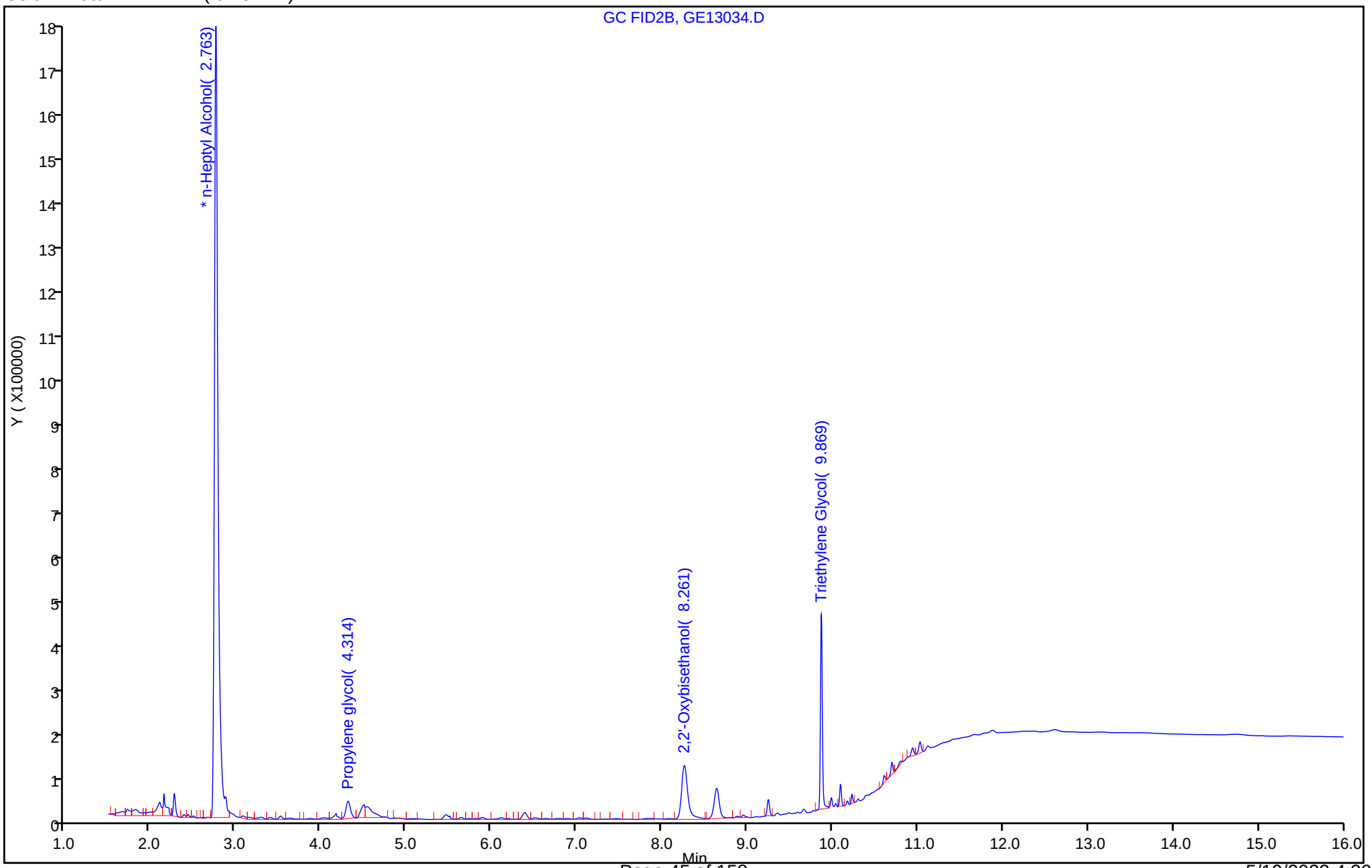
Report Date: 14-May-2023 03:47:47 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13034.D

Injection Date:	14-May-2023 02:45:41	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-127195-B-1	Lab Sample ID:	680-127195-1	Worklist Smp#:	34
Client ID:	AF-RHMW16-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)



5/19/2023 4:30 PM

Eurofins Savannah

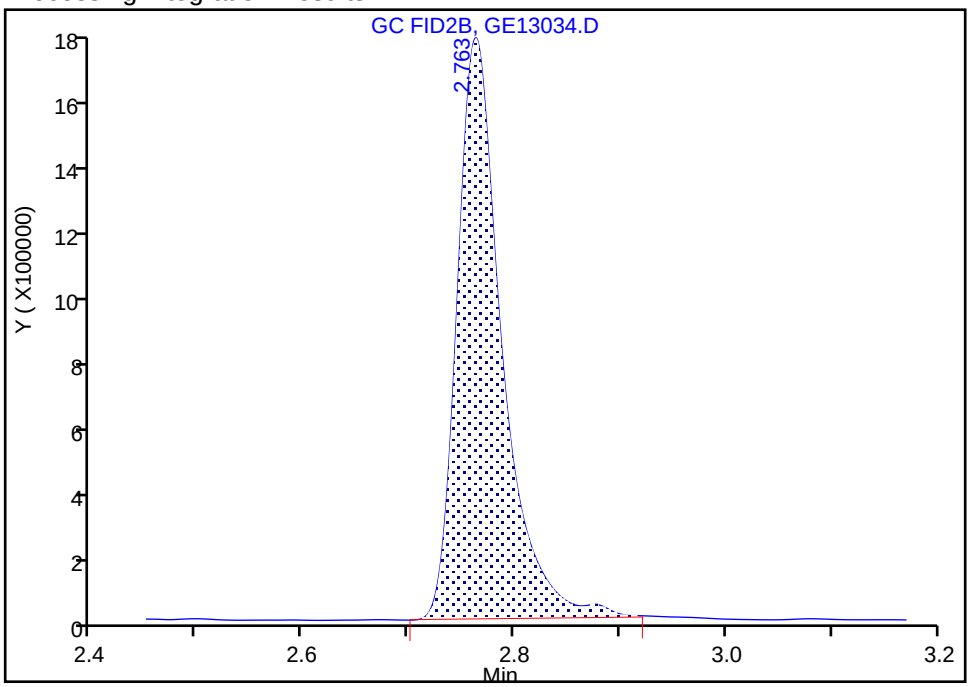
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13034.D				
Injection Date:	14-May-2023 02:45:41	Instrument ID:	CVGG2		
Lims ID:	580-127195-B-1	Lab Sample ID:	680-127195-1		
Client ID:	AF-RHMW16-WGN01LF-2305W2				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	34
Injection Vol:	1.0 ul	Dil. 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

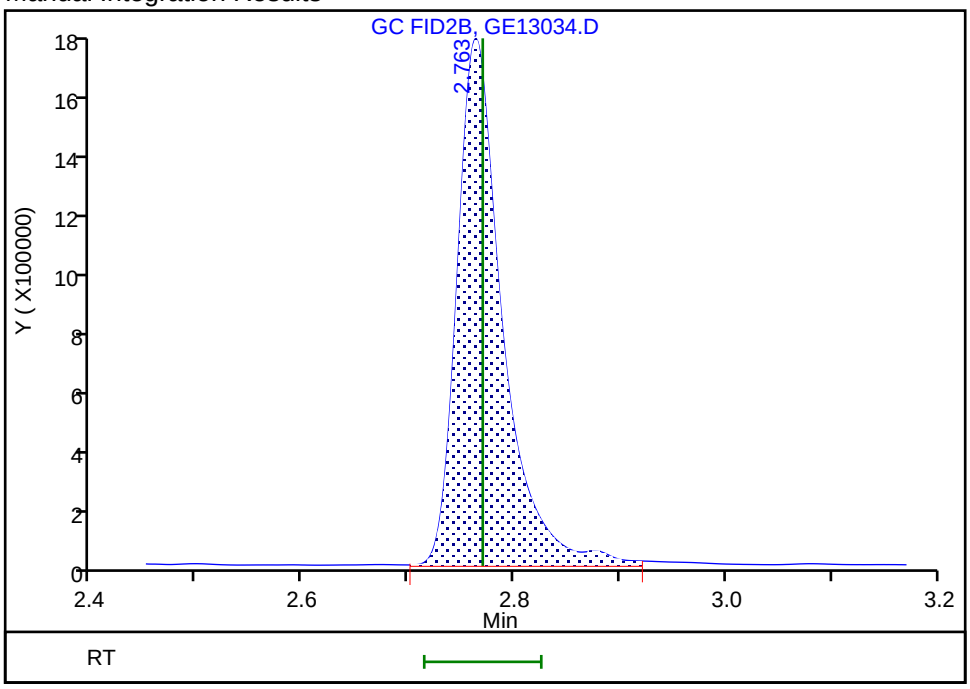
Processing Integration Results

RT: 2.76
Area: 4926993
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 2.76
Area: 5019109
Amount: 50.000000
Amount Units: ug/ml



Reviewer: SK9U, 14-May-2023 03:46:15
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

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

Lab Name: Eurofins Savannah Job No.: 580-127195-1 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	2.2637	0.6107							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		0.6211				7.3		20.0			
2-Butoxyethanol	0.7546 0.6481	0.6964 0.5918	0.7228	0.6078	0.6483	Ave		0.6671				9.0		20.0			
Dipropylene Glycol Methyl Ether	0.0482 0.0530	0.0557 0.0486	0.0582	0.0493	0.0534	Ave		0.0524				7.3		20.0			
Propylene glycol	+++++ 0.1423	0.1553 0.1578	0.1743	0.1512	0.1610	QuaF		0.1503	0.0000323						0.9930		0.9900
Ethylene glycol	0.4510 0.3582	0.3669 0.3853	0.4683	0.3985	0.4160	Lin1	0.1891	0.3822							0.9950		0.9900
2-(2-Butoxyethoxy)ethanol	0.5538 0.5218	0.5352 0.4867	0.5505	0.4696	0.5351	Ave		0.5218				6.1		20.0			
2,2'-Oxybisethanol	0.2742 0.2126	0.2181 0.2394	0.2596	0.2115	0.2504	QuaF		0.2266	0.0000580						0.9920		0.9900
Triethylene Glycol	0.2057 0.2052	0.1939 0.2329	0.2368	0.1868	0.2394	Ave		0.2144				10.1		20.0			
Tetraethylene Glycol	0.1634 0.2088	0.1634 0.2381	0.2035	0.1575	0.2467	Ave		0.1973				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.: 580-127195-1 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 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
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.: 580-127195-1 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						M
	2.374	2.377	-0.003	5996035	100.0	88.5	M
	3 2-Butoxyethanol						M
	2.523	2.524	-0.001	6458365	100.0	88.7	M
*	4 n-Heptyl Alcohol						M
	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						M
	4.326	4.340	-0.014	1722435	100.0	102.7	M
	7 Ethylene glycol						M
	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

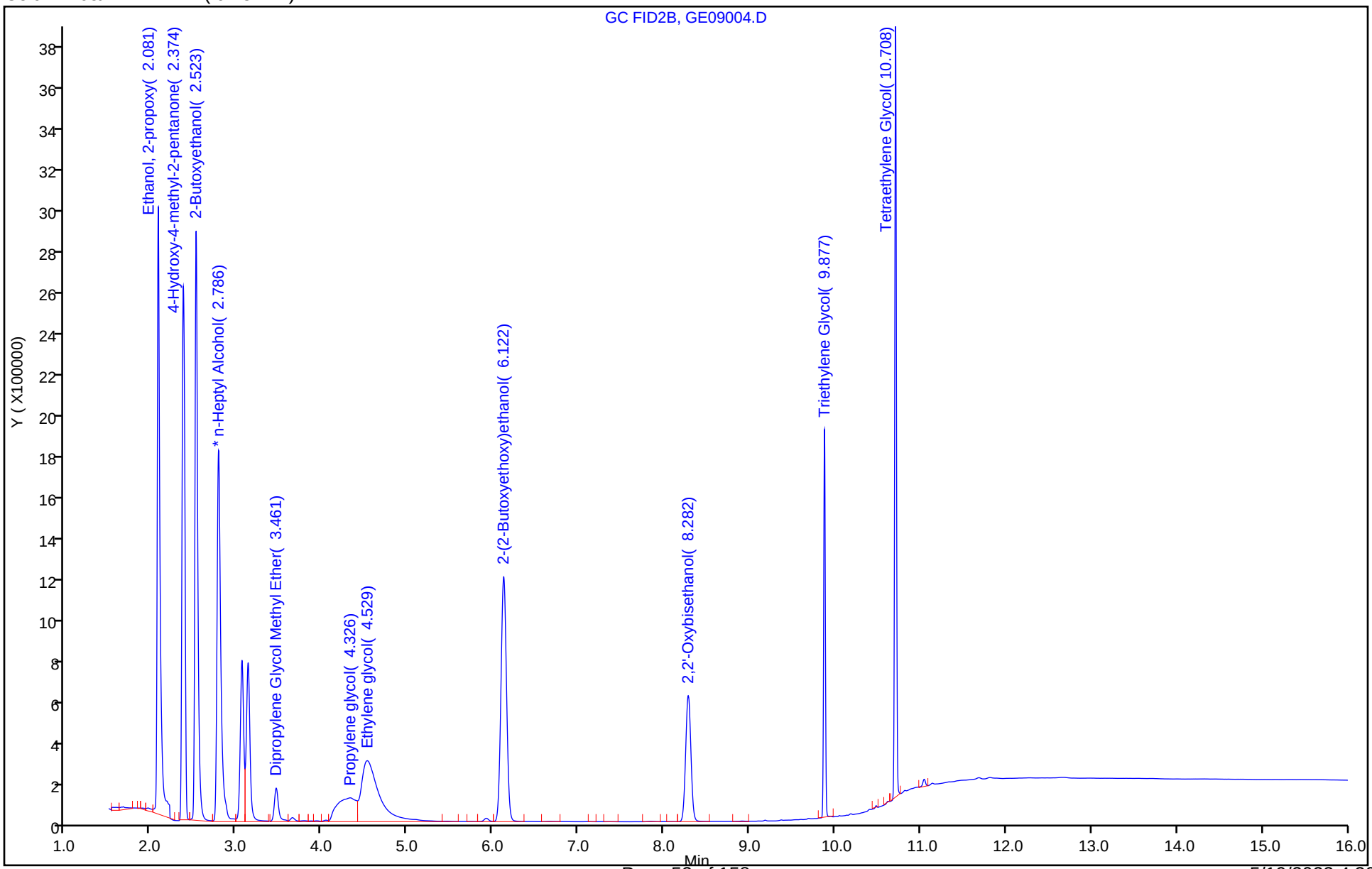
Report Date: 10-May-2023 11:56:54 Chrom Revision: 2.3 29-Mar-2023 18:39:10

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)



5/19/2023 4:30 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

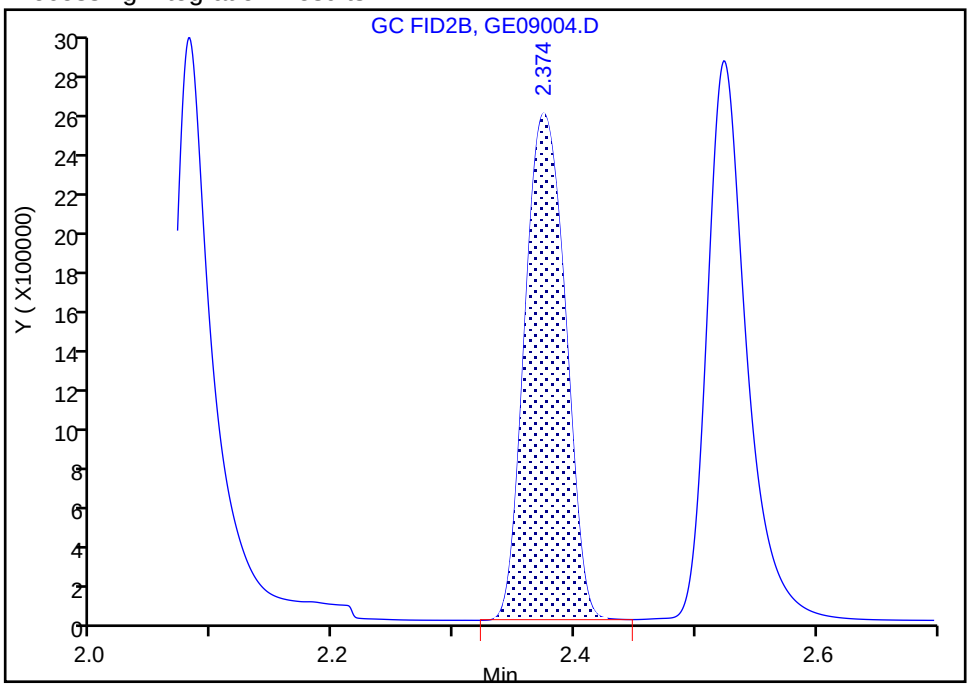
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09004.D
Injection Date: 09-May-2023 17:39:37 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB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

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

Signal: 1

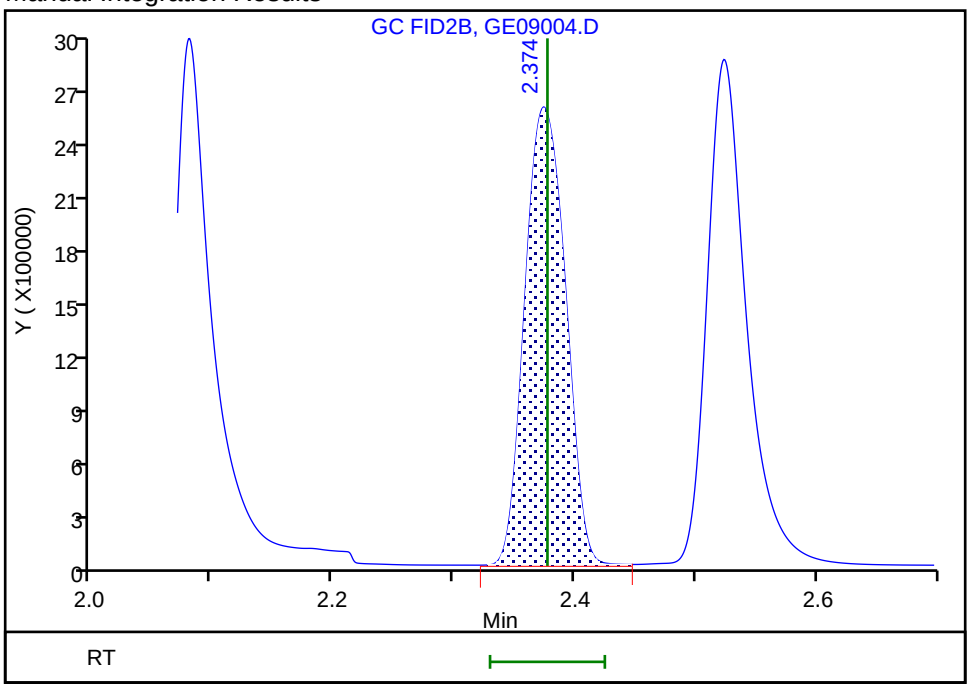
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

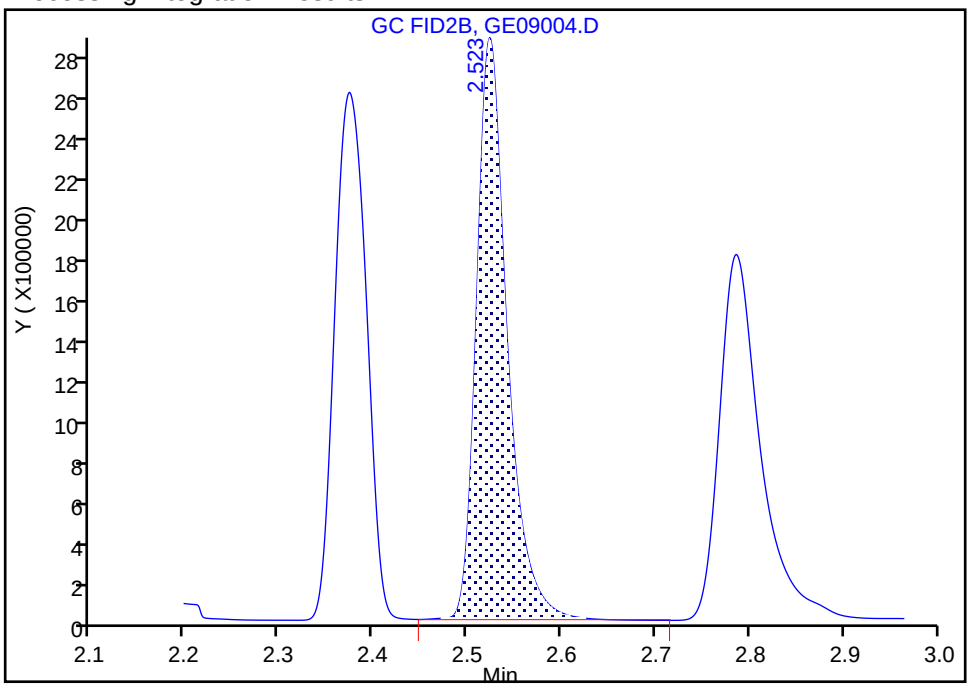
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09004.D				
Injection Date:	09-May-2023 17:39:37	Instrument ID:	CVGG2		
Lims ID:	ic g7				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

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

Signal: 1

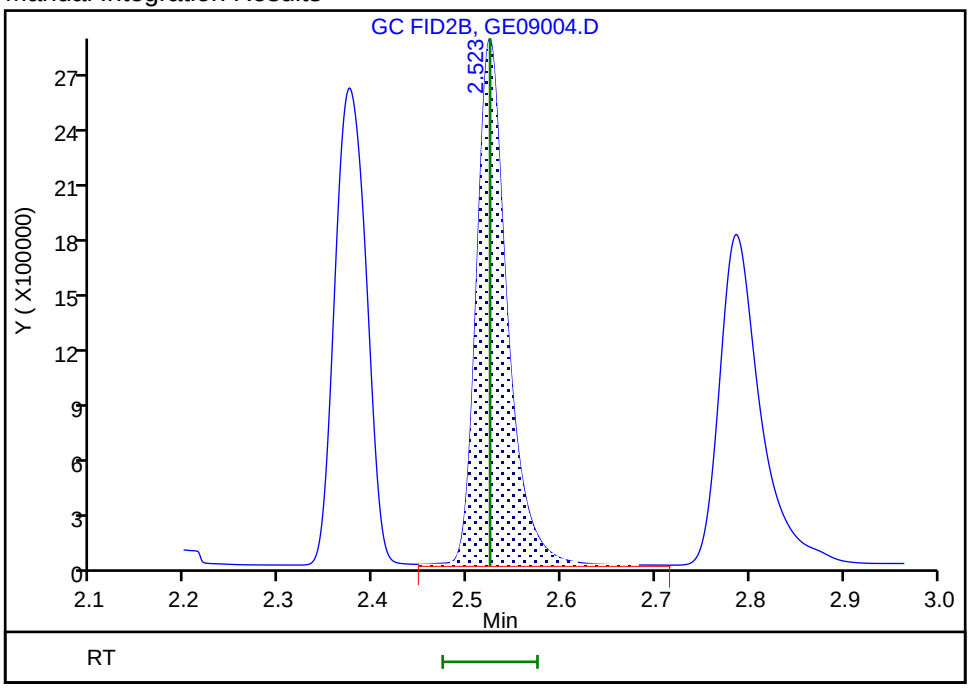
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

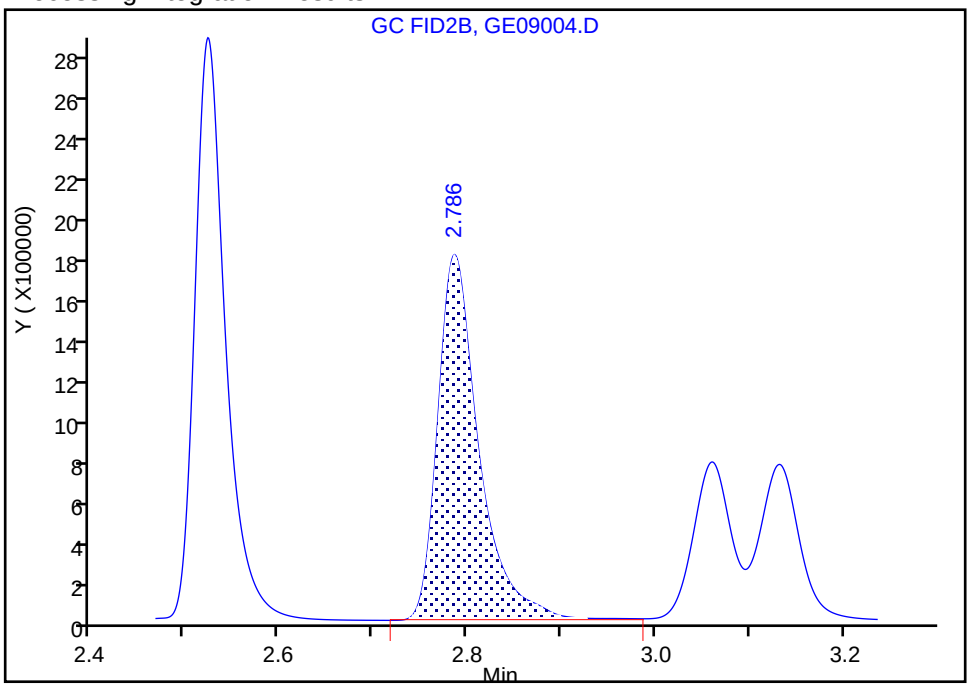
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09004.D
Injection Date: 09-May-2023 17:39:37 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB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

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

Signal: 1

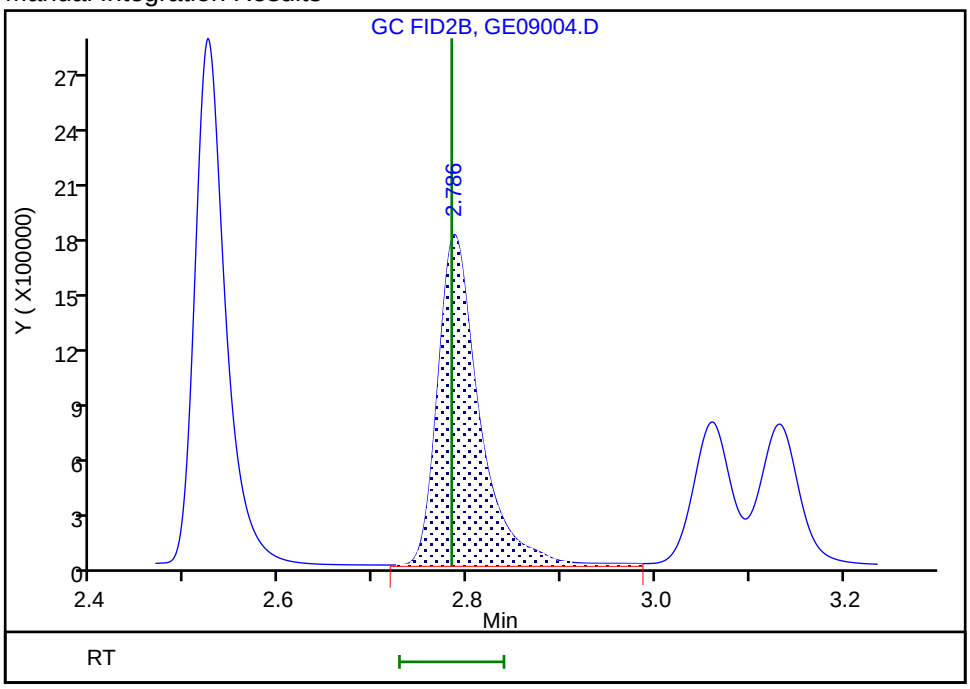
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

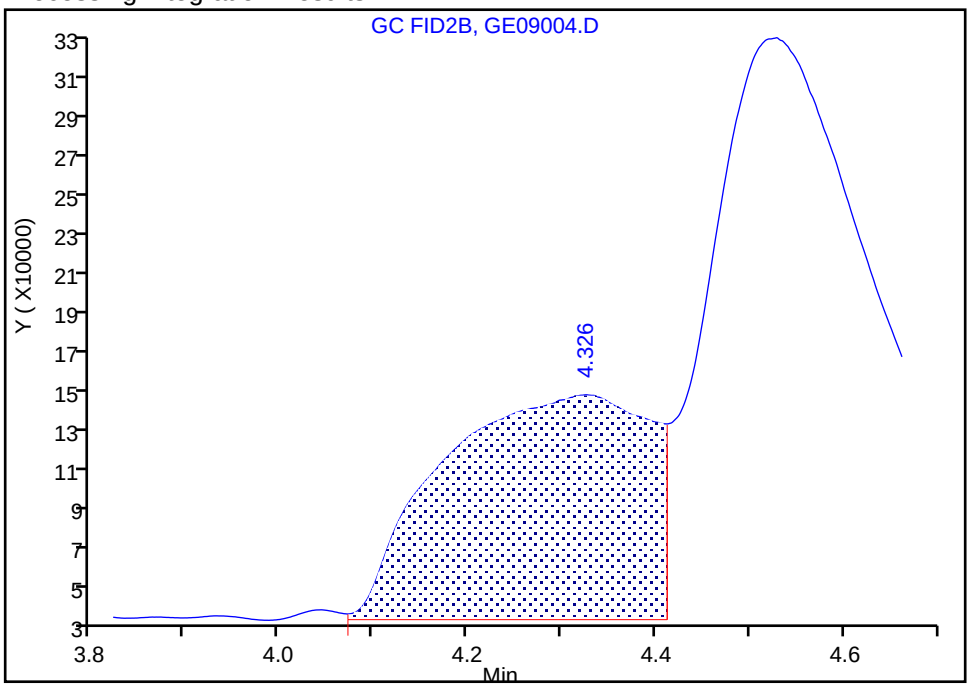
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09004.D
Injection Date: 09-May-2023 17:39:37 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB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

6 Propylene glycol, CAS: 57-55-6

Signal: 1

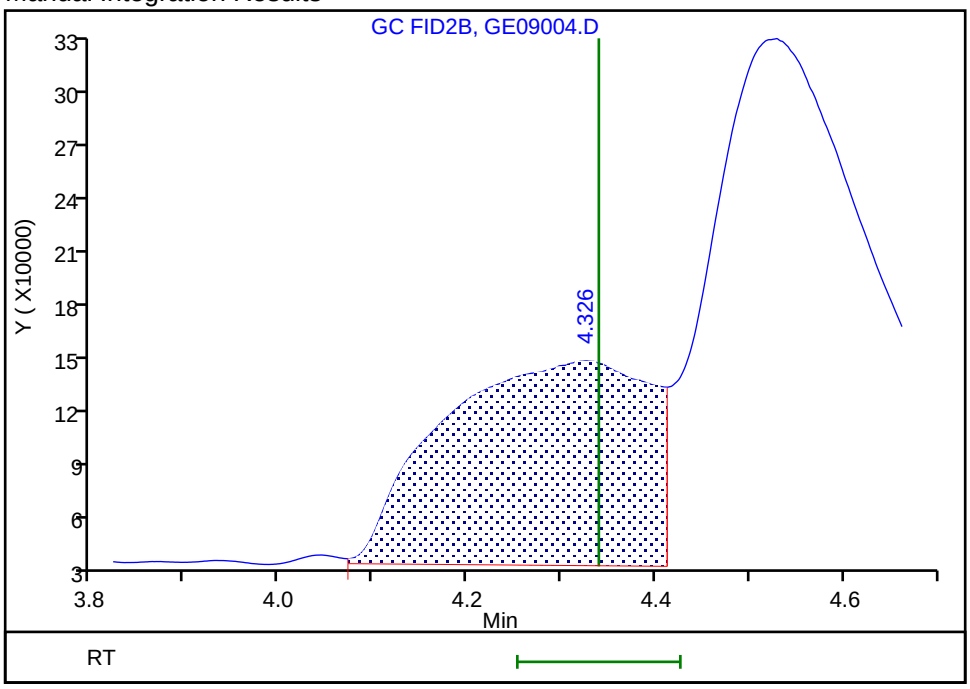
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

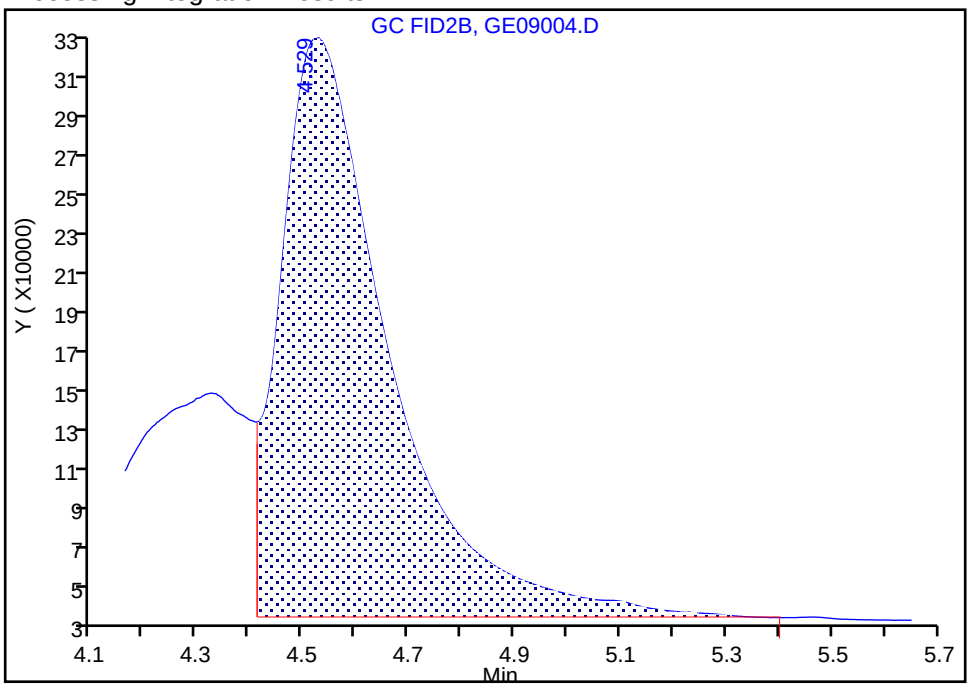
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09004.D				
Injection Date:	09-May-2023 17:39:37	Instrument ID:	CVGG2		
Lims ID:	ic g7				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

