

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

Attn: Terri Choy  
AECOM

1001 Bishop Street  
Honolulu HI 96813

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**JOB DESCRIPTION**

Red Hill - AFFF Assessment Sampling

**JOB NUMBER**

580-126438-1

# 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  
Marie E Walker, Senior Project Manager  
[M.Elaine.Walker@et.eurofinsus.com](mailto:M.Elaine.Walker@et.eurofinsus.com)  
253 248-4972

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# Definitions/Glossary

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

Job ID: 580-126438-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

## Glossary

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

## CASE NARRATIVE

Client: AECOM

Project: Red Hill - AFFF Assessment Sampling  
Report Number: 580-126438-1

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

Ten samples were received on 4/21/2023 1:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.7° C.

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

### GLYCOLS

Samples AF-RHMW17-WGN01LF-2304W3 (580-126438-1), AF-RHMW17S-WGN01LF-2304W3 (580-126438-2), AF-RHMW17S-WQEB01-2304W3 (580-126438-3), AF-RHMW04-WGN01LF-2304W3 (580-126438-4), AF-RHMW06-WGN01LF-2304W3 (580-126438-5), AF-RHMW10-WGN01LF-2304W3 (580-126438-6), AF-HDMW225303-WGN01LF-2304W3 (580-126438-7), AF-RHMW16-WGN01LF-2304W3 (580-126438-8), AF-RHMW12A-WGN01LF-2304W3 (580-126438-9) and AF-RHMW12A-WGFD01LF-2304W3 (580-126438-10) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 05/01/2023.

The continuing calibration verification (CCV) associated with batch 680-776112 recovered outside acceptance criteria, low biased, for 2-(2-Butoxyethoxy)ethanol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte, 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  
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-126438-1

**Client Sample ID: AF-RHMW17-WGN01LF-2304W3** **Lab Sample ID: 580-126438-1**

No Detections.

**Client Sample ID: AF-RHMW17S-WGN01LF-2304W3** **Lab Sample ID: 580-126438-2**

No Detections.

**Client Sample ID: AF-RHMW17S-WQEB01-2304W3** **Lab Sample ID: 580-126438-3**

No Detections.

**Client Sample ID: AF-RHMW04-WGN01LF-2304W3** **Lab Sample ID: 580-126438-4**

No Detections.

**Client Sample ID: AF-RHMW06-WGN01LF-2304W3** **Lab Sample ID: 580-126438-5**

No Detections.

**Client Sample ID: AF-RHMW10-WGN01LF-2304W3** **Lab Sample ID: 580-126438-6**

No Detections.

**Client Sample ID: AF-HDMW225303-WGN01LF-2304W3** **Lab Sample ID: 580-126438-7**

No Detections.

**Client Sample ID: AF-RHMW16-WGN01LF-2304W3** **Lab Sample ID: 580-126438-8**

No Detections.

**Client Sample ID: AF-RHMW12A-WGN01LF-2304W3** **Lab Sample ID: 580-126438-9**

No Detections.

**Client Sample ID: AF-RHMW12A-WGFD01LF-2304W3** **Lab Sample ID: 580-126438-10**

No Detections.

This Detection Summary does not include radiochemical test results.

# Client Sample Results

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

Job ID: 580-126438-1

**Client Sample ID: AF-RHMW17-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-1**

Date Collected: 04/20/23 11:55

Matrix: Water

Date Received: 04/21/23 13:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			05/01/23 05:29	1

**Client Sample ID: AF-RHMW17S-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-2**

Date Collected: 04/20/23 09:45

Matrix: Water

Date Received: 04/21/23 13:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q M	5.0	1.1	mg/L			05/01/23 07:25	1

**Client Sample ID: AF-RHMW17S-WQEB01-2304W3**

**Lab Sample ID: 580-126438-3**

Date Collected: 04/20/23 07:55

Matrix: Water

Date Received: 04/21/23 13:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			05/01/23 07:48	1

**Client Sample ID: AF-RHMW04-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-4**

Date Collected: 04/19/23 10:55

Matrix: Water

Date Received: 04/21/23 13:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			05/01/23 08:12	1

**Client Sample ID: AF-RHMW06-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-5**

Date Collected: 04/19/23 14:40

Matrix: Water

Date Received: 04/21/23 13:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			05/01/23 08:35	1

**Client Sample ID: AF-RHMW10-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-6**

Date Collected: 04/18/23 14:30

Matrix: Water

Date Received: 04/21/23 13:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U Q	5.0	1.1	mg/L			05/01/23 08:58	1

**Client Sample ID: AF-HDMW225303-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-7**

Date Collected: 04/18/23 11:00

Matrix: Water

Date Received: 04/21/23 13:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	1.1	mg/L			05/01/23 15:45	1



# Client Sample Results

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

Job ID: 580-126438-1

**Client Sample ID: AF-RHMW16-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-8**

Date Collected: 04/19/23 12:10

Matrix: Water

Date Received: 04/21/23 13:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/01/23 16:09	1

**Client Sample ID: AF-RHMW12A-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-9**

Date Collected: 04/19/23 10:00

Matrix: Water

Date Received: 04/21/23 13:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/01/23 16:32	1

**Client Sample ID: AF-RHMW12A-WGFD01LF-2304W3**

**Lab Sample ID: 580-126438-10**

Date Collected: 04/19/23 10:00

Matrix: Water

Date Received: 04/21/23 13:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/01/23 16:55	1

# Default Detection Limits

Client: AECOM

Job ID: 580-126438-1

Project/Site: Red Hill - AFFF Assessment Sampling

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

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

# QC Sample Results

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

Job ID: 580-126438-1

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

**Lab Sample ID: MB 680-776112/11**  
**Matrix: Water**  
**Analysis Batch: 776112**

**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			05/01/23 03:57	1

**Lab Sample ID: LCS 680-776112/5**  
**Matrix: Water**  
**Analysis Batch: 776112**

**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	21.0		mg/L		105	50 - 150

**Lab Sample ID: LCSD 680-776112/6**  
**Matrix: Water**  
**Analysis Batch: 776112**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	20.0	18.7		mg/L		93	50 - 150	12	50

**Lab Sample ID: 580-126438-1 MS**  
**Matrix: Water**  
**Analysis Batch: 776112**

**Client Sample ID: AF-RHMW17-WGN01LF-2304W3**  
**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	20.0	20.4		mg/L		102	50 - 150

**Lab Sample ID: 580-126438-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 776112**

**Client Sample ID: AF-RHMW17-WGN01LF-2304W3**  
**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	20.0	19.6		mg/L		98	50 - 150	4	50

**Lab Sample ID: MB 680-776218/9**  
**Matrix: Water**  
**Analysis Batch: 776218**

**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			05/01/23 14:59	1

**Lab Sample ID: LCS 680-776218/5**  
**Matrix: Water**  
**Analysis Batch: 776218**

**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	18.0		mg/L		90	50 - 150

**Lab Sample ID: LCSD 680-776218/6**  
**Matrix: Water**  
**Analysis Batch: 776218**

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

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

# QC Association Summary

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

Job ID: 580-126438-1

## GC Semi VOA

### Analysis Batch: 776112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-126438-1	AF-RHMMW17-WGN01LF-2304W3	Total/NA	Water	8015C GLY	
580-126438-2	AF-RHMMW17S-WGN01LF-2304W3	Total/NA	Water	8015C GLY	
580-126438-3	AF-RHMMW17S-WQEB01-2304W3	Total/NA	Water	8015C GLY	
580-126438-4	AF-RHMMW04-WGN01LF-2304W3	Total/NA	Water	8015C GLY	
580-126438-5	AF-RHMMW06-WGN01LF-2304W3	Total/NA	Water	8015C GLY	
580-126438-6	AF-RHMMW10-WGN01LF-2304W3	Total/NA	Water	8015C GLY	
MB 680-776112/11	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-776112/5	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-776112/6	Lab Control Sample Dup	Total/NA	Water	8015C GLY	
580-126438-1 MS	AF-RHMMW17-WGN01LF-2304W3	Total/NA	Water	8015C GLY	
580-126438-1 MSD	AF-RHMMW17-WGN01LF-2304W3	Total/NA	Water	8015C GLY	

### Analysis Batch: 776218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-126438-7	AF-HDMW225303-WGN01LF-2304W3	Total/NA	Water	8015C GLY	
580-126438-8	AF-RHMMW16-WGN01LF-2304W3	Total/NA	Water	8015C GLY	
580-126438-9	AF-RHMMW12A-WGN01LF-2304W3	Total/NA	Water	8015C GLY	
580-126438-10	AF-RHMMW12A-WGFD01LF-2304W3	Total/NA	Water	8015C GLY	
MB 680-776218/9	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-776218/5	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-776218/6	Lab Control Sample Dup	Total/NA	Water	8015C GLY	

# Lab Chronicle

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

Job ID: 580-126438-1

**Client Sample ID: AF-RHMW17-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-1**

Date Collected: 04/20/23 11:55

Matrix: Water

Date Received: 04/21/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	776112	GEM	EET SAV	05/01/23 05:29

**Client Sample ID: AF-RHMW17S-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-2**

Date Collected: 04/20/23 09:45

Matrix: Water

Date Received: 04/21/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	776112	GEM	EET SAV	05/01/23 07:25

**Client Sample ID: AF-RHMW17S-WQEB01-2304W3**

**Lab Sample ID: 580-126438-3**

Date Collected: 04/20/23 07:55

Matrix: Water

Date Received: 04/21/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	776112	GEM	EET SAV	05/01/23 07:48

**Client Sample ID: AF-RHMW04-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-4**

Date Collected: 04/19/23 10:55

Matrix: Water

Date Received: 04/21/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	776112	GEM	EET SAV	05/01/23 08:12

**Client Sample ID: AF-RHMW06-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-5**

Date Collected: 04/19/23 14:40

Matrix: Water

Date Received: 04/21/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	776112	GEM	EET SAV	05/01/23 08:35

**Client Sample ID: AF-RHMW10-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-6**

Date Collected: 04/18/23 14:30

Matrix: Water

Date Received: 04/21/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	776112	GEM	EET SAV	05/01/23 08:58

**Client Sample ID: AF-HDMW225303-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-7**

Date Collected: 04/18/23 11:00

Matrix: Water

Date Received: 04/21/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	776218	GEM	EET SAV	05/01/23 15:45

# Lab Chronicle

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

Job ID: 580-126438-1

**Client Sample ID: AF-RHMW16-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-8**

Date Collected: 04/19/23 12:10

Matrix: Water

Date Received: 04/21/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	776218	GEM	EET SAV	05/01/23 16:09

**Client Sample ID: AF-RHMW12A-WGN01LF-2304W3**

**Lab Sample ID: 580-126438-9**

Date Collected: 04/19/23 10:00

Matrix: Water

Date Received: 04/21/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	776218	GEM	EET SAV	05/01/23 16:32

**Client Sample ID: AF-RHMW12A-WGFD01LF-2304W3**

**Lab Sample ID: 580-126438-10**

Date Collected: 04/19/23 10:00

Matrix: Water

Date Received: 04/21/23 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	776218	GEM	EET SAV	05/01/23 16:55

**Laboratory References:**

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

# Accreditation/Certification Summary

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

Job ID: 580-126438-1

## Laboratory: Eurofins Savannah

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

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

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

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

# Method Summary

Client: AECOM

Job ID: 580-126438-1

Project/Site: Red Hill - AFFF Assessment Sampling

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<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
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: 580-126438-1

Project/Site: Red Hill - AFFF Assessment Sampling

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-126438-1	AF-RHMMW17-WGN01LF-2304W3	Water	04/20/23 11:55	04/21/23 13:30
580-126438-2	AF-RHMMW17S-WGN01LF-2304W3	Water	04/20/23 09:45	04/21/23 13:30
580-126438-3	AF-RHMMW17S-WQEB01-2304W3	Water	04/20/23 07:55	04/21/23 13:30
580-126438-4	AF-RHMMW04-WGN01LF-2304W3	Water	04/19/23 10:55	04/21/23 13:30
580-126438-5	AF-RHMMW06-WGN01LF-2304W3	Water	04/19/23 14:40	04/21/23 13:30
580-126438-6	AF-RHMMW10-WGN01LF-2304W3	Water	04/18/23 14:30	04/21/23 13:30
580-126438-7	AF-HDMW225303-WGN01LF-2304W3	Water	04/18/23 11:00	04/21/23 13:30
580-126438-8	AF-RHMMW16-WGN01LF-2304W3	Water	04/19/23 12:10	04/21/23 13:30
580-126438-9	AF-RHMMW12A-WGN01LF-2304W3	Water	04/19/23 10:00	04/21/23 13:30
580-126438-10	AF-RHMMW12A-WGFD01LF-2304W3	Water	04/19/23 10:00	04/21/23 13:30

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1

SDG No.: \_\_\_\_\_

Instrument ID: CVGG2 Analysis Batch Number: 773617

Lab Sample ID: IC 680-773617/4 Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/16/23 19:56 Lab File ID: GD16011.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetraethylene Glycol	10.91	Shouldering	SK9U	04/17/23 10:11

Lab Sample ID: IC 680-773617/5 Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/16/23 20:19 Lab File ID: GD16012.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetraethylene Glycol	10.91	Shouldering	SK9U	04/17/23 10:11

Lab Sample ID: IC 680-773617/6 Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/16/23 20:42 Lab File ID: GD16013.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetraethylene Glycol	10.91	Shouldering	SK9U	04/17/23 10:12

Lab Sample ID: ICIS 680-773617/7 Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/16/23 21:05 Lab File ID: GD16014.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetraethylene Glycol	10.91	Shouldering	SK9U	04/17/23 10:12

Lab Sample ID: IC 680-773617/8 Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/16/23 21:29 Lab File ID: GD16015.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	4.82	Incomplete Integration	SK9U	04/17/23 10:13
Ethylene glycol	5.04	Incomplete Integration	SK9U	04/17/23 10:13
Tetraethylene Glycol	10.91	Shouldering	SK9U	04/17/23 10:12

8015C GLY

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1

SDG No.: \_\_\_\_\_

Instrument ID: CVGG2 Analysis Batch Number: 773617

Lab Sample ID: IC 680-773617/9 Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/16/23 21:52 Lab File ID: GD16016.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	4.82	Incomplete Integration	SK9U	04/17/23 10:15
Ethylene glycol	5.04	Incomplete Integration	SK9U	04/17/23 10:15
Tetraethylene Glycol	10.91	Shouldering	SK9U	04/17/23 10:14

Lab Sample ID: IC 680-773617/10 Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/16/23 22:15 Lab File ID: GD16017.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	4.82	Incomplete Integration	SK9U	04/17/23 10:15
Ethylene glycol	5.04	Incomplete Integration	SK9U	04/17/23 10:15
Tetraethylene Glycol	10.91	Shouldering	SK9U	04/17/23 10:16

Lab Sample ID: ICV 680-773617/11 CCV Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/16/23 22:38 Lab File ID: GD16018.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetraethylene Glycol	10.91	Shouldering	SK9U	04/17/23 10:16

## GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1

SDG No.: \_\_\_\_\_

Instrument ID: CVGG2 Analysis Batch Number: 776112Lab Sample ID: 580-126438-1 MSD Client Sample ID: \_\_\_\_\_Date Analyzed: 05/01/23 06:16 Lab File ID: GD30017.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Heptyl Alcohol	3.10	Baseline Smoothing	SK9U	05/01/23 12:56

Lab Sample ID: 580-126438-2 Client Sample ID: AF-RHMW17S-WGN01LF-2304W3Date Analyzed: 05/01/23 07:25 Lab File ID: GD30020.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-(2-Butoxyethoxy)ethanol		Invalid Compound ID	SK9U	05/01/23 12:58

Lab Sample ID: CCV 680-776112/26 Client Sample ID: \_\_\_\_\_Date Analyzed: 05/01/23 09:44 Lab File ID: GD30026.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	2.60	Baseline Smoothing	SK9U	05/01/23 11:37
2-Butoxyethanol	2.79	Baseline Smoothing	SK9U	05/01/23 11:37
Dipropylene Glycol Methyl Ether	3.85	Baseline Smoothing	SK9U	05/01/23 11:37
Propylene glycol	4.81	Baseline Smoothing	SK9U	05/01/23 11:38
Ethylene glycol	5.04	Baseline Smoothing	SK9U	05/01/23 11:38
2-(2-Butoxyethoxy)ethanol	6.69	Baseline Smoothing	SK9U	05/01/23 11:38

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1

SDG No.: \_\_\_\_\_

Instrument ID: CVGG2 Analysis Batch Number: 776218

Lab Sample ID: 580-126438-7 Client Sample ID: AF-HDMW225303-WGN01LF-2304W3

Date Analyzed: 05/01/23 15:45 Lab File ID: GE01011.D GC Column: J&W DB WAX ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-(2-Butoxyethoxy)ethanol		Invalid Compound ID	SK9U	05/01/23 16:08

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
<b>SG_Gly_CAL_00049</b>	10/11/23		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
<b>SG_GLY_ISTD_00110</b>	10/11/23		Agilent, Lot 0006720623			(Purchased Reagent)	n-Heptyl Alcohol	5000 ug/mL
<b>SG_GLY_ISTD_00117</b>	07/23/23		Agilent, Lot 0006738806			(Purchased Reagent)	n-Heptyl Alcohol	5000 ug/mL
<b>SG_GlyICV_00052</b>	06/30/23		o2si, Lot 454407			(Purchased Reagent)	2-(2-Butoxyethoxy)ethanol	2000 ug/mL

Reagent

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**SG\_Gly\_CAL\_00049**



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



ISO 17034 Accredited  
Reference Material Producer  
Cert. No. 3031.02

Rev 0

## Certificate of Analysis

Page 1 of 3

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

### Description:

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

### Container:

1 ml Ampule, Amber Glass

### Certified Values:

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

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

### Intended Uses:

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

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



# Certificate of Analysis

Page 2 of 3

Catalog No. G34-120070-04

Lot No. 480919

Expiration Date 2 -May-2024

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

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

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

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

## Method of Preparation:

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

## Packaging and Storage:

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

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

## Glassware Calibration:

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

## Weights and Balance Calibration:

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

## Homogeneity:

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

## Hazardous Information:

Refer to MSDS.

## Calculation of Uncertainty:

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

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

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

Manufactured By:

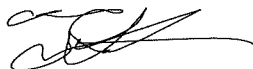


Brian Stokes

3 -May-2022

Production Chemist I

Certified By:



Tyler Sherman

14 -Jun-2022

Quality Control Chemist I

Released By:



Susan Mathews

14 -Jun-2022

Quality Control Team Lead

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

# Certificate of Analysis

Catalog No. G34-120070-04

Lot No. 480919

Expiration Date 2 -May-2024

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

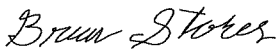
## Expiration Information:

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

## Quality Standard Documentation:

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

Manufactured By:



Brian Stokes

3 -May-2022

Production Chemist I

Certified By:



Tyler Sherman

14 -Jun-2022

Quality Control Chemist I

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

Released By:



Susan Mathews

14 -Jun-2022

Quality Control Team Lead

Reagent

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**SG\_GLY\_ISTD\_00110**

**Reference Material Certificate**  
**Product Information Sheet**

**Product Name:** Custom Standard

**Lot Number:** 0006720623

**Product Number:** CUS-6046

**Lot Issue Date:** 15-Dec-2022

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

**Expiration Date:** 31-Jan-2025

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

**Matrix:** methanol (methyl alcohol)

**Description:**

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

**Traceability:**

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

**Homogeneity:**

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

**Instructions for Use:**

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

**Safety:**

Refer to the Safety Data Sheet on [www.agilent.com](http://www.agilent.com) for information regarding this analytical reference material.