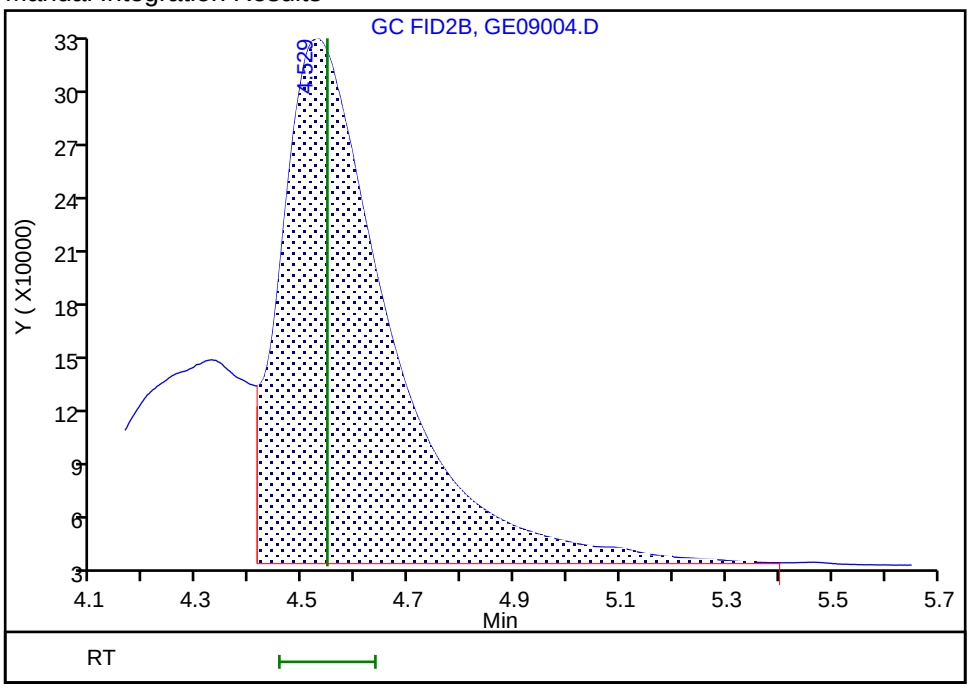
Processing Integration Results

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



Manual Integration Results

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



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						M
	2.374	2.377	-0.003	4919800	80.0	79.6	M
	3 2-Butoxyethanol						M
	2.525	2.524	0.001	5157004	80.0	77.7	M
*	4 n-Heptyl Alcohol						M
	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						M
	4.333	4.340	-0.007	1132192	80.0	74.5	M
	7 Ethylene glycol						M
	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

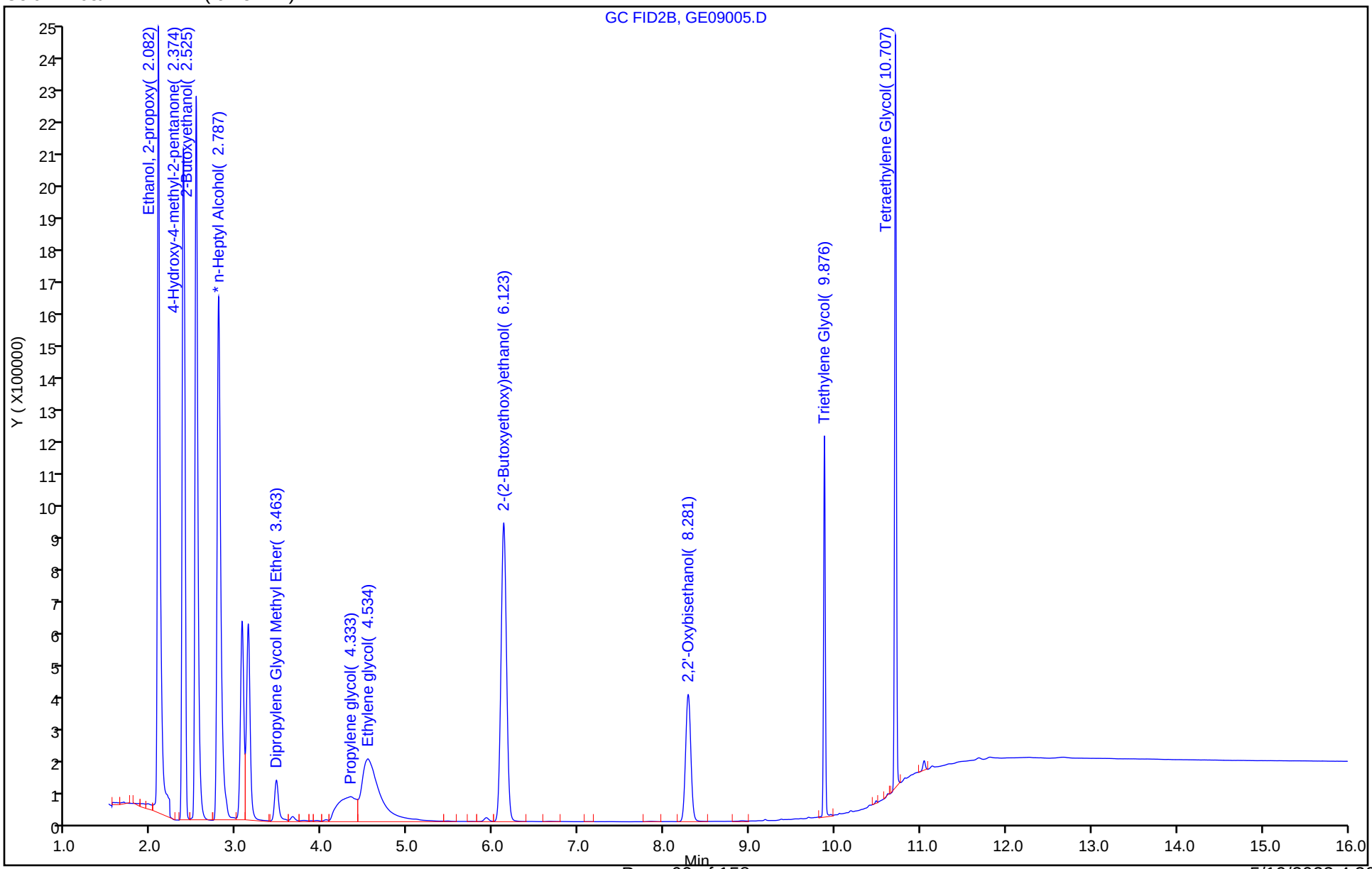
Report Date: 10-May-2023 11:56:55 Chrom Revision: 2.3 29-Mar-2023 18:39:10

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)



5/19/2023 4:30 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

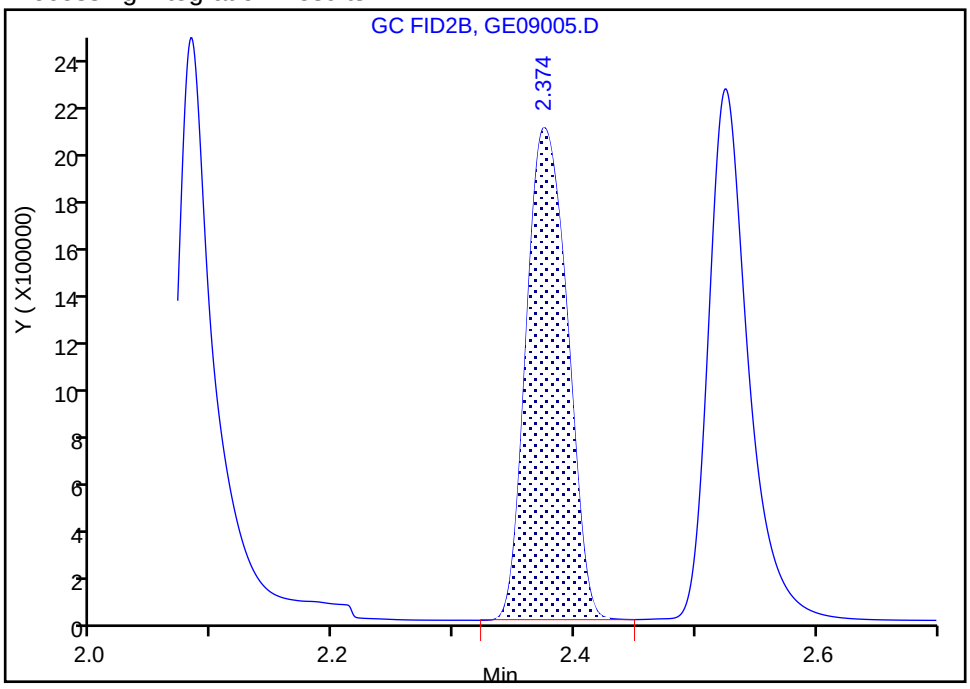
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D				
Injection Date:	09-May-2023 18:02:54	Instrument ID:	CVGG2		
Lims ID:	ic g6				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

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

Signal: 1

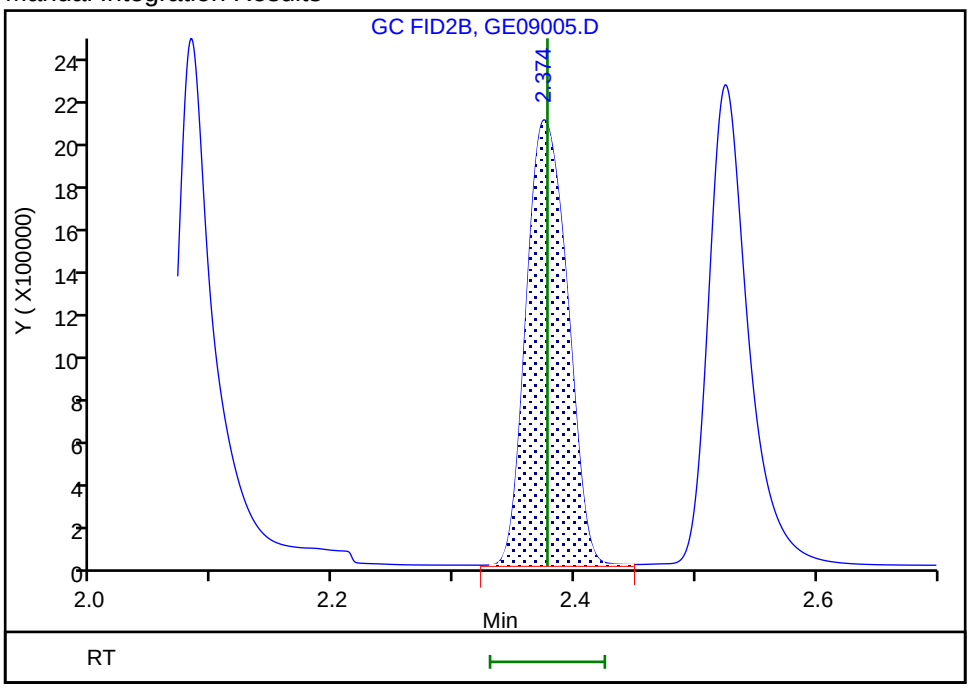
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

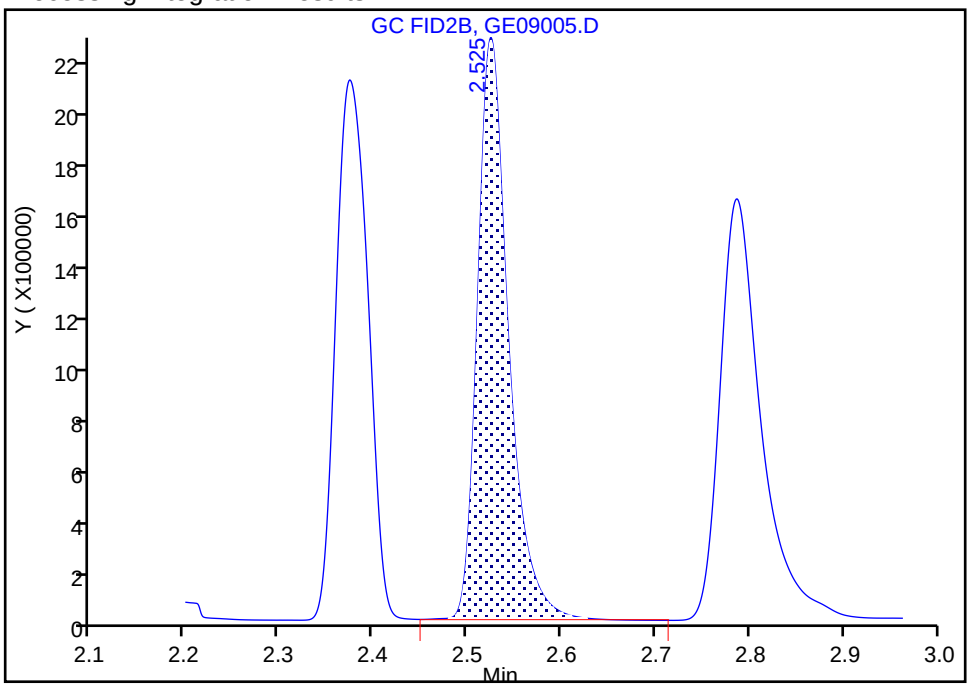
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D				
Injection Date:	09-May-2023 18:02:54	Instrument ID:	CVGG2		
Lims ID:	ic g6				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

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

Signal: 1

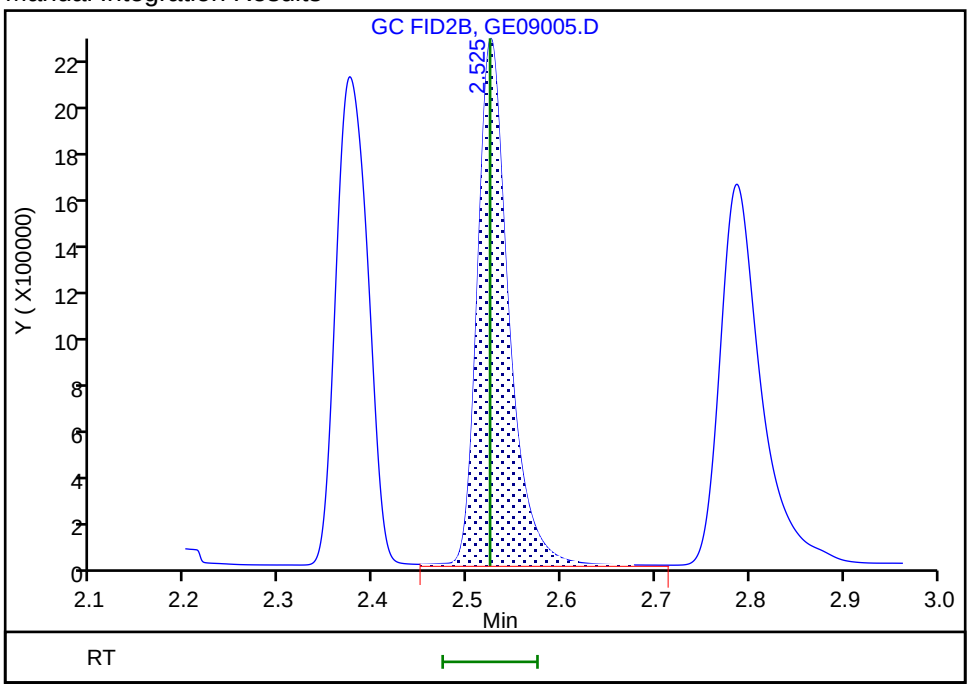
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

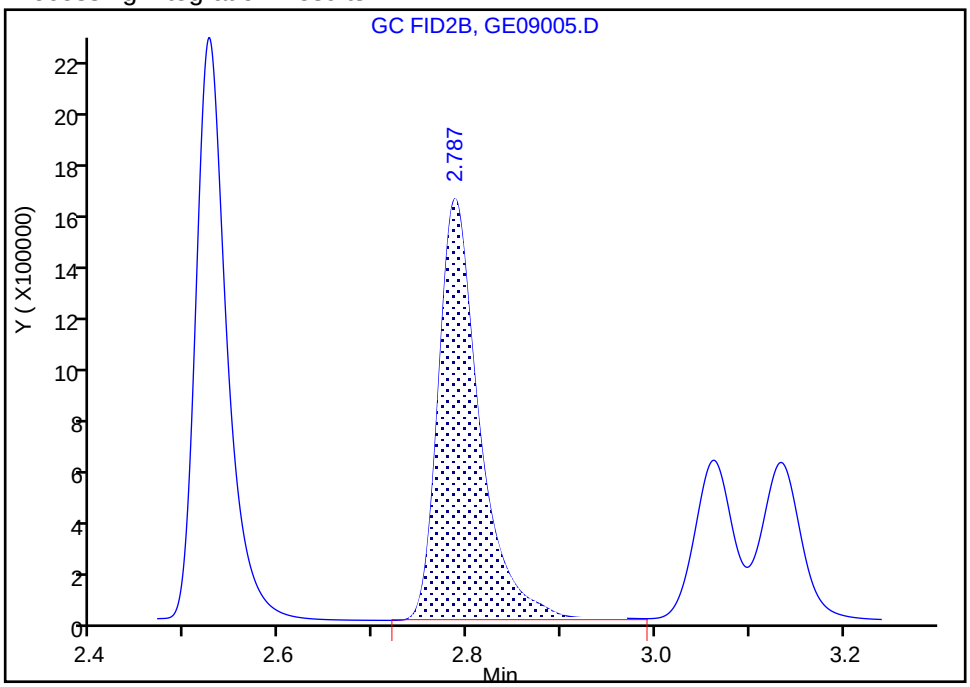
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D
Injection Date: 09-May-2023 18:02:54 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB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

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

Signal: 1

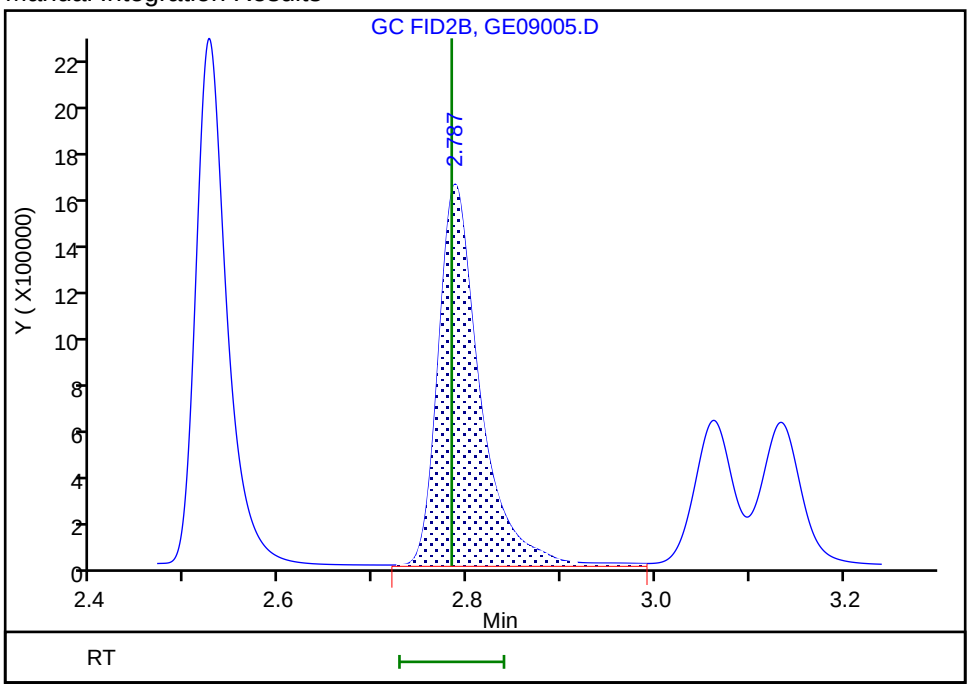
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

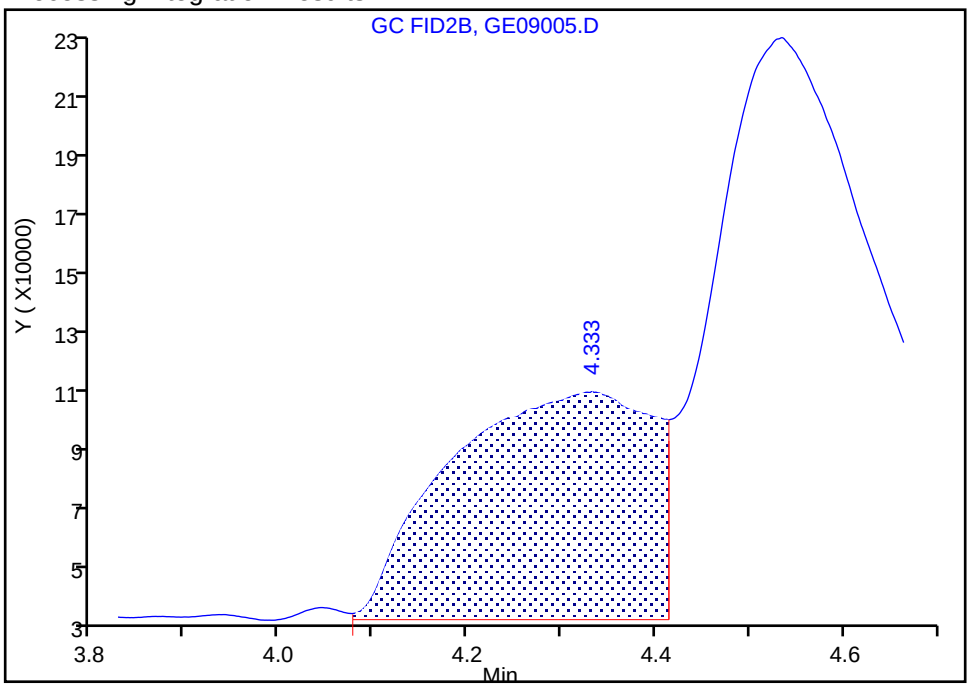
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D
Injection Date: 09-May-2023 18:02:54 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB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

6 Propylene glycol, CAS: 57-55-6

Signal: 1

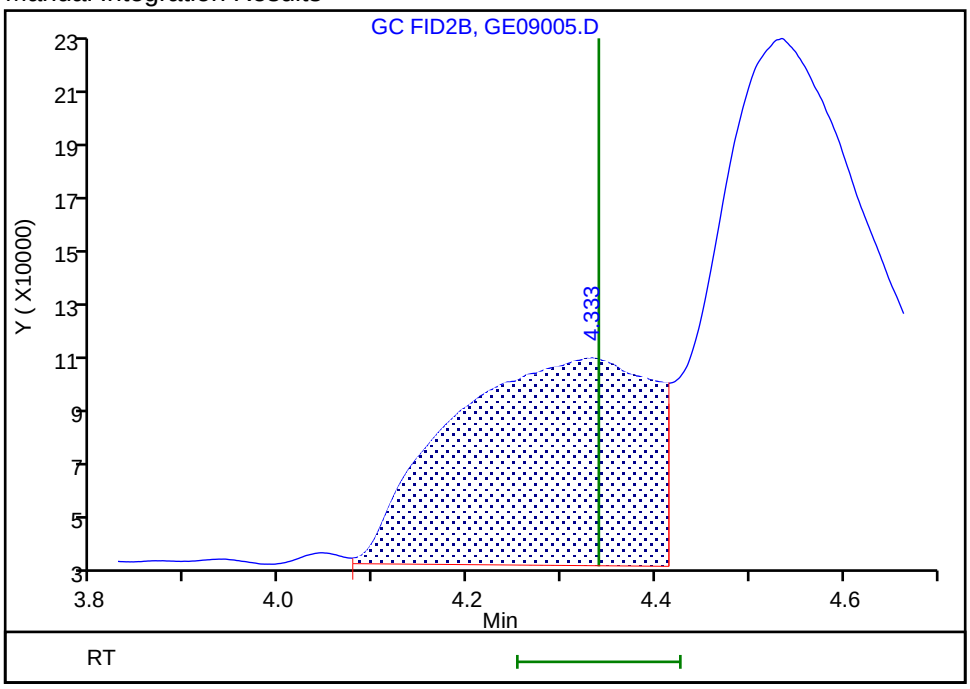
RT: 4.33
Area: 1126849
Amount: 74.503849
Amount Units: ug/ml

Processing Integration Results



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

Manual Integration Results



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

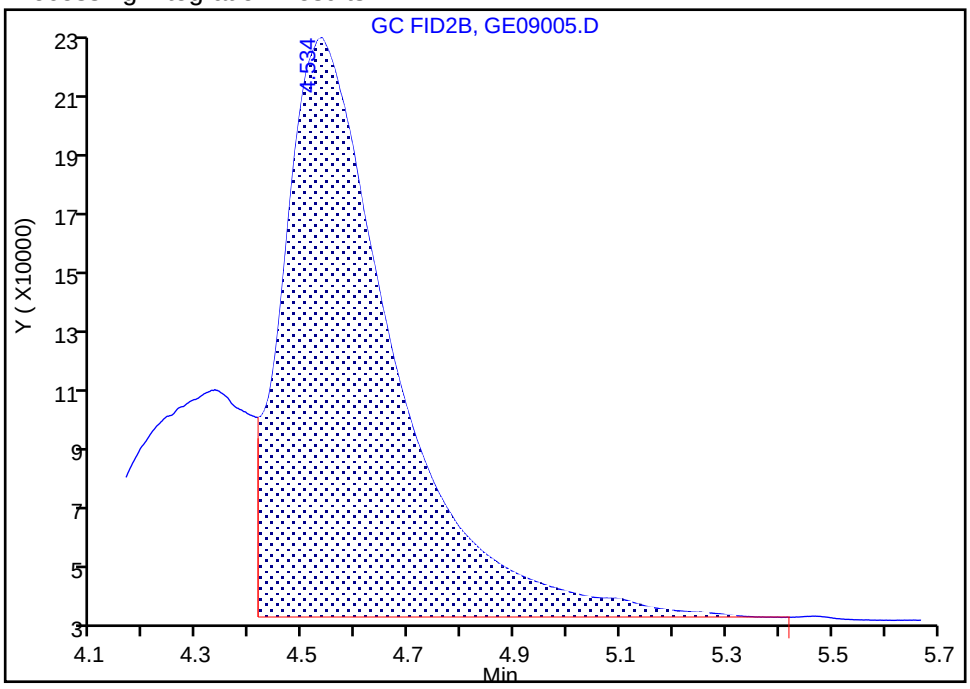
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09005.D				
Injection Date:	09-May-2023 18:02:54	Instrument ID:	CVGG2		
Lims ID:	ic g6				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

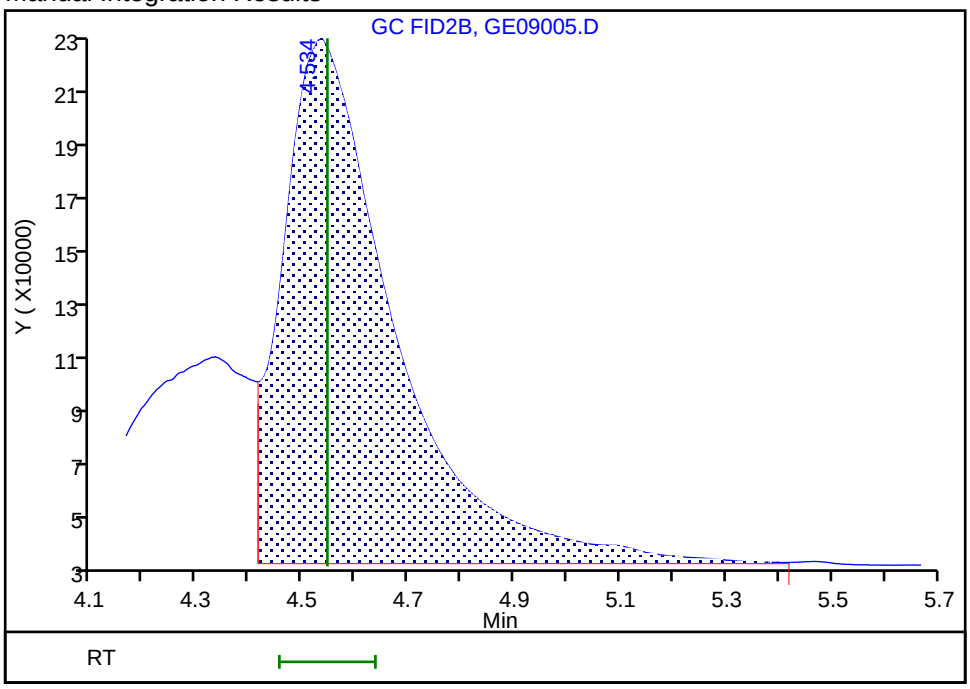
Processing Integration Results

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



Manual Integration Results

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



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						M
	2.377	2.377	0.000	3414820	50.0	48.9	M
	3 2-Butoxyethanol						M
	2.524	2.524	0.000	3642797	50.0	48.6	M
*	4 n-Heptyl Alcohol						M
	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

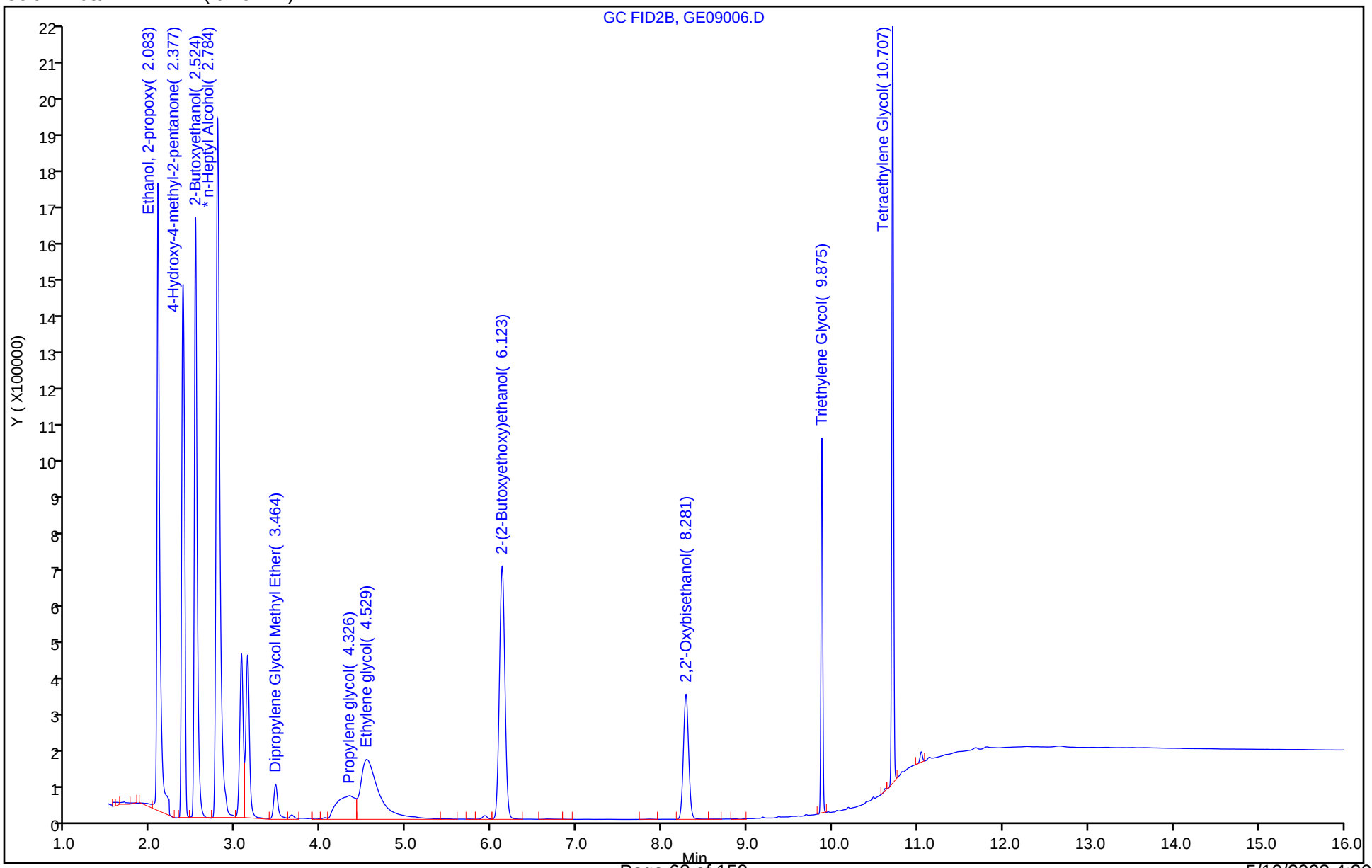
Report Date: 10-May-2023 11:56:57 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins 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)



5/19/2023 4:30 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

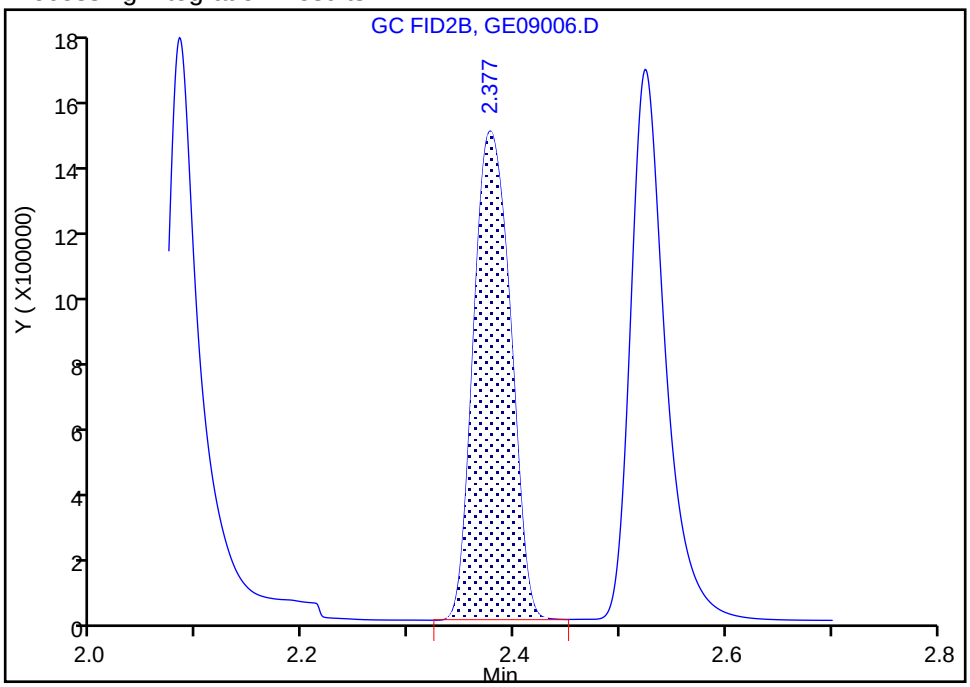
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09006.D				
Injection Date:	09-May-2023 18:26:10	Instrument ID:	CVGG2		
Lims ID:	ic g5				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

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

Signal: 1

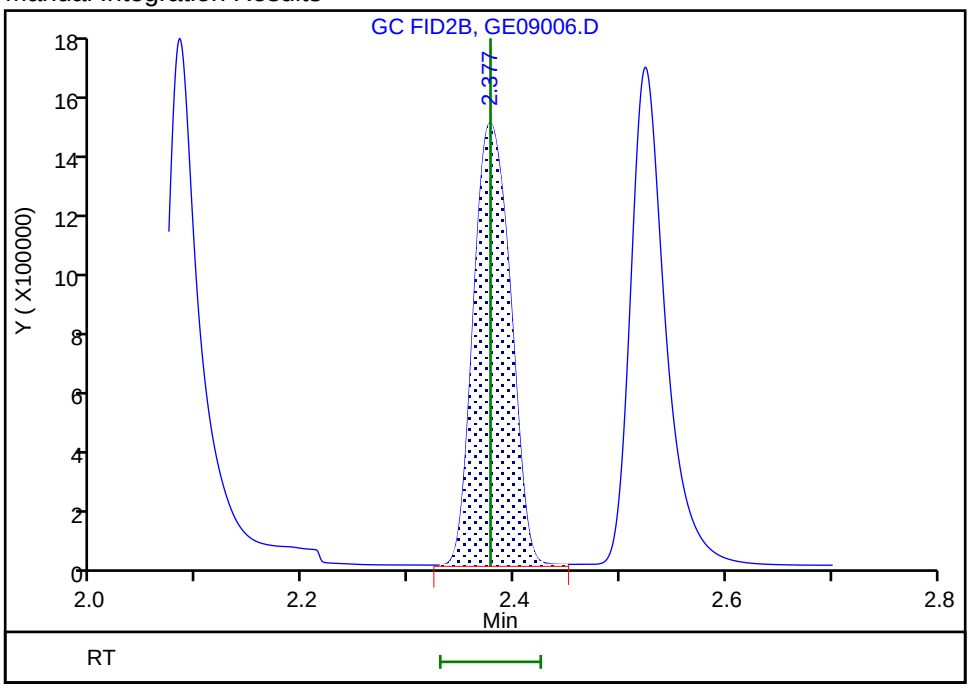
Processing Integration Results

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



Manual Integration Results

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



Reviewer: SK9U, 10-May-2023 11:32:27

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

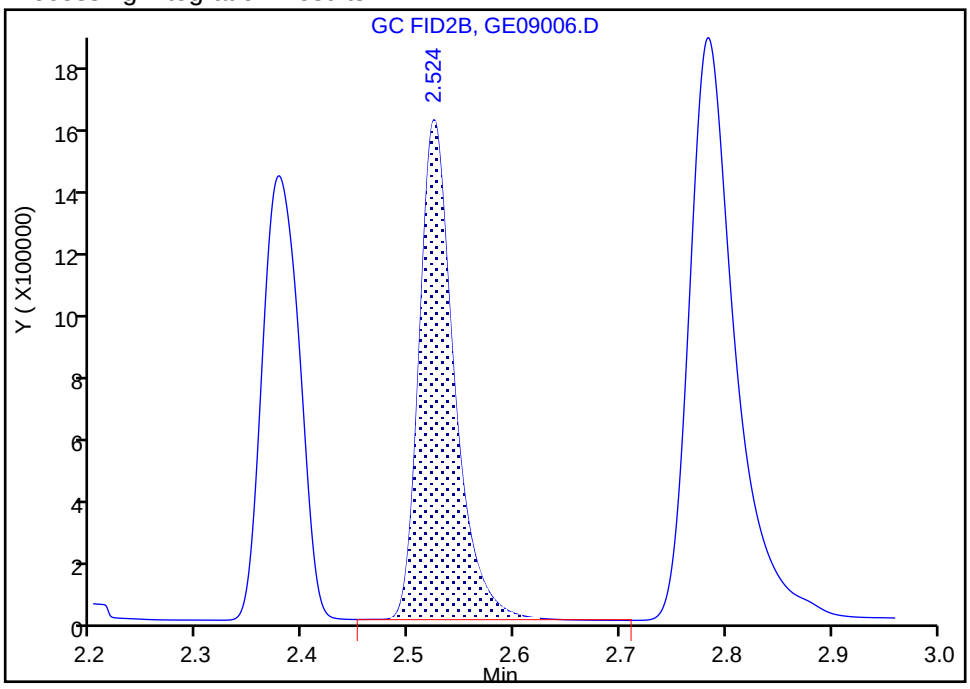
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09006.D				
Injection Date:	09-May-2023 18:26:10	Instrument ID:	CVGG2		
Lims ID:	ic g5				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

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

Signal: 1

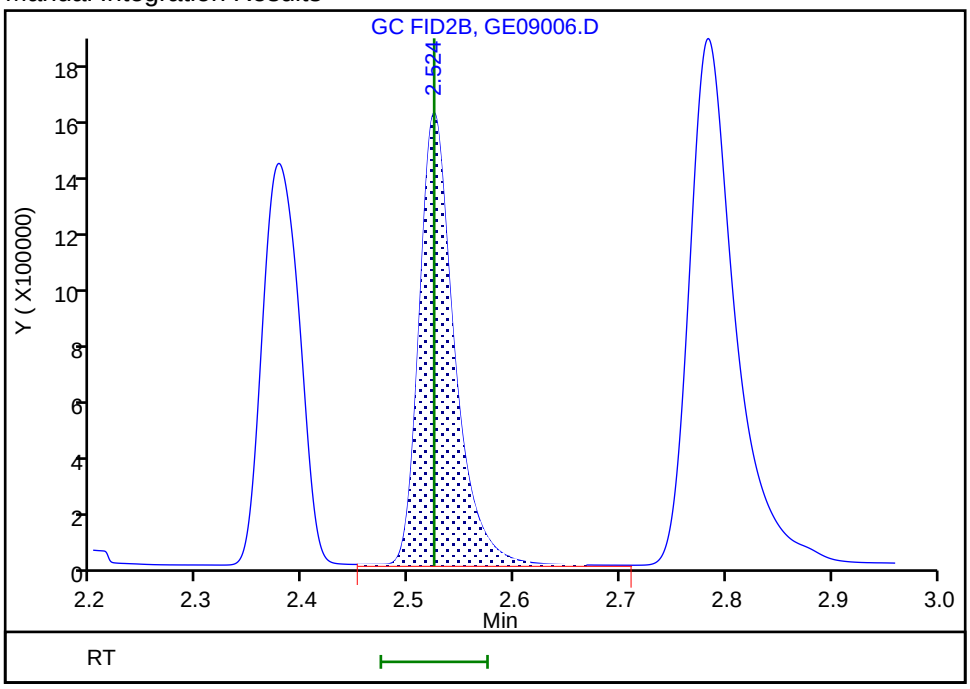
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

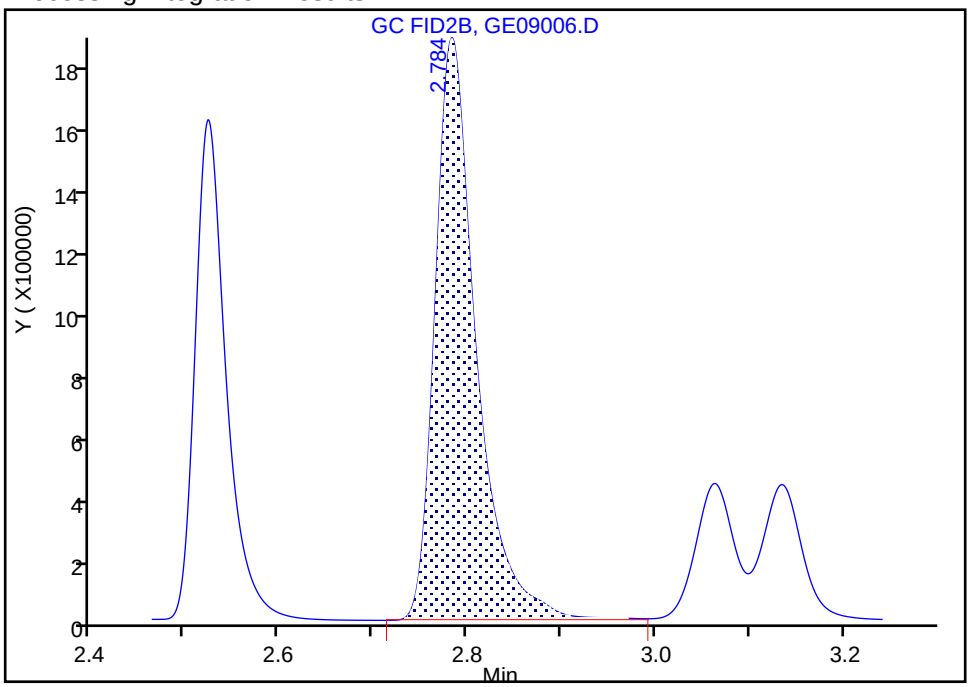
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09006.D				
Injection Date:	09-May-2023 18:26:10	Instrument ID:	CVGG2		
Lims ID:	ic g5				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

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

Signal: 1

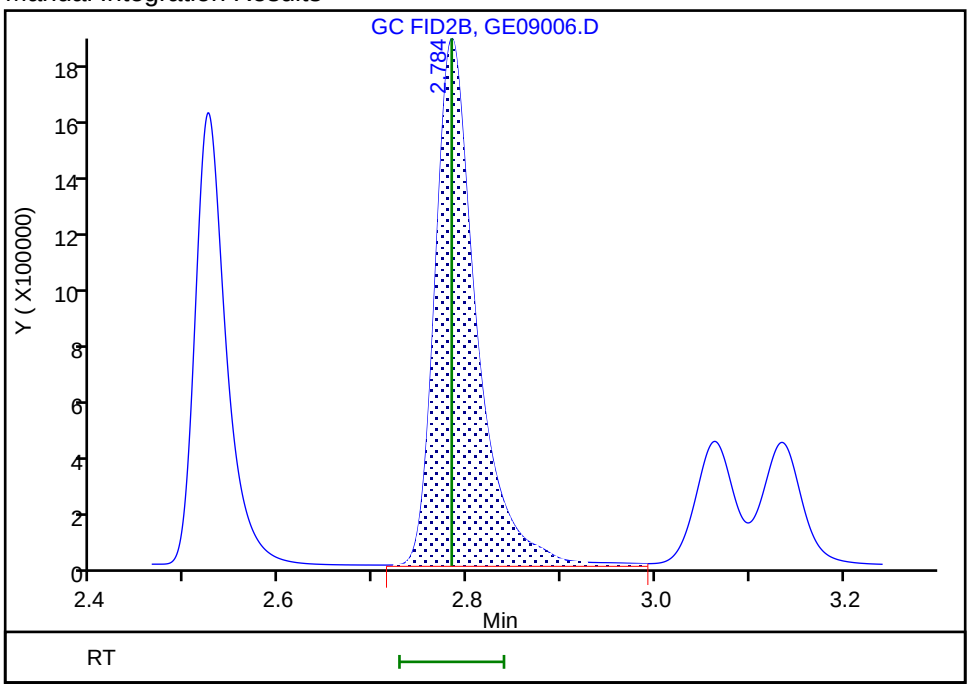
Processing Integration Results

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
	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

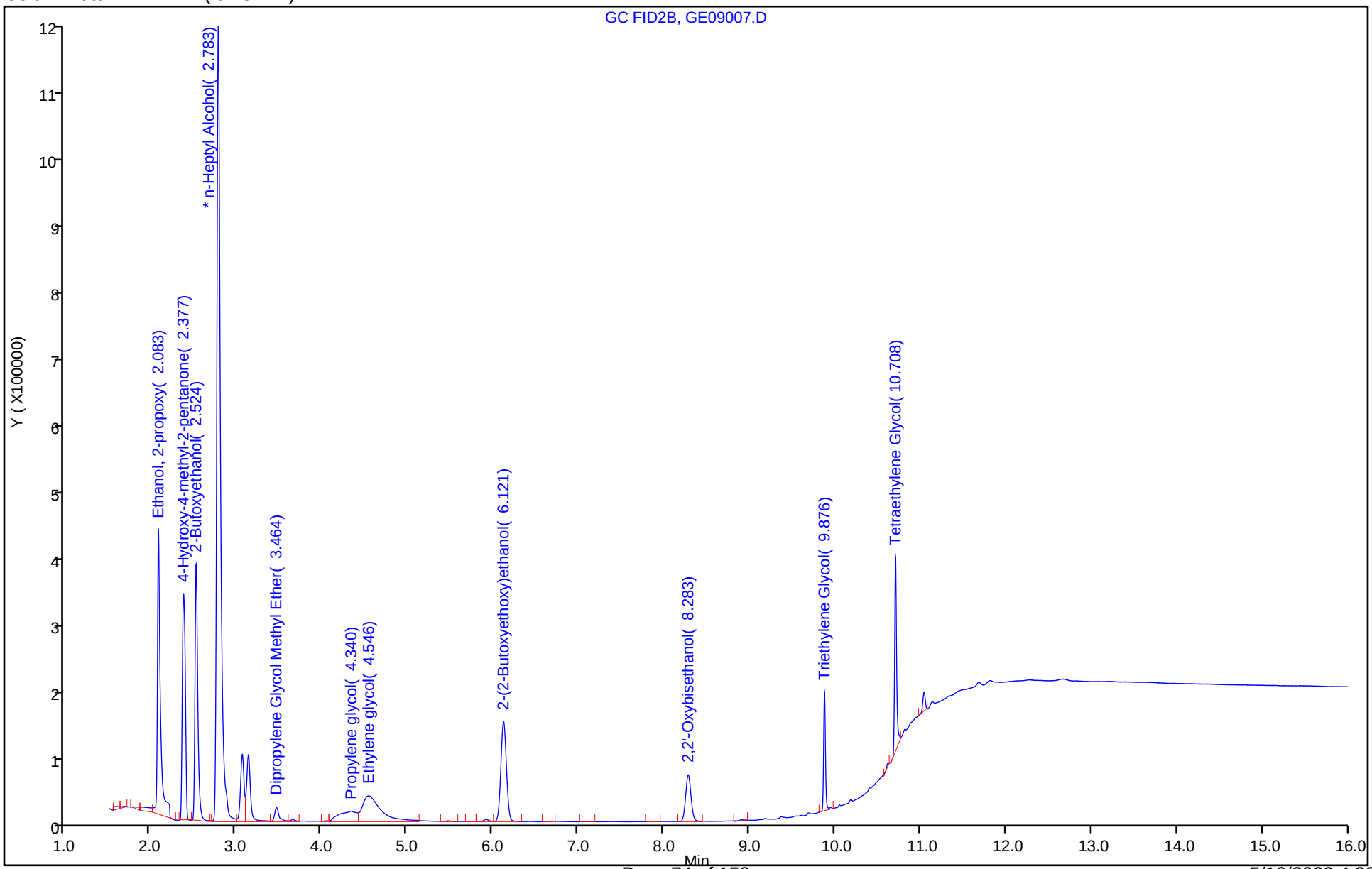
Report Date: 10-May-2023 11:56:58 Chrom Revision: 2.3 29-Mar-2023 18:39:10

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)



5/19/2023 4:30 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

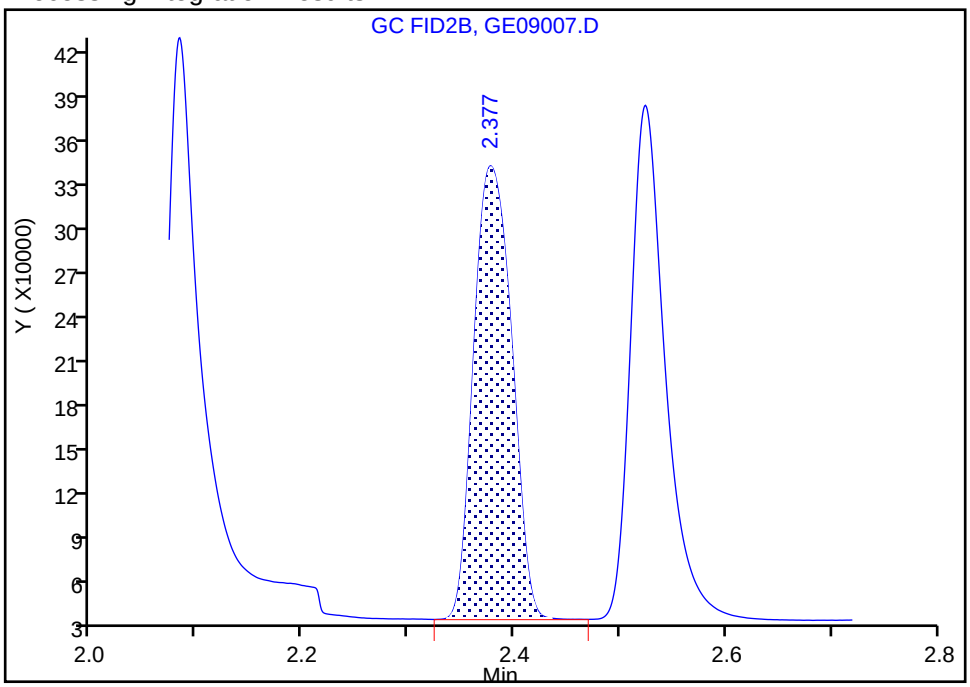
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D
Injection Date: 09-May-2023 18:49:33 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W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

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

Signal: 1

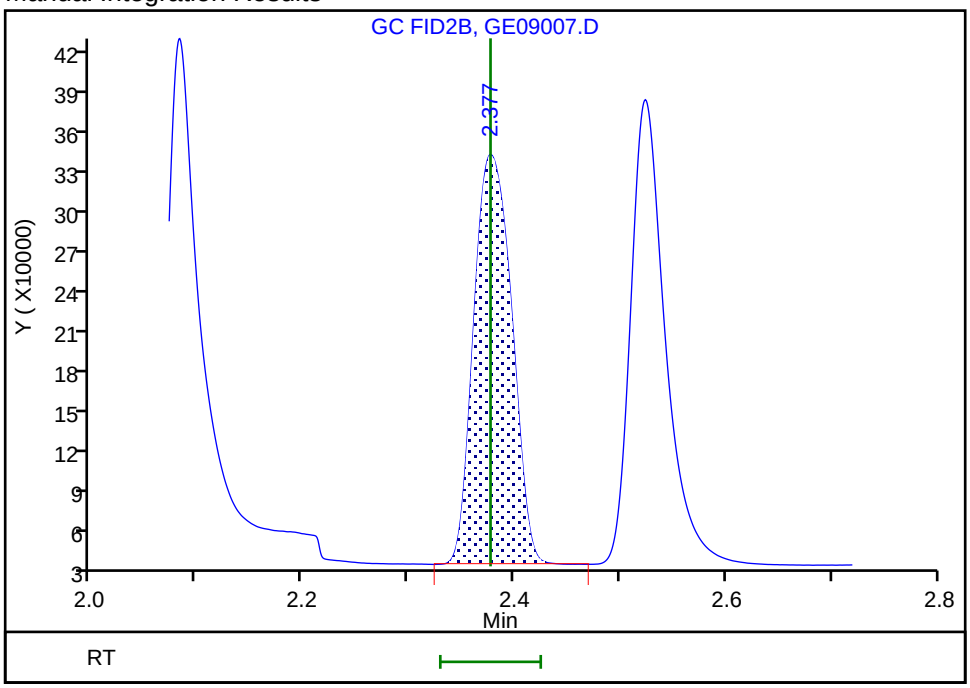
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

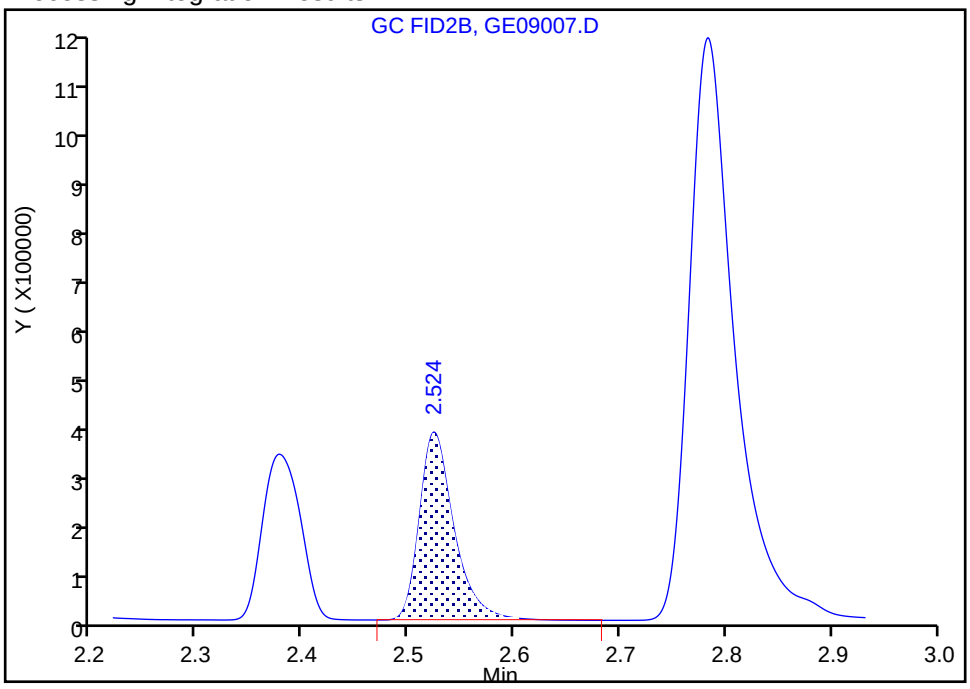
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D				
Injection Date:	09-May-2023 18:49:33	Instrument ID:	CVGG2		
Lims ID:	icis g4				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

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

Signal: 1

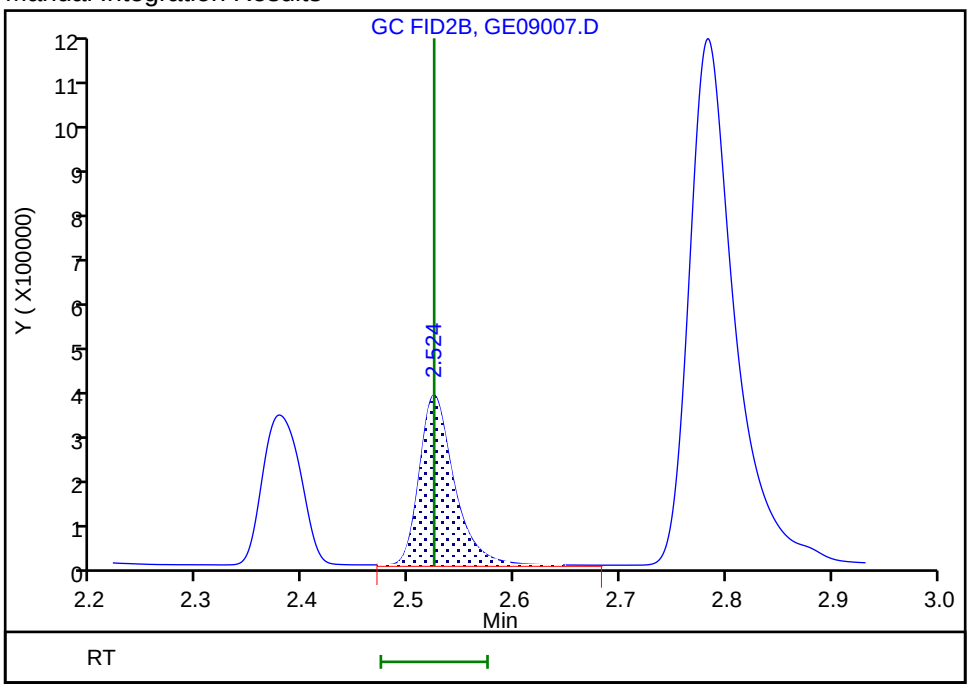
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

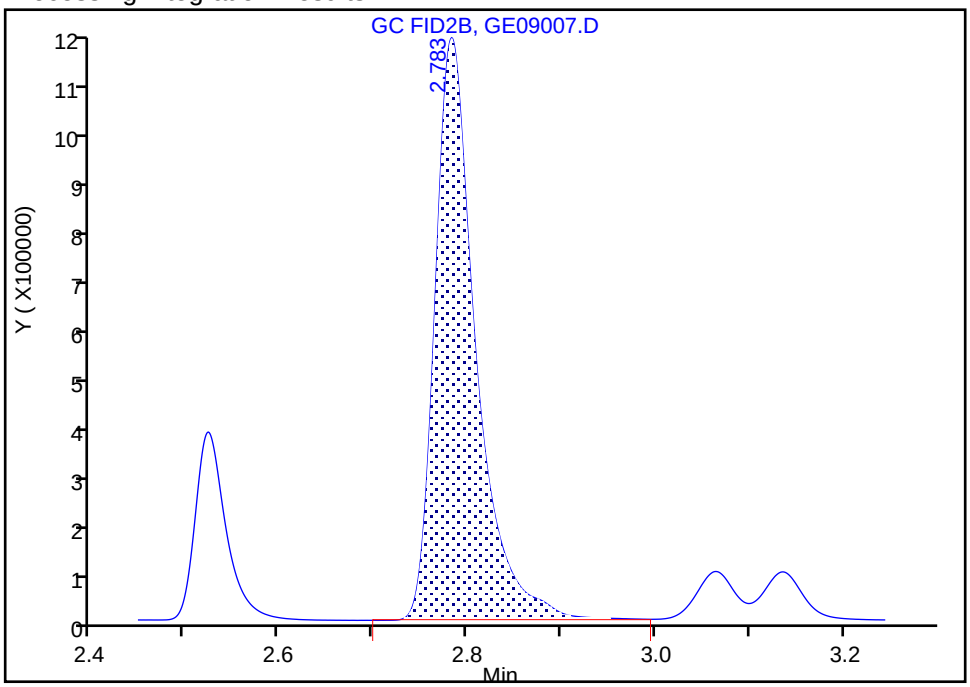
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D
Injection Date: 09-May-2023 18:49:33 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W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

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

Signal: 1

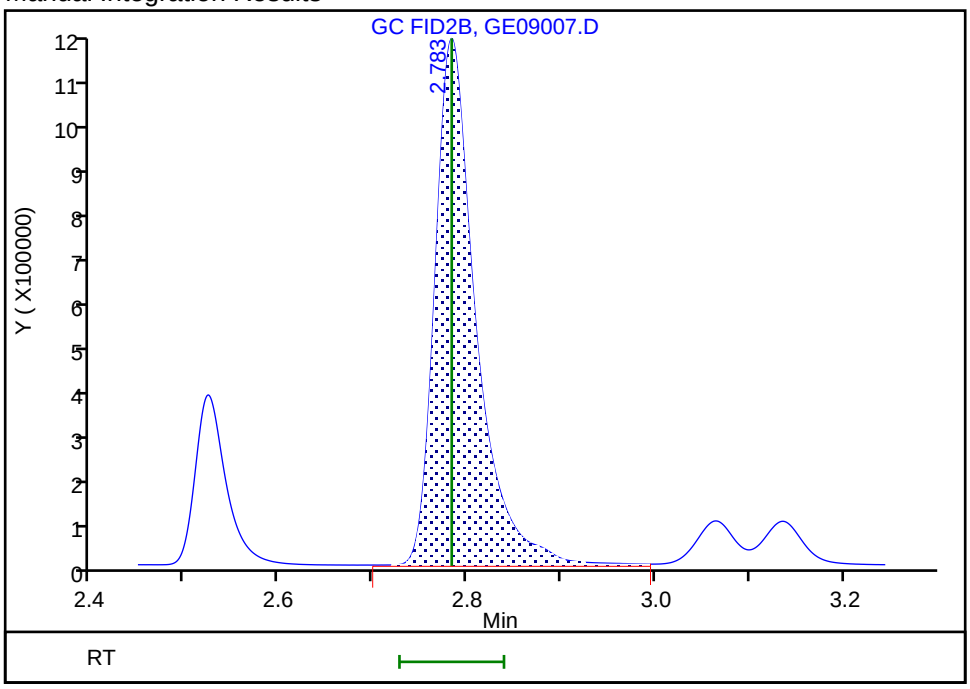
Processing Integration Results

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



Reviewer: SK9U, 10-May-2023 11:31:54
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

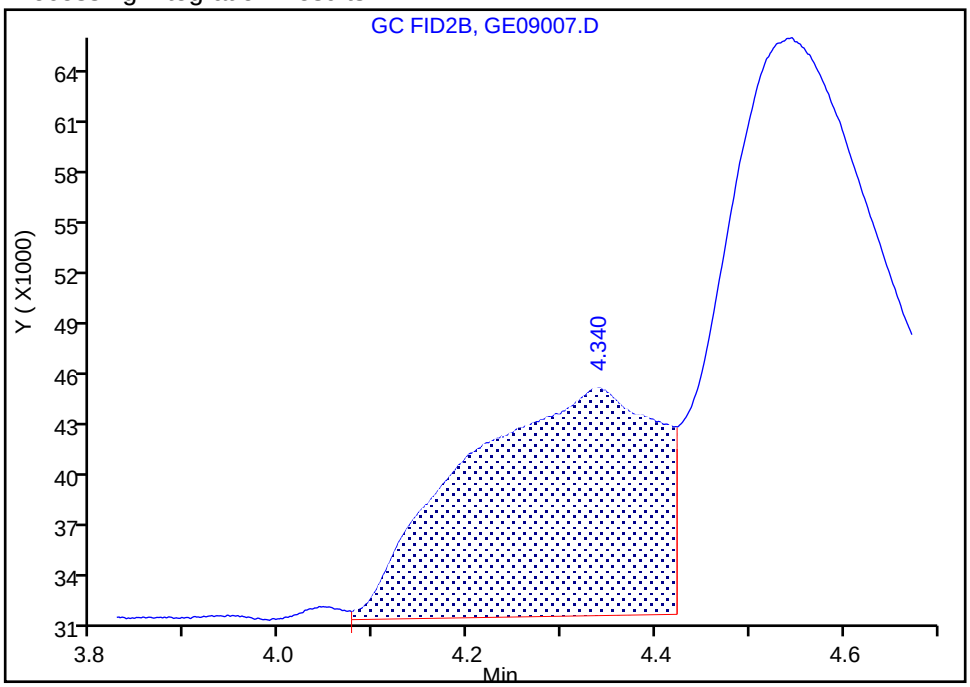
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D
Injection Date: 09-May-2023 18:49:33 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W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

6 Propylene glycol, CAS: 57-55-6

Signal: 1

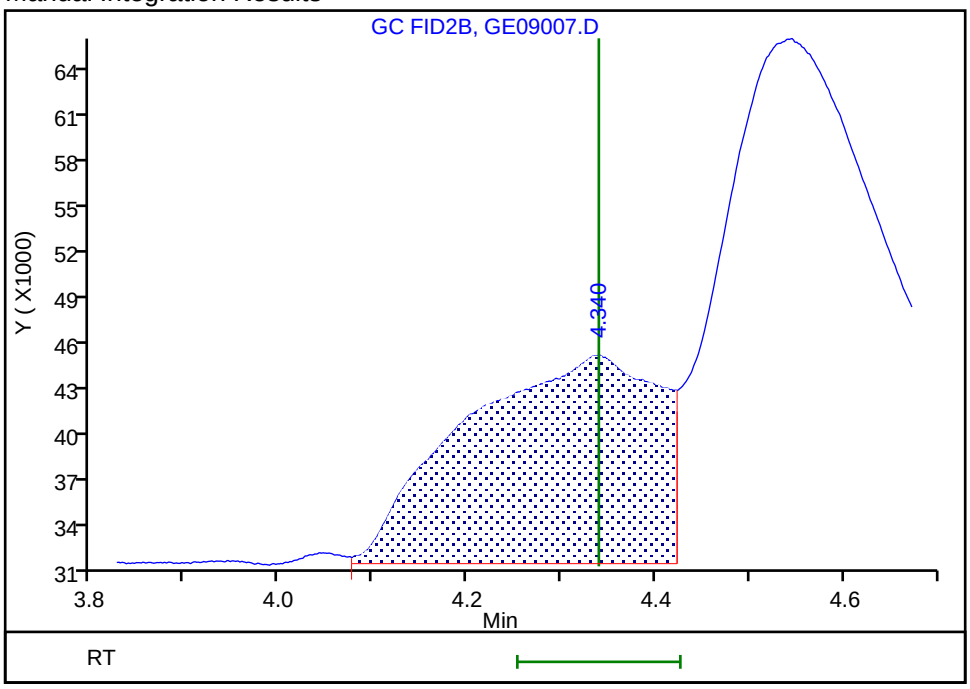
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