**Intended Use:**

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

**Expiration of Certification:**

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



**Maintenance of Certification:**

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



**Sample lot approver:**

Monica Bourgeois  
QMS Representative



ISO 17034 Cert  
No. AR-1936

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

Page: 2 of 2

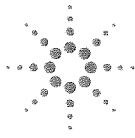
[www.agilent.com/quality/](http://www.agilent.com/quality/)  
CSD-QA-015.1

ISO 17025

Reagent

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**SG\_GLY\_ISTD\_00117**



**Agilent**

Trusted Answers

**ISO 17034**

**Reference Material Certificate  
Product Information Sheet**

**Product Name:** Custom Standard

**Lot Number:** 0006738806

**Product Number:** CUS-6046

**Lot Issue Date:** 05-Apr-2023

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

**Expiration Date:** 31-May-2025

Component Name	Concentration	Uncertainty	CAS#	Analyte Lot
n-heptanol	5008	± 25 µg/mL	000111-70-6	RM04540

**Matrix:** methanol (methyl alcohol)

**Description:**

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

**Traceability:**

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

**Homogeneity:**

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

**Instructions for Use:**

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

**Safety:**

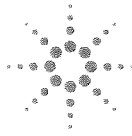
Refer to the Safety Data Sheet on [www.agilent.com](http://www.agilent.com) for information regarding this analytical reference material.

**Intended Use:**

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

**Expiration of Certification:**

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



**Agilent**

Trusted Answers

**Maintenance of Certification:**

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

---

**Sample lot approver:**

Monica Bourgeois

QMS Representative



ISO 17034 Cert  
No. AR-1936

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

Page: 2 of 2

[www.agilent.com/quality/](http://www.agilent.com/quality/)

CSD-QA-015.1

ISO 17025



Reagent

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**SG\_GlyICV\_00052**



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



ISO 17034 Accredited  
Reference Material Producer  
Cert. No. 3031.02

Rev 0

## Certificate of Analysis

Page 1 of 3

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

**Description:**

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

**Container:**

1 ml Ampule, Amber Glass

### Certified Values:

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

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

### Intended Uses:

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

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

# Certificate of Analysis

Page 2 of 2

Catalog No. G34-120070-04-SS

Lot No. 454407

Expiration Date 1 -Jul-2023

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

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

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

## Method of Preparation:

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

## Packaging and Storage:

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

## Glassware Calibration:

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

## Weights and Balance Calibration:

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

## Homogeneity:

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

## Hazardous Information:

Refer to MSDS.

## Calculation of Uncertainty:

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

Manufactured By:



Jared Ball

1 -Jul-2021

Production Chemist I

Certified By:



Claire Desrochers

7 -Jul-2021

Quality Control Chemist I

Released By:



Susan Mathews

8 -Jul-2021

Quality Control Team Lead

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

# Certificate of Analysis

Catalog No. G34-120070-04-SS

Lot No. 454407

Expiration Date 1-Jul-2023

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

## Expiration Information:

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

## Quality Standard Documentation:

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

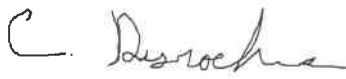
Manufactured By:



Jared Ball  
1-Jul-2021

Production Chemist I

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7-Jul-2021

Quality Control Chemist I

Released By:



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# Method 8015C - DAI Glycols

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

FORM III  
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: GD30005.D  
 Lab ID: LCS 680-776112/5 Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy) ethanol	20.0	21.0	105	50-150	

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

FORM III  
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: GE01005.D  
 Lab ID: LCS 680-776218/5 Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy) ethanol	20.0	18.0	90	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.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: GD30006.D  
 Lab ID: LCSD 680-776112/6 Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy) ethanol	20.0	18.7	93	12	50	50-150	

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

FORM III  
GC SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: GE01006.D  
 Lab ID: LCSD 680-776218/6 Client ID: \_\_\_\_\_

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

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

FORM III  
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: GD30016.D  
 Lab ID: 580-126438-1 MS Client ID: AF-RHMW17-WGN01LF-2304W3 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	20.4	102	50-150	

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

FORM III  
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-126438-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: GD30017.D

Lab ID: 580-126438-1 MSD Client ID: AF-RHWW17-WGN01LF-2304W3 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy) ethanol	20.0	19.6	98	4	50	50-150	

# Column to be used to flag recovery and RPD values

FORM IV  
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: MB 680-776112/11  
 Matrix: Water Date Extracted: \_\_\_\_\_  
 Lab File ID: (1) GD30011.D Lab File ID: (2) \_\_\_\_\_  
 Date Analyzed: (1) 05/01/2023 03:57 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 680-776112/5	05/01/2023 01:38	
	LCSD 680-776112/6	05/01/2023 02:01	
AF-RHMW17-WGN01LF-2304W3	580-126438-1	05/01/2023 05:29	
AF-RHMW17-WGN01LF-2304W3 MS	580-126438-1 MS	05/01/2023 05:53	
AF-RHMW17-WGN01LF-2304W3 MSD	580-126438-1 MSD	05/01/2023 06:16	
AF-RHMW17S-WGN01LF-2304W 3	580-126438-2	05/01/2023 07:25	
AF-RHMW17S-WQEB01-2304W3	580-126438-3	05/01/2023 07:48	
AF-RHMW04-WGN01LF-2304W3	580-126438-4	05/01/2023 08:12	
AF-RHMW06-WGN01LF-2304W3	580-126438-5	05/01/2023 08:35	
AF-RHMW10-WGN01LF-2304W3	580-126438-6	05/01/2023 08:58	

FORM IV  
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: MB 680-776218/9  
 Matrix: Water Date Extracted: \_\_\_\_\_  
 Lab File ID: (1) GE01009.D Lab File ID: (2) \_\_\_\_\_  
 Date Analyzed: (1) 05/01/2023 14:59 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 680-776218/5	05/01/2023 13:26	
	LCSD 680-776218/6	05/01/2023 13:49	
AF-HDMW225303-WGN01LF-2304W3	580-126438-7	05/01/2023 15:45	
AF-RHMW16-WGN01LF-2304W3	580-126438-8	05/01/2023 16:09	
AF-RHMW12A-WGN01LF-2304W3	580-126438-9	05/01/2023 16:32	
AF-RHMW12A-WGFD01LF-2304W3	580-126438-10	05/01/2023 16:55	

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

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 680-776112/4 Date Analyzed: 05/01/2023 01:14  
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm)  
 Lab File ID (Standard): GD30004.D Heated Purge: (Y/N) N  
 Calibration ID: 90759

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		4598154	3.11				
UPPER LIMIT		9196308	3.61				
LOWER LIMIT		2299077	2.61				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 680-776112/5		4899200	3.11				
LCSD 680-776112/6		5671888	3.11				
MB 680-776112/11		5671371	3.11				
580-126438-1	AF-RHMW17-WGN01LF-2 304W3	5180152	3.10				
580-126438-1 MS	AF-RHMW17-WGN01LF-2 304W3 MS	4680882	3.10				
580-126438-1 MSD	AF-RHMW17-WGN01LF-2 304W3 MSD	5355805	3.10				
580-126438-2	AF-RHMW17S-WGN01LF- 2304W3	4781700	3.10				
580-126438-3	AF-RHMW17S-WQEB01-2 304W3	5236199	3.10				
580-126438-4	AF-RHMW04-WGN01LF-2 304W3	5244058	3.10				
580-126438-5	AF-RHMW06-WGN01LF-2 304W3	5608348	3.10				
580-126438-6	AF-RHMW10-WGN01LF-2 304W3	5250859	3.10				
CCV 680-776112/26		5676804	3.10				

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.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 680-776218/4 Date Analyzed: 05/01/2023 13:02  
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm)  
 Lab File ID (Standard): GE01004.D Heated Purge: (Y/N) N  
 Calibration ID: 90759

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		4007815	3.10				
UPPER LIMIT		8015630	3.60				
LOWER LIMIT		2003908	2.60				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 680-776218/5		5668537	3.10				
LCSD 680-776218/6		5551461	3.10				
MB 680-776218/9		5215629	3.09				
580-126438-7	AF-HDMW225303-WGN01 LF-2304W3	5363759	3.10				
580-126438-8	AF-RHMW16-WGN01LF-2 304W3	5585032	3.10				
580-126438-9	AF-RHMW12A-WGN01LF- 2304W3	5137940	3.10				
580-126438-10	AF-RHMW12A-WGFD01LF -2304W3	5224098	3.09				
CCV 680-776218/23		5380104	3.09				

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.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: AF-RHMW17-WGN01LF-2304W3 Lab Sample ID: 580-126438-1  
 Matrix: Water Lab File ID: GD30015.D  
 Analysis Method: 8015C GLY Date Collected: 04/20/2023 11:55  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 05:29  
 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.: 776112 Units: mg/L

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

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30015.D  
 Lims ID: 580-126438-C-1  
 Client ID: AF-RHMW17-WGN01LF-2304W3  
 Sample Type: Client  
 Inject. Date: 01-May-2023 05:29:51 ALS Bottle#: 0 Worklist Smp#: 15  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085636-015  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 12:55:20 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1659

First Level Reviewer: SK9U Date: 01-May-2023 12:55:20

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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* 4 n-Heptyl Alcohol					
3.100	3.098	0.002	5180152	50.0	
6 Propylene glycol					
4.809	4.810	-0.001	66176	2.47	
8 2-(2-Butoxyethoxy)ethanol					
6.699	6.689	0.010	16689	0.2632	7
LOD = 0.5000					
9 2,2'-Oxybisethanol					
8.817	8.826	-0.009	99890	1.21	7
LOD = 1.60					

**QC Flag Legend**

Processing Flags

7 - Failed Limit of Detection

**Reagents:**

SG\_GLY\_ISTD\_00117 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30015.D

Injection Date: 01-May-2023 05:29:51

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-1

Lab Sample ID: 680-126438-1

Worklist Smp#: 15

Client ID: AF-RHMW17-WGN01LF-2304W3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

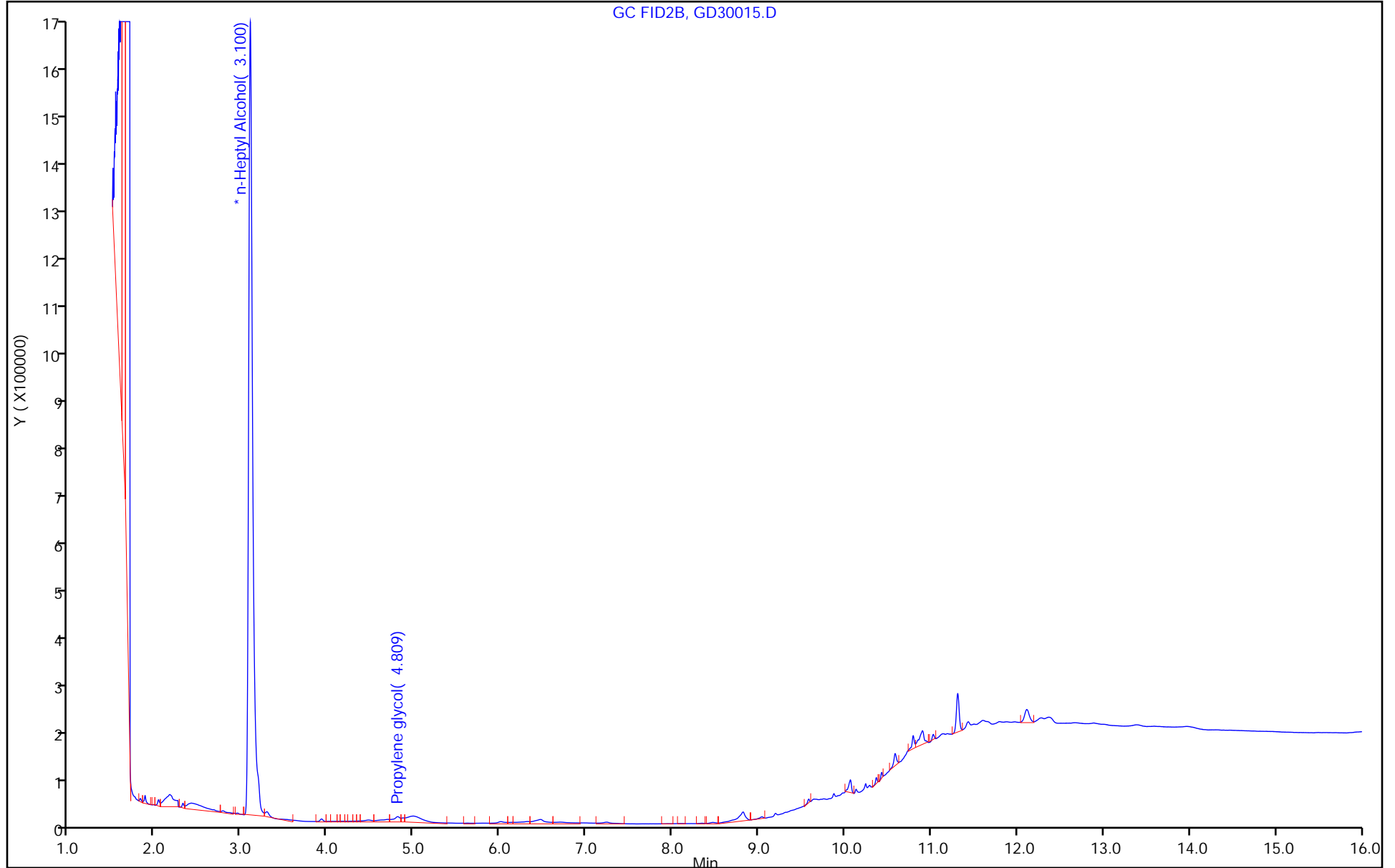
ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)

GC FID2B, GD30015.D



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: AF-RHWW17S-WGN01LF-2304W3 Lab Sample ID: 580-126438-2  
 Matrix: Water Lab File ID: GD30020.D  
 Analysis Method: 8015C GLY Date Collected: 04/20/2023 09:45  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 07:25  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 776112 Units: mg/L

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

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30020.D  
 Lims ID: 580-126438-C-2  
 Client ID: AF-RHMW17S-WGN01LF-2304W3  
 Sample Type: Client  
 Inject. Date: 01-May-2023 07:25:43      ALS Bottle#: 0      Worklist Smp#: 20  
 Injection Vol: 1.0 ul      Dil. Factor: 1.0000  
 Sample Info: 680-0085636-020  
 Operator ID:      Instrument ID: CVGG2  
  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 12:58:58      Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
  
 Column 1 : J&W DB WAX ( 0.45 mm)      Det: GC FID2B  
 Process Host: CTX1659

First Level Reviewer: SK9U      Date: 01-May-2023 12:58:58

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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\* 4 n-Heptyl Alcohol  
 3.101    3.098    0.003    4781700    50.0

**QC Flag Legend**

Processing Flags

**Reagents:**

SG\_GLY\_ISTD\_00117      Amount Added: 10.00      Units: uL      Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30020.D

Injection Date: 01-May-2023 07:25:43

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-2

Lab Sample ID: 680-126438-2

Worklist Smp#: 20

Client ID: AF-RHMW17S-WGN01LF-2304W3

Injection Vol: 1.0 ul

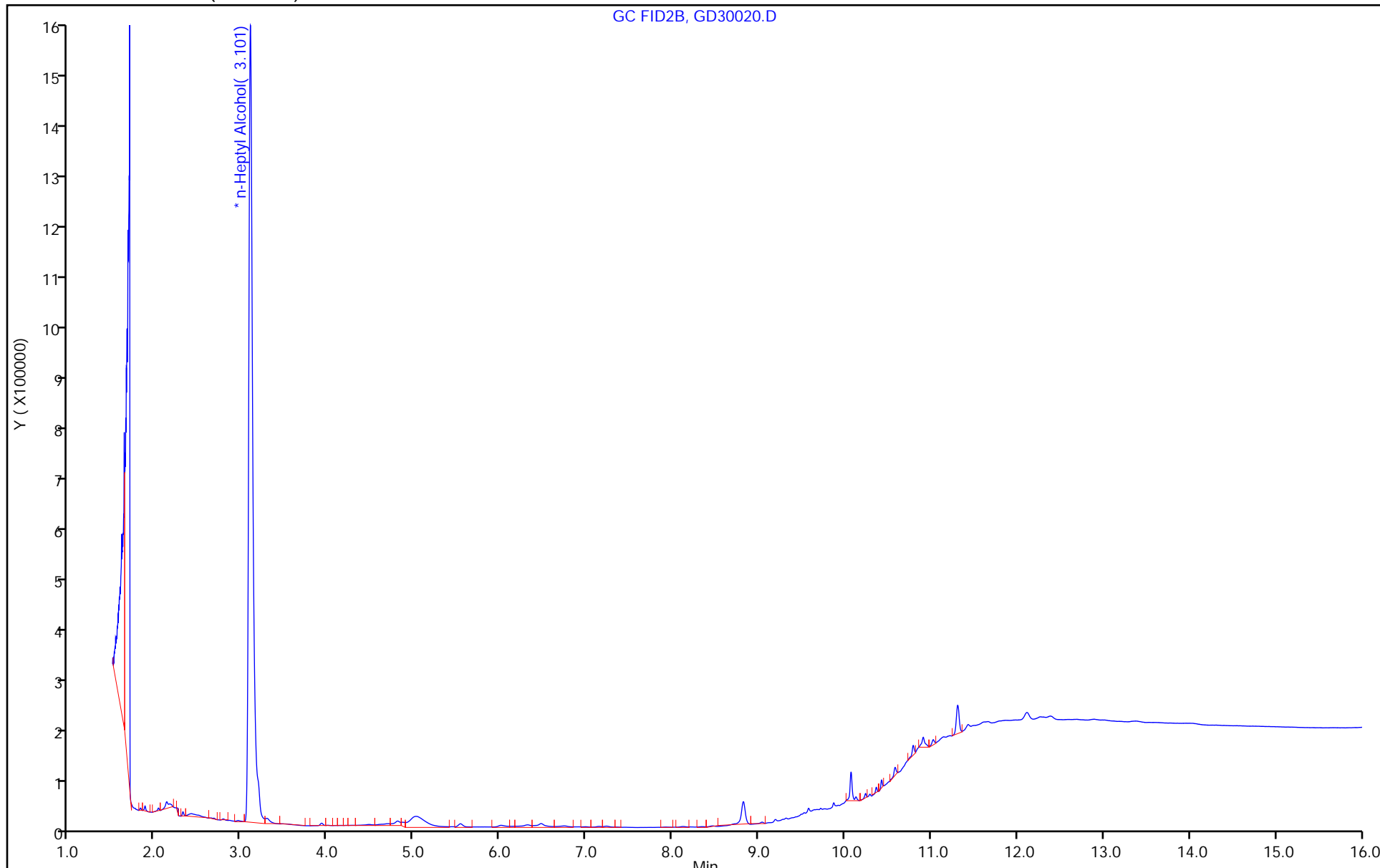
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: AF-RHWW17S-WQEB01-2304W3 Lab Sample ID: 580-126438-3  
 Matrix: Water Lab File ID: GD30021.D  
 Analysis Method: 8015C GLY Date Collected: 04/20/2023 07:55  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 07:48  
 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.: 776112 Units: mg/L

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

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30021.D  
 Lims ID: 580-126438-C-3  
 Client ID: AF-RHMW17S-WQEB01-2304W3  
 Sample Type: Client  
 Inject. Date: 01-May-2023 07:48:50      ALS Bottle#: 0      Worklist Smp#: 21  
 Injection Vol: 1.0 ul      Dil. Factor: 1.0000  
 Sample Info: 680-0085636-021  
 Operator ID:      Instrument ID: CVGG2  
  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 12:58:58      Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
  
 Column 1 : J&W DB WAX ( 0.45 mm)      Det: GC FID2B  
 Process Host: CTX1659

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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\* 4 n-Heptyl Alcohol  
 3.100    3.098    0.002    5236199    50.0

**Reagents:**

SG\_GLY\_ISTD\_00117      Amount Added: 10.00      Units: uL      Run Reagent



Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30021.D

Injection Date: 01-May-2023 07:48:50

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-3

Lab Sample ID: 680-126438-3

Worklist Smp#: 21

Client ID: AF-RHMW17S-WQEB01-2304W3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

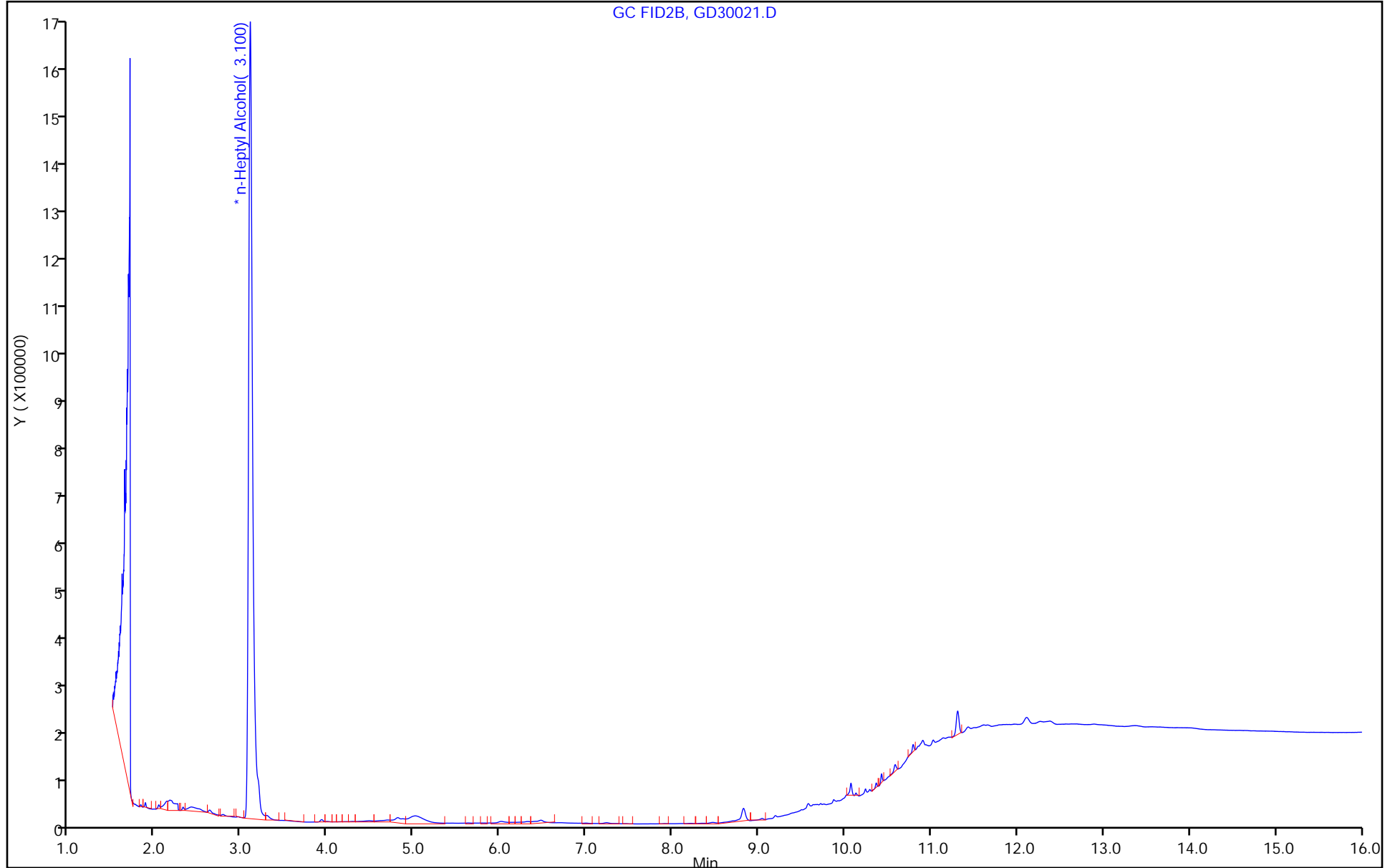
ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)

GC FID2B, GD30021.D



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: AF-RHMW04-WGN01LF-2304W3 Lab Sample ID: 580-126438-4  
 Matrix: Water Lab File ID: GD30022.D  
 Analysis Method: 8015C GLY Date Collected: 04/19/2023 10:55  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 08:12  
 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.: 776112 Units: mg/L

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

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30022.D  
 Lims ID: 580-126438-C-4  
 Client ID: AF-RHMW04-WGN01LF-2304W3  
 Sample Type: Client  
 Inject. Date: 01-May-2023 08:12:04 ALS Bottle#: 0 Worklist Smp#: 22  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085636-022  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 12:58:58 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1659

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

\* 4 n-Heptyl Alcohol  
 3.098 3.098 0.000 5244058 50.0

**Reagents:**

SG\_GLY\_ISTD\_00117 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30022.D

Injection Date: 01-May-2023 08:12:04

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-4

Lab Sample ID: 680-126438-4

Worklist Smp#: 22

Client ID: AF-RHMMW04-WGN01LF-2304W3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

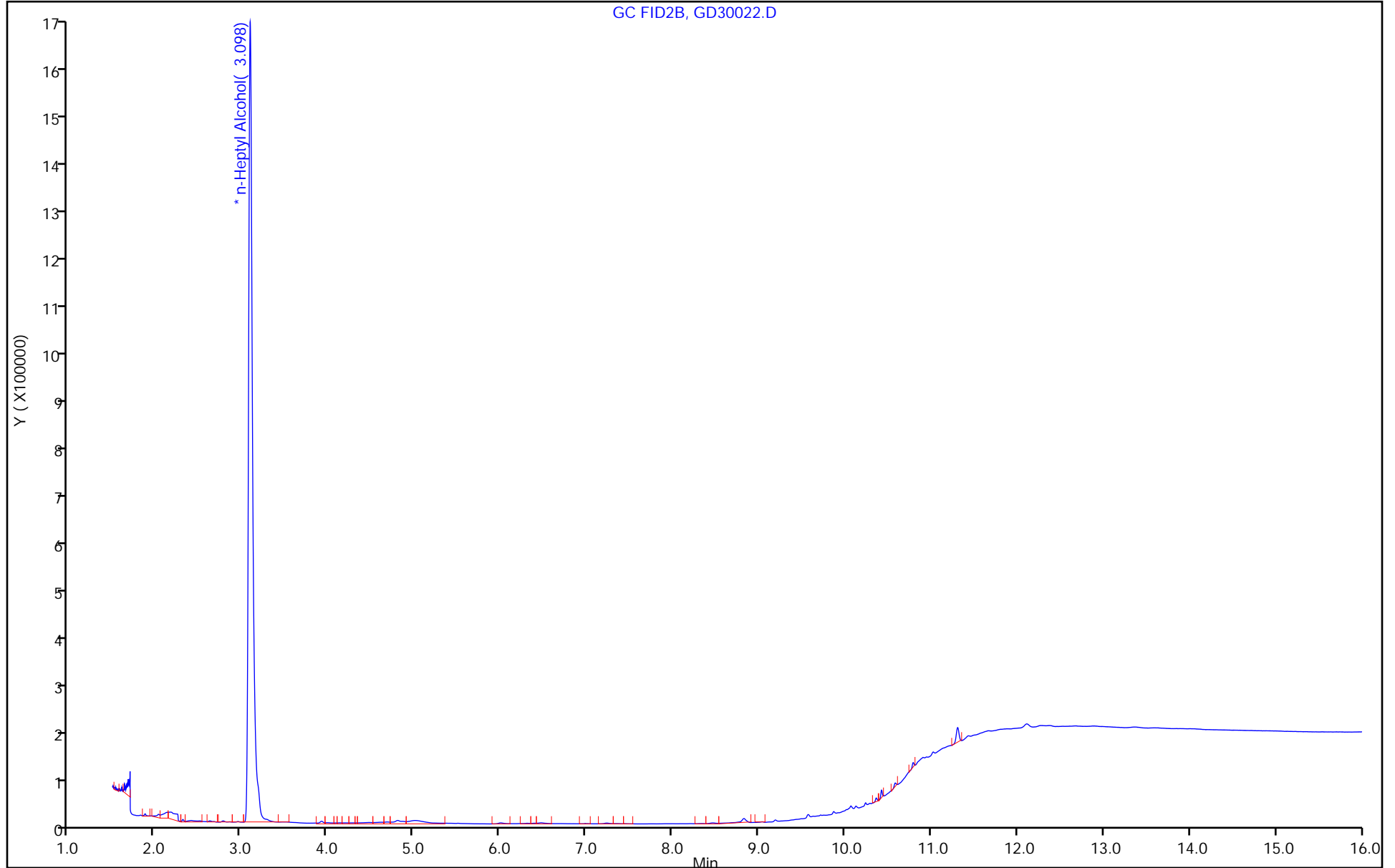
ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)

GC FID2B, GD30022.D



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: AF-RHMW06-WGN01LF-2304W3 Lab Sample ID: 580-126438-5  
 Matrix: Water Lab File ID: GD30023.D  
 Analysis Method: 8015C GLY Date Collected: 04/19/2023 14:40  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 08:35  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 776112 Units: mg/L

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

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30023.D  
 Lims ID: 580-126438-C-5  
 Client ID: AF-RHMW06-WGN01LF-2304W3  
 Sample Type: Client  
 Inject. Date: 01-May-2023 08:35:11      ALS Bottle#: 0      Worklist Smp#: 23  
 Injection Vol: 1.0 ul      Dil. Factor: 1.0000  
 Sample Info: 680-0085636-023  
 Operator ID:      Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 12:58:58      Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm)      Det: GC FID2B  
 Process Host: CTX1659

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

\* 4 n-Heptyl Alcohol  
 3.099    3.098    0.001    5608348    50.0

**Reagents:**

SG\_GLY\_ISTD\_00117      Amount Added: 10.00      Units: uL      Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30023.D

Injection Date: 01-May-2023 08:35:11

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-5

Lab Sample ID: 680-126438-5

Worklist Smp#: 23

Client ID: AF-RHMW06-WGN01LF-2304W3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

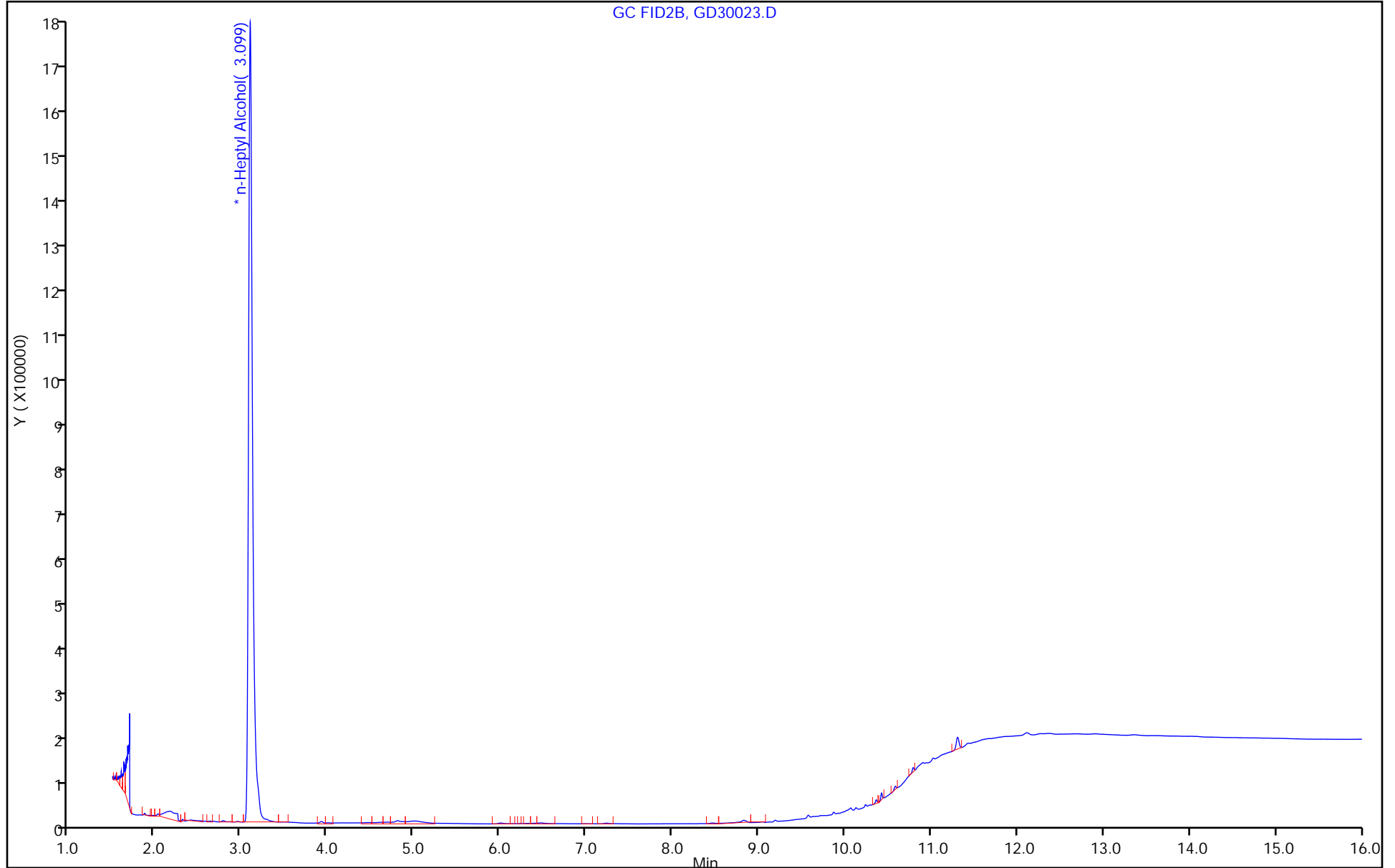
ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)

GC FID2B, GD30023.D



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: AF-RHMW10-WGN01LF-2304W3 Lab Sample ID: 580-126438-6  
 Matrix: Water Lab File ID: GD30024.D  
 Analysis Method: 8015C GLY Date Collected: 04/18/2023 14:30  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 08:58  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 776112 Units: mg/L

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



Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30024.D  
 Lims ID: 580-126438-C-6  
 Client ID: AF-RHMW10-WGN01LF-2304W3  
 Sample Type: Client  
 Inject. Date: 01-May-2023 08:58:20      ALS Bottle#: 0      Worklist Smp#: 24  
 Injection Vol: 1.0 ul      Dil. Factor: 1.0000  
 Sample Info: 680-0085636-024  
 Operator ID:      Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 12:58:58      Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm)      Det: GC FID2B  
 Process Host: CTX1659

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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\* 4 n-Heptyl Alcohol  
 3.097    3.098    -0.001    5250859    50.0

**Reagents:**

SG\_GLY\_ISTD\_00117      Amount Added: 10.00      Units: uL      Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30024.D

Injection Date: 01-May-2023 08:58:20

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-6

Lab Sample ID: 680-126438-6

Worklist Smp#: 24

Client ID: AF-RHMW10-WGN01LF-2304W3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

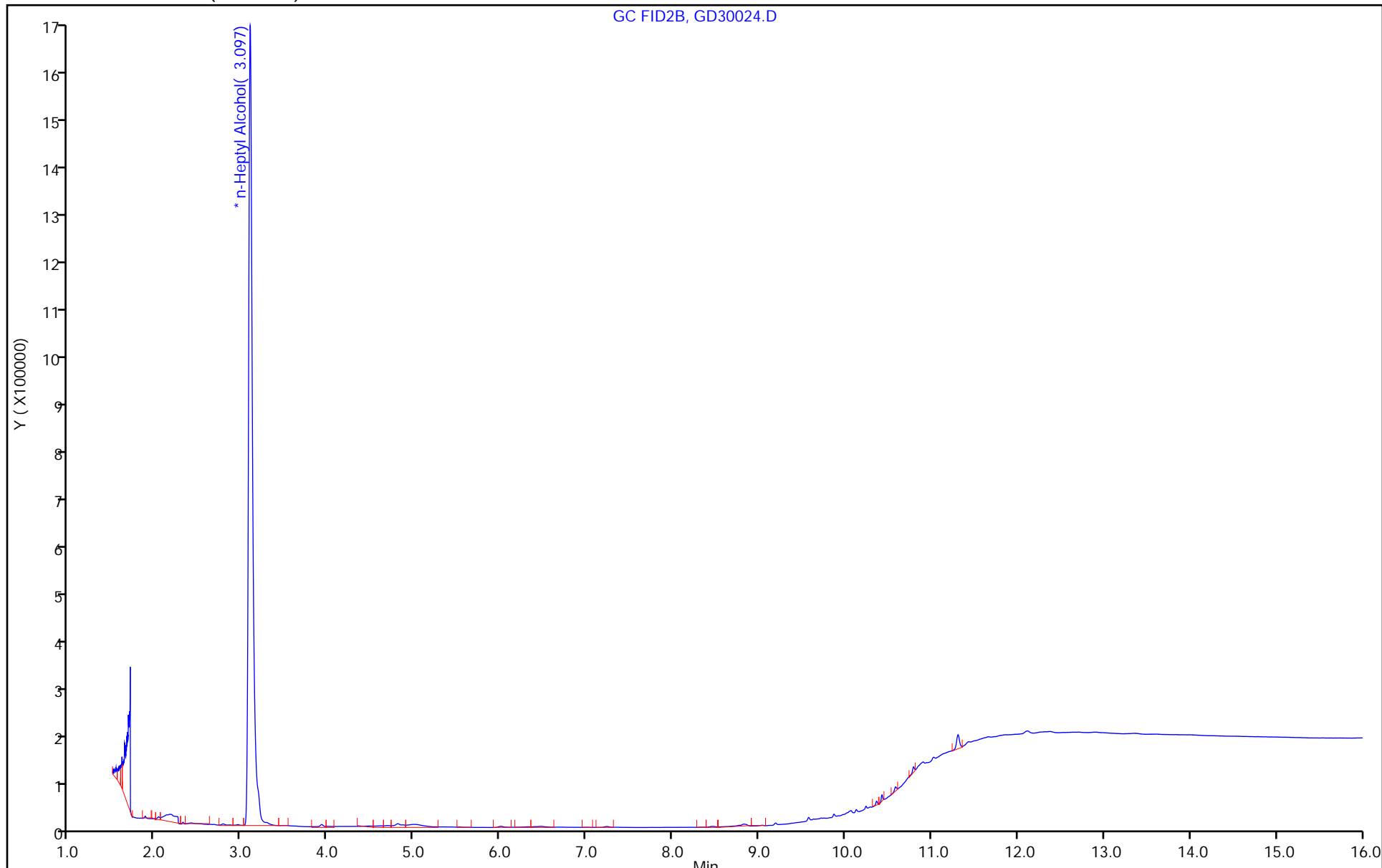
ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)