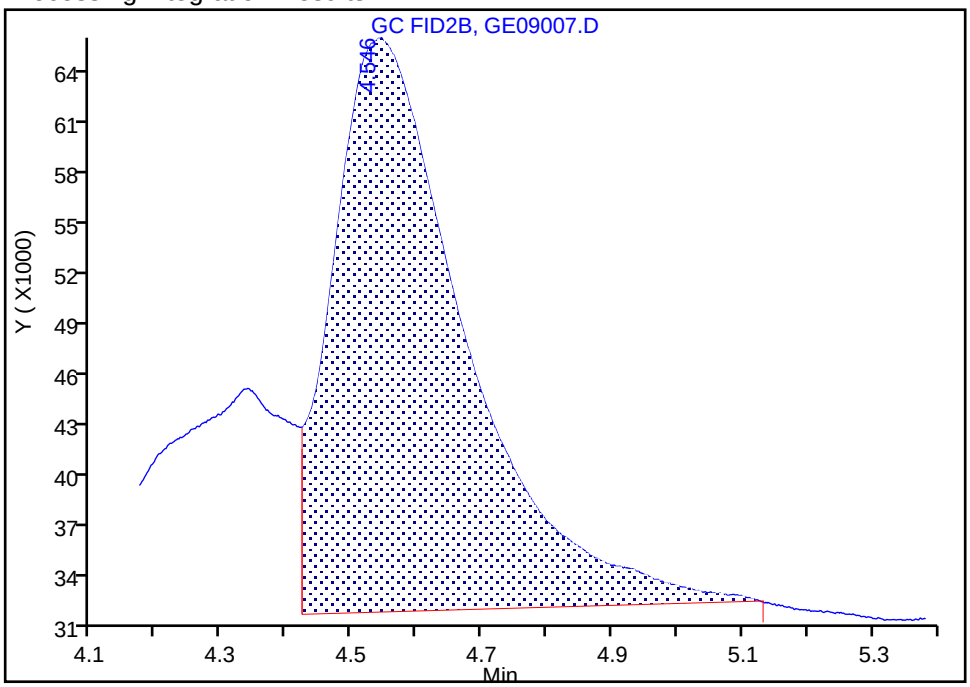
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09007.D				
Injection Date:	09-May-2023 18:49:33	Instrument ID:	CVGG2		
Lims ID:	icis g4				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

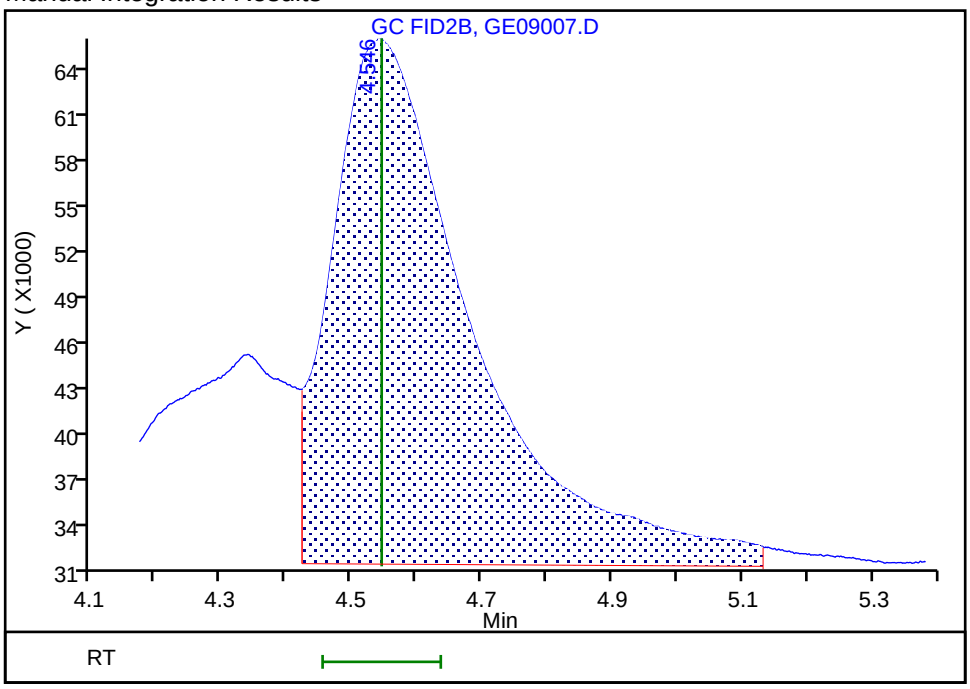
Processing Integration Results

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



Manual Integration Results

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



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						M
	2.784	2.783	0.001	4216874	50.0	50.0	M
	5 Dipropylene Glycol Methyl Ether						M
	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

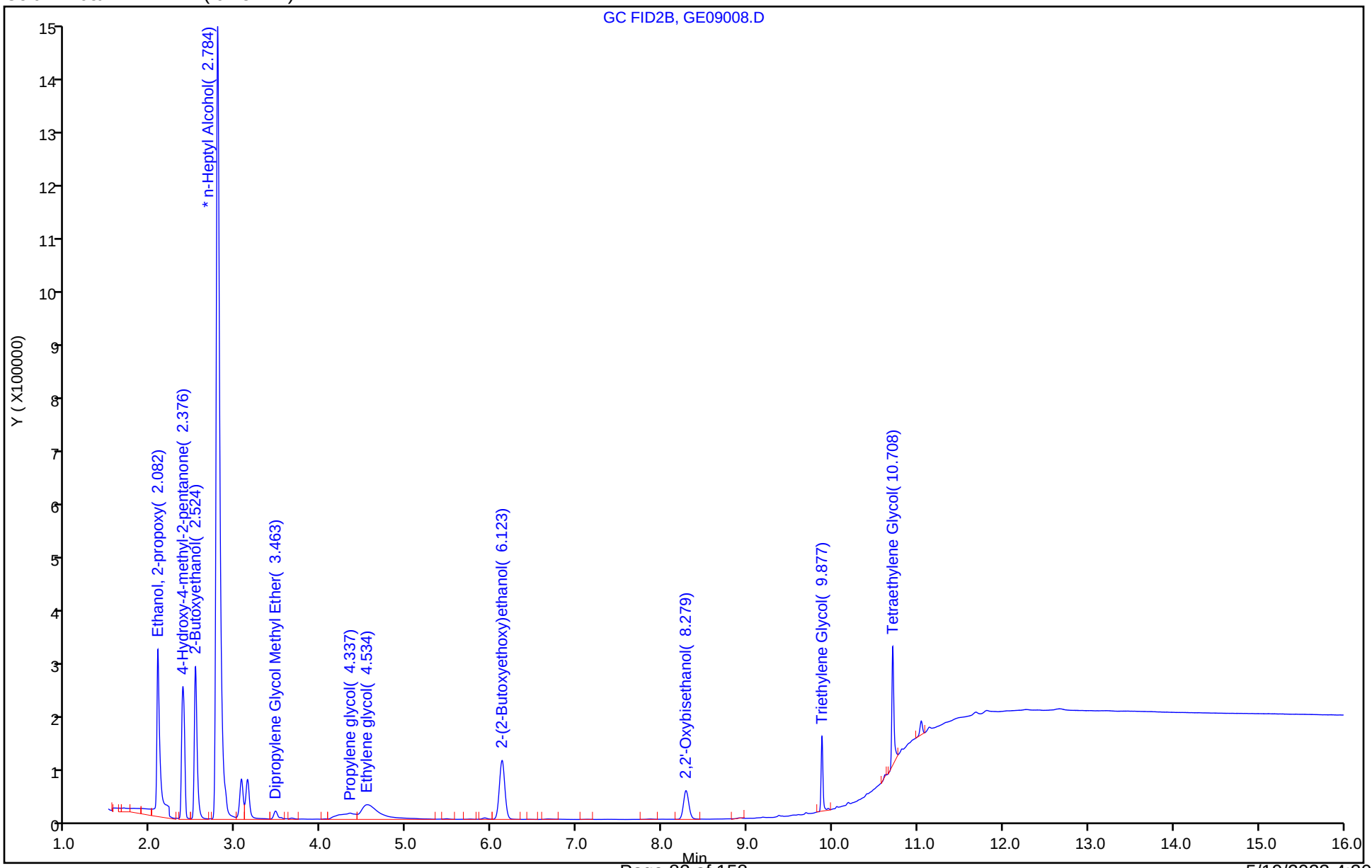
Report Date: 10-May-2023 11:57:00 Chrom Revision: 2.3 29-Mar-2023 18:39:10

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)



5/19/2023 4:30 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

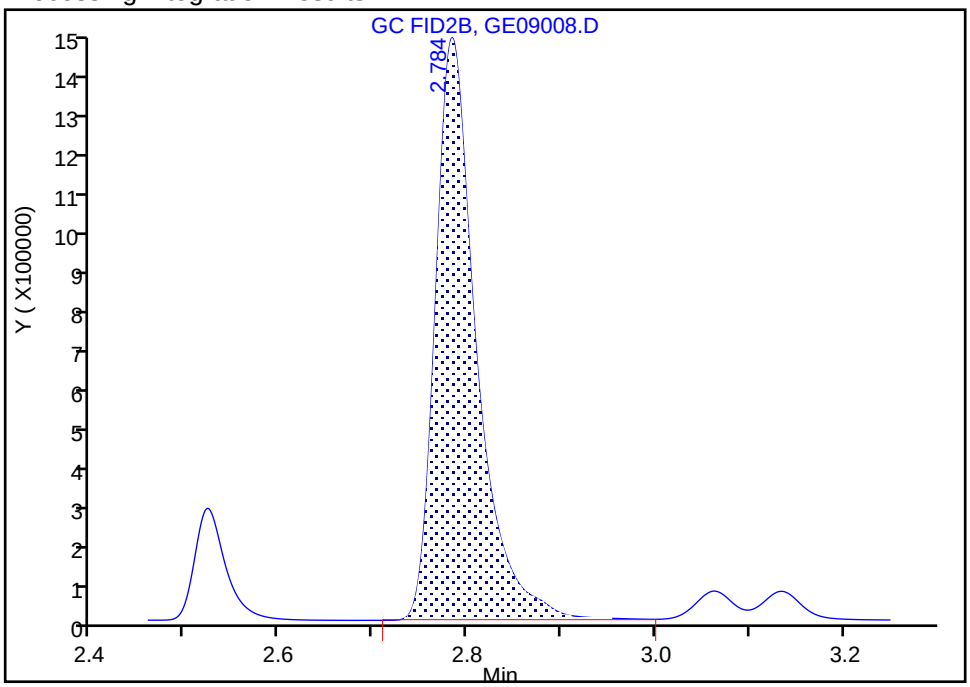
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09008.D
Injection Date: 09-May-2023 19:12:47 Instrument ID: CVGG2
Lims ID: ic g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB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

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

Signal: 1

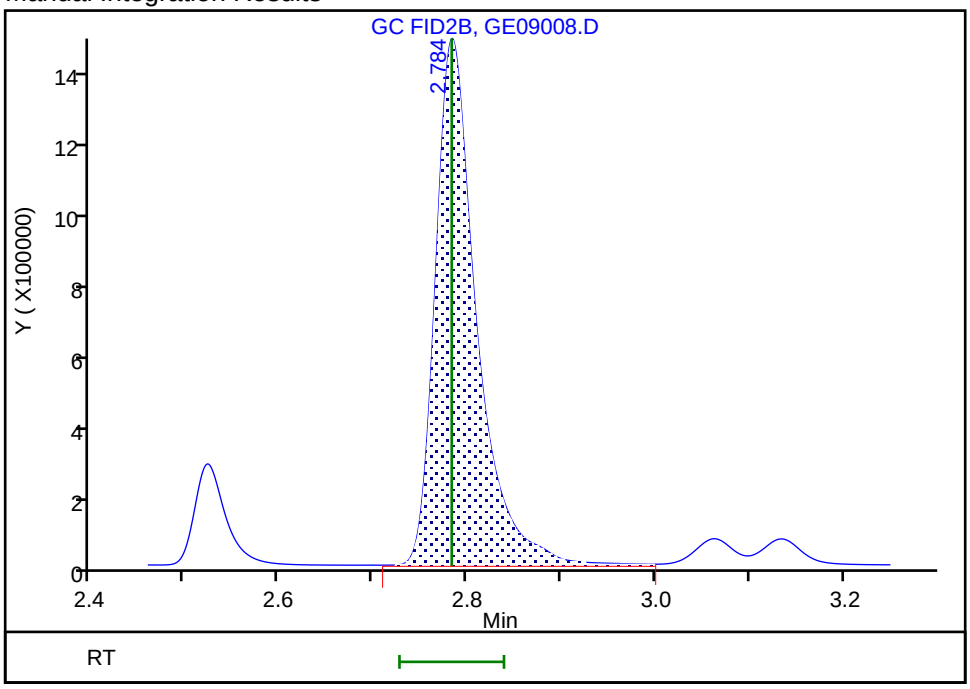
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

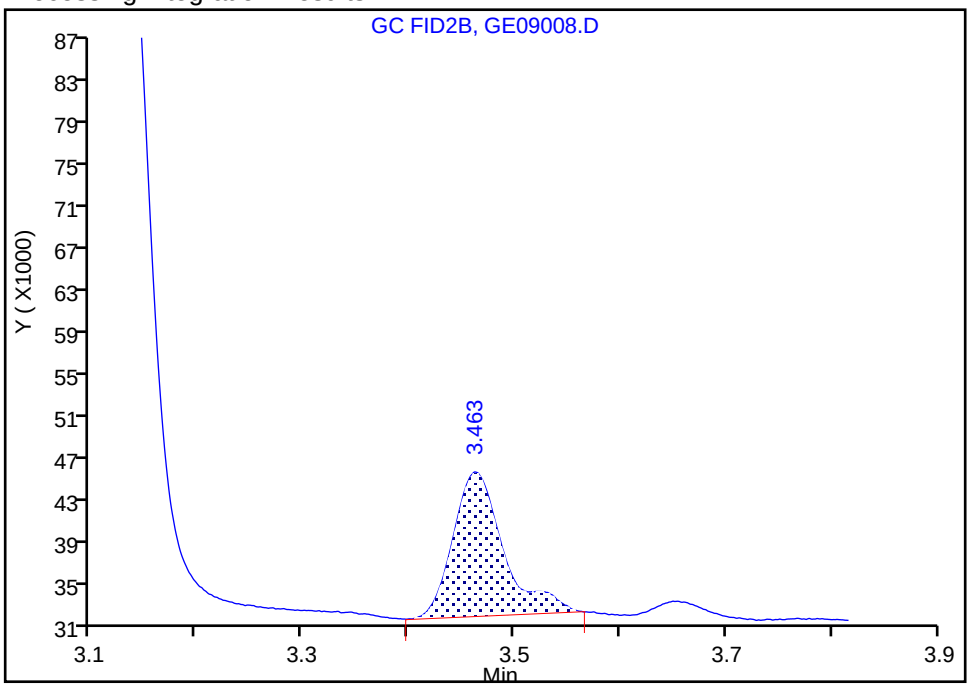
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09008.D
Injection Date: 09-May-2023 19:12:47 Instrument ID: CVGG2
Lims ID: ic g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB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

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

Signal: 1

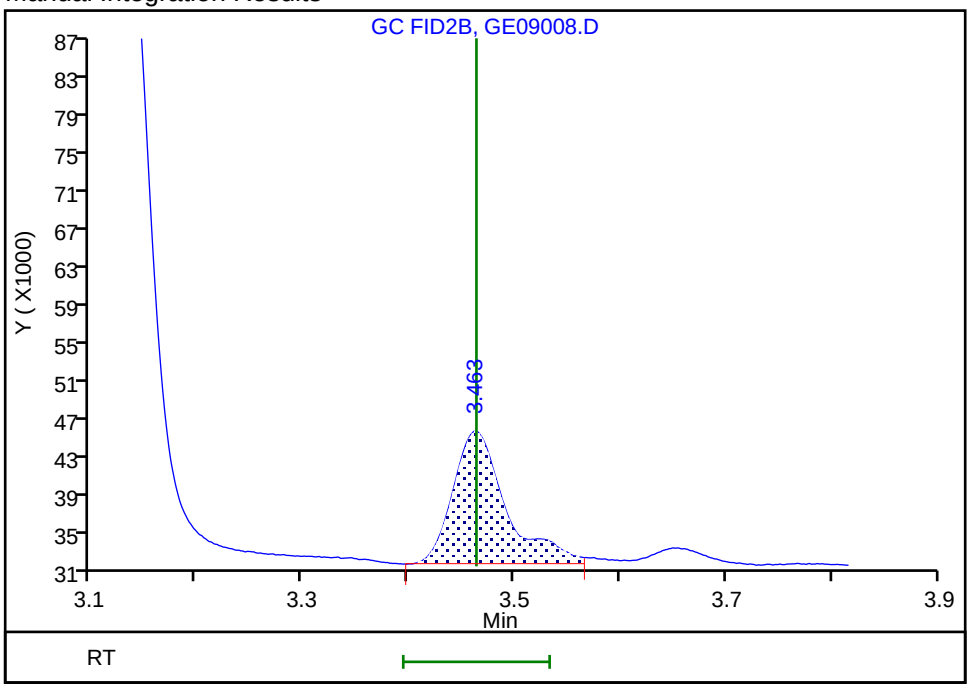
Processing Integration Results

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



Manual Integration Results

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



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

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						M
	2.784	2.783	0.001	5561153	50.0	50.0	M
	5 Dipropylene Glycol Methyl Ether						M
	3.464	3.464	0.000	30977	5.00	5.32	M
	6 Propylene glycol						M
	4.337	4.340	-0.003	86370	5.00	5.16	M
	7 Ethylene glycol						M
	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

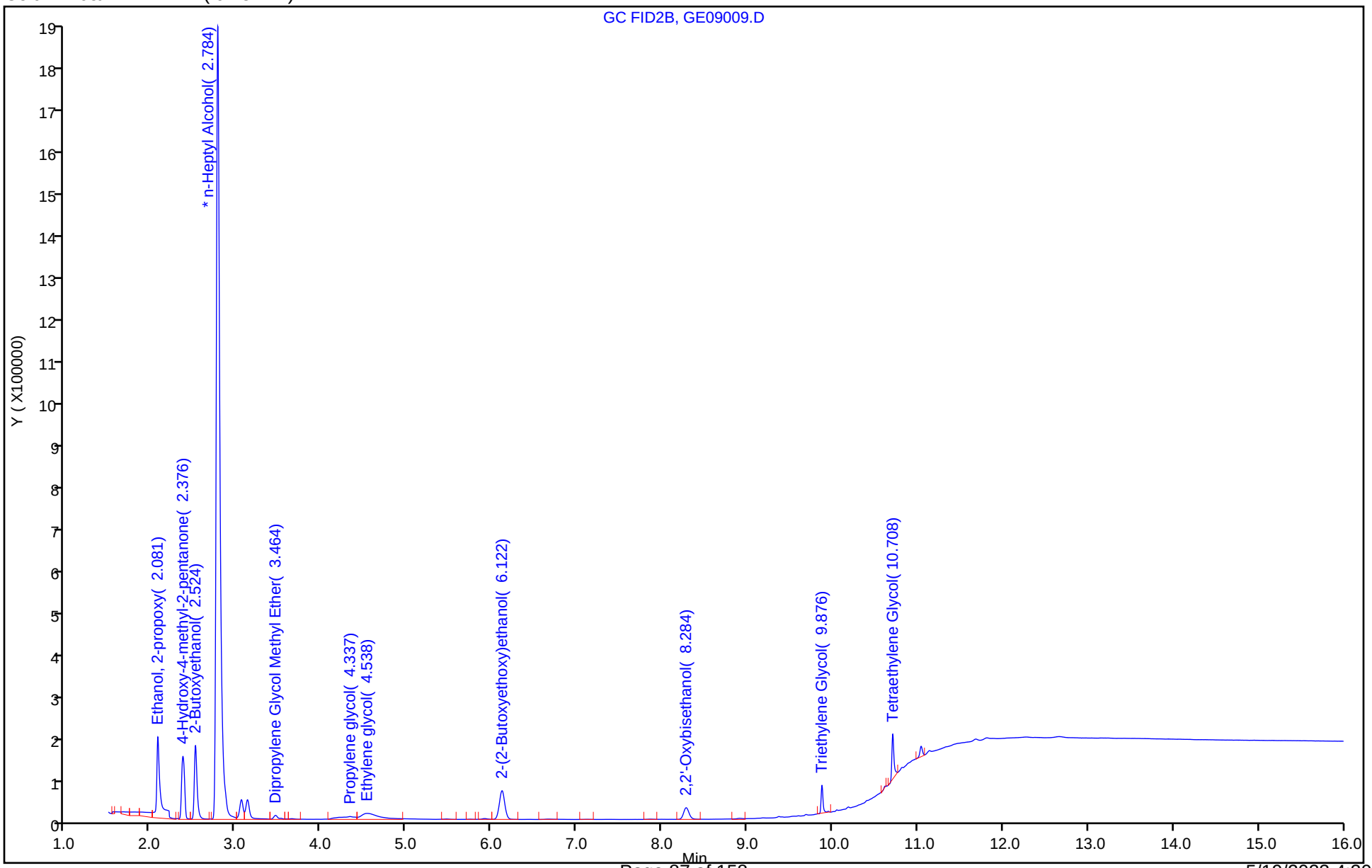
Report Date: 10-May-2023 11:57:01 Chrom Revision: 2.3 29-Mar-2023 18:39:10

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)



5/19/2023 4:30 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

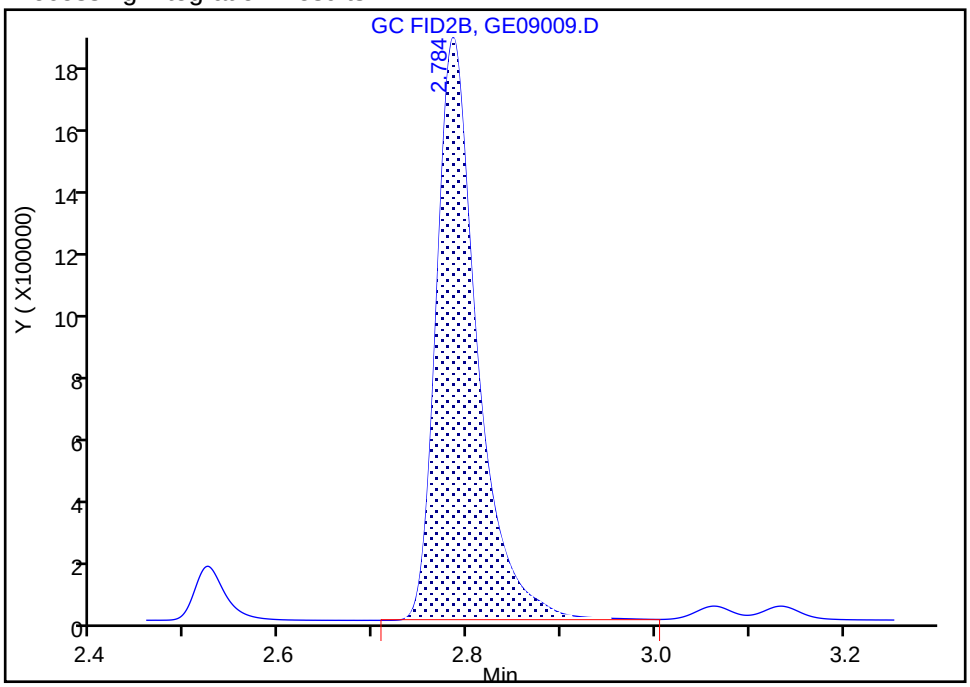
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09009.D
Injection Date: 09-May-2023 19:36:03 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB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

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

Signal: 1

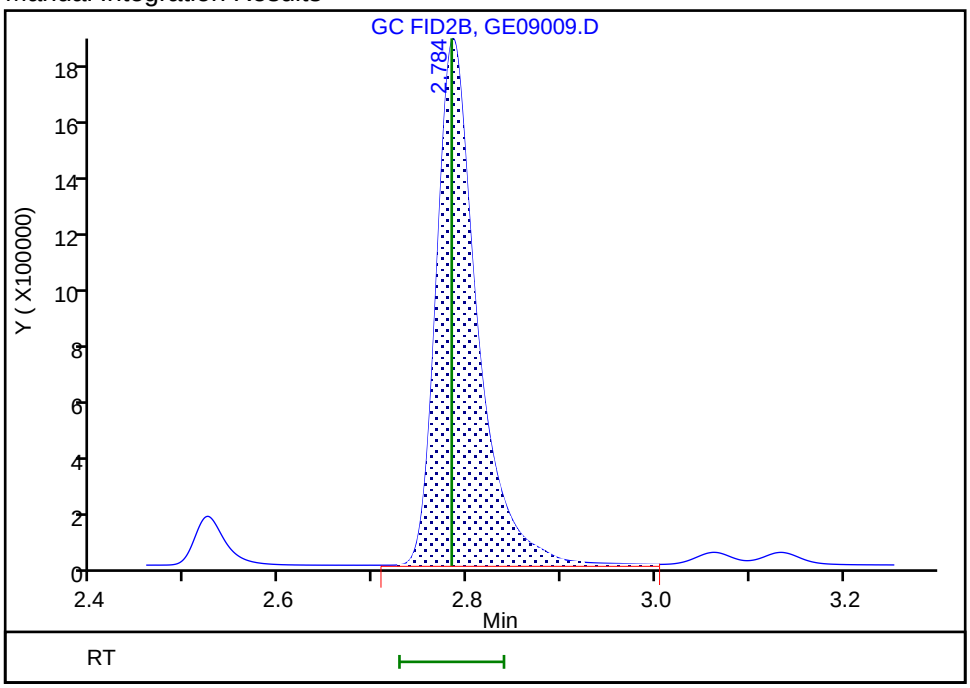
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

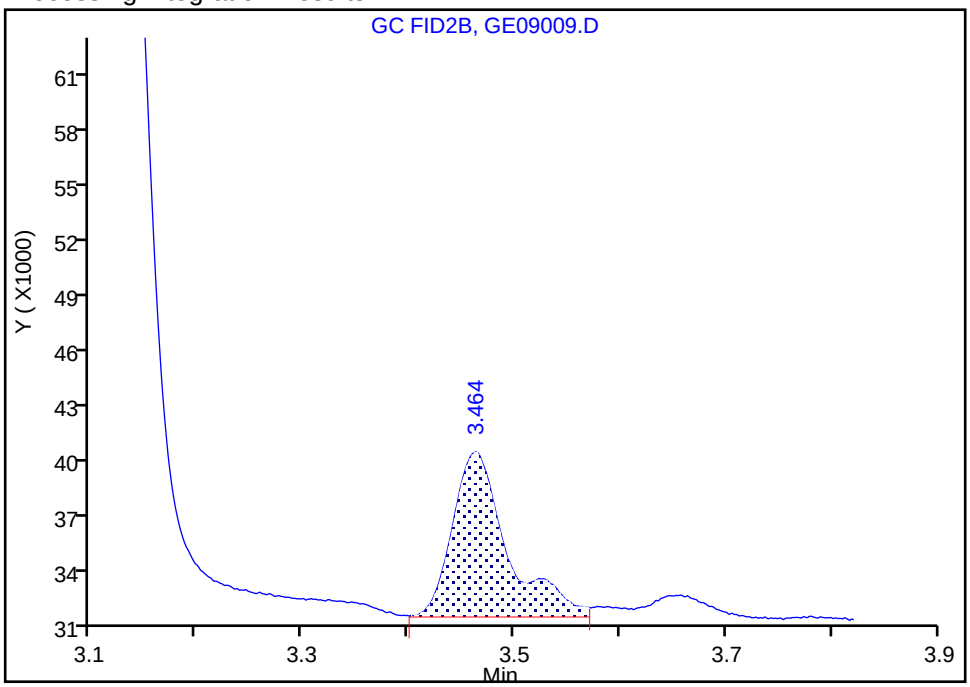
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09009.D
Injection Date: 09-May-2023 19:36:03 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB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

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

Signal: 1

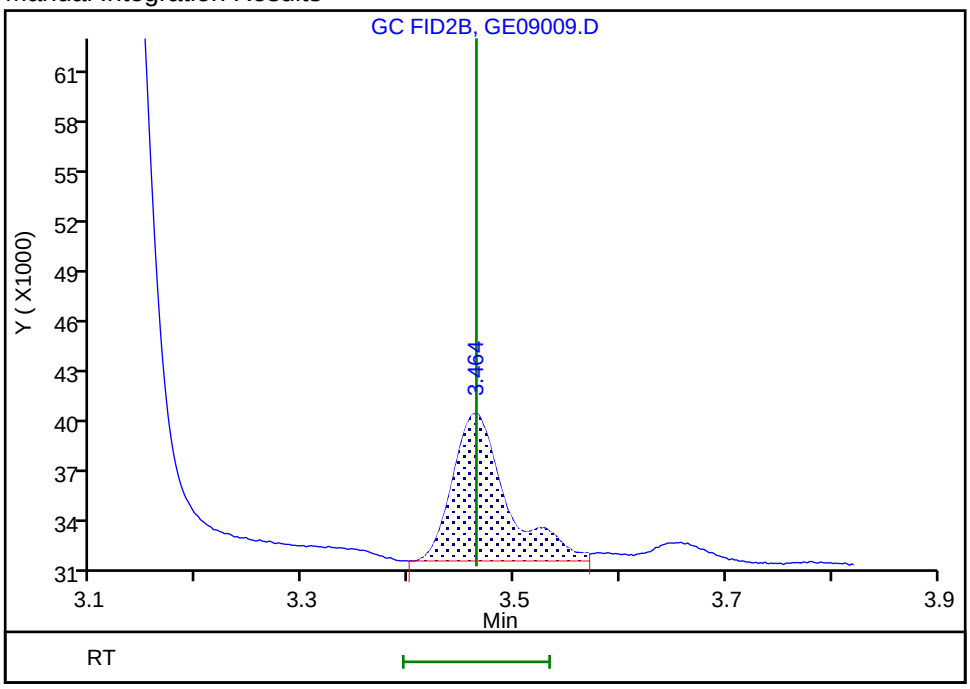
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

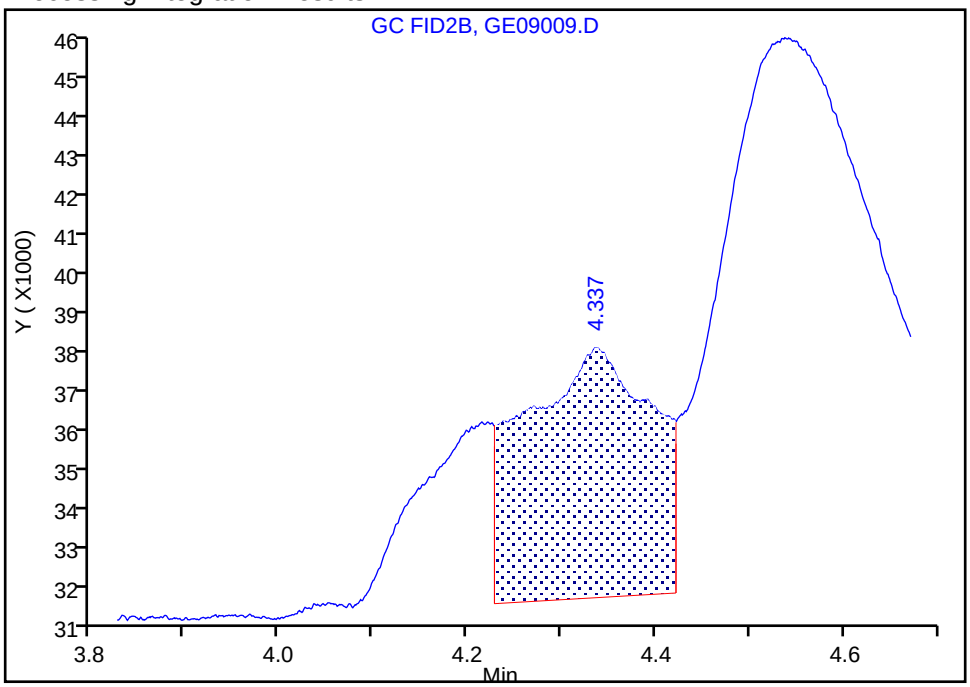
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09009.D
Injection Date: 09-May-2023 19:36:03 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB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

6 Propylene glycol, CAS: 57-55-6

Signal: 1

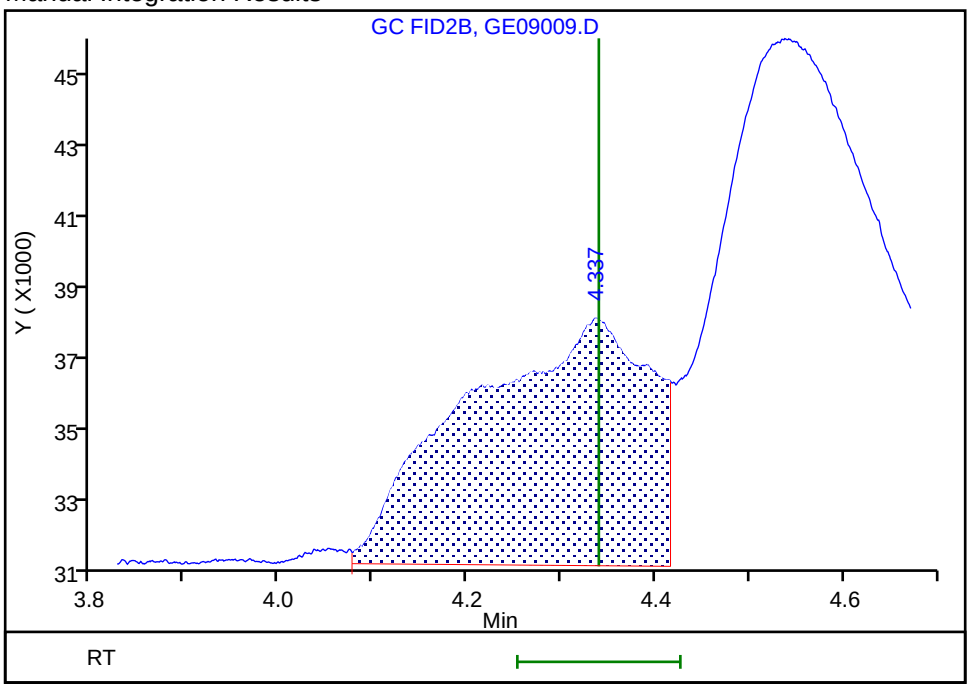
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