GC FID2B, GD30024.D





Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01011.D  
 Lims ID: 580-126438-C-7  
 Client ID: AF-HDMW225303-WGN01LF-2304W3  
 Sample Type: Client  
 Inject. Date: 01-May-2023 15:45:50      ALS Bottle#: 0      Worklist Smp#: 11  
 Injection Vol: 1.0 ul      Dil. Factor: 1.0000  
 Sample Info: 680-0085650-011  
 Operator ID:      Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 02-May-2023 10:36:43      Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm)      Det: GC FID2B  
 Process Host: CTX1628

First Level Reviewer: SK9U      Date: 02-May-2023 10:37:49

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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\* 4 n-Heptyl Alcohol  
 3.098    3.099    -0.001    5363759    50.0

**QC Flag Legend**

Processing Flags

**Reagents:**

SG\_GLY\_ISTD\_00117      Amount Added: 10.00      Units: uL      Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01011.D

Injection Date: 01-May-2023 15:45:50

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-7

Lab Sample ID: 680-126438-7

Worklist Smp#: 11

Client ID: AF-HDMW225303-WGN01LF-2304W3

Injection Vol: 1.0 ul

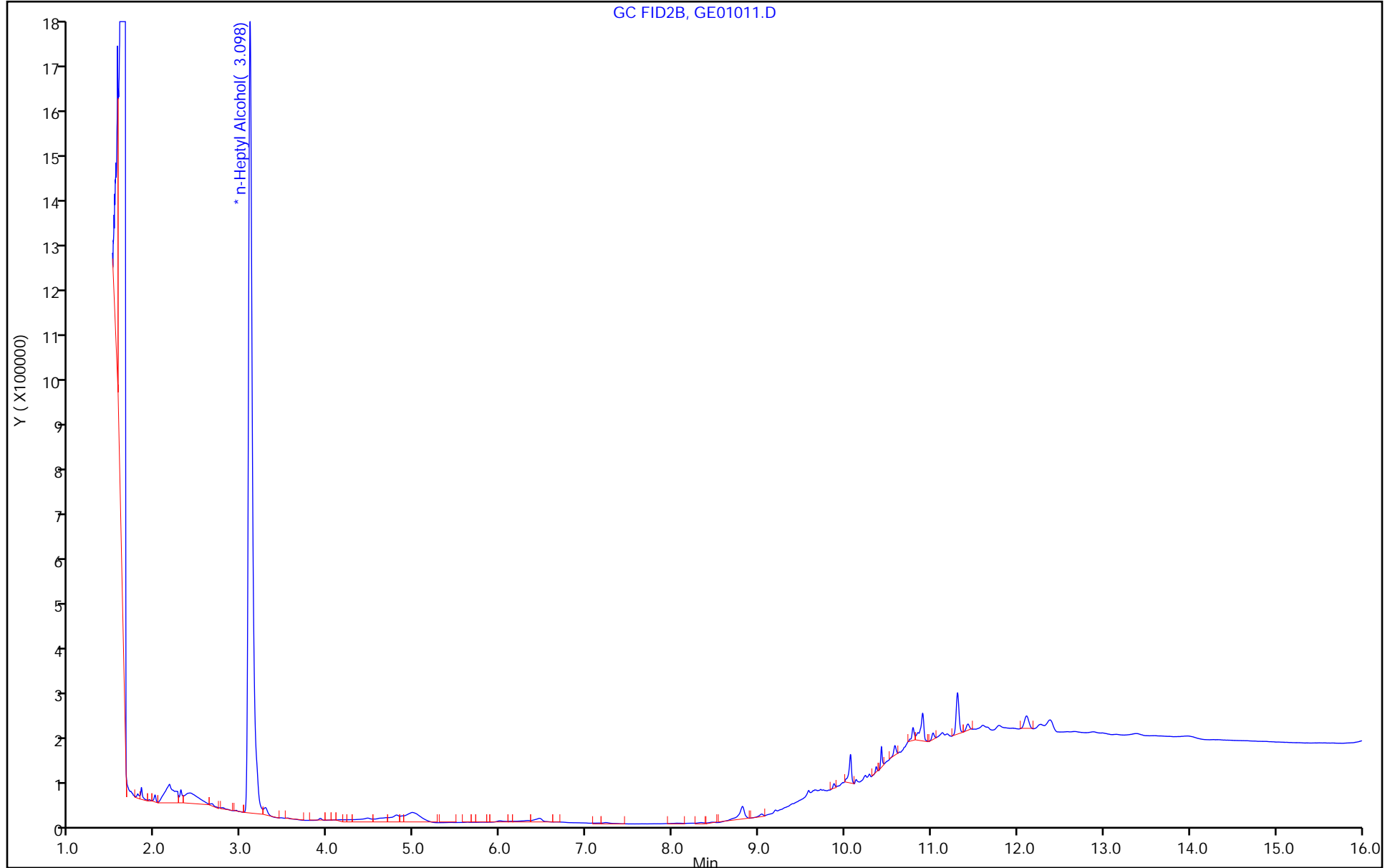
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: AF-RHWW16-WGN01LF-2304W3 Lab Sample ID: 580-126438-8  
 Matrix: Water Lab File ID: GE01012.D  
 Analysis Method: 8015C GLY Date Collected: 04/19/2023 12:10  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 16:09  
 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.: 776218 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\20230501-85650.b\GE01012.D  
 Lims ID: 580-126438-C-8  
 Client ID: AF-RHMW16-WGN01LF-2304W3  
 Sample Type: Client  
 Inject. Date: 01-May-2023 16:09:04      ALS Bottle#: 0      Worklist Smp#: 12  
 Injection Vol: 1.0 ul      Dil. Factor: 1.0000  
 Sample Info: 680-0085650-012  
 Operator ID:      Instrument ID: CVGG2  
  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 02-May-2023 10:36:43      Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
  
 Column 1 : J&W DB WAX ( 0.45 mm)      Det: GC FID2B  
 Process Host: CTX1628

First Level Reviewer: SK9U      Date: 02-May-2023 10:38:09

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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\* 4 n-Heptyl Alcohol  
 3.099    3.099    0.000    5585032    50.0

**Reagents:**

SG\_GLY\_ISTD\_00117      Amount Added: 10.00      Units: uL      Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01012.D

Injection Date: 01-May-2023 16:09:04

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-8

Lab Sample ID: 680-126438-8

Worklist Smp#: 12

Client ID: AF-RHMW16-WGN01LF-2304W3

Injection Vol: 1.0 ul

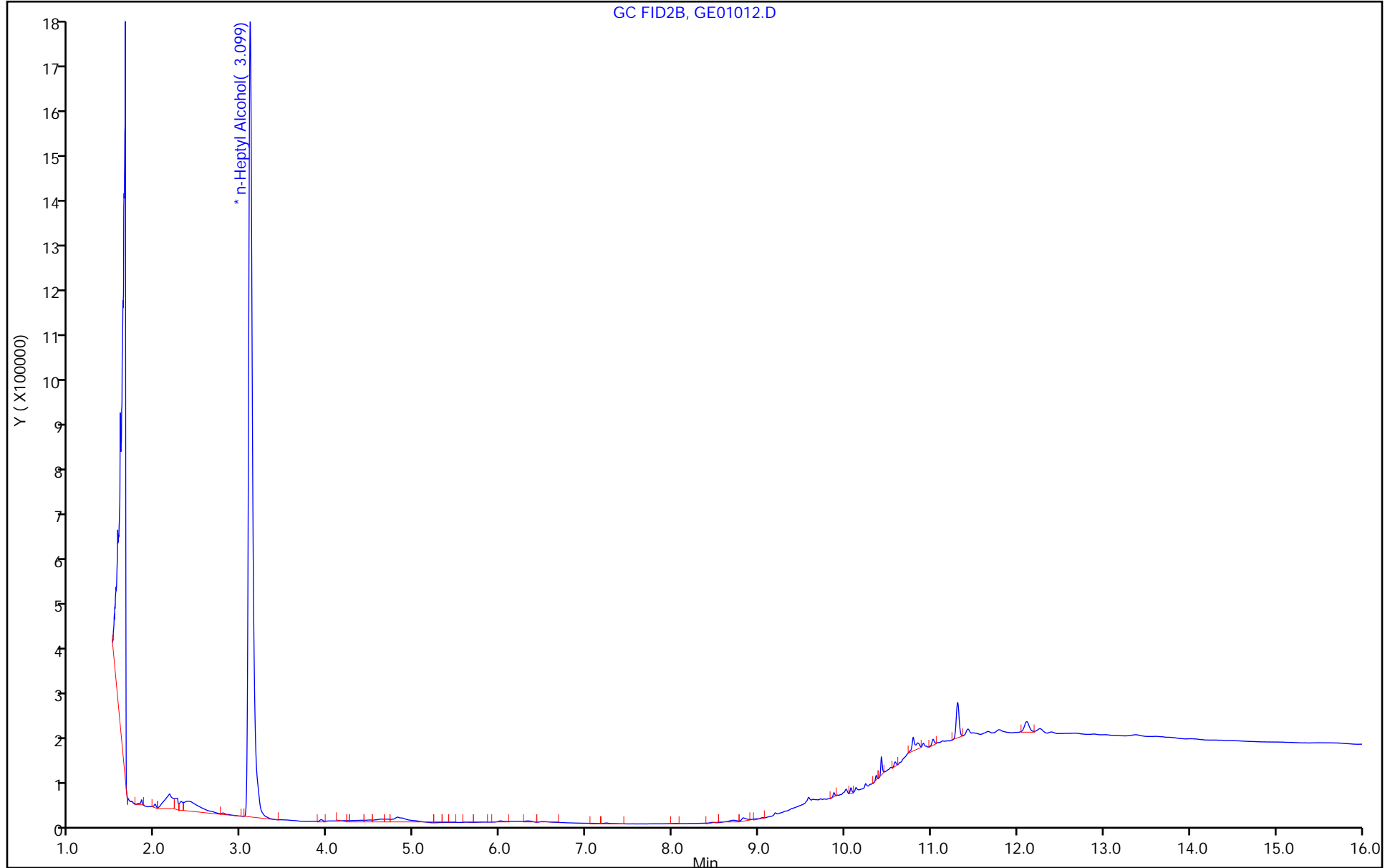
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)





FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: AF-RHWW12A-WGN01LF-2304W3 Lab Sample ID: 580-126438-9  
 Matrix: Water Lab File ID: GE01013.D  
 Analysis Method: 8015C GLY Date Collected: 04/19/2023 10:00  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 16:32  
 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.: 776218 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\20230501-85650.b\GE01013.D  
 Lims ID: 580-126438-C-9  
 Client ID: AF-RHMW12A-WGN01LF-2304W3  
 Sample Type: Client  
 Inject. Date: 01-May-2023 16:32:25 ALS Bottle#: 0 Worklist Smp#: 13  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085650-013  
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 02-May-2023 10:36:43 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1628

First Level Reviewer: SK9U Date: 02-May-2023 10:38:15

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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\* 4 n-Heptyl Alcohol  
 3.095 3.099 -0.004 5137940 50.0

Reagents:

SG\_GLY\_ISTD\_00117 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01013.D

Injection Date: 01-May-2023 16:32:25

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-9

Lab Sample ID: 680-126438-9

Worklist Smp#: 13

Client ID: AF-RHMW12A-WGN01LF-2304W3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

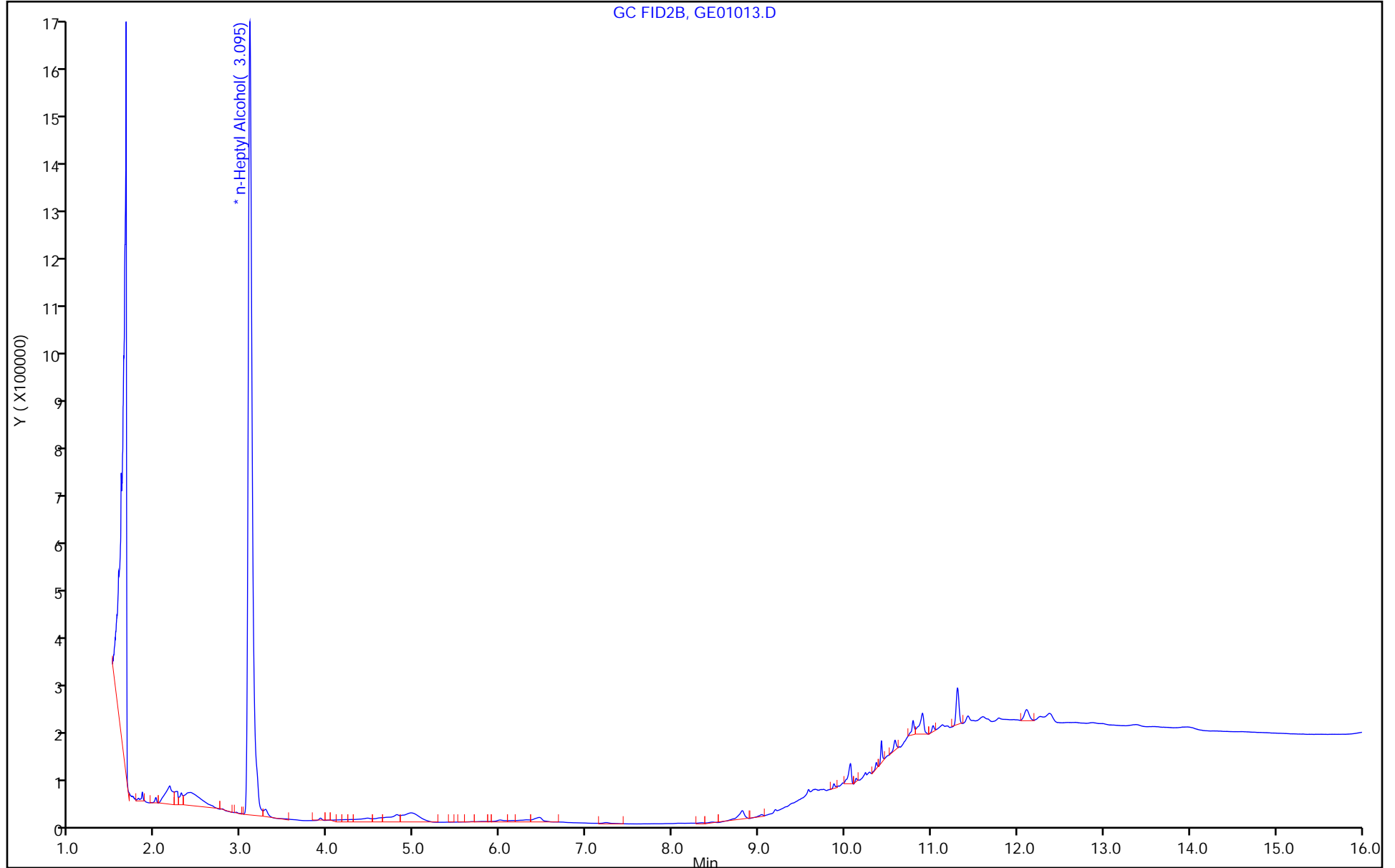
ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)

GC FID2B, GE01013.D



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: AF-RHMW12A-WGFD01LF-2304W Lab Sample ID: 580-126438-10  
3  
Matrix: Water Lab File ID: GE01014.D  
Analysis Method: 8015C GLY Date Collected: 04/19/2023 10:00  
Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 16:55  
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.: 776218 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\20230501-85650.b\GE01014.D  
 Lims ID: 580-126438-C-10  
 Client ID: AF-RHMW12A-WGFD01LF-2304W3  
 Sample Type: Client  
 Inject. Date: 01-May-2023 16:55:37 ALS Bottle#: 0 Worklist Smp#: 14  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085650-014  
 Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 02-May-2023 10:36:43 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1628

First Level Reviewer: SK9U Date: 02-May-2023 10:38:21

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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\* 4 n-Heptyl Alcohol  
 3.092 3.099 -0.007 5224098 50.0

Reagents:

SG\_GLY\_ISTD\_00117 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01014.D

Injection Date: 01-May-2023 16:55:37

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-10

Lab Sample ID: 680-126438-10

Worklist Smp#: 14

Client ID: AF-RHMW12A-WGFD01LF-2304W3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

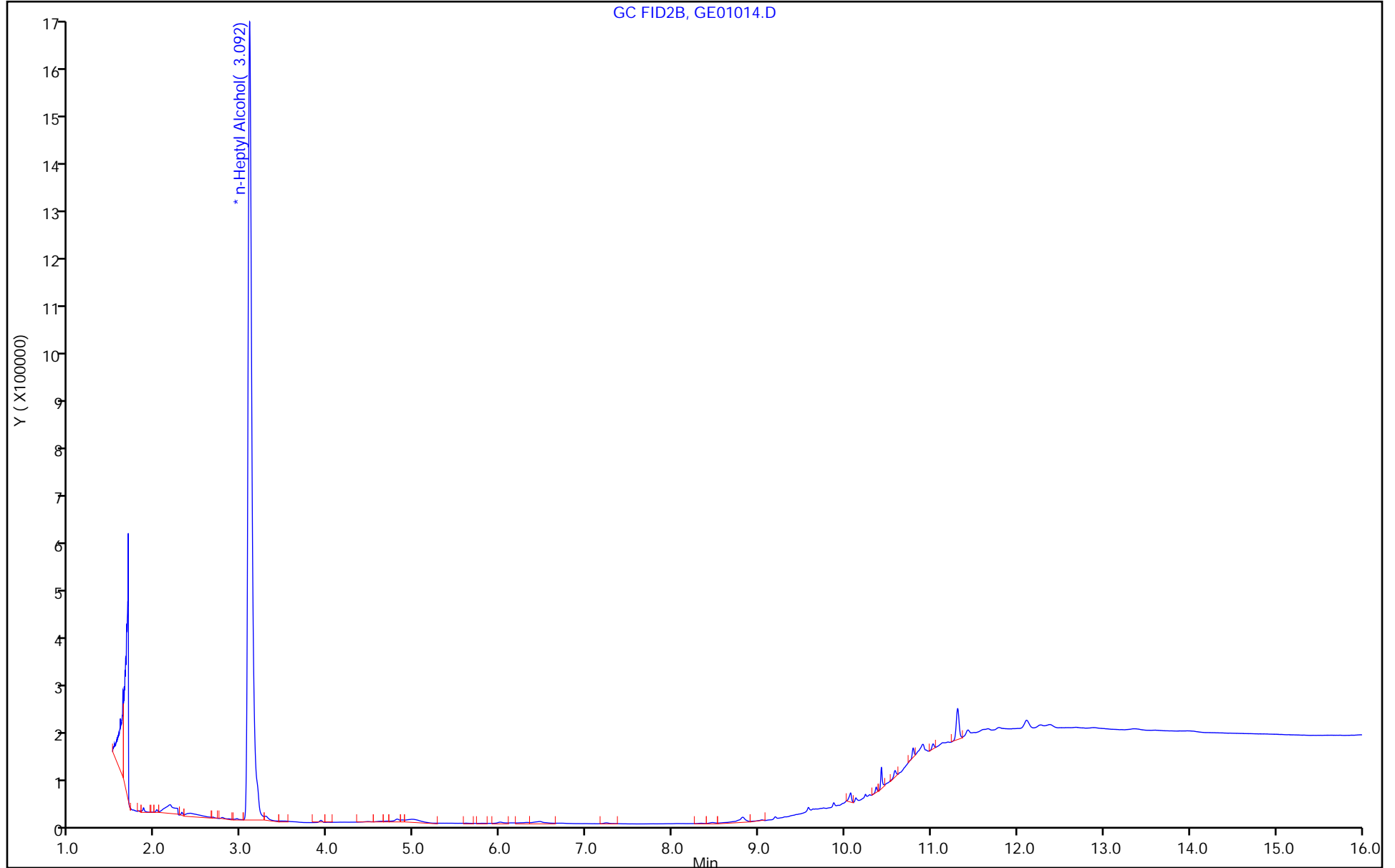
ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)

GC FID2B, GE01014.D



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

Lab Name: Eurofins Savannah Job No.: 580-126438-1 Analy Batch No.: 773617

SDG No.: \_\_\_\_\_

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

Calibration Start Date: 04/16/2023 19:56 Calibration End Date: 04/16/2023 22:15 Calibration ID: 90759

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-773617/10	GD16017.D
Level 2	IC 680-773617/9	GD16016.D
Level 3	IC 680-773617/8	GD16015.D
Level 4	ICIS 680-773617/7	GD16014.D
Level 5	IC 680-773617/6	GD16013.D
Level 6	IC 680-773617/5	GD16012.D
Level 7	IC 680-773617/4	GD16011.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	0.8878 0.6777	0.8173 0.7265	0.8342	0.7571	0.7194	Ave		0.774 3			9.6		20.0				
4-Hydroxy-4-methyl-2-pentanone	0.7105 0.6270	0.7431 0.6867	0.7501	0.6856	0.6546	Ave		0.693 9			6.4		20.0				
2-Butoxyethanol	0.8254 0.7018	0.8203 0.7452	0.8272	0.7734	0.7377	Ave		0.775 9			6.4		20.0				
Dipropylene Glycol Methyl Ether	++++ 0.0524	0.0668 0.0574	0.0736	0.0630	0.0566	Ave		0.061 6			12.6		20.0				
Propylene glycol	++++ 0.1310	0.1905 0.1352	0.1776	0.1570	0.1466	Lin2	0.301 3	0.136 6						0.9950		0.9900	
Ethylene glycol	++++ 0.3372	0.5266 0.3562	0.4903	0.4468	0.3821	Lin1	1.232 9	0.342 5						0.9950		0.9900	
2-(2-Butoxyethoxy)ethanol	0.6368 0.5319	0.6702 0.5880	0.6781	0.6111	0.5683	Ave		0.612 1			8.8		20.0				
2,2'-Oxybisethanol	++++ 0.2069	0.3139 0.2165	0.3049	0.2577	0.2384	Lin1	0.710 1	0.209 9						0.9950		0.9900	
Triethylene Glycol	0.2762 0.1972	0.2870 0.2072	0.2840	0.2438	0.2253	Ave		0.245 8			15.2		20.0				
Tetraethylene Glycol	0.2854 0.2067	0.3002 0.2164	0.3025	0.2577	0.2359	Ave		0.257 8			15.3		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.: 580-126438-1 Analy Batch No.: 773617

SDG No.: \_\_\_\_\_

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

Calibration Start Date: 04/16/2023 19:56 Calibration End Date: 04/16/2023 22:15 Calibration ID: 90759

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-773617/10	GD16017.D
Level 2	IC 680-773617/9	GD16016.D
Level 3	IC 680-773617/8	GD16015.D
Level 4	ICIS 680-773617/7	GD16014.D
Level 5	IC 680-773617/6	GD16013.D
Level 6	IC 680-773617/5	GD16012.D
Level 7	IC 680-773617/4	GD16011.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7				LVL 6	LVL 7			
Ethanol, 2-propoxy	nHPA	Ave	182334 4752740	402644 6285677	792188	1531923	3177662	2.00 80.0	5.00 100	10.0	20.0	50.0
4-Hydroxy-4-methyl-2-pentanone	nHPA	Ave	145931 4397199	366098 5941325	712318	1387142	2891351	2.00 80.0	5.00 100	10.0	20.0	50.0
2-Butoxyethanol	nHPA	Ave	169523 4921640	404155 6447508	785503	1564931	3258279	2.00 80.0	5.00 100	10.0	20.0	50.0
Dipropylene Glycol Methyl Ether	nHPA	Ave	++++ 367503	32931 496321	69879	127534	249797	++++ 80.0	5.00 100	10.0	20.0	50.0
Propylene glycol	nHPA	Lin2	++++ 918595	93857 1169432	168632	317696	647518	++++ 80.0	5.00 100	10.0	20.0	50.0
Ethylene glycol	nHPA	Lin1	++++ 2364800	259464 3082086	465608	903954	1687550	++++ 80.0	5.00 100	10.0	20.0	50.0
2-(2-Butoxyethoxy)ethanol	nHPA	Ave	130789 3730637	330197 5087301	643924	1236575	2510369	2.00 80.0	5.00 100	10.0	20.0	50.0
2,2'-Oxybisethanol	nHPA	Lin1	++++ 1451128	154666 1872779	289511	521398	1052820	++++ 80.0	5.00 100	10.0	20.0	50.0
Triethylene Glycol	nHPA	Ave	56726 1382705	141391 1792893	269667	493325	995063	2.00 80.0	5.00 100	10.0	20.0	50.0
Tetraethylene Glycol	nHPA	Ave	117228 2898653	295754 3744899	574428	1042993	2084107	4.00 160	10.0 200	20.0	40.0	100

Curve Type Legend

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD



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

Lab Name: Eurofins Savannah Job No.: 580-126438-1 Analy Batch No.: 773617

SDG No.: \_\_\_\_\_

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

Calibration Start Date: 04/16/2023 19:56 Calibration End Date: 04/16/2023 22:15 Calibration ID: 90759

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-773617/10	GD16017.D
Level 2	IC 680-773617/9	GD16016.D
Level 3	IC 680-773617/8	GD16015.D
Level 4	ICIS 680-773617/7	GD16014.D
Level 5	IC 680-773617/6	GD16013.D
Level 6	IC 680-773617/5	GD16012.D
Level 7	IC 680-773617/4	GD16011.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	14.7 -6.2	5.6	7.7	-2.2	-7.1	-12.5	20 20	20	20	20	20	20
4-Hydroxy-4-methyl-2-pentanone	2.4 -1.0	7.1	8.1	-1.2	-5.7	-9.6	20 20	20	20	20	20	20
2-Butoxyethanol	6.4 -4.0	5.7	6.6	-0.3	-4.9	-9.6	20 20	20	20	20	20	20
Dipropylene Glycol Methyl Ether	++++ -6.9	8.5	19.4	2.3	-8.2	-15.0	20	20	20	20	20	20
Propylene glycol	++++ -3.3	-4.7	7.9	3.9	2.9	-6.9	20	20	20	20	20	20
Ethylene glycol	++++ 0.4	-18.2	7.1	12.4	4.3	-6.1	20	20	20	20	20	20
2-(2-Butoxyethoxy)ethanol	4.0 -3.9	9.5	10.8	-0.2	-7.1	-13.1	20 20	20	20	20	20	20
2,2'-Oxybisethanol	++++ -0.3	-18.1	11.4	5.8	6.8	-5.7	20	20	20	20	20	20
Triethylene Glycol	12.4 -15.7	16.8	15.5	-0.8	-8.3	-19.8	20 20	20	20	20	20	20
Tetraethylene Glycol	10.7 -16.1	16.4	17.3	0.0	-8.5	-19.8	20 20	20	20	20	20	20

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16011.D  
 Lims ID: ic g7  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 16-Apr-2023 19:56:11 ALS Bottle#: 0 Worklist Smp#: 4  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085300-004  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 17-Apr-2023 10:22:32 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 17-Apr-2023 10:11:36

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.247	2.249	-0.002	6285677	100.0	93.8	
2 4-Hydroxy-4-methyl-2-pentanone						
2.619	2.625	-0.006	5941325	100.0	99.0	
3 2-Butoxyethanol						
2.795	2.795	0.000	6447508	100.0	96.0	
* 4 n-Heptyl Alcohol						
3.111	3.106	0.005	4326023	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
3.868	3.869	-0.001	496321	100.0	93.1	
6 Propylene glycol						
4.811	4.817	-0.006	1169432	100.0	96.7	
7 Ethylene glycol						
5.046	5.043	0.003	3082086	100.0	100.4	
8 2-(2-Butoxyethoxy)ethanol						
6.709	6.708	0.001	5087301	100.0	96.1	
9 2,2'-Oxybisethanol						
8.822	8.820	0.002	1872779	100.0	99.7	
10 Triethylene Glycol						
10.071	10.071	0.000	1792893	100.0	84.3	
11 Tetraethylene Glycol						
10.913	10.912	0.001	3744899	200.0	167.9	M M

QC Flag Legend  
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 50.00

Units: uL

SG\_GLY\_ISTD\_00110

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16011.D

Injection Date: 16-Apr-2023 19:56:11

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g7

Worklist Smp#: 4

Client ID:

Injection Vol: 1.0 ul

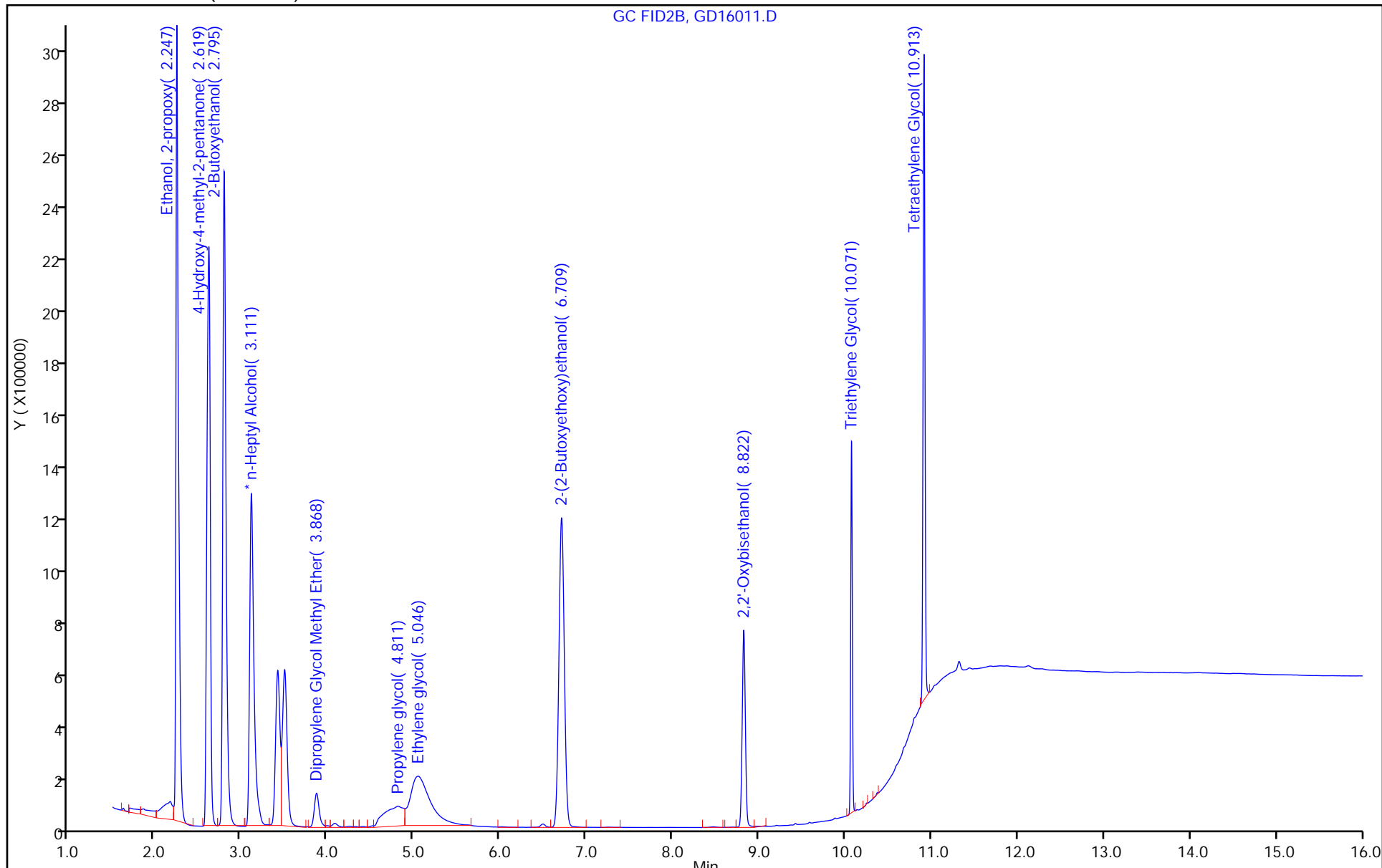
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

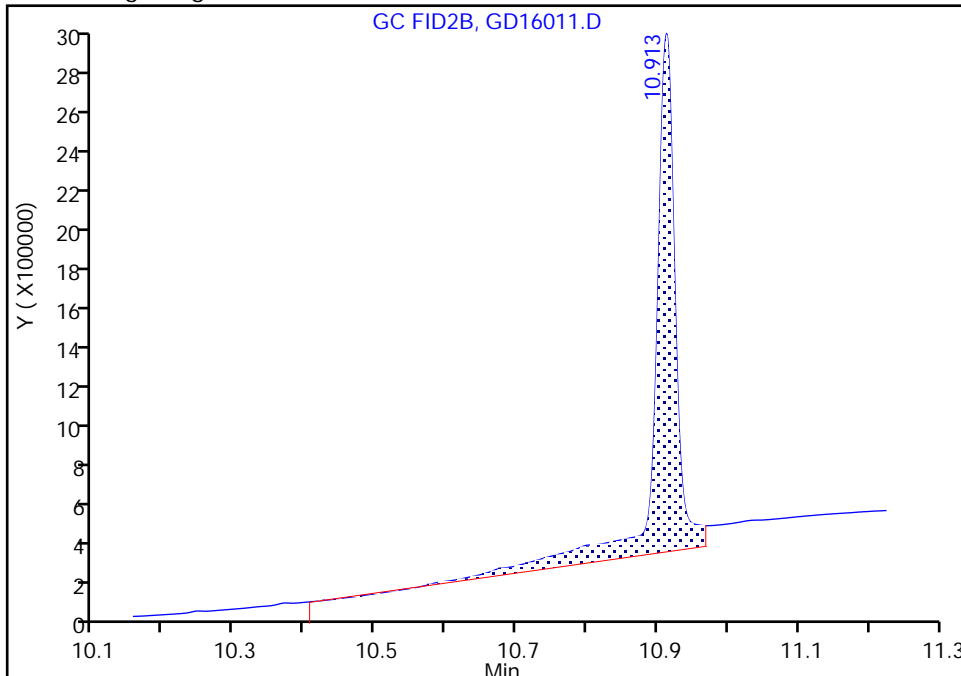
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16011.D  
Injection Date: 16-Apr-2023 19:56:11 Instrument ID: CVGG2  
Lims ID: ic g7  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

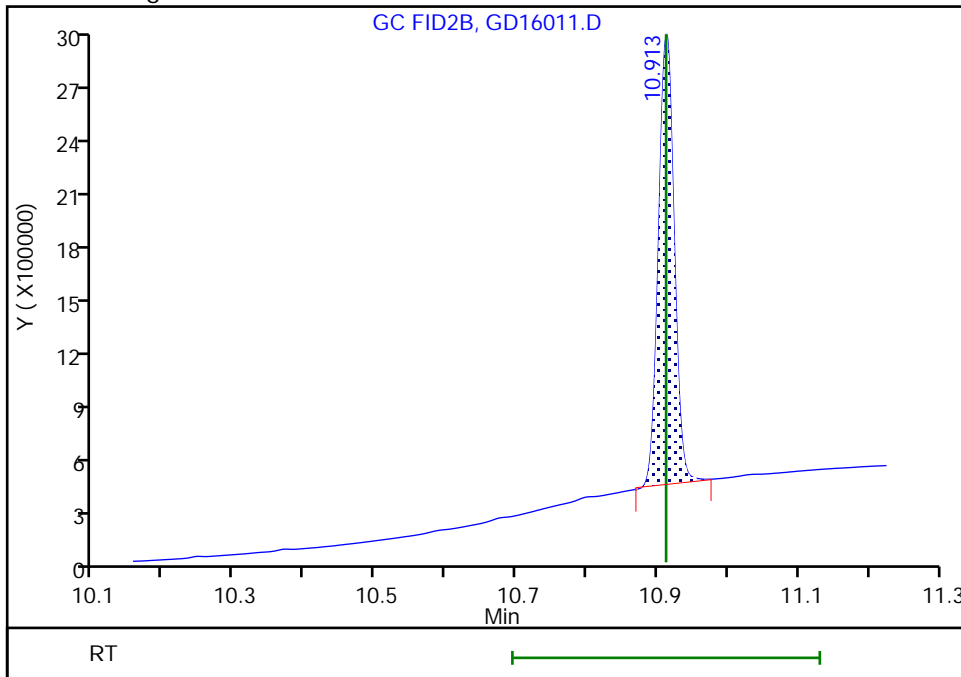
RT: 10.91  
Area: 5221923  
Amount: 204.7910  
Amount Units: ug/ml

Processing Integration Results



RT: 10.91  
Area: 3744899  
Amount: 167.8832  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 17-Apr-2023 10:11:27  
Audit Action: Manually Integrated