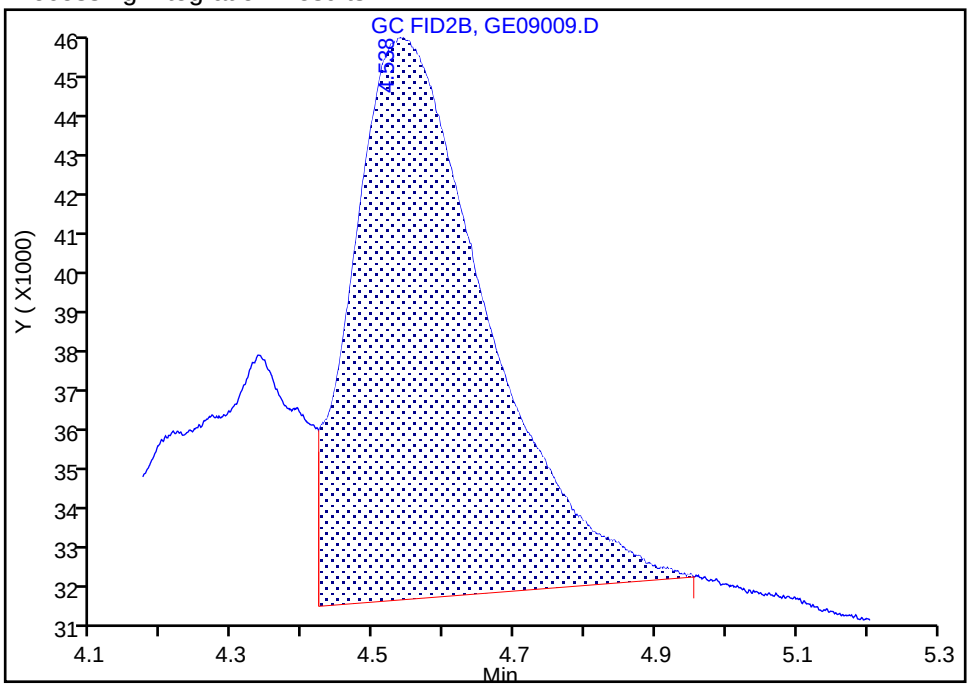
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09009.D				
Injection Date:	09-May-2023 19:36:03	Instrument ID:	CVGG2		
Lims ID:	ic g2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

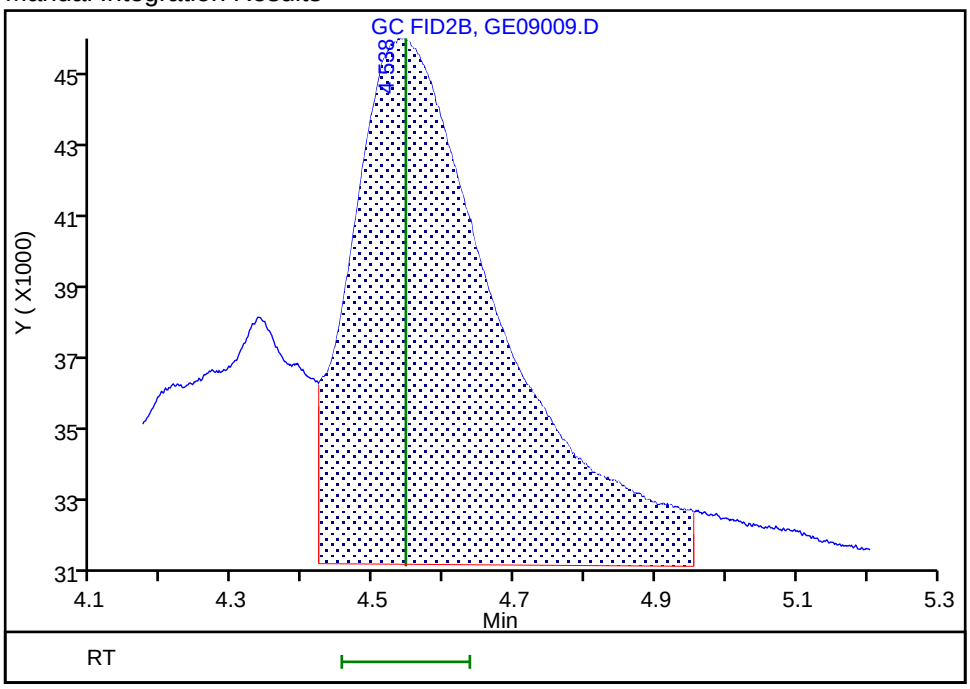
Processing Integration Results

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



Manual Integration Results

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



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						M
	4.341	4.340	0.001	49563	2.00	2.91	M
	7 Ethylene glycol						M
	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

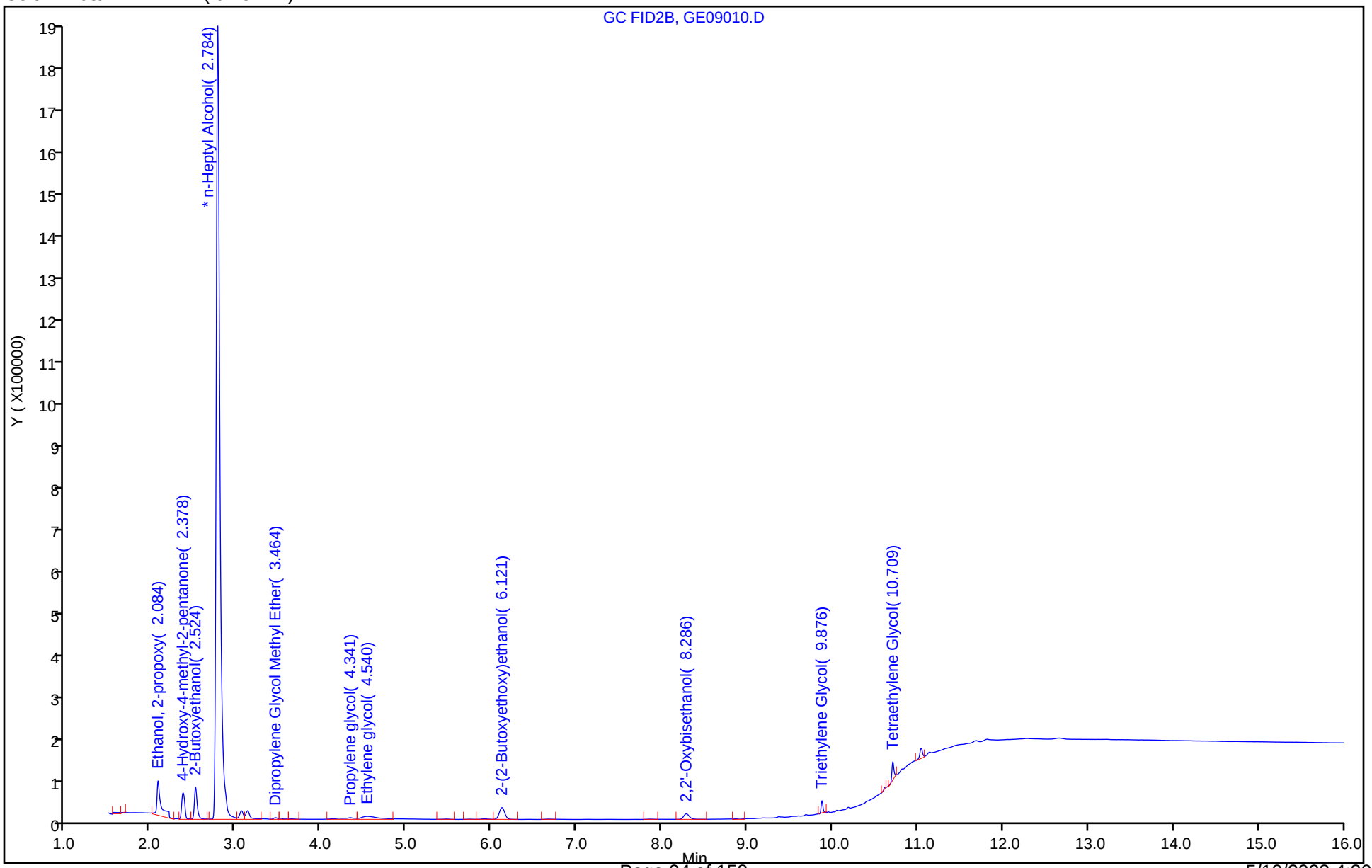
Report Date: 10-May-2023 11:57:02 Chrom Revision: 2.3 29-Mar-2023 18:39:10

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)



5/19/2023 4:30 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

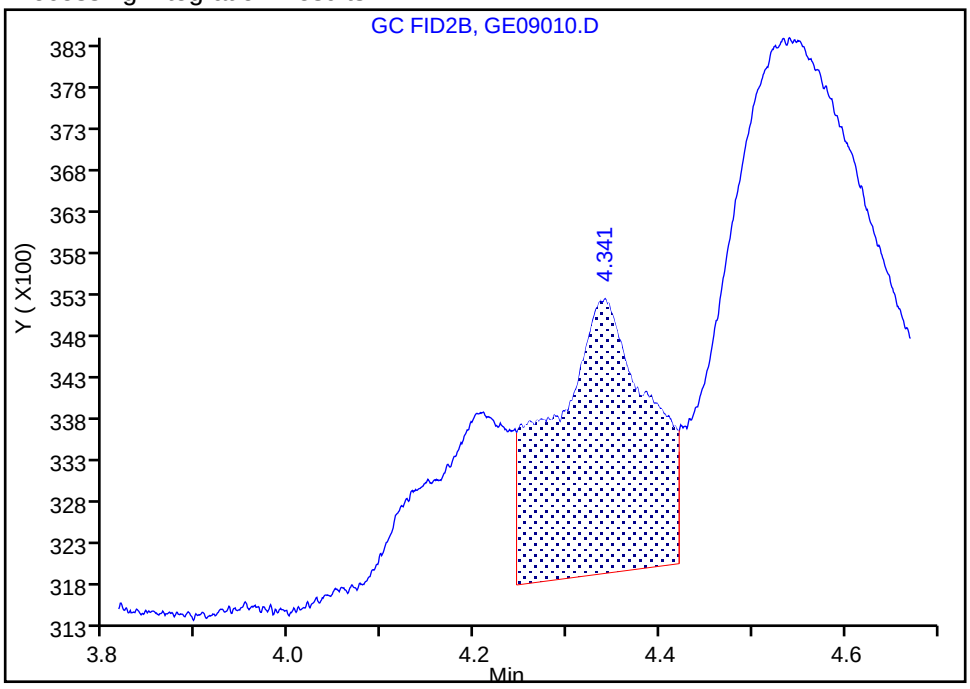
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D
Injection Date: 09-May-2023 19:59:40 Instrument ID: CVGG2
Lims ID: ic g1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W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

6 Propylene glycol, CAS: 57-55-6

Signal: 1

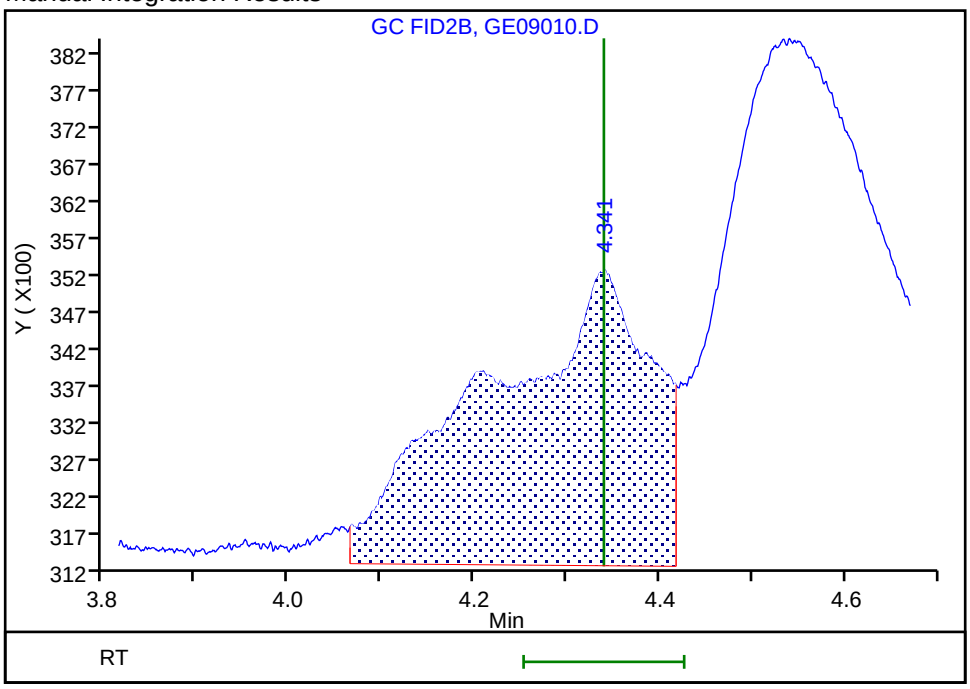
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins Savannah

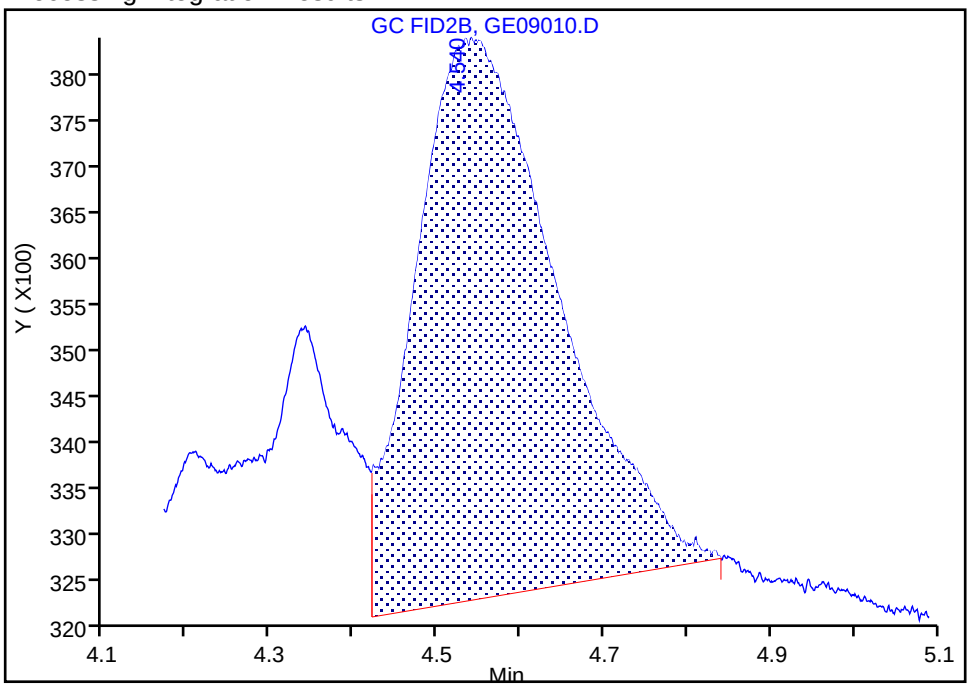
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09010.D				
Injection Date:	09-May-2023 19:59:40	Instrument ID:	CVGG2		
Lims ID:	ic g1				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI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

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

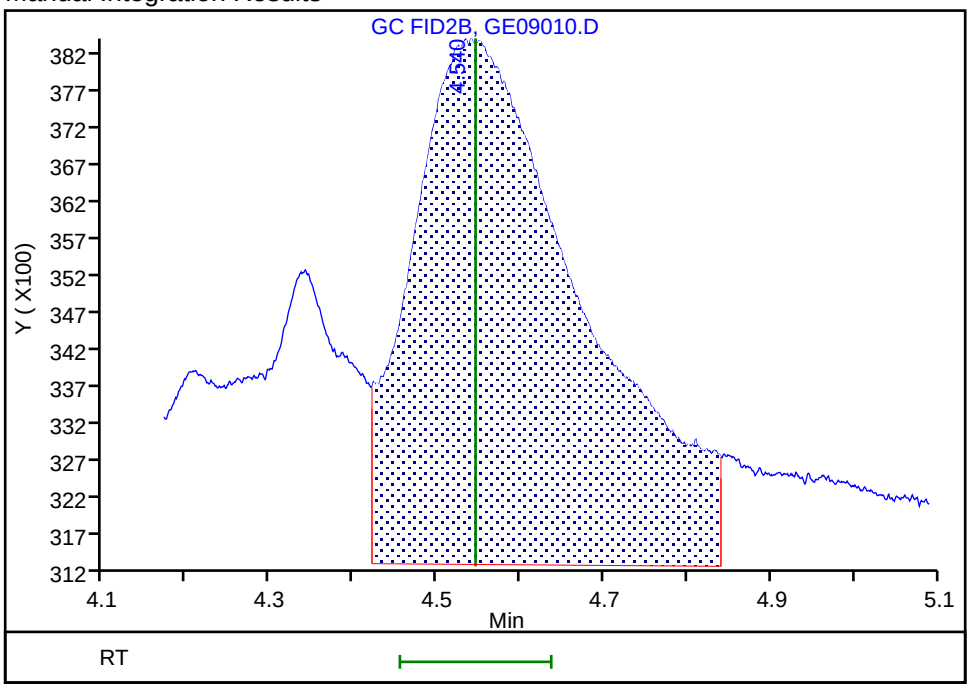
Processing Integration Results

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



Manual Integration Results

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



Reviewer: SK9U, 10-May-2023 11:30:39

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

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

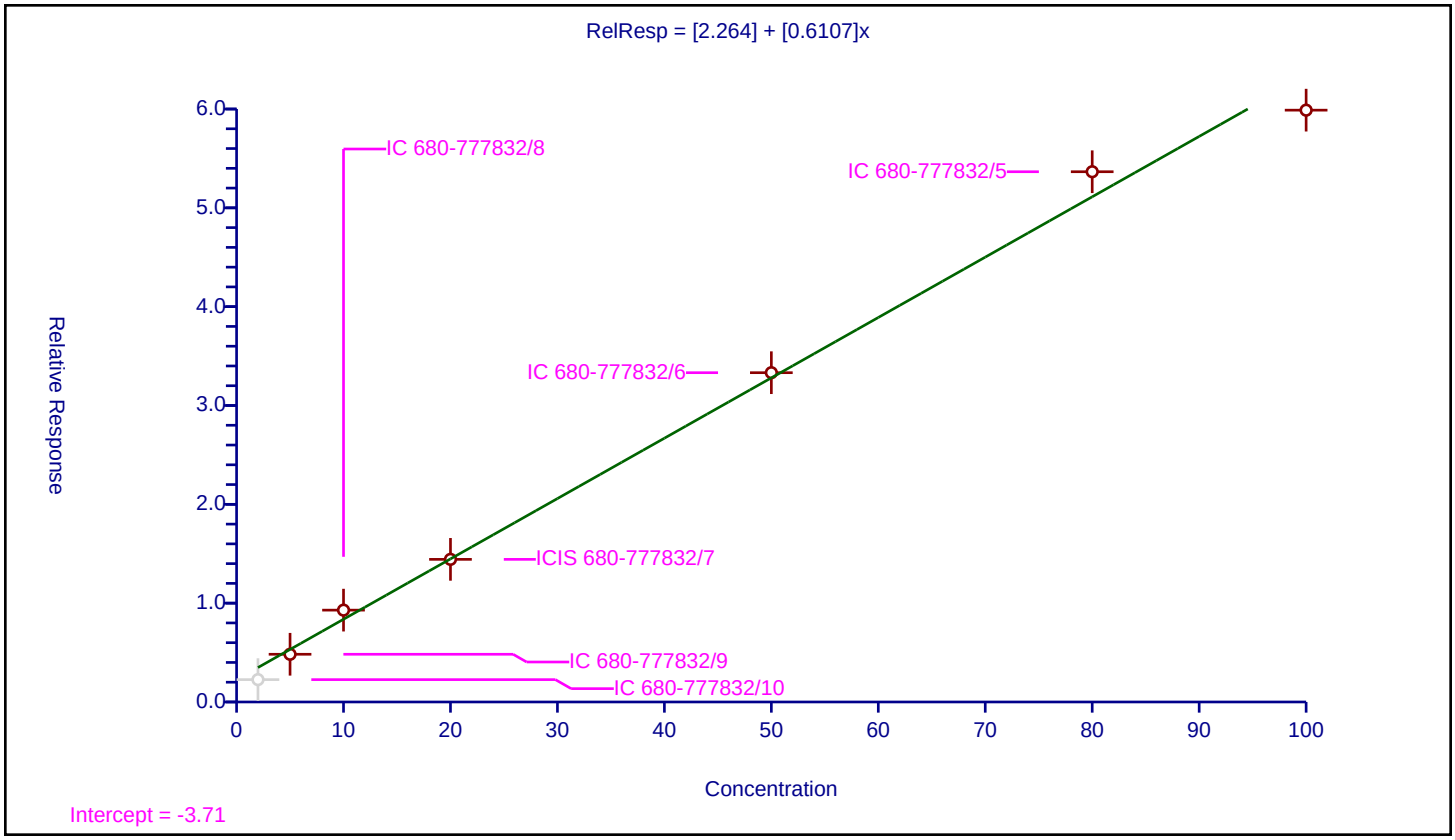
Curve Coefficients

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

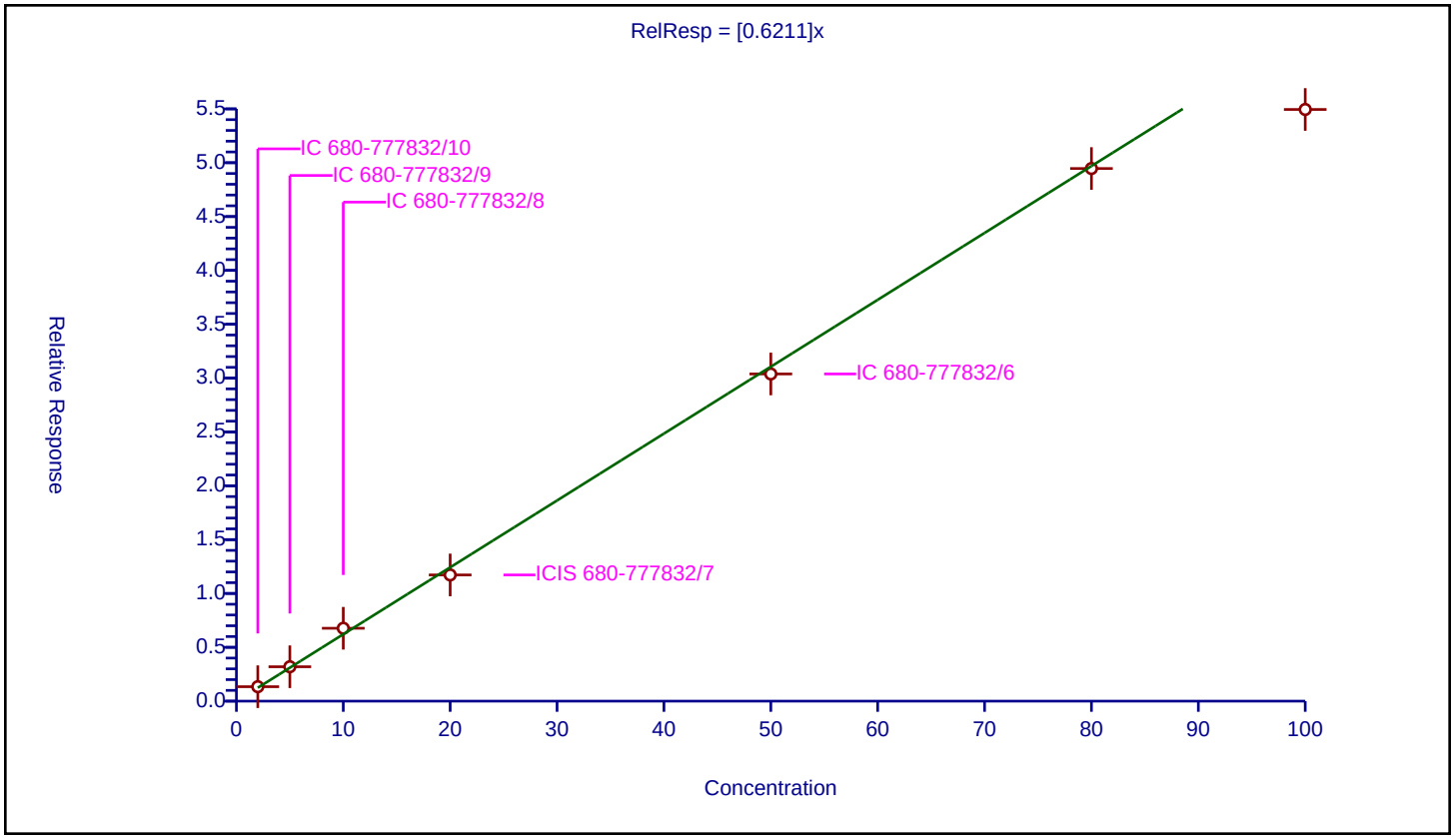
Curve Coefficients

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

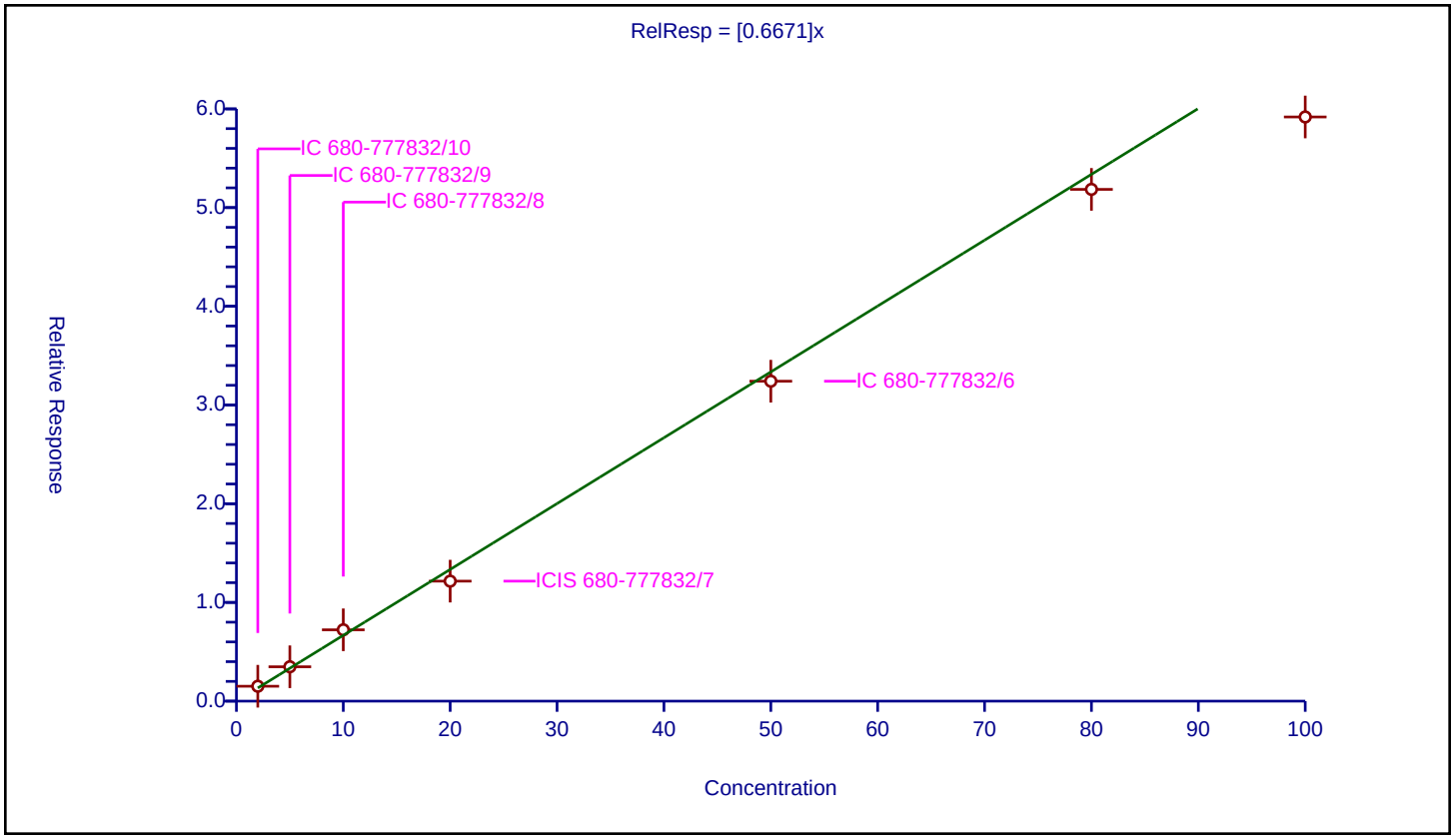
Curve Coefficients

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

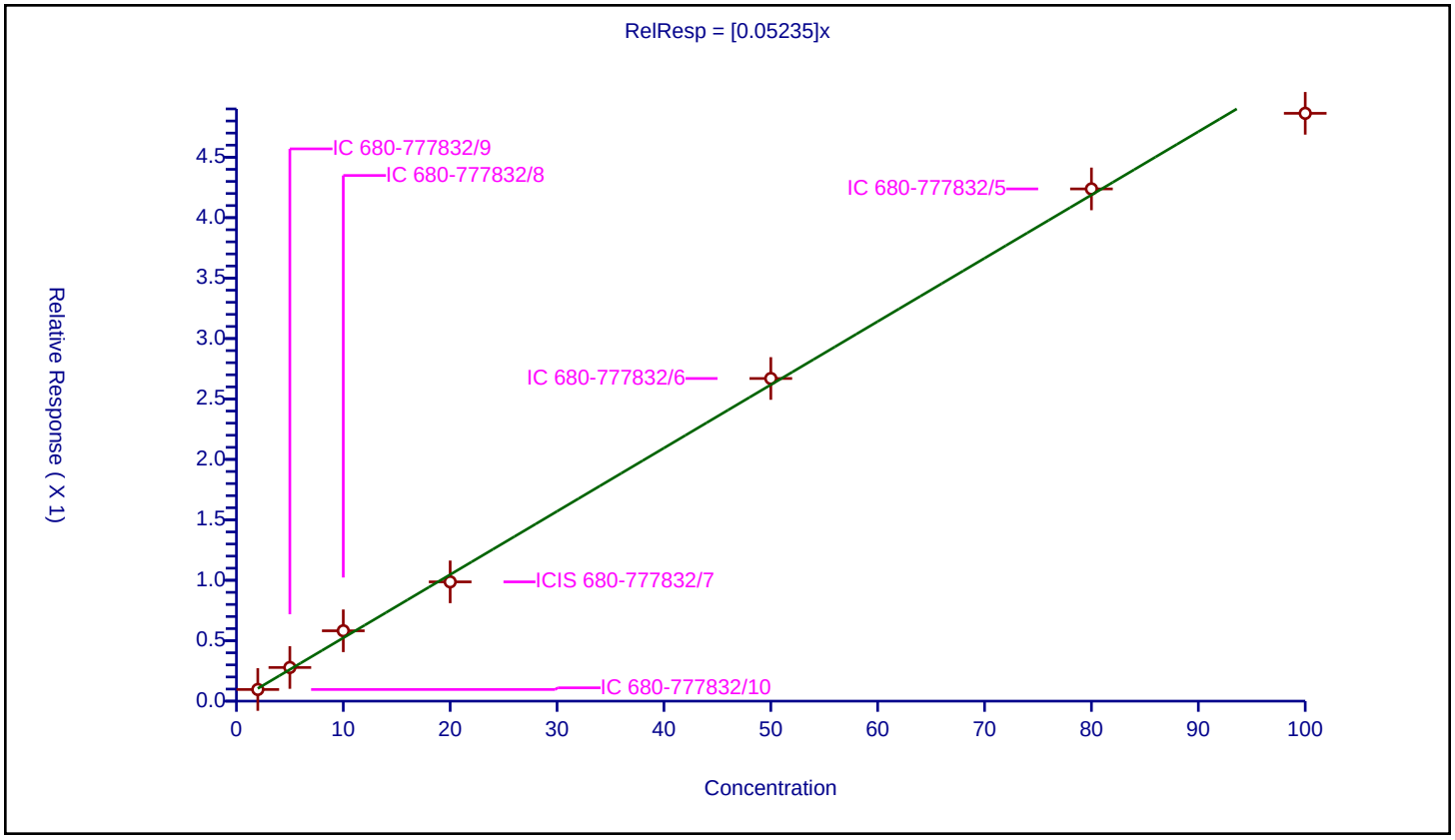
Curve Coefficients

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

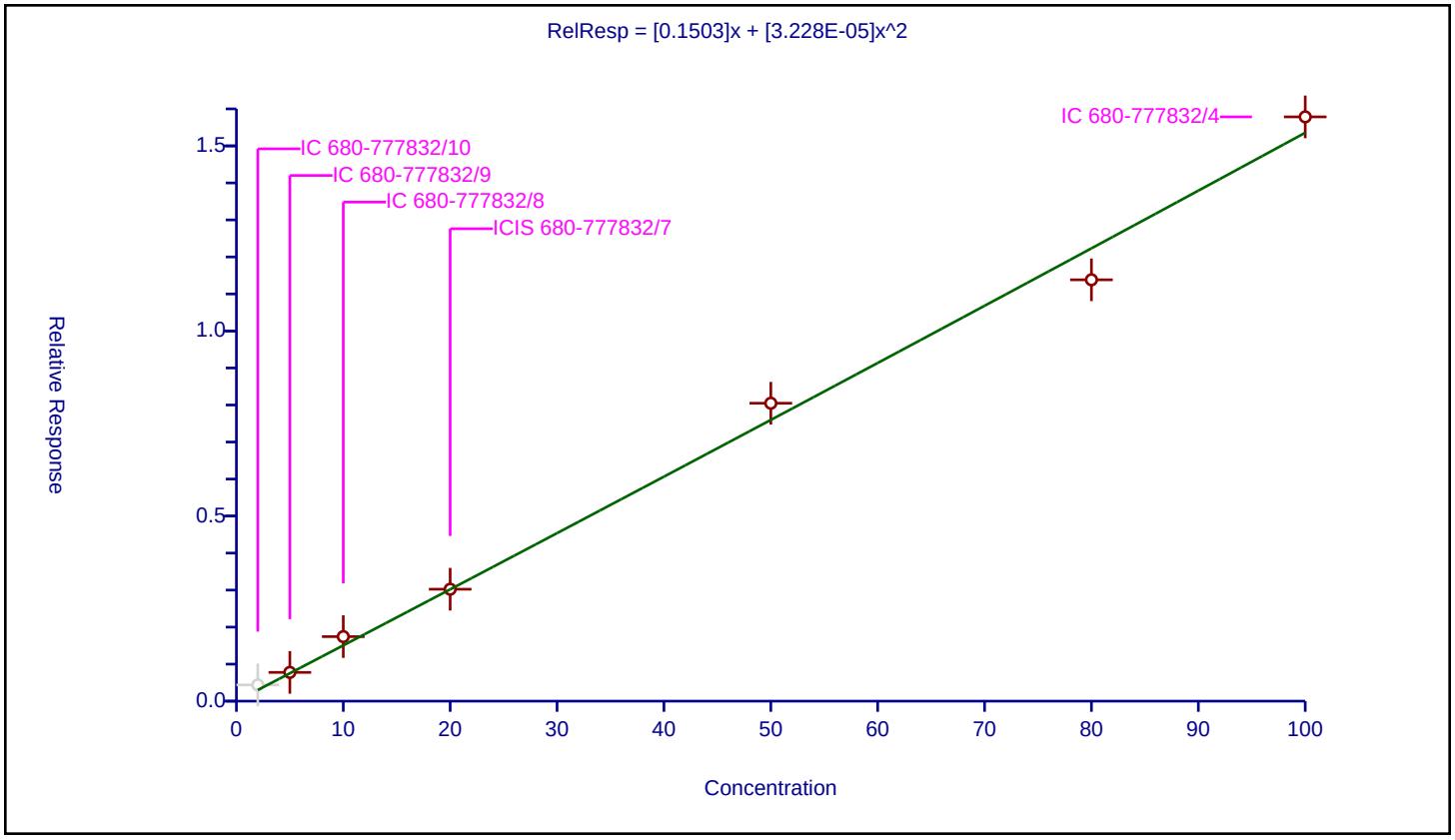
Curve Coefficients

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



5/19/2023 4:30 PM

Calibration / Ethylene glycol

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

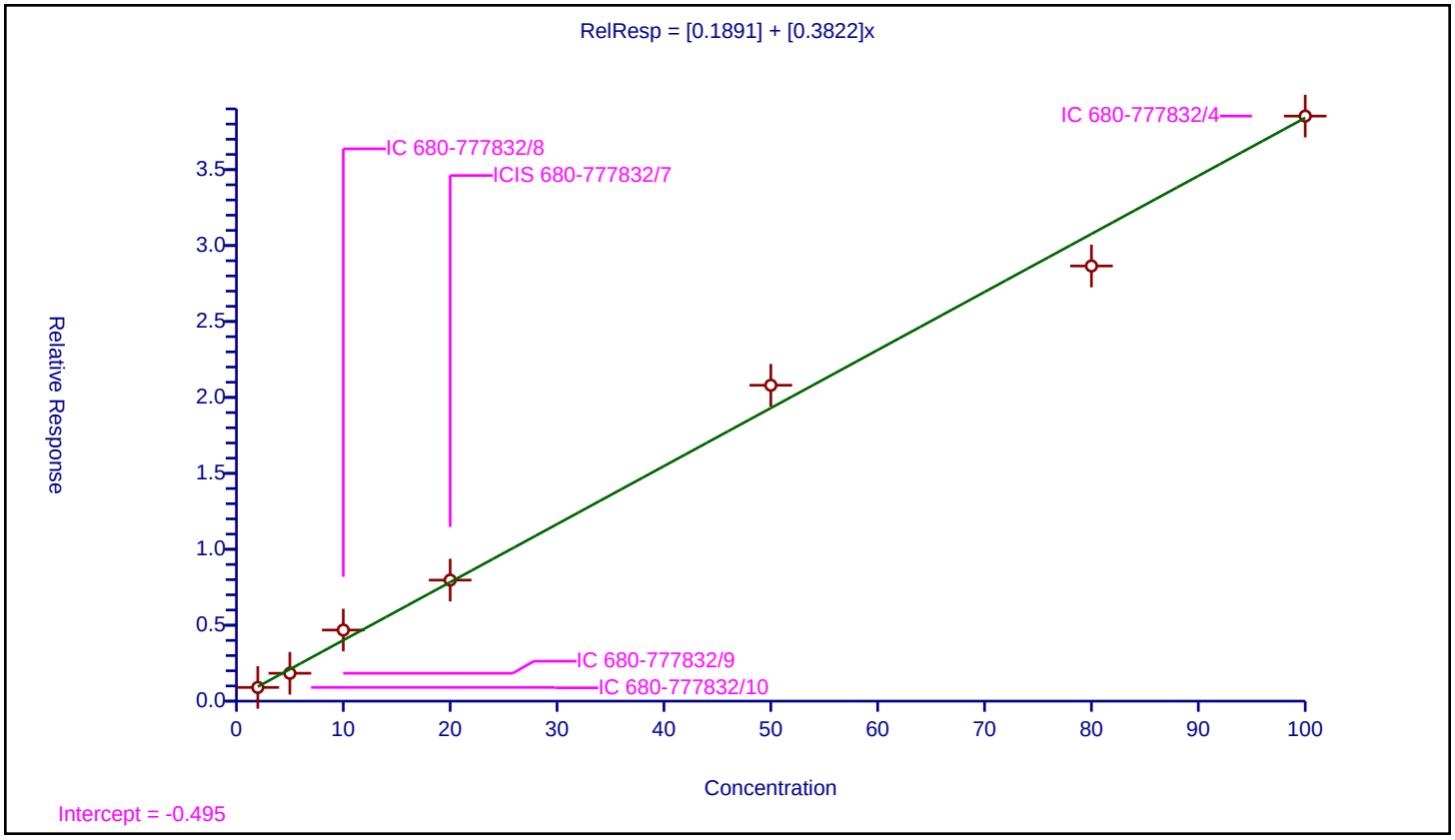
Curve Coefficients

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



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

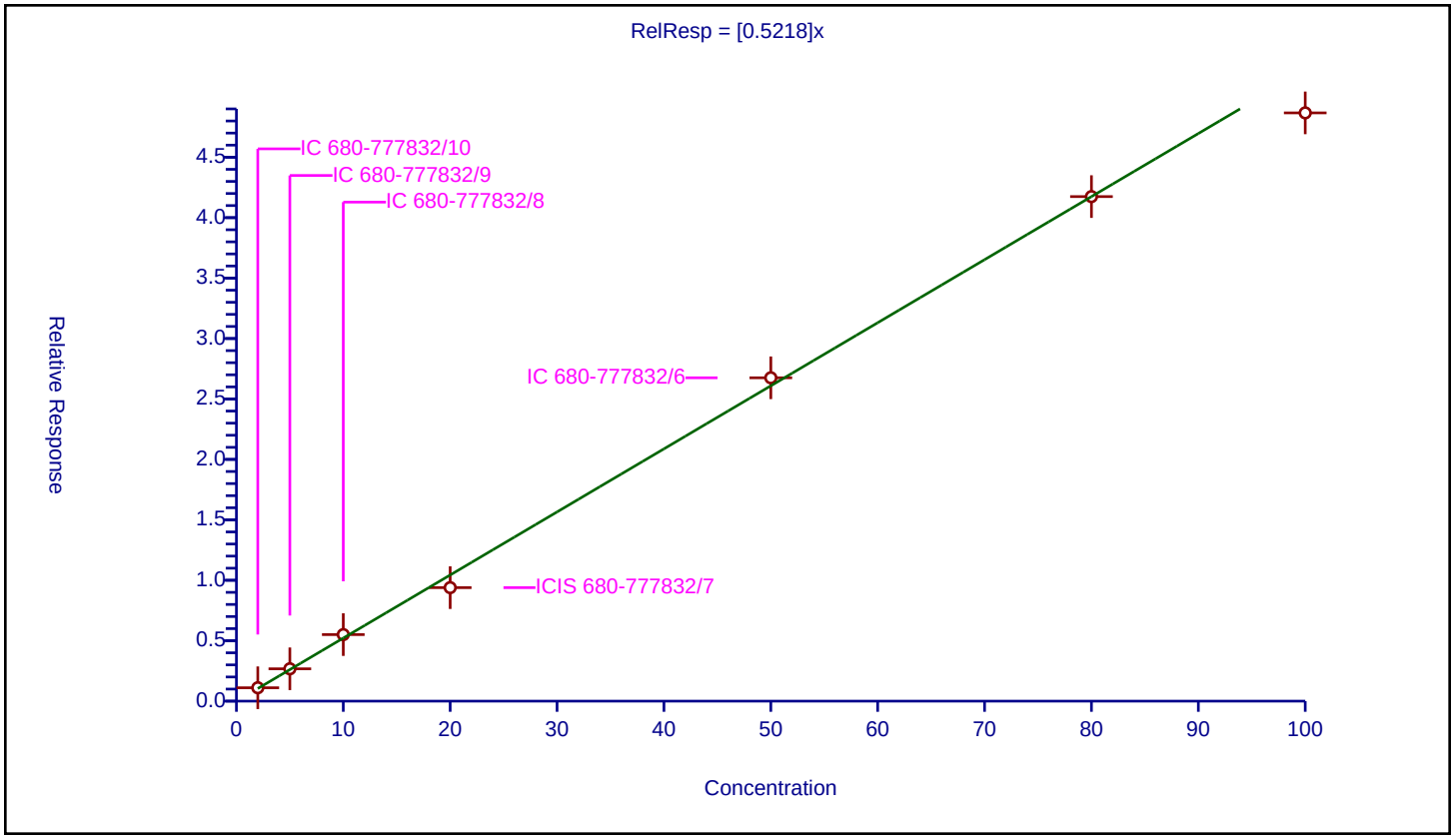
Curve Coefficients

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

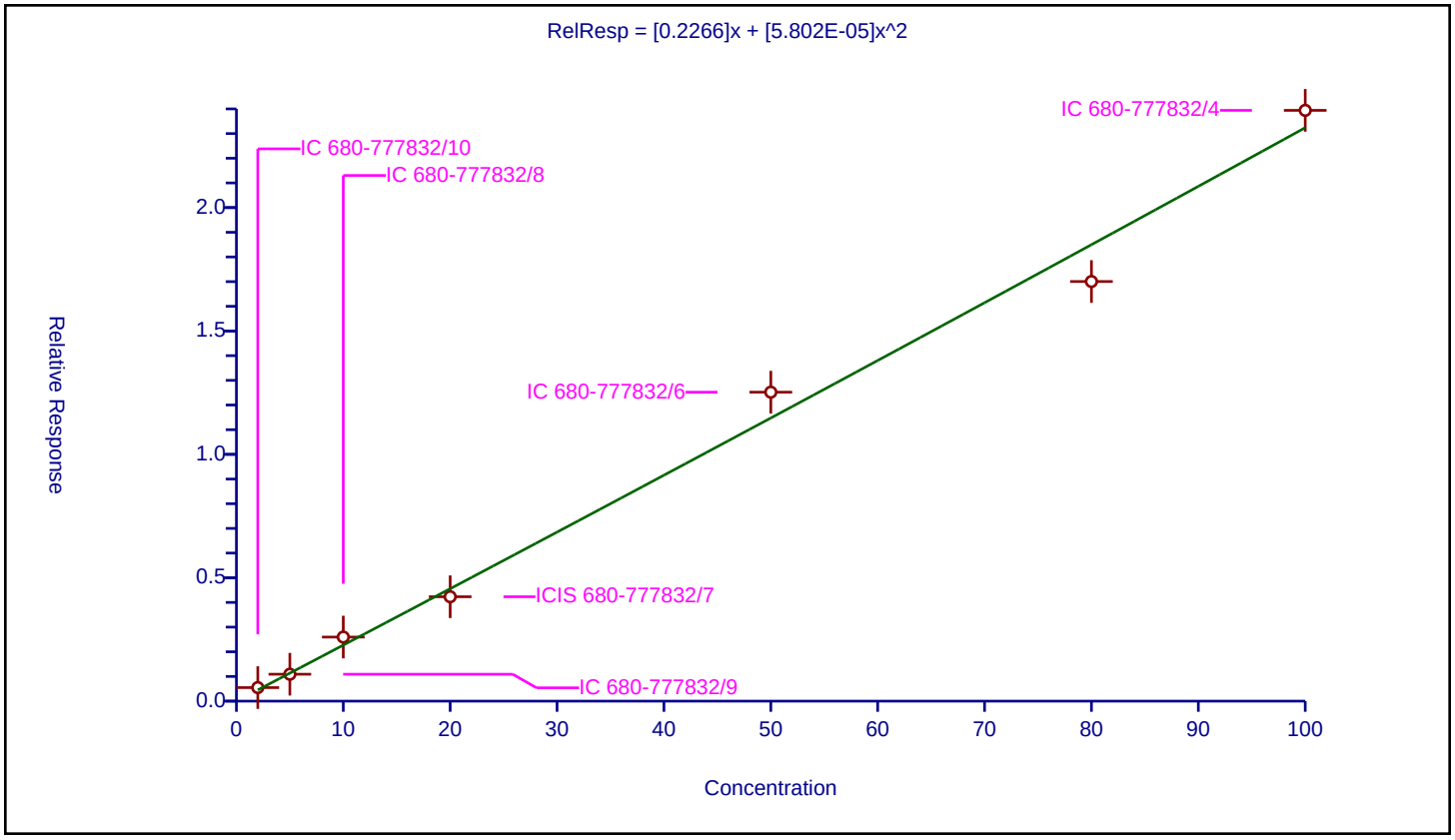
Curve Coefficients

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



5/19/2023 4:30 PM

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

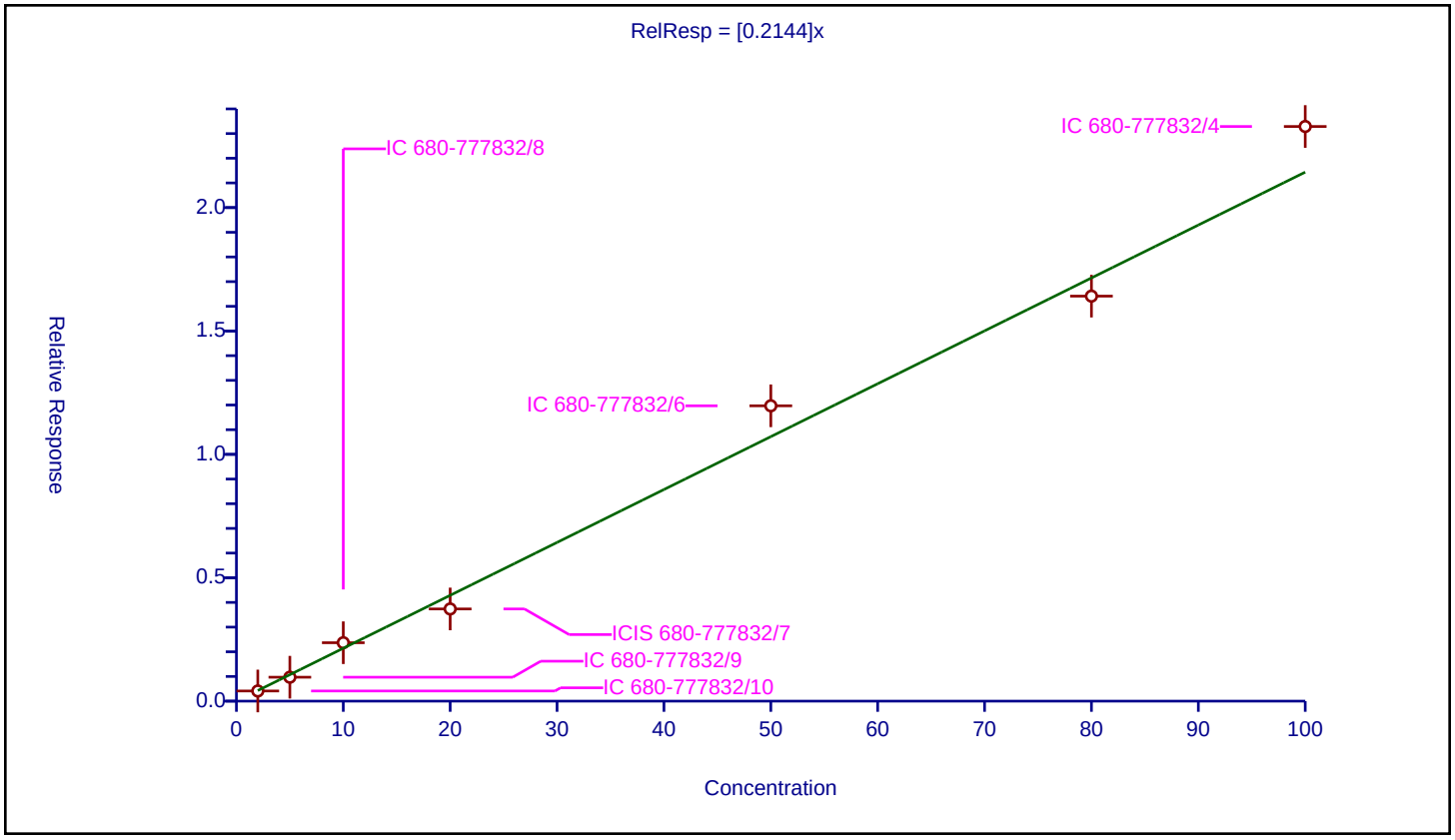
Curve Coefficients

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



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

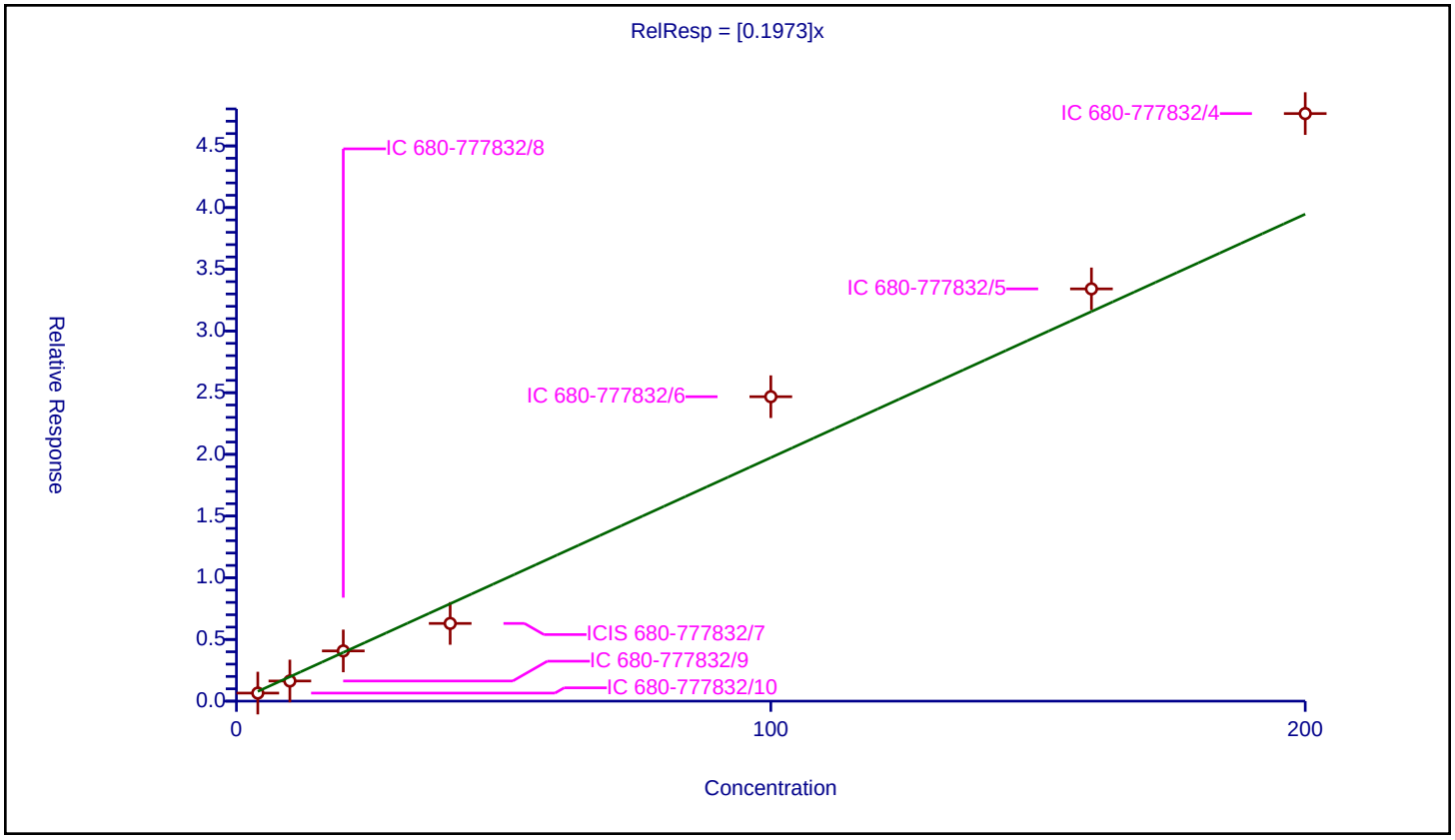
Curve Coefficients

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.: 580-127195-1

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-pentanone	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.: 580-127195-1

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						M
	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						M
	4.340	4.338	0.002	269184	20.0	16.4	M
	7 Ethylene glycol						M
	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

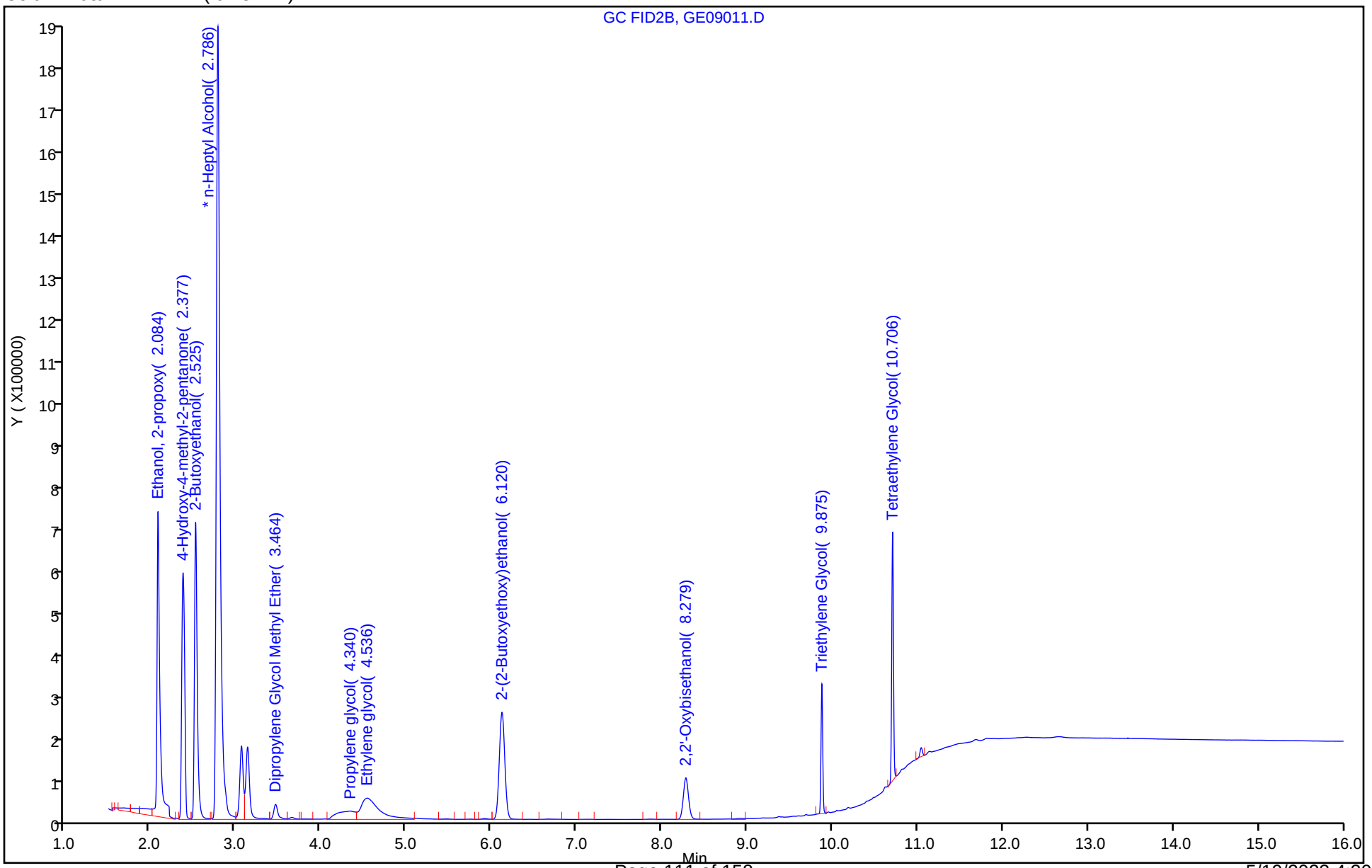
Report Date: 10-May-2023 13:17:51 Chrom Revision: 2.3 29-Mar-2023 18:39:10

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)



5/19/2023 4:30 PM

Eurofins Savannah

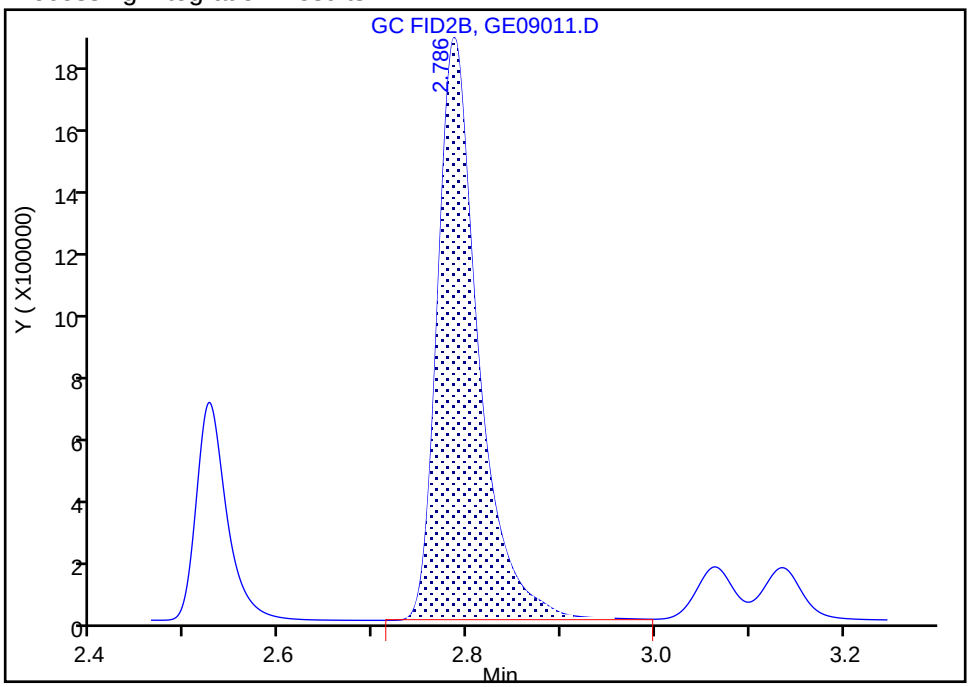
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09011.D				
Injection Date:	09-May-2023 20:22:54	Instrument ID:	CVGG2		
Lims ID:	icv glycol				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group: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

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

Signal: 1

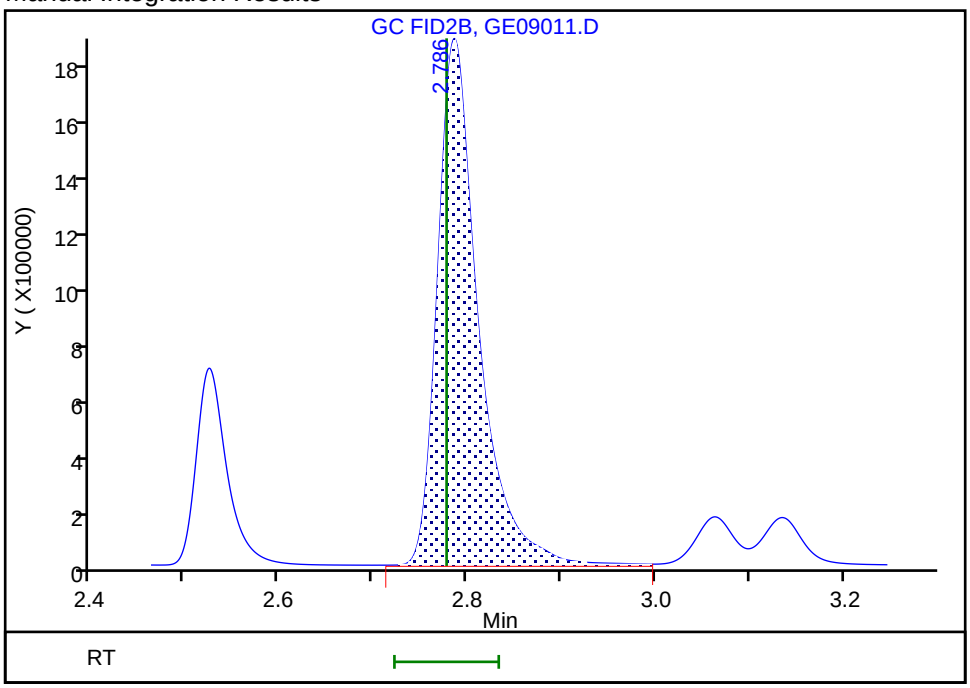
Processing Integration Results

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



Reviewer: SK9U, 10-May-2023 11:30:23
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

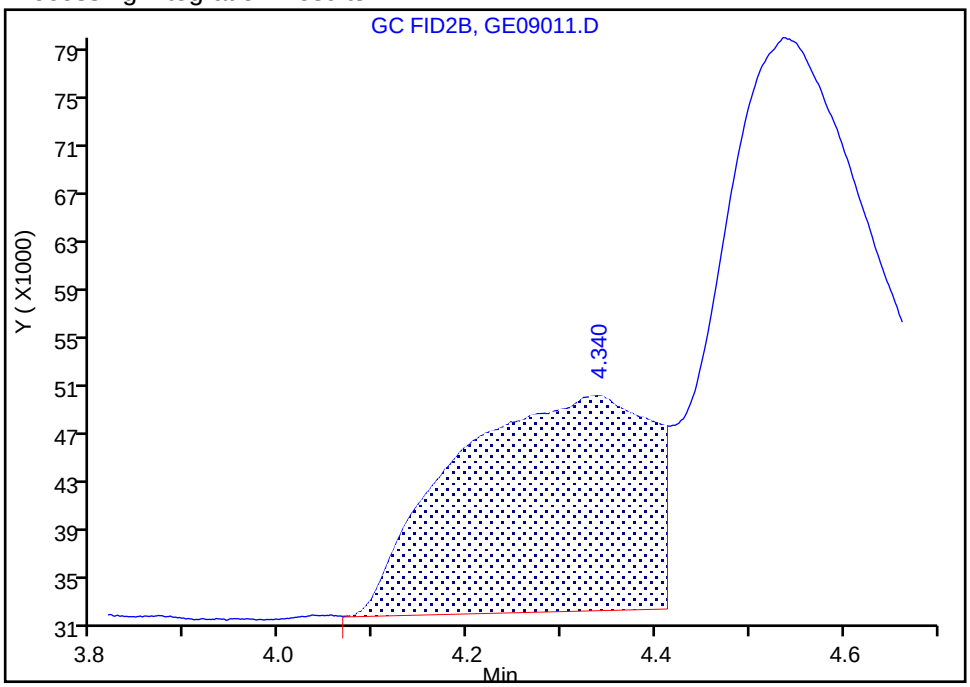
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09011.D
Injection Date: 09-May-2023 20:22:54 Instrument ID: CVGG2
Lims ID: icv glycol
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: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

6 Propylene glycol, CAS: 57-55-6

Signal: 1

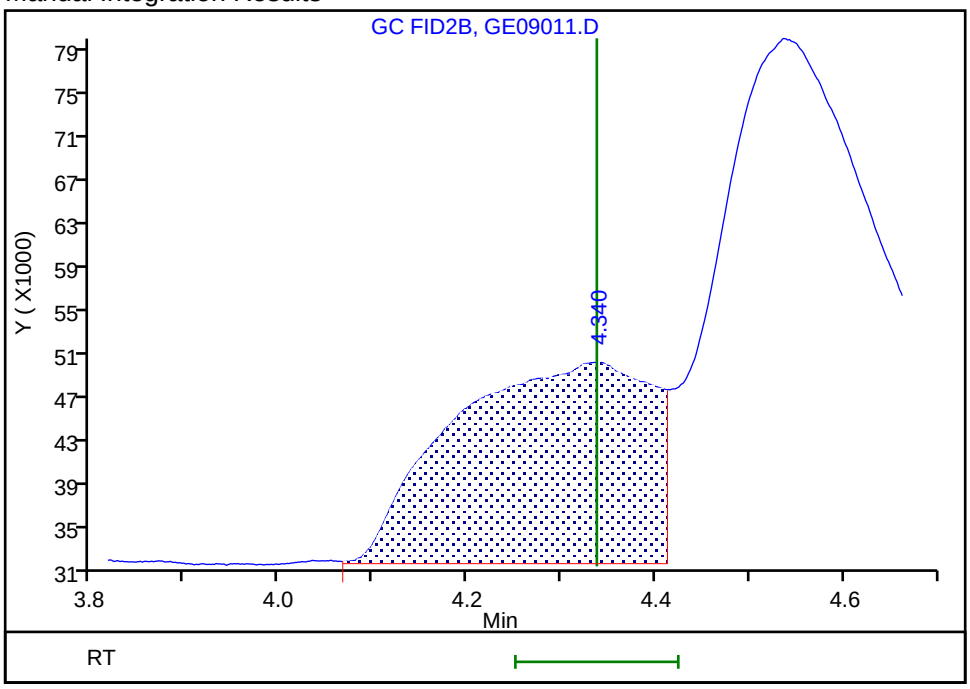
Processing Integration Results

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



Manual Integration Results

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



Reviewer: SK9U, 10-May-2023 11:30:20
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