Audit Reason: Shouldering

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16012.D  
 Lims ID: ic g6  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 16-Apr-2023 20:19:25 ALS Bottle#: 0 Worklist Smp#: 5  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085300-005  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 17-Apr-2023 10:22:32 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 17-Apr-2023 10:11:55

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.247	2.249	-0.002	4752740	80.0	70.0	
2 4-Hydroxy-4-methyl-2-pentanone						
2.618	2.625	-0.007	4397199	80.0	72.3	
3 2-Butoxyethanol						
2.795	2.795	0.000	4921640	80.0	72.4	
* 4 n-Heptyl Alcohol						
3.111	3.106	0.005	4383303	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
3.866	3.869	-0.003	367503	80.0	68.0	
6 Propylene glycol						
4.807	4.817	-0.010	918595	80.0	74.5	
7 Ethylene glycol						
5.035	5.043	-0.008	2364800	80.0	75.1	
8 2-(2-Butoxyethoxy)ethanol						
6.706	6.708	-0.002	3730637	80.0	69.5	
9 2,2'-Oxybisethanol						
8.821	8.820	0.001	1451128	80.0	75.5	
10 Triethylene Glycol						
10.072	10.071	0.001	1382705	80.0	64.2	
11 Tetraethylene Glycol						
10.914	10.912	0.002	2898653	160.0	128.2	M M

**QC Flag Legend**  
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 40.00

Units: uL

SG\_GLY\_ISTD\_00110

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16012.D

Injection Date: 16-Apr-2023 20:19:25

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g6

Worklist Smp#: 5

Client ID:

Injection Vol: 1.0 ul

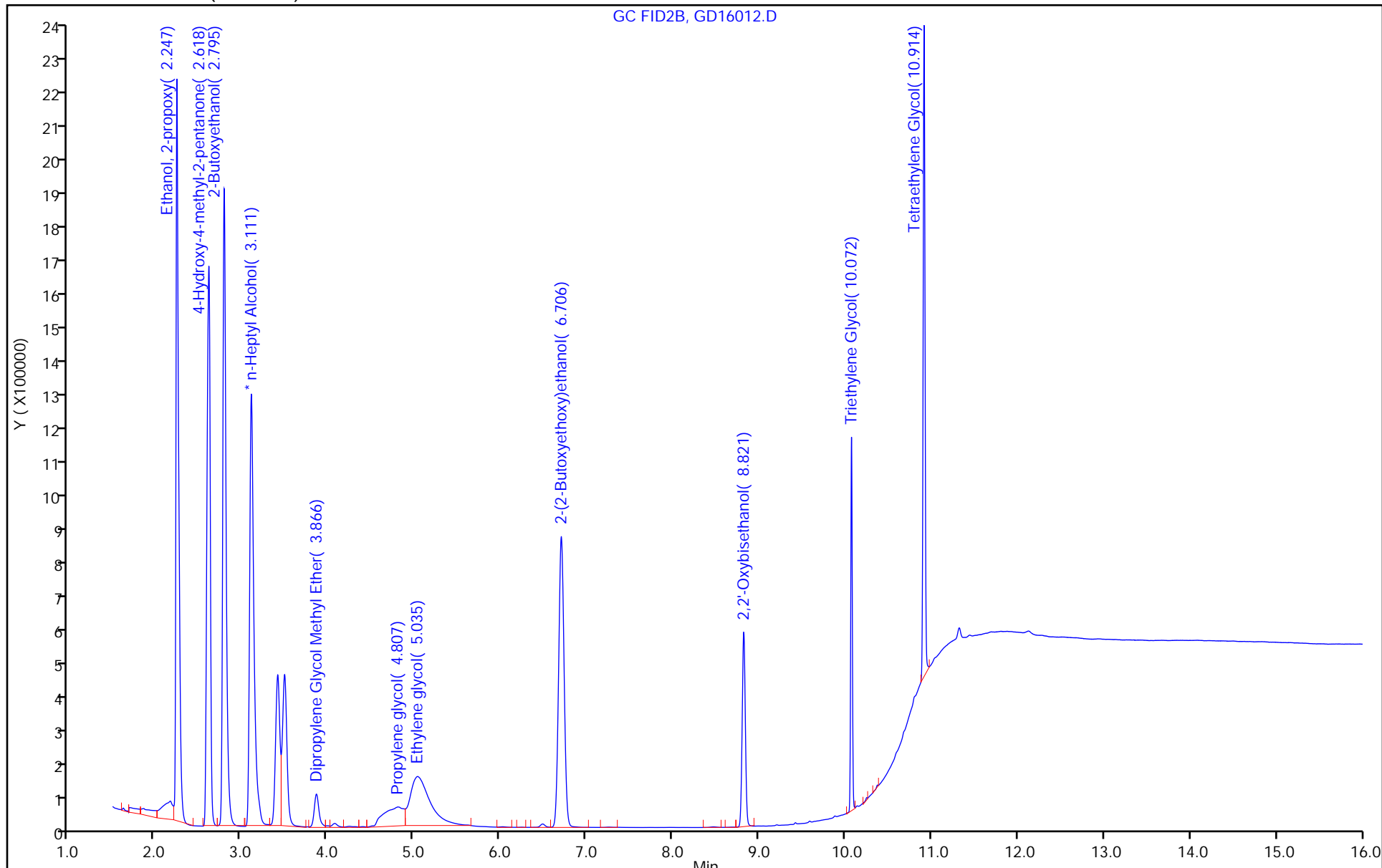
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)





Eurofins Savannah

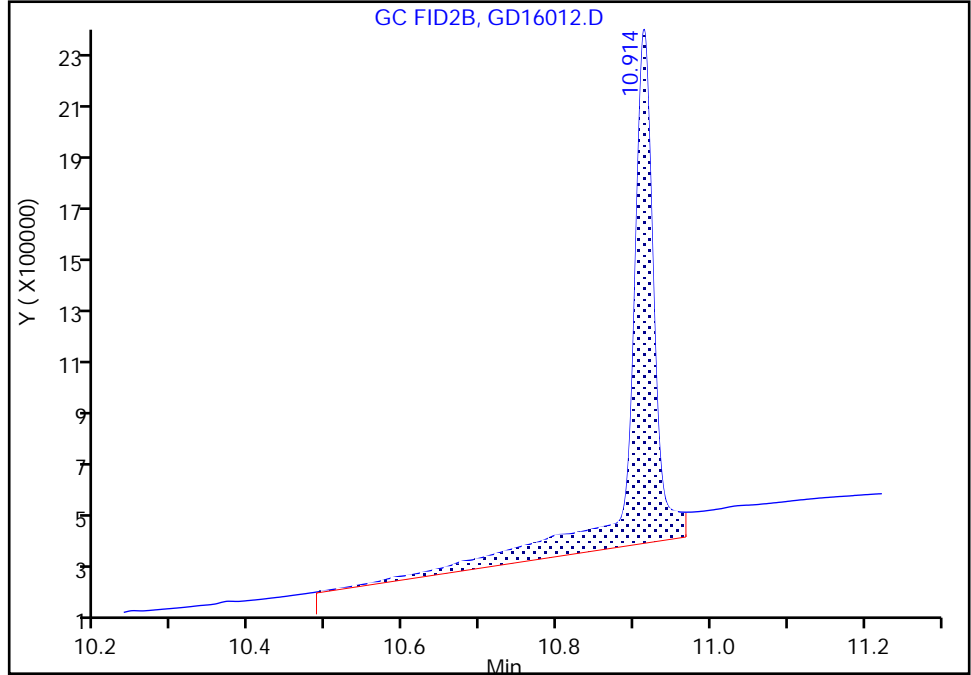
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16012.D  
Injection Date: 16-Apr-2023 20:19:25 Instrument ID: CVGG2  
Lims ID: ic g6  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

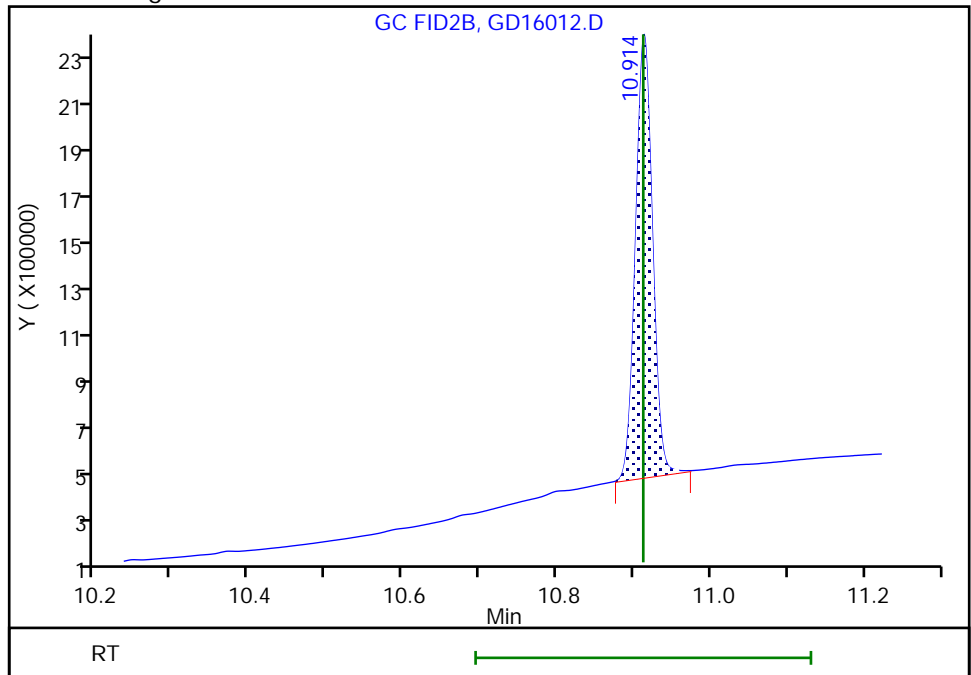
RT: 10.91  
Area: 4277954  
Amount: 60.326981  
Amount Units: ug/ml

Processing Integration Results



RT: 10.91  
Area: 2898653  
Amount: 128.2481  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 17-Apr-2023 10:11:47  
Audit Action: Manually Integrated

Audit Reason: Shouldering

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16013.D  
 Lims ID: ic g5  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 16-Apr-2023 20:42:43 ALS Bottle#: 0 Worklist Smp#: 6  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085300-006  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 17-Apr-2023 10:22:33 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 17-Apr-2023 10:12:07

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.247	2.249	-0.002	3177662	50.0	46.5	
2 4-Hydroxy-4-methyl-2-pentanone						
2.611	2.625	-0.014	2891351	50.0	47.2	
3 2-Butoxyethanol						
2.795	2.795	0.000	3258279	50.0	47.5	
* 4 n-Heptyl Alcohol						
3.107	3.106	0.001	4416956	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
3.864	3.869	-0.005	249797	50.0	45.9	
6 Propylene glycol						
4.816	4.817	-0.001	647518	50.0	51.5	
7 Ethylene glycol						
5.038	5.043	-0.005	1687550	50.0	52.2	
8 2-(2-Butoxyethoxy)ethanol						
6.712	6.708	0.004	2510369	50.0	46.4	
9 2,2'-Oxybisethanol						
8.821	8.820	0.001	1052820	50.0	53.4	
10 Triethylene Glycol						
10.071	10.071	0.000	995063	50.0	45.8	
11 Tetraethylene Glycol						
10.912	10.912	0.000	2084107	100.0	91.5	M M

**QC Flag Legend**  
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 25.00

Units: uL

SG\_GLY\_ISTD\_00110

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16013.D

Injection Date: 16-Apr-2023 20:42:43

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g5

Worklist Smp#: 6

Client ID:

Injection Vol: 1.0 ul

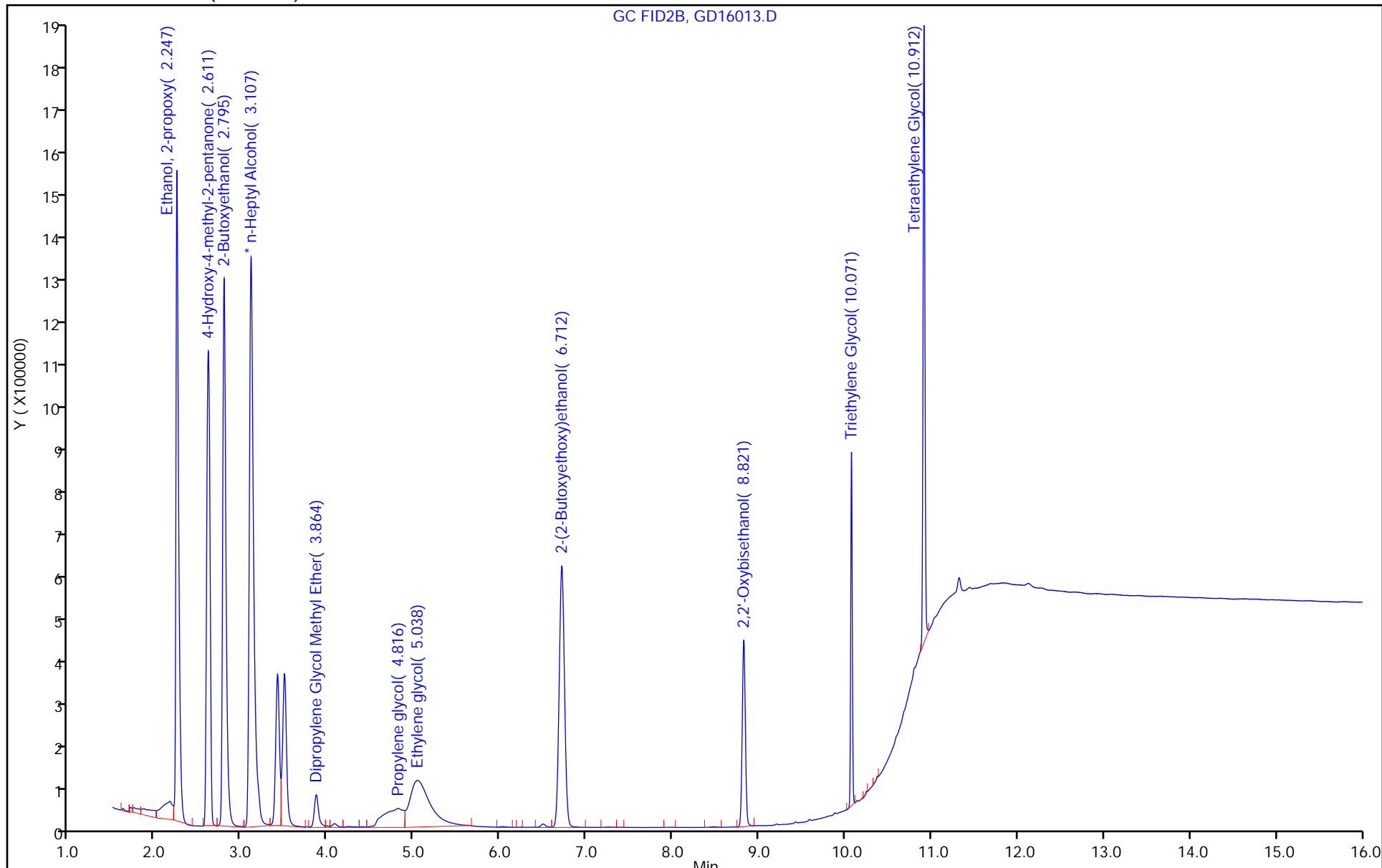
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

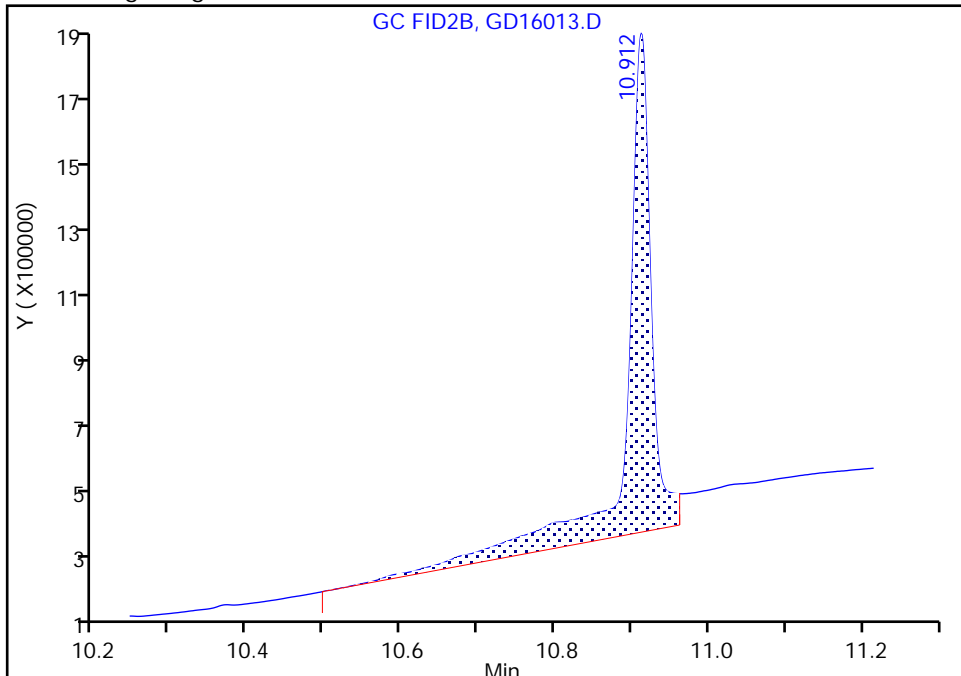
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16013.D  
Injection Date: 16-Apr-2023 20:42:43 Instrument ID: CVGG2  
Lims ID: ic g5  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

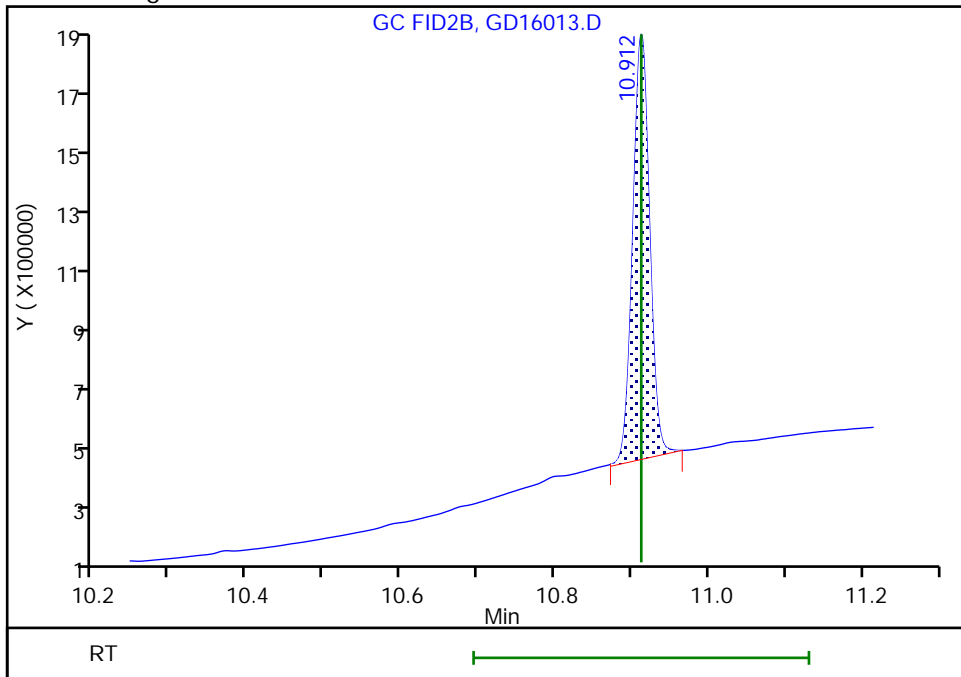
RT: 10.91  
Area: 3279739  
Amount: 46.709121  
Amount Units: ug/ml