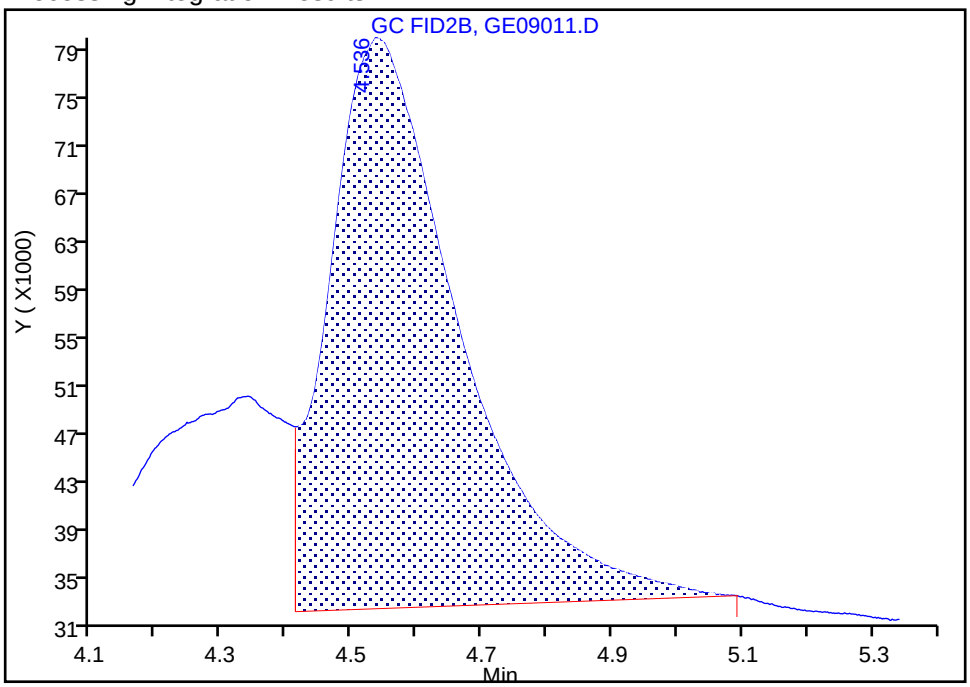
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230509-85868.b\GE09011.D				
Injection Date:	09-May-2023 20:22:54	Instrument ID:	CVGG2		
Lims ID:	icv glycol				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group: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

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

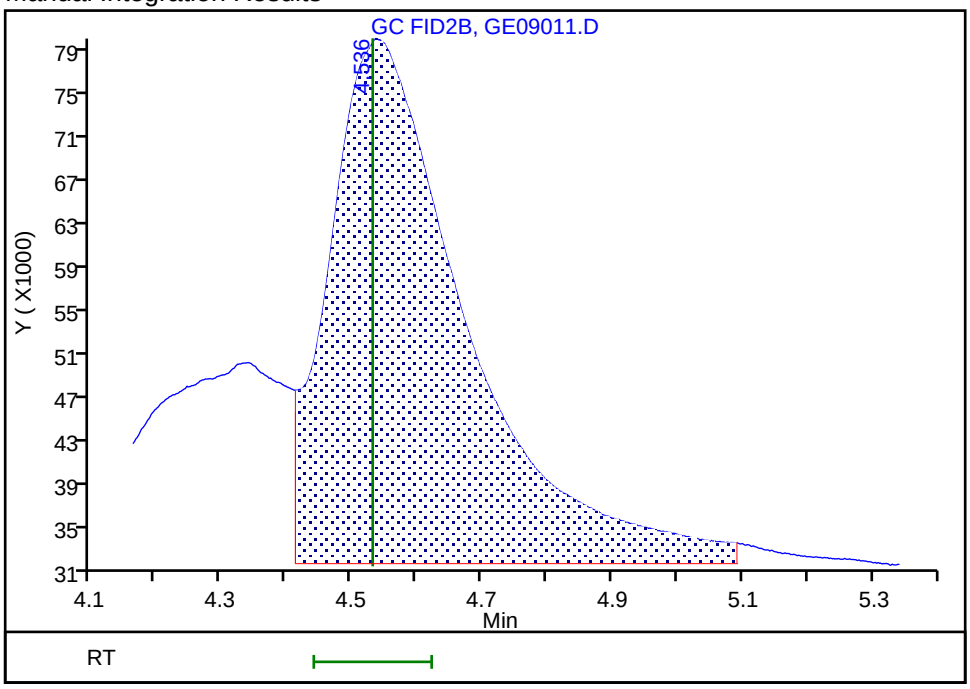
Processing Integration Results

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



Manual Integration Results

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



Reviewer: SK9U, 10-May-2023 11:30:20

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Lab Sample ID: CCVIS 680-778520/5 Calibration Date: 05/13/2023 15:31

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: GE13005.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin1		0.8272		23.4	20.0	16.9	20.0
4-Hydroxy-4-methyl-2-pentanone	Ave	0.6211	0.6787		21.9	20.0	9.3	20.0
2-Butoxyethanol	Ave	0.6671	0.7300		21.9	20.0	9.4	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0524	0.0608		23.2	20.0	16.1	20.0
Propylene glycol	QuaF		0.1941		25.7	20.0	28.4*	20.0
Ethylene glycol	Lin1		0.3939		20.1	20.0	0.6	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5218	0.5592		21.4	20.0	7.2	20.0
2,2'-Oxybisethanol	QuaF		0.2440		21.4	20.0	7.1	20.0
Triethylene Glycol	Ave	0.2144	0.2431		22.7	20.0	13.4	20.0
Tetraethylene Glycol	Ave	0.1973	0.2427		49.2	40.0	23.0*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Lab Sample ID: CCVIS 680-778520/5 Calibration Date: 05/13/2023 15:31

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: GE13005.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	2.52	2.47	2.58
Dipropylene Glycol Methyl Ether	3.46	3.39	3.53
Propylene glycol	4.33	4.24	4.41
Ethylene glycol	4.51	4.42	4.60
2-(2-Butoxyethoxy)ethanol	6.10	5.98	6.23
2,2'-Oxybisethanol	8.27	8.10	8.43
Triethylene Glycol	9.87	9.67	10.07
Tetraethylene Glycol	10.70	10.49	10.92

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13005.D
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 13-May-2023 15:31:23 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085962-005
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 14-May-2023 04:01:13 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: CTX1631

First Level Reviewer: SK9U Date: 14-May-2023 04:01:13

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.088	2.088	0.000	1613979	20.0	23.4	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.379	2.379	0.000	1324281	20.0	21.9	
	3 2-Butoxyethanol						
	2.524	2.524	0.000	1424376	20.0	21.9	
*	4 n-Heptyl Alcohol						
	2.782	2.782	0.000	4877899	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	3.459	3.459	0.000	118618	20.0	23.2	
	6 Propylene glycol						
	4.326	4.326	0.000	378774	20.0	25.7	
	7 Ethylene glycol						
	4.512	4.512	0.000	768491	20.0	20.1	
	8 2-(2-Butoxyethoxy)ethanol						
	6.104	6.104	0.000	1091066	20.0	21.4	
	9 2,2'-Oxybisethanol						
	8.267	8.267	0.000	476045	20.0	21.4	
	10 Triethylene Glycol						
	9.870	9.870	0.000	474371	20.0	22.7	
	11 Tetraethylene Glycol						
	10.702	10.702	0.000	947087	40.0	49.2	

QC Flag Legend
Processing Flags

Reagents:

SG_Gly_CAL_00051	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00114	Amount Added:	10.00	Units: uL	Run Reagent

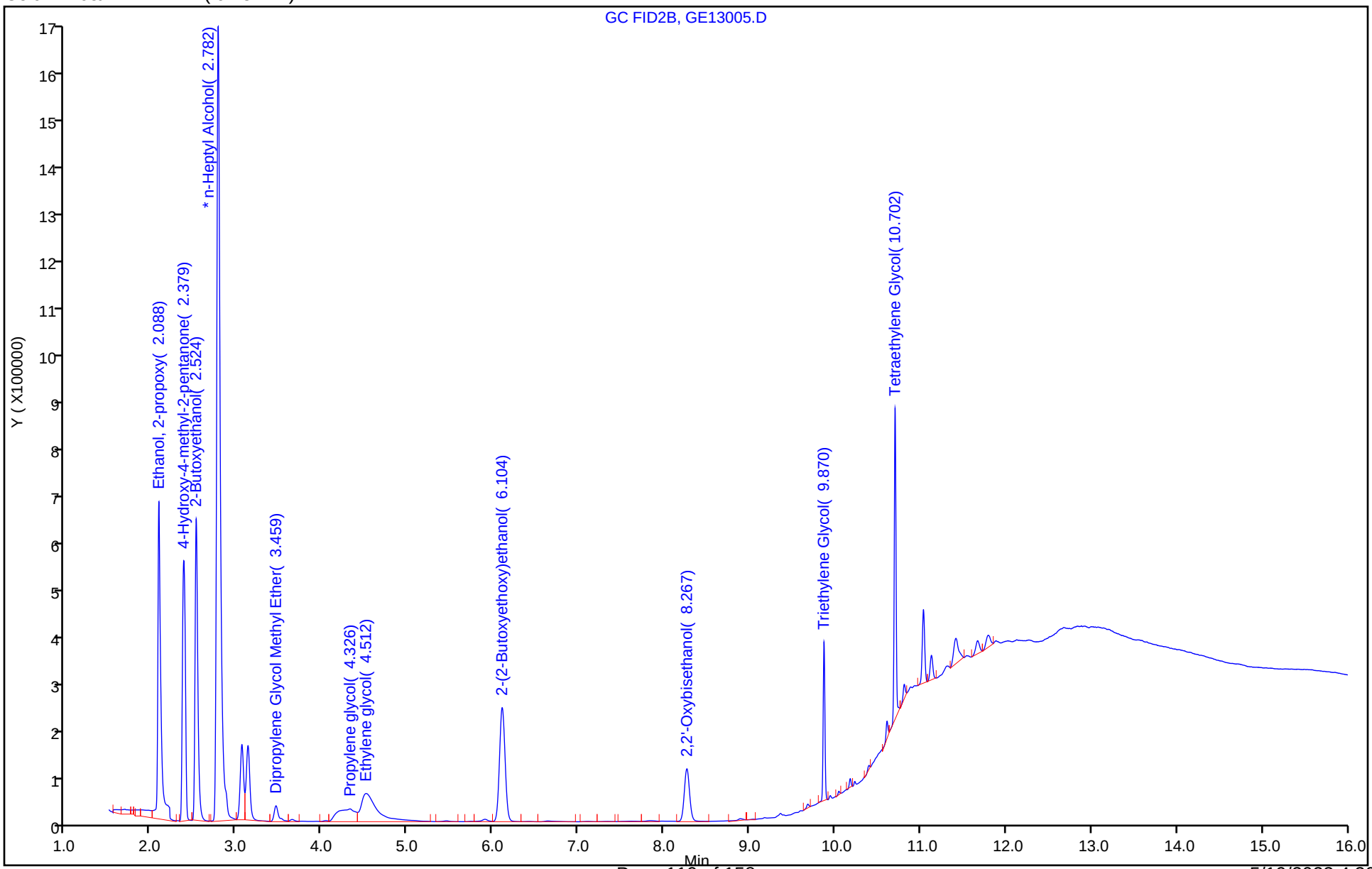
Report Date: 14-May-2023 04:01:13 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13005.D

Injection Date:	13-May-2023 15:31:23	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ccvis			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)



5/19/2023 4:30 PM

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Lab Sample ID: CCV 680-778520/30 Calibration Date: 05/14/2023 01:12

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: GE13030.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin1		0.8522		24.2	20.0	21.0*	20.0
4-Hydroxy-4-methyl-2-pentanone	Ave	0.6211	0.7469		24.1	20.0	20.3*	20.0
2-Butoxyethanol	Ave	0.6671	0.7440		22.3	20.0	11.5	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0524	0.0810		30.9	20.0	54.7*	20.0
Propylene glycol	QuaF		0.2087		27.6	20.0	38.0*	20.0
Ethylene glycol	Lin1		0.4053		20.7	20.0	3.6	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5218	0.7358		28.2	20.0	41.0*	20.0
2,2'-Oxybisethanol	QuaF		0.5097		44.5	20.0	122.4*	20.0
Triethylene Glycol	Ave	0.2144	0.5656		52.8	20.0	163.8*	20.0
Tetraethylene Glycol	Ave	0.1973	0.0166		10.0	40.0	-91.6*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Lab Sample ID: CCV 680-778520/30 Calibration Date: 05/14/2023 01:12

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: GE13030.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.08	2.04	2.12
4-Hydroxy-4-methyl-2-pentanone	2.37	2.33	2.42
2-Butoxyethanol	2.52	2.47	2.57
Dipropylene Glycol Methyl Ether	3.45	3.38	3.52
Propylene glycol	4.31	4.23	4.40
Ethylene glycol	4.52	4.43	4.61
2-(2-Butoxyethoxy)ethanol	6.10	5.97	6.22
2,2'-Oxybisethanol	8.26	8.10	8.43
Triethylene Glycol	9.87	9.67	10.07
Tetraethylene Glycol	10.70	10.49	10.91

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13030.D
Lims ID: ccv g4
Client ID:
Sample Type: CCV
Inject. Date: 14-May-2023 01:12:30 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085961-030
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 14-May-2023 04:01:30 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: CTX1631

First Level Reviewer: SK9U Date: 14-May-2023 04:01:30

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Ethanol, 2-propoxy						
	2.079	2.079	0.000	1777406	20.0	24.2	
2	4-Hydroxy-4-methyl-2-pentanone						
	2.372	2.372	0.000	1557778	20.0	24.1	
3	2-Butoxyethanol						
	2.519	2.519	0.000	1551628	20.0	22.3	
*	4 n-Heptyl Alcohol						
	2.770	2.770	0.000	5214001	50.0	50.0	
5	Dipropylene Glycol Methyl Ether						
	3.452	3.452	0.000	168902	20.0	30.9	
6	Propylene glycol						
	4.314	4.314	0.000	435200	20.0	27.6	
7	Ethylene glycol						
	4.515	4.515	0.000	845391	20.0	20.7	
8	2-(2-Butoxyethoxy)ethanol						
	6.095	6.095	0.000	1534514	20.0	28.2	
9	2,2'-Oxybisethanol						
	8.264	8.264	0.000	1062942	20.0	44.5	
10	Triethylene Glycol						
	9.869	9.869	0.000	1179567	20.0	52.8	
11	Tetraethylene Glycol						
	10.699	10.699	0.000	69175	40.0	3.36	

QC Flag Legend
Processing Flags

Reagents:

SG_Gly_CAL_00051	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00114	Amount Added:	10.00	Units: uL	Run Reagent

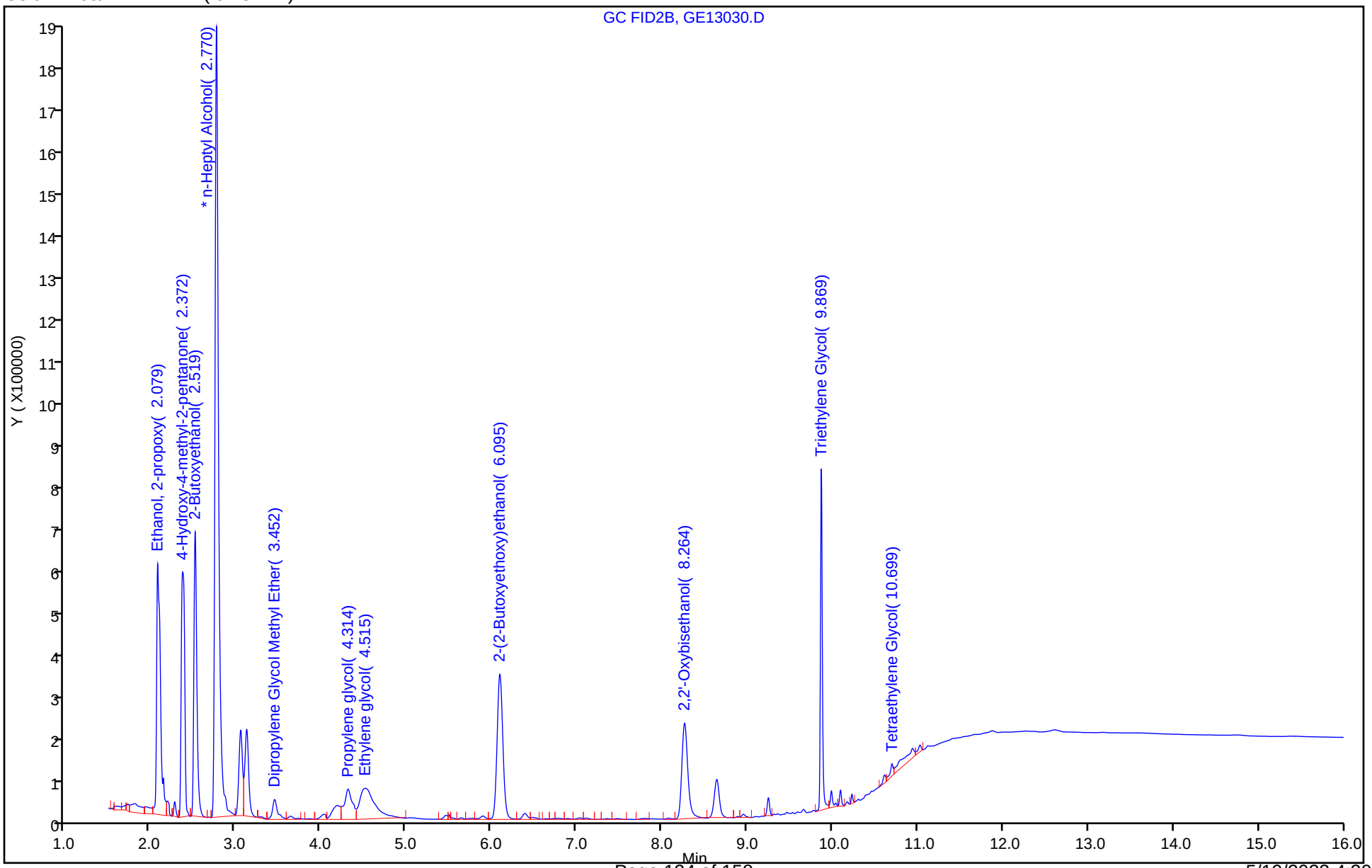
Report Date: 14-May-2023 04:01:30 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13030.D

Injection Date:	14-May-2023 01:12:30	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ccv g4			Worklist Smp#:	30
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)



5/19/2023 4:30 PM

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Lab Sample ID: CCV 680-778520/44 Calibration Date: 05/14/2023 06:37

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: GE13044.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin1		0.8641		24.6	20.0	23.0*	20.0
4-Hydroxy-4-methyl-2-pentanone	Ave	0.6211	0.7857		25.3	20.0	26.5*	20.0
2-Butoxyethanol	Ave	0.6671	0.7824		23.5	20.0	17.3	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0524	0.0824		31.5	20.0	57.5*	20.0
Propylene glycol	QuaF		0.1395		18.5	20.0	-7.6	20.0
Ethylene glycol	Lin1		0.3432		17.5	20.0	-12.7	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.5218	0.7607		29.2	20.0	45.8*	20.0
2,2'-Oxybisethanol	QuaF		0.1031		9.08	20.0	-54.6*	20.0
Triethylene Glycol	Ave	0.2144	0.0638		5.95	20.0	-70.2*	20.0
Tetraethylene Glycol	Ave	0.1973	0.0122		10.0	40.0	-93.8*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Lab Sample ID: CCV 680-778520/44 Calibration Date: 05/14/2023 06:37

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: GE13044.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.08	2.04	2.12
4-Hydroxy-4-methyl-2-pentanone	2.38	2.33	2.42
2-Butoxyethanol	2.52	2.47	2.57
Dipropylene Glycol Methyl Ether	3.45	3.38	3.52
Propylene glycol	4.32	4.23	4.40
Ethylene glycol	4.50	4.41	4.59
2-(2-Butoxyethoxy)ethanol	6.09	5.97	6.21
2,2'-Oxybisethanol	8.26	8.09	8.42
Triethylene Glycol	9.87	9.67	10.06
Tetraethylene Glycol	10.70	10.48	10.91

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13044.D
Lims ID: ccv g4
Client ID:
Sample Type: CCV
Inject. Date: 14-May-2023 06:37:45 ALS Bottle#: 0 Worklist Smp#: 44
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085961-044
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-May-2023 15:34:44 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: CTX1609

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.079	2.079	0.000	1750658	20.0	24.6	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.375	2.375	0.000	1591740	20.0	25.3	
	3 2-Butoxyethanol						
	2.518	2.518	0.000	1585169	20.0	23.5	
*	4 n-Heptyl Alcohol						
	2.767	2.767	0.000	5064776	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	3.452	3.452	0.000	167033	20.0	31.5	
	6 Propylene glycol						
	4.315	4.315	0.000	282532	20.0	18.5	
	7 Ethylene glycol						
	4.500	4.500	0.000	695294	20.0	17.5	
	8 2-(2-Butoxyethoxy)ethanol						
	6.092	6.092	0.000	1541053	20.0	29.2	
	9 2,2'-Oxybisethanol						
	8.258	8.258	0.000	208874	20.0	9.08	
	10 Triethylene Glycol						
	9.867	9.867	0.000	129222	20.0	5.95	
	11 Tetraethylene Glycol						
	10.696	10.696	0.000	49243	40.0	2.46	

Reagents:

SG_Gly_CAL_00051 Amount Added: 10.00 Units: uL
SG_GLY_ISTD_00114 Amount Added: 10.00 Units: uL Run Reagent

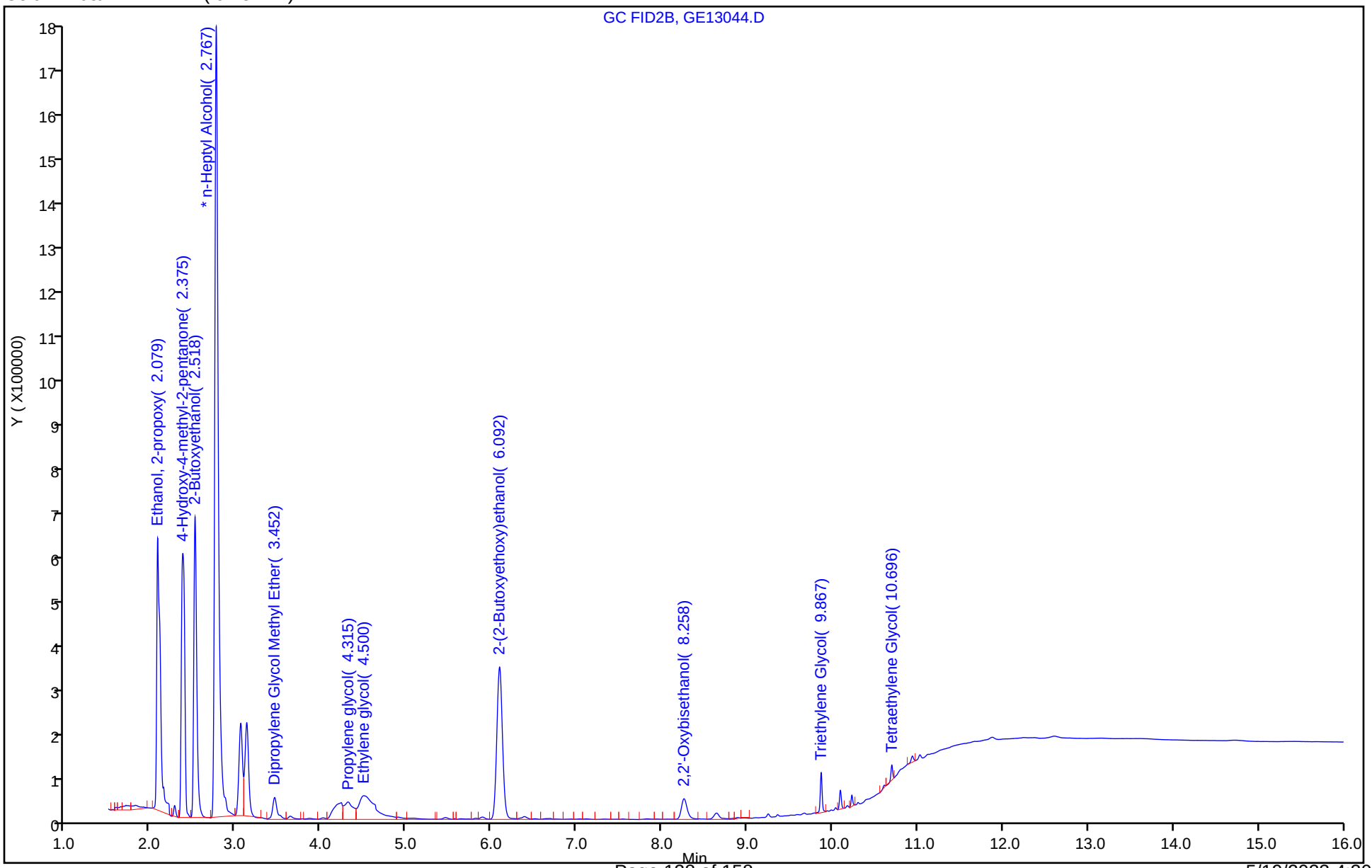
Report Date: 15-May-2023 15:34:44 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13044.D

Injection Date:	14-May-2023 06:37:45	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ccv g4			Worklist Smp#:	44
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



5/19/2023 4:30 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 680-778520/9

Matrix: Water Lab File ID: GE13009.D

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/13/2023 17:04

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.: 778520 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\20230513-85961.b\GE13009.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 13-May-2023 17:04:27 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085961-009
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 14-May-2023 03:47:39 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: CTX1631

First Level Reviewer: SK9U Date: 14-May-2023 03:33:18

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3	2-Butoxyethanol						7
	2.507	2.519	-0.012	6459		0.0796	7
	LOD =	0.5000					
*	4 n-Heptyl Alcohol						
	2.777	2.770	0.007	6082494	50.0	50.0	
9	2,2'-Oxybisethanol						7
	8.273	8.264	0.009	10031		0.3639	7
	LOD =	1.60					

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00114 Amount Added: 10.00 Units: uL Run Reagent

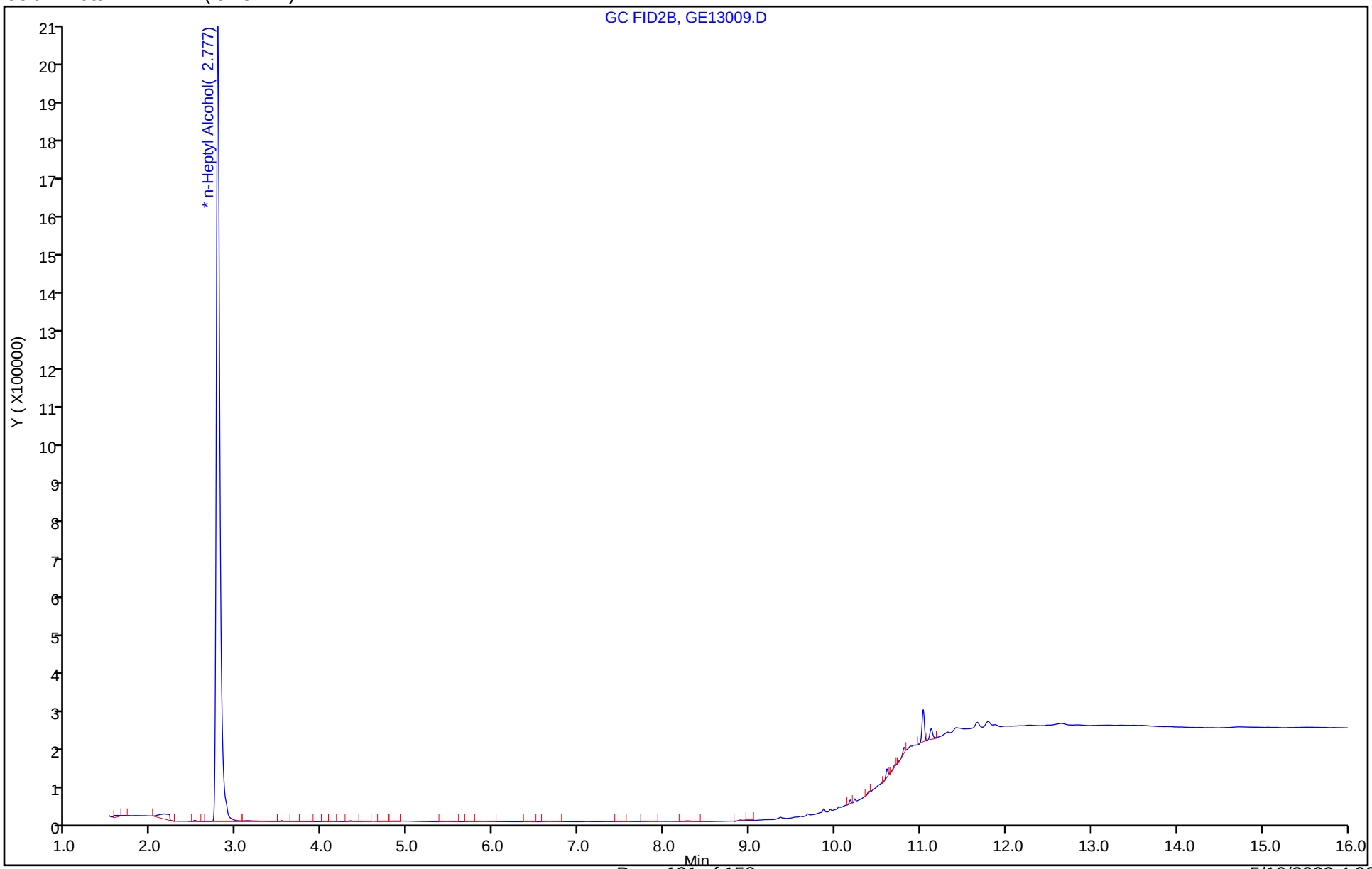
Report Date: 14-May-2023 03:47:48 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13009.D

Injection Date:	13-May-2023 17:04:27	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)



5/19/2023 4:30 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 680-778520/1005

Matrix: Water Lab File ID: -GE13005-LCS.d

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/13/2023 15:31

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

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

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

Cleanup Factor:

Analysis Batch No.: 778520 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	21.4		5.0	3.0	1.1

Eurofins Environment Testing America
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\-GE13005-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 13-May-2023 15:31:23 ALS Bottle#: 0 Worklist Smp#: 1005
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085962-005
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 14-May-2023 04:01:13 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: CTX1631

First Level Reviewer: SK9U Date: 14-May-2023 04:01:13

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.088	2.088	0.000	1613979	20.0	23.4	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.379	2.379	0.000	1324281	20.0	21.9	
	3 2-Butoxyethanol						
	2.524	2.524	0.000	1424376	20.0	21.9	
*	4 n-Heptyl Alcohol						
	2.782	2.782	0.000	4877899	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	3.459	3.459	0.000	118618	20.0	23.2	
	6 Propylene glycol						
	4.326	4.326	0.000	378774	20.0	25.7	
	7 Ethylene glycol						
	4.512	4.512	0.000	768491	20.0	20.1	
	8 2-(2-Butoxyethoxy)ethanol						
	6.104	6.104	0.000	1091066	20.0	21.4	
	9 2,2'-Oxybisethanol						
	8.267	8.267	0.000	476045	20.0	21.4	
	10 Triethylene Glycol						
	9.870	9.870	0.000	474371	20.0	22.7	
	11 Tetraethylene Glycol						
	10.702	10.702	0.000	947087	40.0	49.2	

QC Flag Legend

Processing Flags

Reagents:

SG_Gly_CAL_00051	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00114	Amount Added:	10.00	Units: uL	Run Reagent