Processing Integration Results



RT: 10.91  
Area: 2084107  
Amount: 91.506718  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 17-Apr-2023 10:12:04  
Audit Action: Manually Integrated

Audit Reason: Shouldering

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16014.D  
 Lims ID: icis g4  
 Client ID:  
 Sample Type: ICIS Calib Level: 4  
 Inject. Date: 16-Apr-2023 21:05:55 ALS Bottle#: 0 Worklist Smp#: 7  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085300-007  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 17-Apr-2023 10:22:34 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 17-Apr-2023 10:12:28

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.249	2.249	0.000	1531923	20.0	19.6	
2 4-Hydroxy-4-methyl-2-pentanone						
2.625	2.625	0.000	1387142	20.0	19.8	
3 2-Butoxyethanol						
2.795	2.795	0.000	1564931	20.0	19.9	
* 4 n-Heptyl Alcohol						
3.106	3.106	0.000	5058415	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
3.869	3.869	0.000	127534	20.0	20.5	
6 Propylene glycol						
4.817	4.817	0.000	317696	20.0	20.8	
7 Ethylene glycol						
5.043	5.043	0.000	903954	20.0	22.5	
8 2-(2-Butoxyethoxy)ethanol						
6.708	6.708	0.000	1236575	20.0	20.0	
9 2,2'-Oxybisethanol						
8.820	8.820	0.000	521398	20.0	21.2	
10 Triethylene Glycol						
10.071	10.071	0.000	493325	20.0	19.8	
11 Tetraethylene Glycol						
10.912	10.912	0.000	1042993	40.0	40.0	M M

**QC Flag Legend**  
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 10.00

Units: uL

SG\_GLY\_ISTD\_00110

Amount Added: 10.00

Units: uL

Run Reagent

Euofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16014.D

Injection Date: 16-Apr-2023 21:05:55

Instrument ID: CVGG2

Operator ID:

Lims ID: icis g4

Worklist Smp#: 7

Client ID:

Injection Vol: 1.0 ul

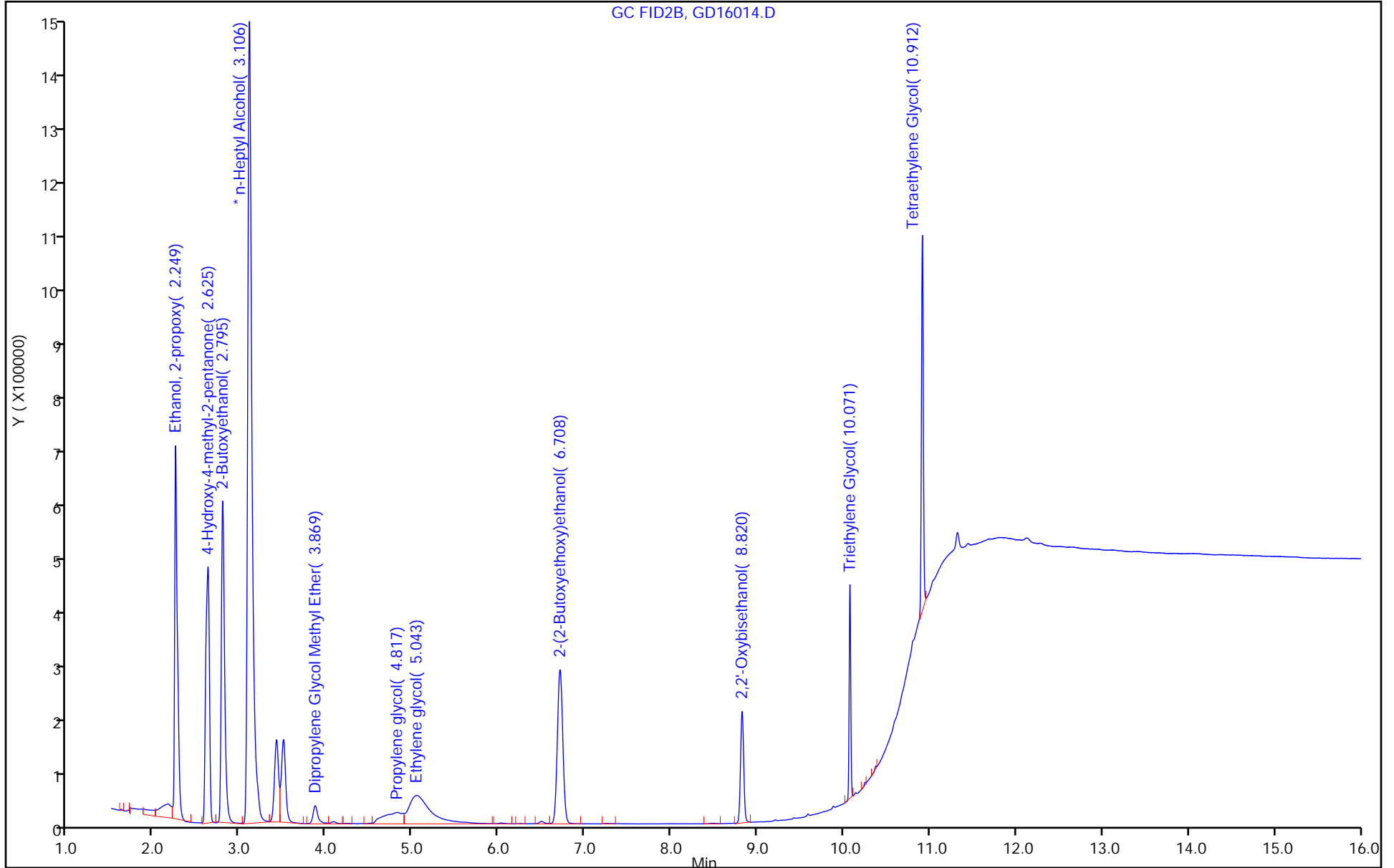
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)





Eurofins Savannah

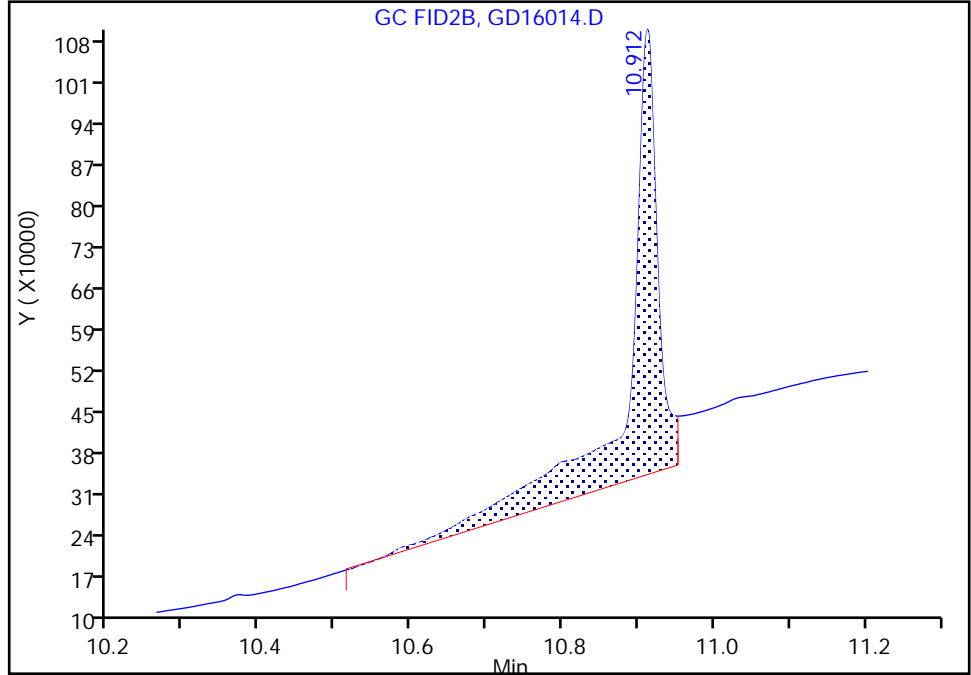
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16014.D  
Injection Date: 16-Apr-2023 21:05:55 Instrument ID: CVGG2  
Lims ID: icis g4  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

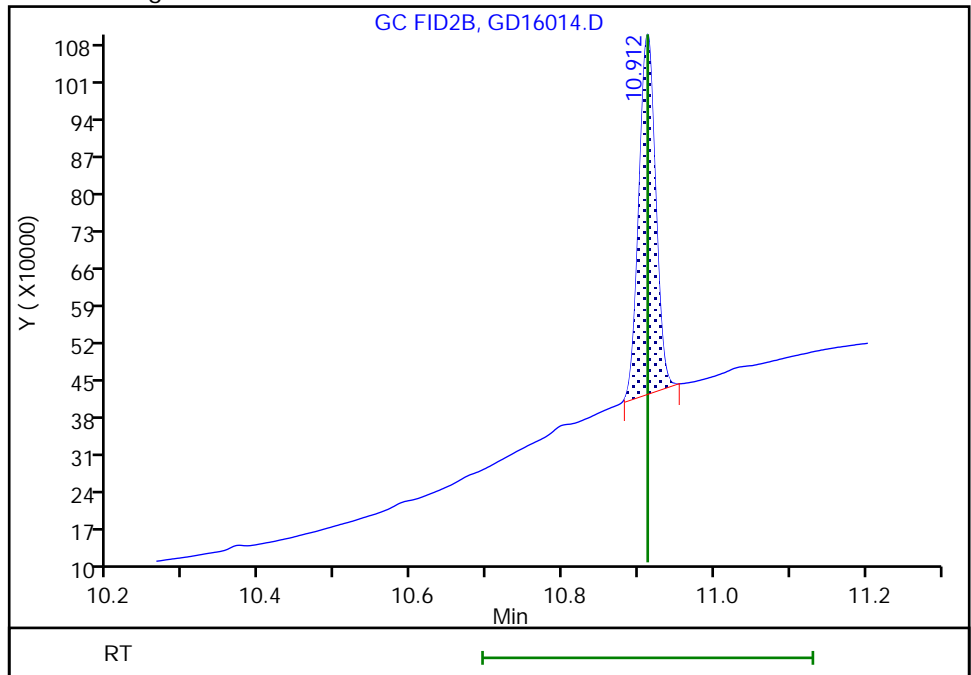
RT: 10.91  
Area: 2088186  
Amount: 26.615538  
Amount Units: ug/ml

Processing Integration Results



RT: 10.91  
Area: 1042993  
Amount: 39.987383  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 17-Apr-2023 10:12:18  
Audit Action: Manually Integrated

Audit Reason: Shouldering

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16015.D  
 Lims ID: ic g3  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 16-Apr-2023 21:29:06 ALS Bottle#: 0 Worklist Smp#: 8  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085300-008  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 17-Apr-2023 10:22:35 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 17-Apr-2023 10:13:09

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.250	2.249	0.001	792188	10.0	10.8	
2 4-Hydroxy-4-methyl-2-pentanone						
2.616	2.625	-0.009	712318	10.0	10.8	
3 2-Butoxyethanol						
2.795	2.795	0.000	785503	10.0	10.7	
* 4 n-Heptyl Alcohol						
3.101	3.106	-0.005	4747950	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
3.871	3.869	0.002	69879	10.0	11.9	
6 Propylene glycol						
4.821	4.817	0.004	168632	10.0	10.8	M
7 Ethylene glycol						
5.036	5.043	-0.007	465608	10.0	10.7	M
8 2-(2-Butoxyethoxy)ethanol						
6.711	6.708	0.003	643924	10.0	11.1	
9 2,2'-Oxybisethanol						
8.821	8.820	0.001	289511	10.0	11.1	
10 Triethylene Glycol						
10.071	10.071	0.000	269667	10.0	11.6	
11 Tetraethylene Glycol						
10.911	10.912	-0.001	574428	20.0	23.5	M

**QC Flag Legend**  
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 5.00

Units: uL

SG\_GLY\_ISTD\_00110

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16015.D

Injection Date: 16-Apr-2023 21:29:06

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g3

Worklist Smp#: 8

Client ID:

Injection Vol: 1.0 ul

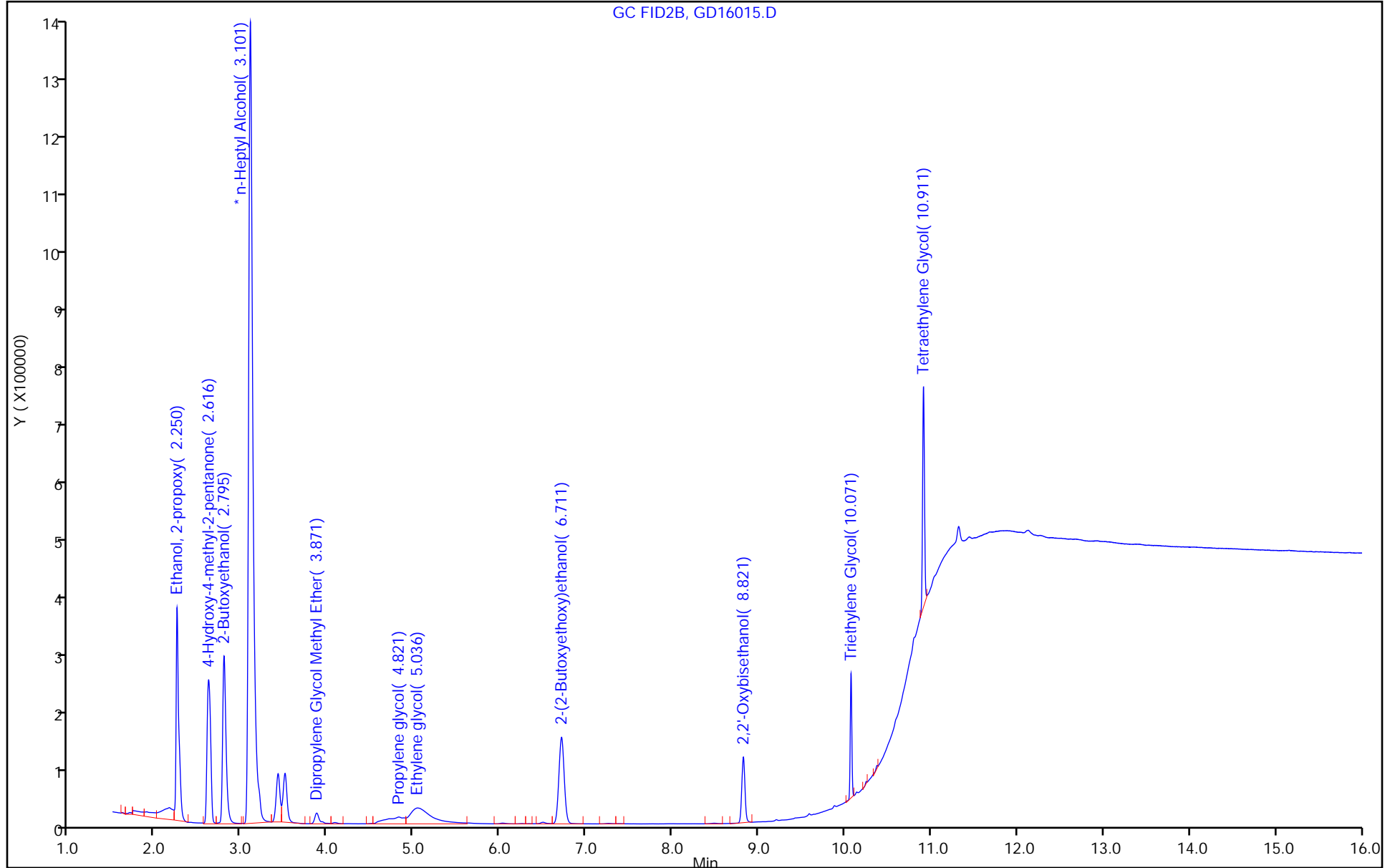
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

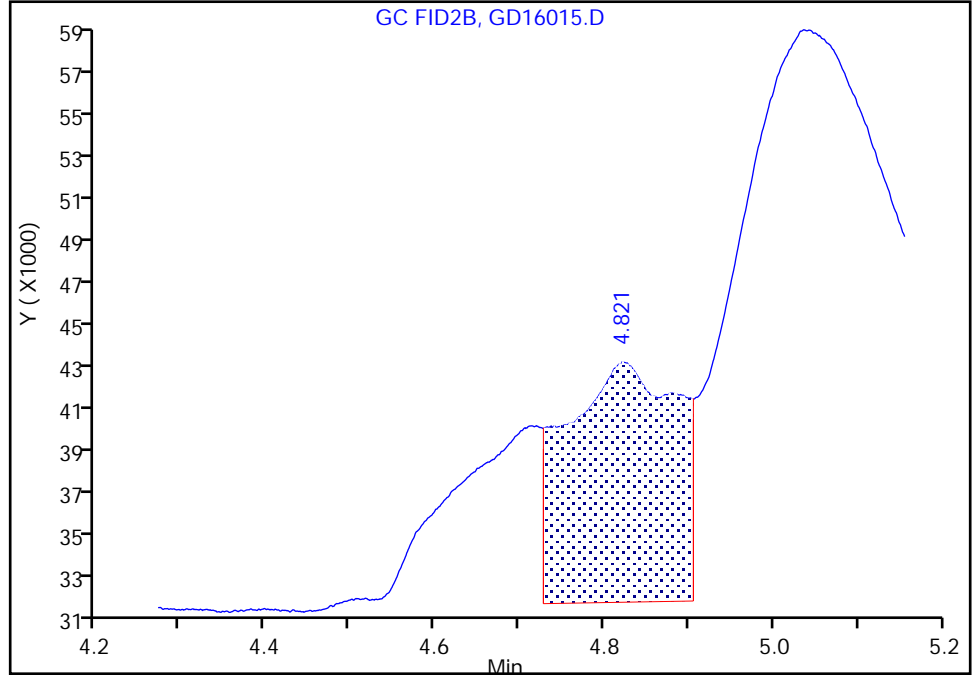
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16015.D  
Injection Date: 16-Apr-2023 21:29:06 Instrument ID: CVGG2  
Lims ID: ic g3  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