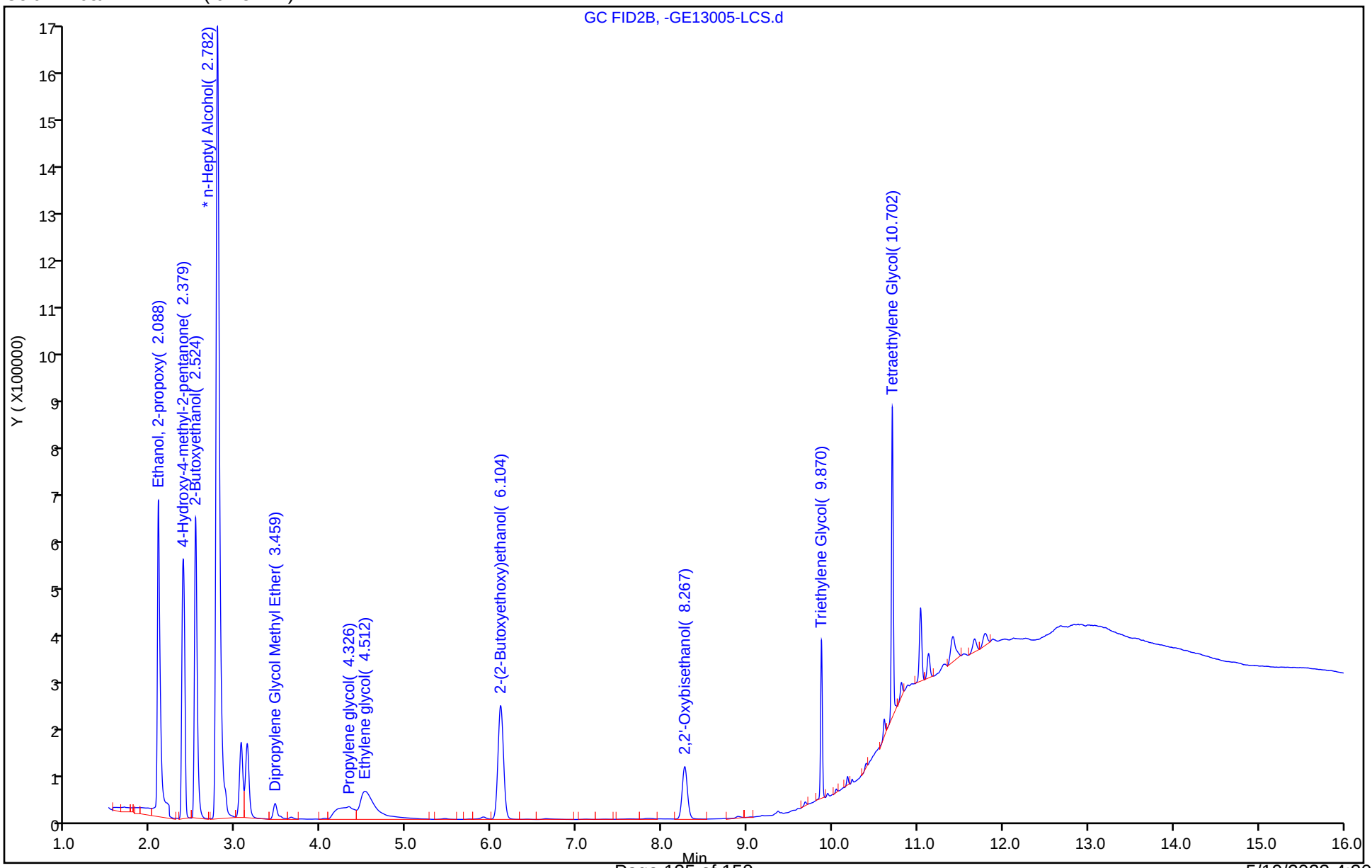
Report Date: 14-May-2023 04:01:13 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Environment Testing America

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\-GE13005-LCS.d

Injection Date:	13-May-2023 15:31:23	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	1005
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)



5/19/2023 4:30 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-127195-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 680-778520/6

Matrix: Water Lab File ID: GE13006.D

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/13/2023 15:54

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

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

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

Cleanup Factor:

Analysis Batch No.: 778520 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	23.6		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13006.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 13-May-2023 15:54:37 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085962-006
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 14-May-2023 03:32:45 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: CTX1631

First Level Reviewer: SK9U Date: 13-May-2023 16:26:27

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.086	2.088	-0.002	1685411	20.0	21.0	
	2 4-Hydroxy-4-methyl-2-pentanone						M
	2.378	2.379	-0.001	1492642	20.0	21.6	M
	3 2-Butoxyethanol						M
	2.524	2.524	0.000	1571193	20.0	21.1	M
*	4 n-Heptyl Alcohol						M
	2.781	2.782	-0.001	5575015	50.0	50.0	M
	5 Dipropylene Glycol Methyl Ether						M
	3.456	3.459	-0.003	141511	20.0	24.2	M
	6 Propylene glycol						M
	4.316	4.326	-0.010	619956	20.0	36.7	M
	7 Ethylene glycol						M
	4.515	4.512	0.003	1228901	20.0	28.3	M
	8 2-(2-Butoxyethoxy)ethanol						
	6.105	6.104	0.001	1374581	20.0	23.6	
	9 2,2'-Oxybisethanol						
	8.265	8.267	-0.002	851133	20.0	33.4	
	10 Triethylene Glycol						
	9.870	9.870	0.000	832819	20.0	34.8	
	11 Tetraethylene Glycol						
	10.701	10.702	-0.001	1710458	40.0	77.7	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00051	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00114	Amount Added:	10.00	Units: uL	Run Reagent

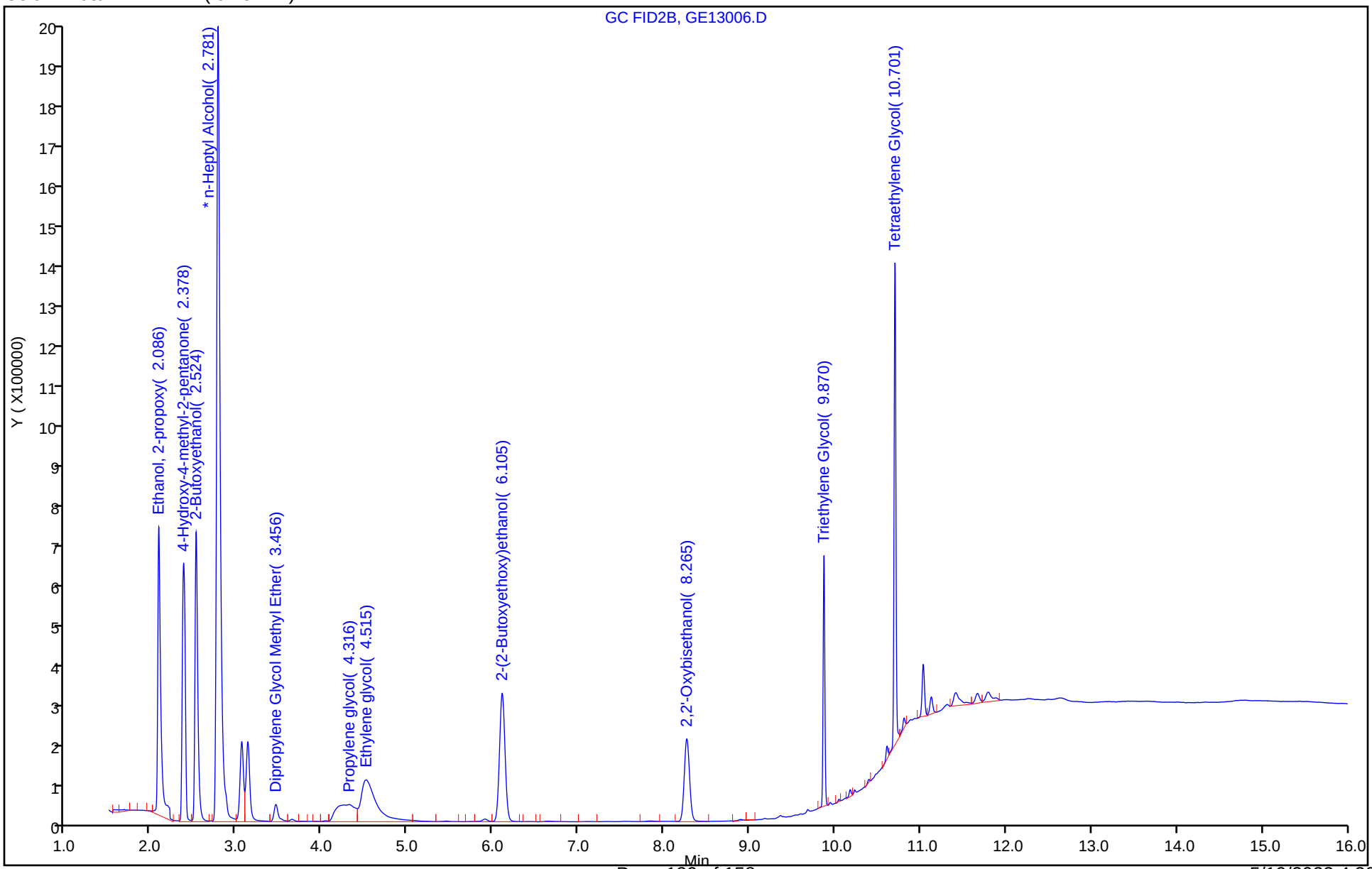
Report Date: 14-May-2023 03:32:46 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13006.D

Injection Date:	13-May-2023 15:54:37	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)



5/19/2023 4:30 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

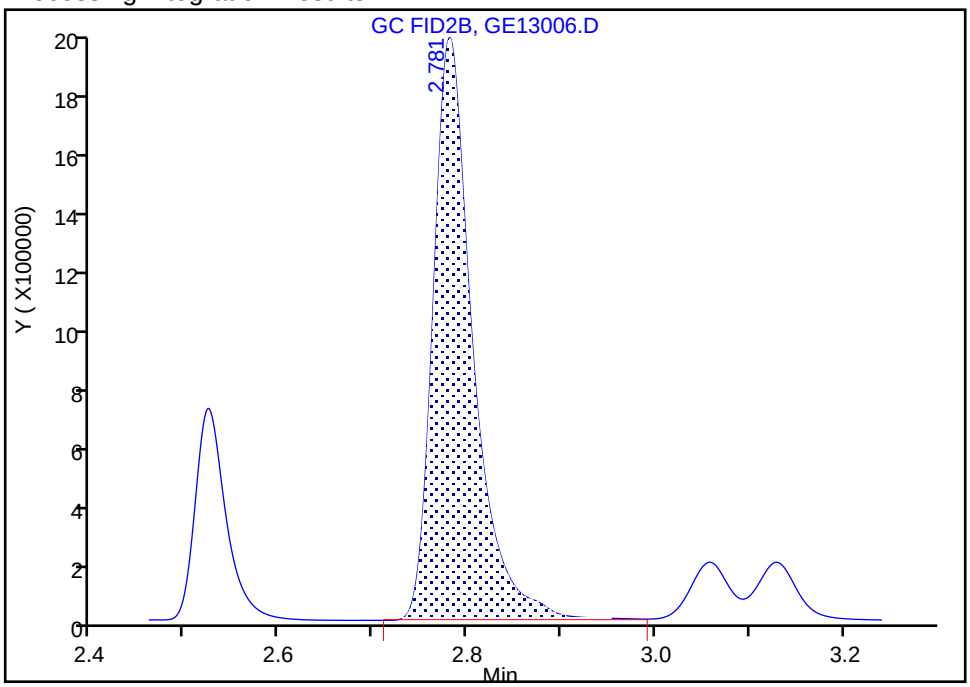
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13006.D
Injection Date: 13-May-2023 15:54:37 Instrument ID: CVGG2
Lims ID: lcsd
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

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

Signal: 1

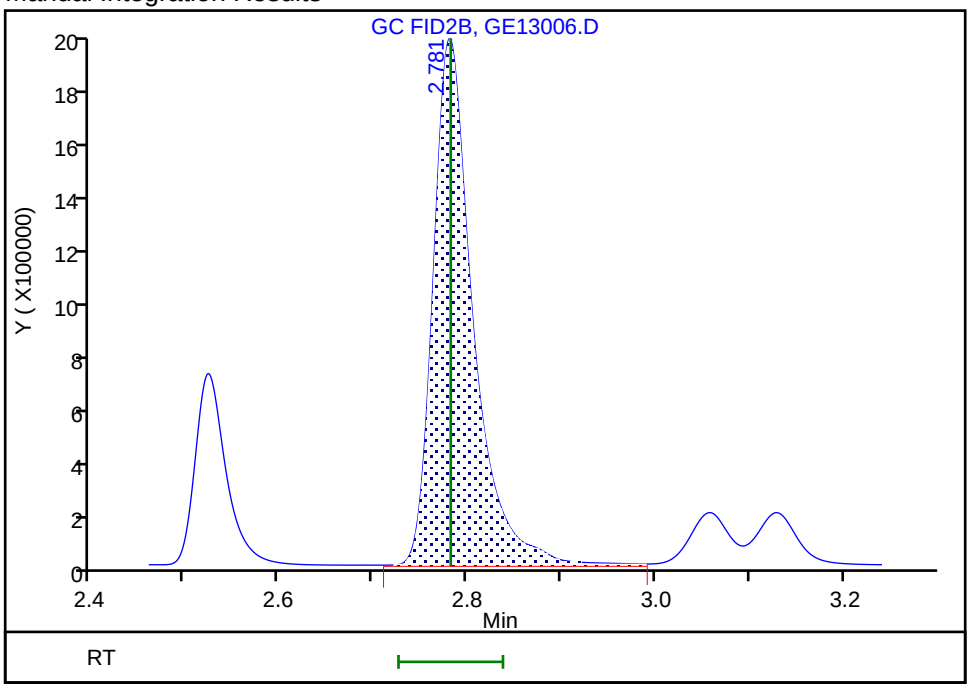
Processing Integration Results

RT: 2.78
Area: 5537027
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 2.78
Area: 5575015
Amount: 50.000000
Amount Units: ug/ml



Reviewer: SK9U, 13-May-2023 16:25:54
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah | Job No.: 580-127195-1

SDG No.:

Client Sample ID: AF-RHMW16-WGN01LF-2305W2 MS | Lab Sample ID: 580-127195-1 MS

Matrix: Water | Lab File ID: GE13035.D

Analysis Method: 8015C GLY | Date Collected: 05/09/2023 13:05

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/14/2023 03:08

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.: 778520 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	33.7	J1	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13035.D
Lims ID: 580-127195-B-1 MS
Client ID:
Sample Type: MS
Inject. Date: 14-May-2023 03:08:51 ALS Bottle#: 0 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085961-035
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 14-May-2023 03:47:39 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: CTX1631

First Level Reviewer: SK9U Date: 14-May-2023 03:58:07

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Ethanol, 2-propoxy						M
	2.077	2.079	-0.002	1814916	20.0	26.9	M
2	4-Hydroxy-4-methyl-2-pentanone						M
	2.369	2.372	-0.003	1682242	20.0	27.9	M
3	2-Butoxyethanol						M
	2.517	2.519	-0.002	1711212	20.0	26.4	M
* 4	n-Heptyl Alcohol						M
	2.767	2.770	-0.003	4849758	50.0	50.0	M
5	Dipropylene Glycol Methyl Ether						M
	3.452	3.452	0.000	185320	20.0	36.5	M
6	Propylene glycol						M
	4.313	4.314	-0.001	414472	20.0	28.3	M
7	Ethylene glycol						M
	4.533	4.515	0.018	887734	20.0	23.5	M
8	2-(2-Butoxyethoxy)ethanol						
	6.095	6.095	0.000	1705621	20.0	33.7	
9	2,2'-Oxybisethanol						
	8.261	8.264	-0.003	571588	20.0	25.8	
10	Triethylene Glycol						
	9.868	9.869	-0.001	523700	20.0	25.2	
11	Tetraethylene Glycol						7
	10.697	10.699	-0.002	52913	40.0	2.76	7
LOD =	4.50						

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00051	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00114	Amount Added:	10.00	Units: uL	Run Reagent

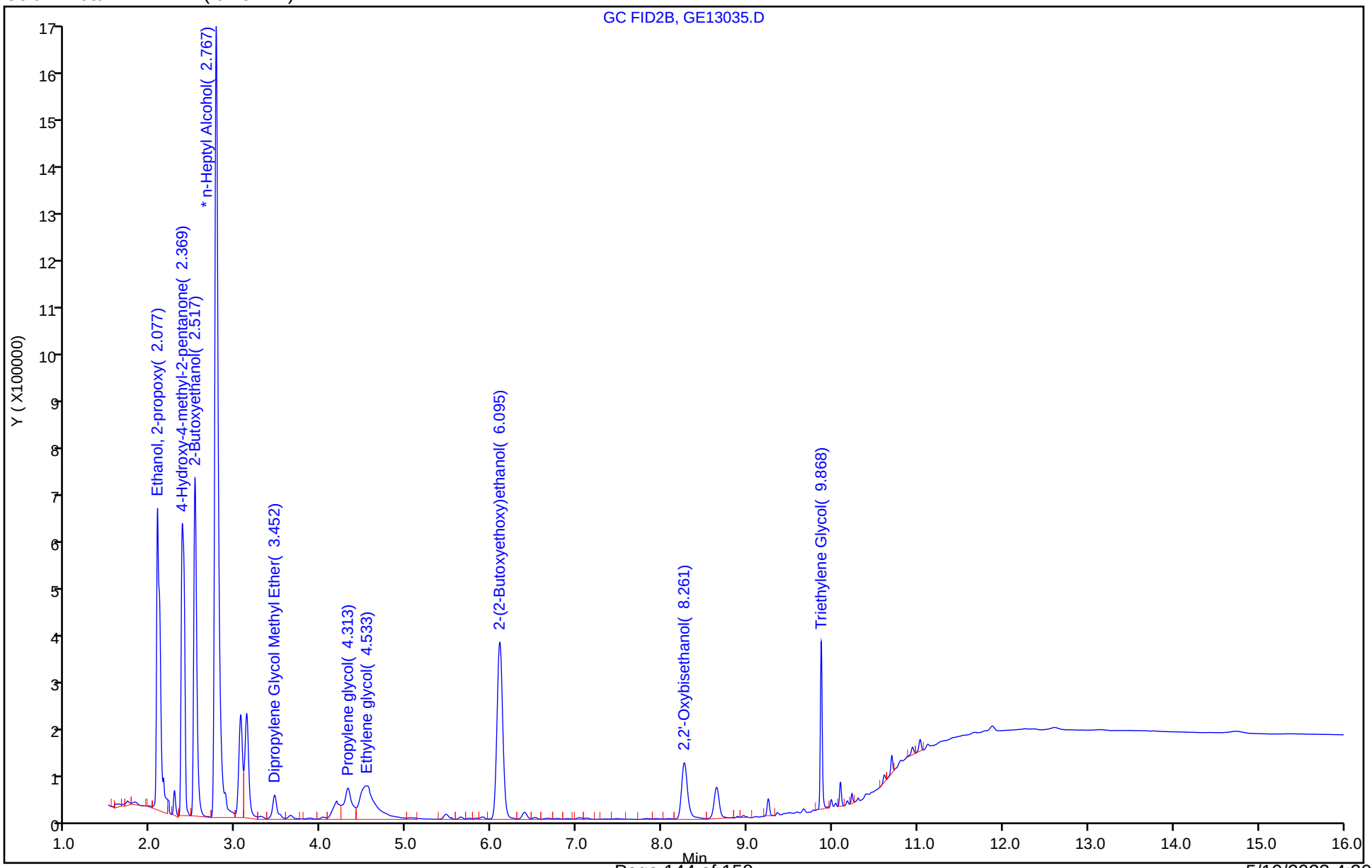
Report Date: 14-May-2023 03:58:07 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13035.D

Injection Date:	14-May-2023 03:08:51	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-127195-B-1 MS			Worklist Smp#:	35
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)



5/19/2023 4:30 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

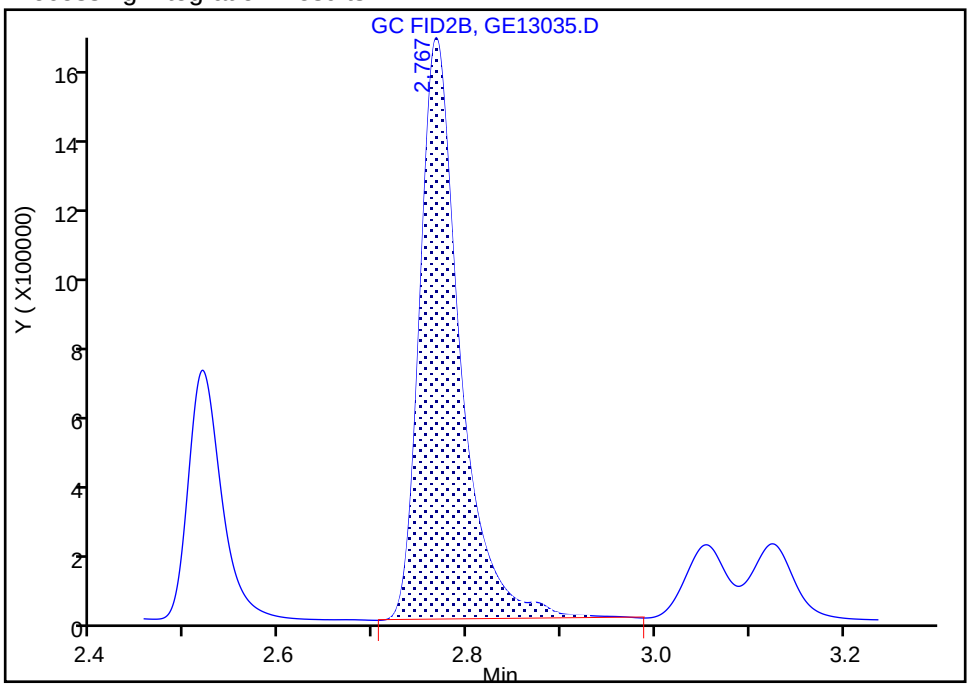
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13035.D
Injection Date: 14-May-2023 03:08:51 Instrument ID: CVGG2
Lims ID: 580-127195-B-1 MS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

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

Signal: 1

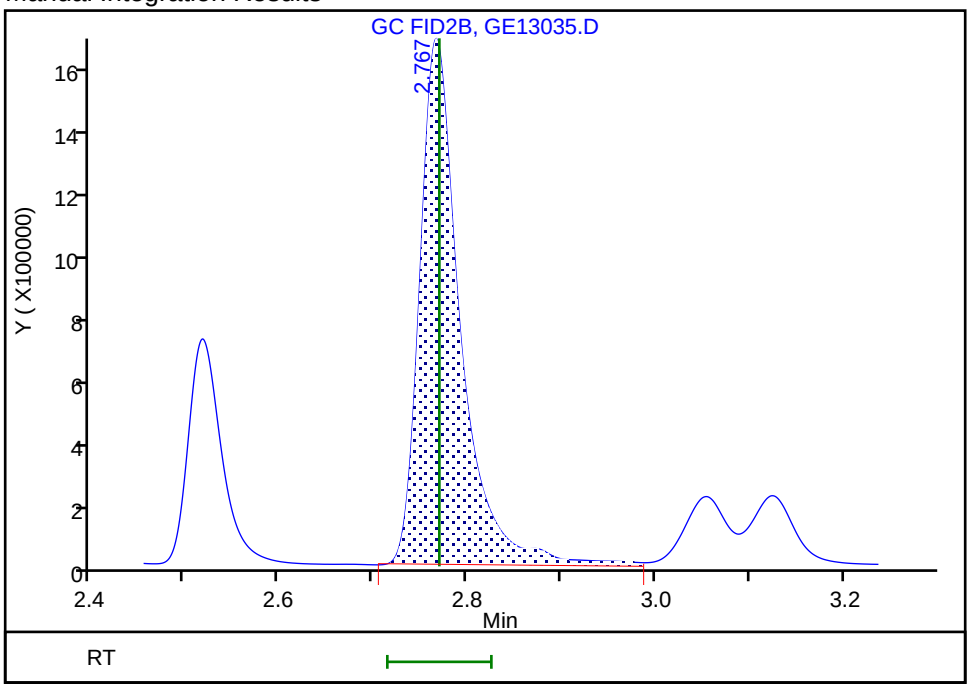
Processing Integration Results

RT: 2.77
Area: 4783450
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 2.77
Area: 4849758
Amount: 50.000000
Amount Units: ug/ml



Reviewer: SK9U, 14-May-2023 03:46:33
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah | Job No.: 580-127195-1

SDG No.:

Client Sample ID: AF-RHMW16-WGN01LF-2305W2 MSD | Lab Sample ID: 580-127195-1 MSD

Matrix: Water | Lab File ID: GE13036.D

Analysis Method: 8015C GLY | Date Collected: 05/09/2023 13:05

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/14/2023 03:32

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.: 778520 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	33.2	J1	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13036.D
Lims ID: 580-127195-B-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 14-May-2023 03:32:03 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085961-036
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 14-May-2023 03:58:57 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: CTX1631

First Level Reviewer: SK9U Date: 14-May-2023 03:58:57

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Ethanol, 2-propoxy						M
	2.079	2.079	0.000	1768034	20.0	28.3	M
2	4-Hydroxy-4-methyl-2-pentanone						
	2.371	2.372	-0.001	1610142	20.0	28.7	
3	2-Butoxyethanol						
	2.519	2.519	0.000	1608729	20.0	26.7	
*	4 n-Heptyl Alcohol						
	2.766	2.770	-0.004	4522977	50.0	50.0	
5	Dipropylene Glycol Methyl Ether						
	3.454	3.452	0.002	177977	20.0	37.6	
6	Propylene glycol						
	4.314	4.314	0.000	366948	20.0	26.8	
7	Ethylene glycol						
	4.527	4.515	0.012	934745	20.0	26.5	
8	2-(2-Butoxyethoxy)ethanol						
	6.095	6.095	0.000	1568111	20.0	33.2	
9	2,2'-Oxybisethanol						
	8.259	8.264	-0.005	538884	20.0	26.1	
10	Triethylene Glycol						
	9.868	9.869	-0.001	443613	20.0	22.9	
11	Tetraethylene Glycol						7
	10.698	10.699	-0.001	62220	40.0	3.49	7
LOD =	4.50						

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00051	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00114	Amount Added:	10.00	Units: uL	Run Reagent

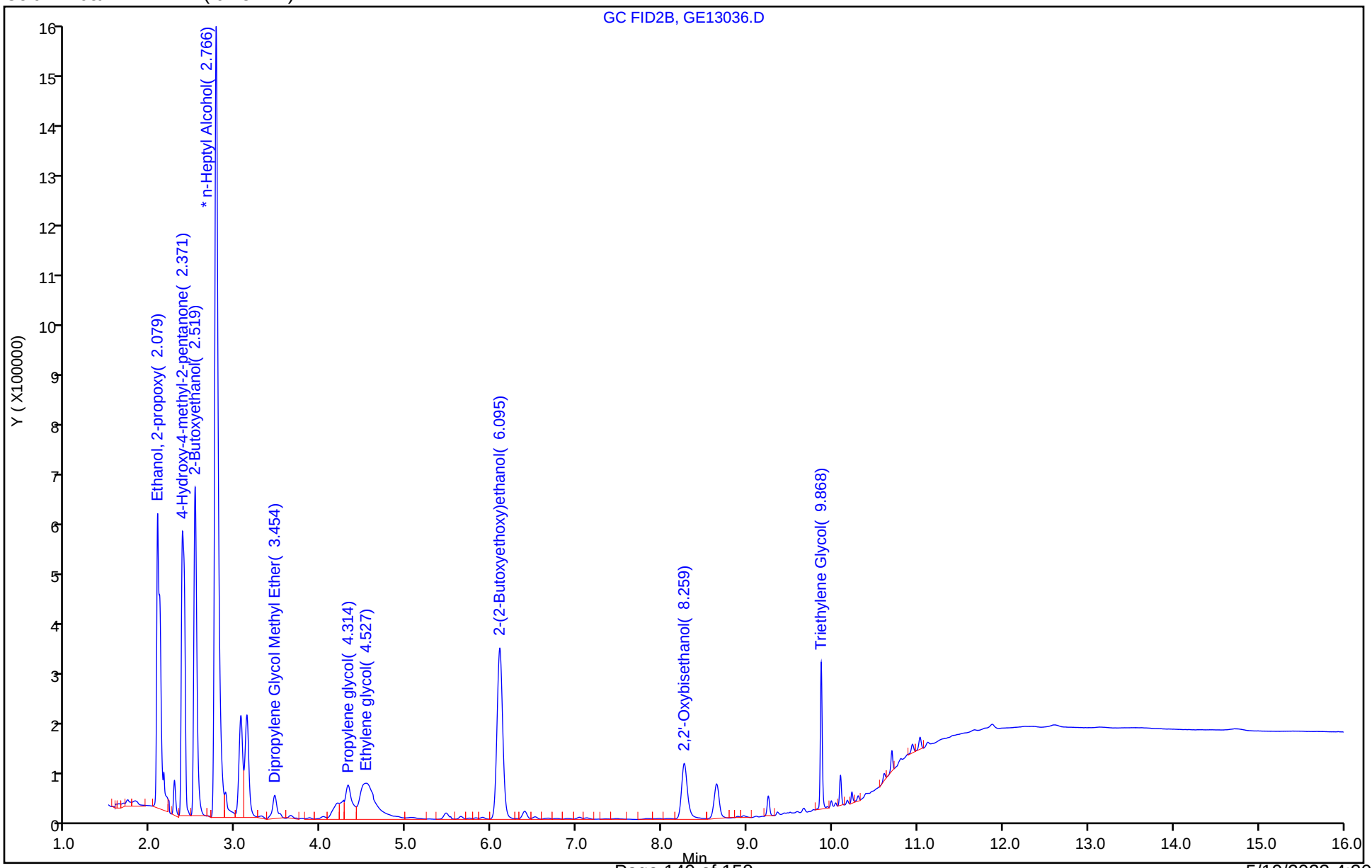
Report Date: 14-May-2023 03:58:57 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230513-85961.b\GE13036.D

Injection Date:	14-May-2023 03:32:03	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-127195-B-1 MSD			Worklist Smp#:	36
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)



5/19/2023 4:30 PM

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-127195-1

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.: 580-127195-1

SDG No.:

Instrument ID: CVGG2 Start Date: 05/13/2023 15:31

Analysis Batch Number: 778520 End Date: 05/14/2023 06:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-778520/5		05/13/2023 15:31	1	GE13005.D	J&W DB WAX 0.45(mm)
LCS 680-778520/1005		05/13/2023 15:31	1	-GE13005-LCS.d	J&W DB WAX 0.45(mm)
LCSD 680-778520/6		05/13/2023 15:54	1	GE13006.D	J&W DB WAX 0.45(mm)
MB 680-778520/9		05/13/2023 17:04	1	GE13009.D	J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 17:27	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 17:51	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 18:14	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 19:00	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 19:24	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 19:47	5		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 20:10	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 20:33	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 20:57	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 21:20	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 21:43	1000		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 22:06	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 22:29	50		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 22:53	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 23:16	50		J&W DB WAX 0.45(mm)
ZZZZZ		05/13/2023 23:39	10		J&W DB WAX 0.45(mm)
ZZZZZ		05/14/2023 00:02	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/14/2023 00:26	10		J&W DB WAX 0.45(mm)
CCV 680-778520/30		05/14/2023 01:12	1	GE13030.D	J&W DB WAX 0.45(mm)
ZZZZZ		05/14/2023 02:22	1		J&W DB WAX 0.45(mm)
580-127195-1	AF-RHMW16-WGN01LF-230 5W2	05/14/2023 02:45	1	GE13034.D	J&W DB WAX 0.45(mm)
580-127195-1 MS	AF-RHMW16-WGN01LF-230 5W2 MS	05/14/2023 03:08	1	GE13035.D	J&W DB WAX 0.45(mm)
580-127195-1 MSD	AF-RHMW16-WGN01LF-230 5W2 MSD	05/14/2023 03:32	1	GE13036.D	J&W DB WAX 0.45(mm)
ZZZZZ		05/14/2023 03:55	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/14/2023 04:18	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/14/2023 04:41	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/14/2023 05:04	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/14/2023 05:28	1		J&W DB WAX 0.45(mm)
ZZZZZ		05/14/2023 05:51	1		J&W DB WAX 0.45(mm)
CCV 680-778520/44		05/14/2023 06:37	1	GE13044.D	J&W DB WAX 0.45(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-127195-1

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.: 580-127195-1

SDG No.:

Batch Number: 778520 Batch Start Date: 05/13/23 15:31 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 00114			
CCVIS 680-778520/5		8015C GLY		1 mL	10 uL	10 uL			
LCSD 680-778520/6		8015C GLY		1 mL	10 uL	10 uL			
MB 680-778520/9		8015C GLY		1 mL		10 uL			
CCV 680-778520/30		8015C GLY		1 mL	10 uL	10 uL			
580-127195-B-1	AF-RHMW16-WGN01L F-2305W2	8015C GLY	T	1 mL	10 uL	10 uL			
580-127195-B-1 MS	AF-RHMW16-WGN01L F-2305W2	8015C GLY	T	1 mL	10 uL	10 uL			
580-127195-B-1 MSD	AF-RHMW16-WGN01L F-2305W2	8015C GLY	T	1 mL	10 uL	10 uL			
CCV 680-778520/44		8015C GLY		1 mL	10 uL	10 uL			
LCS 680-778520/1005		8015C GLY		1 mL	10 uL	10 uL			

Batch Notes	

Basis	Basis Description
T	Total/NA

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

Subcontract Data

Shipping and Receiving Documents

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

Chain of Custody Record

eurofins | Environment Testing America

016-51659996

Client Information	Sampler: Andy Young	Lab PM: Elaine Walker	Carrier Tracking No(s): ~~FedEx~~ United AC	COC No: 2305W2AFEA06
Client Contact:	Phone: 402-871-5712	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:

Address: 1001 Bishop St. Suite 1600	Due Date Requested: see subcontract
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#:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAI_GL_D5/2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
AF-RHMW16-WGN01LF-2305W2	5/9/23	1305	G	W	N	N	X	3	

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Possible Hazard Identification
■ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQuIS EDD.

Special Instructions/QC Requirements: DOD QSM project.

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Andy Young	5/9/23 1413	AECOM	Alex Edmond	5/9/23 1413	AECOM
Relinquished by: Alex Edmond	Date/Time: 5/10/23 1430	Company AECOM	Received by:	Date/Time: 5/12/23 1000	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: 4.8/5.6

Ver: 01/16/2019

Page 156 of 158

5/19/2023 4:30 PM

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

Chain of Custody Record

eurofins Environment Testing America

016-51659996

Client Information	Sampler: Andy Young	Lab PM: Elaine Walker	Carrier Tracking No(s): ~~FedEx~~ w.t.l AC	COC No: 2305W2AFEA06
Client Contact.	Phone: 402-871-5712	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:

Address	Due Date Requested	Analysis Requested
1001 Bishop St Suite 1600	see subcontract	
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#:	

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:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAI_GL_DS/ 2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
AF-RHMW16-WGN01LF-2305W2	5/9/23	1305	G	W	N	N	X	3	

5/9/23

5/9/23

580-127195 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
■ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)	Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM EQuIS EDD.	Special Instructions/QC Requirements DOD QSM project

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Andy Young	5/9/23 / 1413	AECOM	Alex Edmond	5/9/23 1413	AECOM
2	Alex Edmond	5/10/23 1430	AECOM		5/12/23 1000	
3						

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.	Ver: 01/16/2019
		4.8/5.6	

5/19/2023 4:30 PM

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-127195-1

Login Number: 127195
List Number: 2
Creator: Johnson, Corey M

List Source: Eurofins Savannah
List Creation: 05/12/23 08:15 PM

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