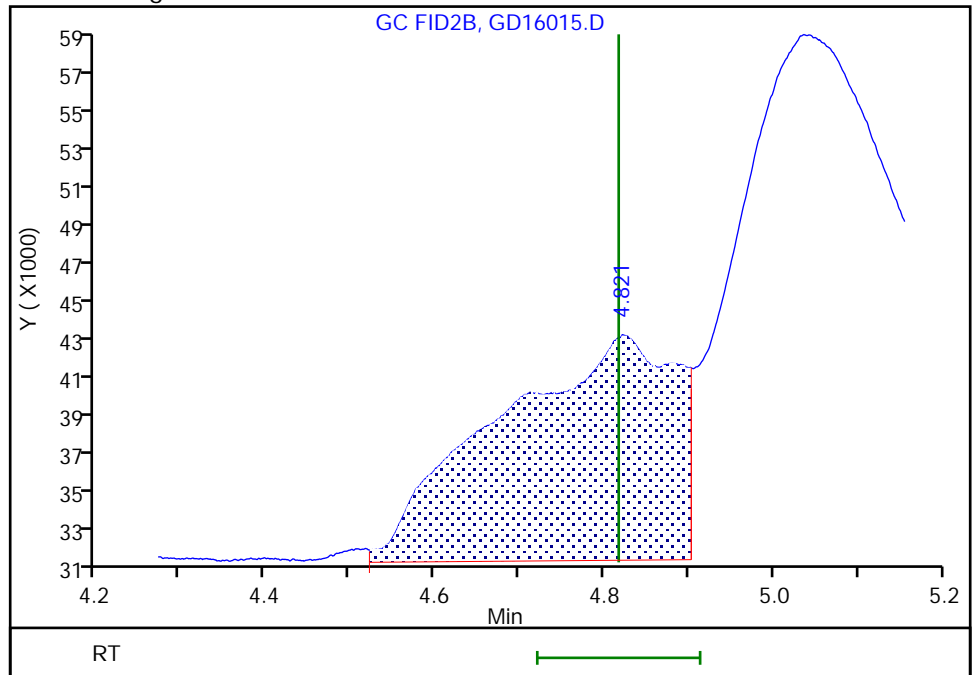
RT: 4.82  
Area: 100839  
Amount: 8.581265  
Amount Units: ug/ml

Processing Integration Results



RT: 4.82  
Area: 168632  
Amount: 10.794780  
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

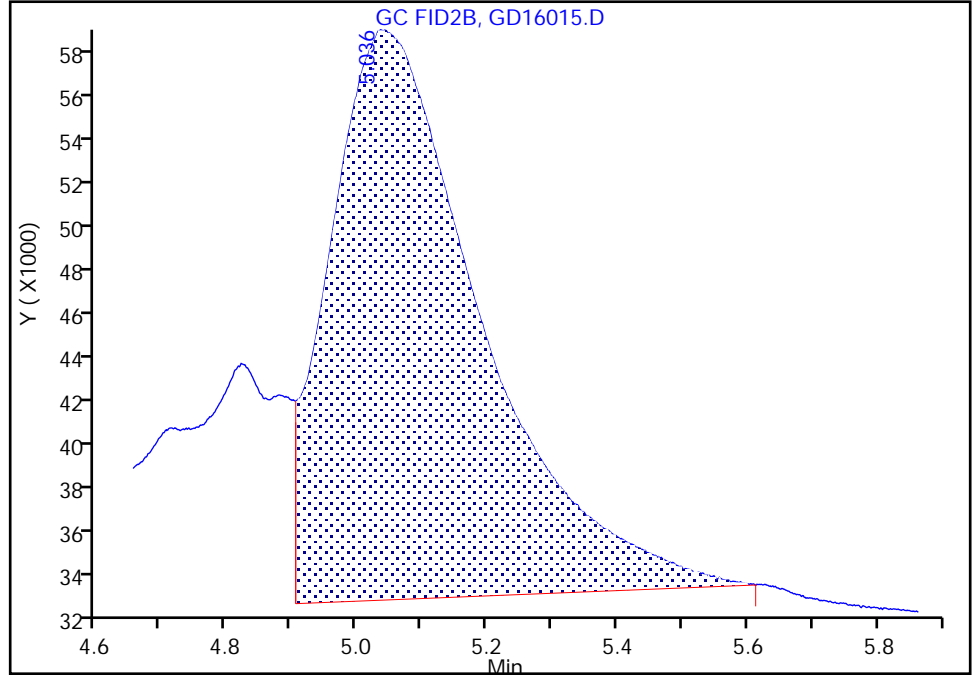
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16015.D  
Injection Date: 16-Apr-2023 21:29:06 Instrument ID: CVGG2  
Lims ID: ic g3  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

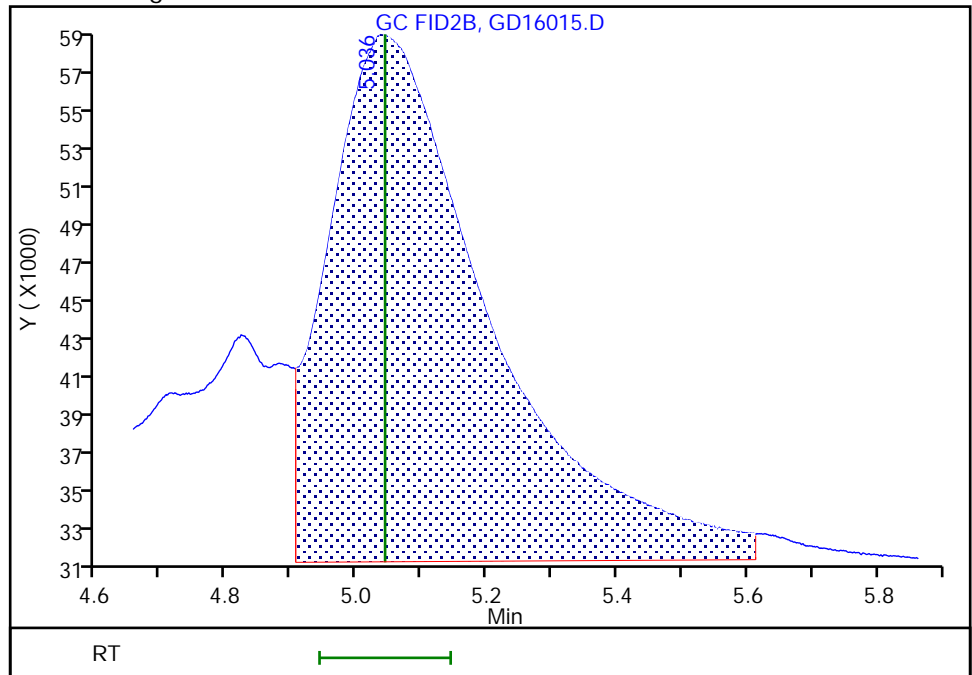
RT: 5.04  
Area: 425302  
Amount: 10.502845  
Amount Units: ug/ml

Processing Integration Results



RT: 5.04  
Area: 465608  
Amount: 10.714837  
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

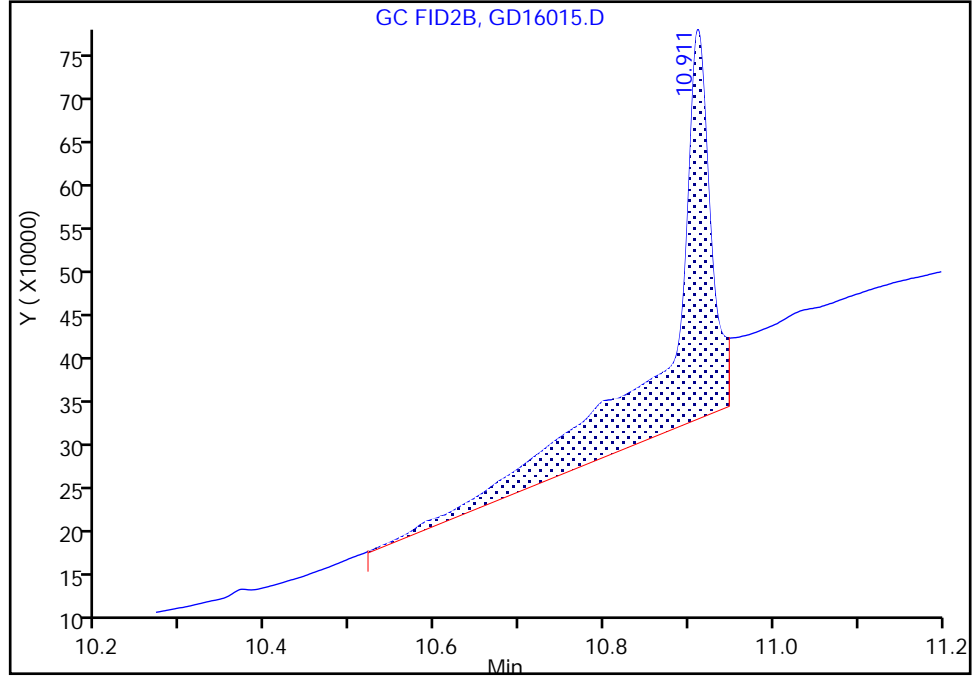
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16015.D  
Injection Date: 16-Apr-2023 21:29:06 Instrument ID: CVGG2  
Lims ID: ic g3  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

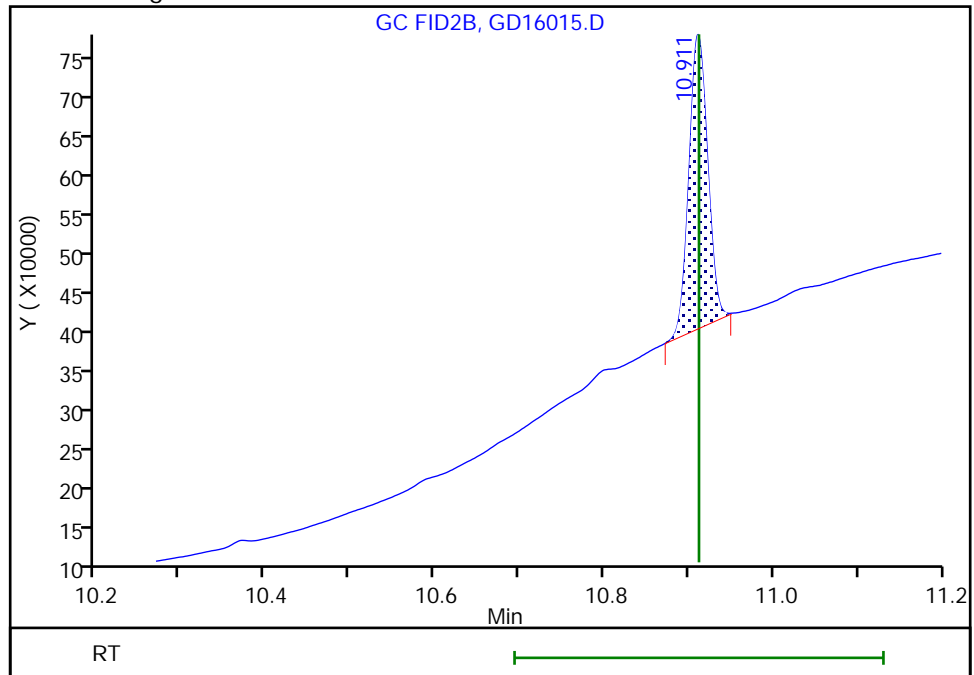
RT: 10.91  
Area: 1527982  
Amount: 21.785279  
Amount Units: ug/ml

Processing Integration Results



RT: 10.91  
Area: 574428  
Amount: 23.463106  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 17-Apr-2023 10:12:39  
Audit Action: Manually Integrated

Audit Reason: Shouldering

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16016.D  
 Lims ID: ic g2  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 16-Apr-2023 21:52:25 ALS Bottle#: 0 Worklist Smp#: 9  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085300-009  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 17-Apr-2023 10:22:36 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1620

First Level Reviewer: SK9U

Date: 17-Apr-2023 10:15:28

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.248	2.249	-0.001	402644	5.00	5.28	
2 4-Hydroxy-4-methyl-2-pentanone						
2.612	2.625	-0.013	366098	5.00	5.35	
3 2-Butoxyethanol						
2.794	2.795	-0.001	404155	5.00	5.29	
* 4 n-Heptyl Alcohol						
3.103	3.106	-0.003	4926759	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
3.866	3.869	-0.003	32931	5.00	5.42	
6 Propylene glycol						
4.824	4.817	0.007	93857	5.00	4.77	M
7 Ethylene glycol						
5.041	5.043	-0.002	259464	5.00	4.09	M
8 2-(2-Butoxyethoxy)ethanol						
6.710	6.708	0.002	330197	5.00	5.47	
9 2,2'-Oxybisethanol						
8.820	8.820	0.000	154666	5.00	4.09	
10 Triethylene Glycol						
10.071	10.071	0.000	141391	5.00	5.84	
11 Tetraethylene Glycol						
10.912	10.912	0.000	295754	10.0	11.6	M

### QC Flag Legend

Processing Flags



Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 2.50

Units: uL

SG\_GLY\_ISTD\_00110

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16016.D

Injection Date: 16-Apr-2023 21:52:25

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g2

Worklist Smp#: 9

Client ID:

Injection Vol: 1.0 ul

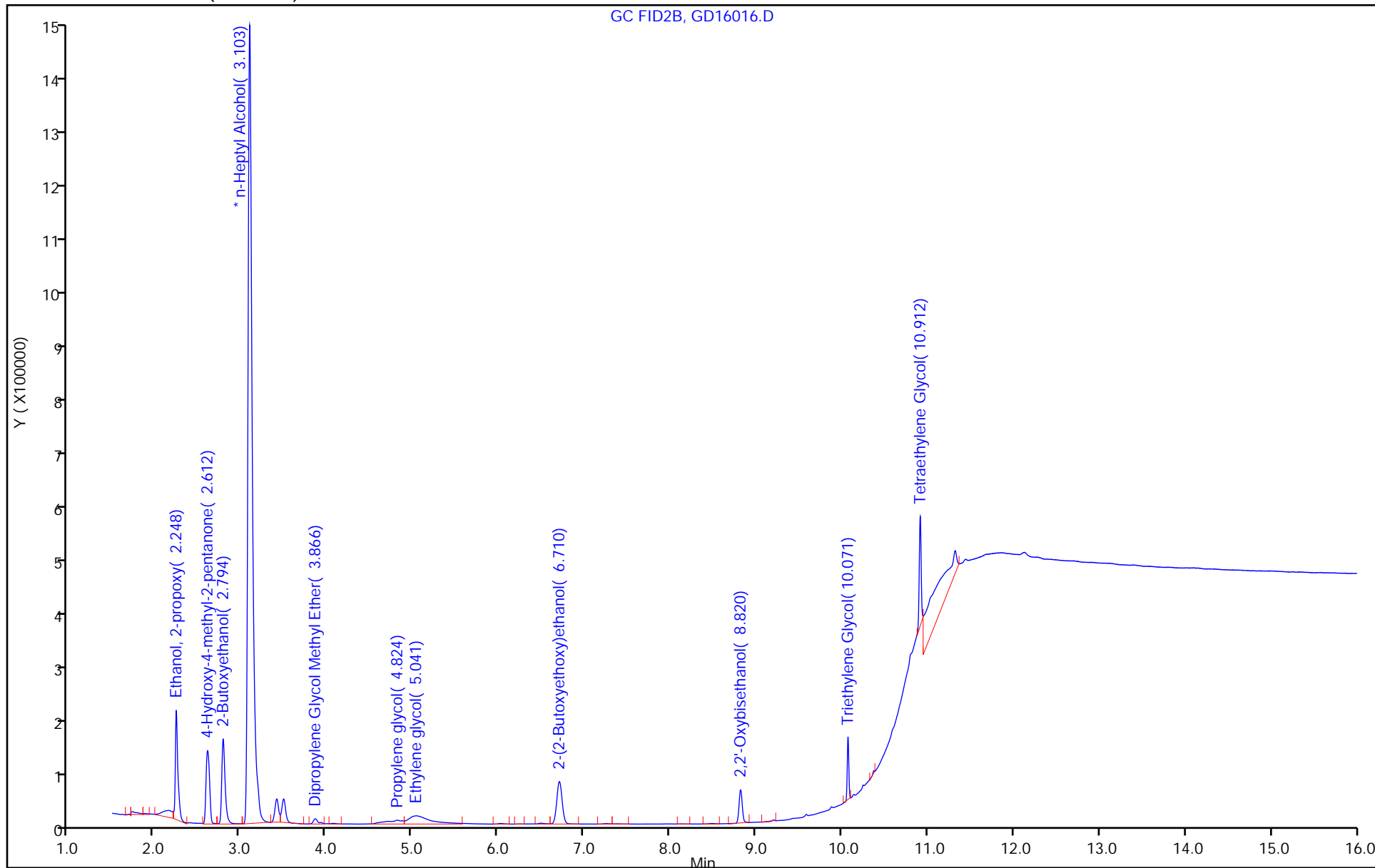
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



GC FID2B, GD16016.D

Eurofins Savannah

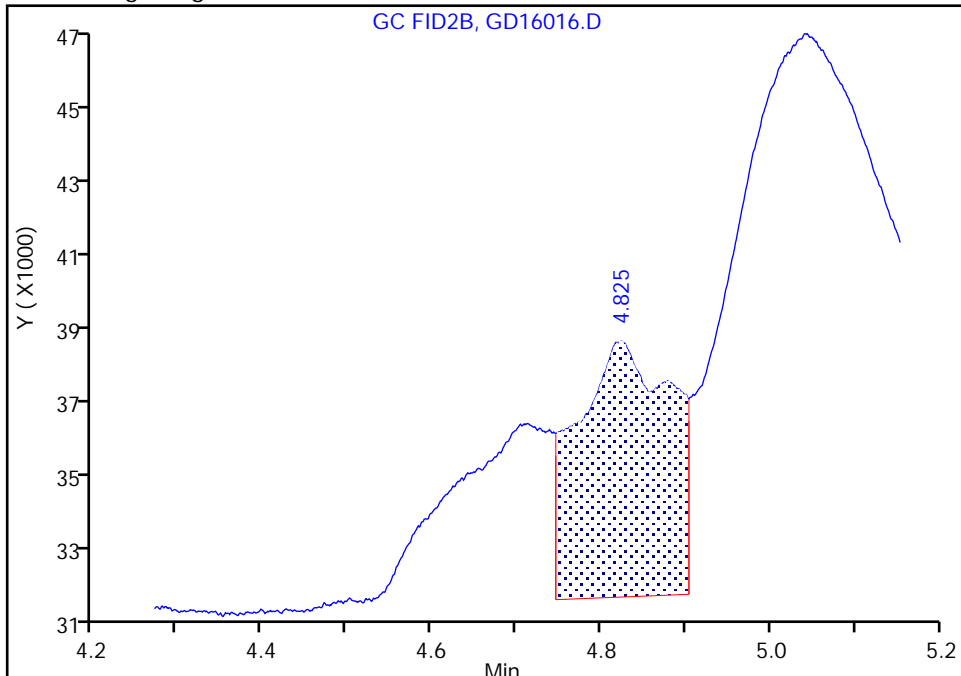
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16016.D  
Injection Date: 16-Apr-2023 21:52:25 Instrument ID: CVGG2  
Lims ID: ic g2  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

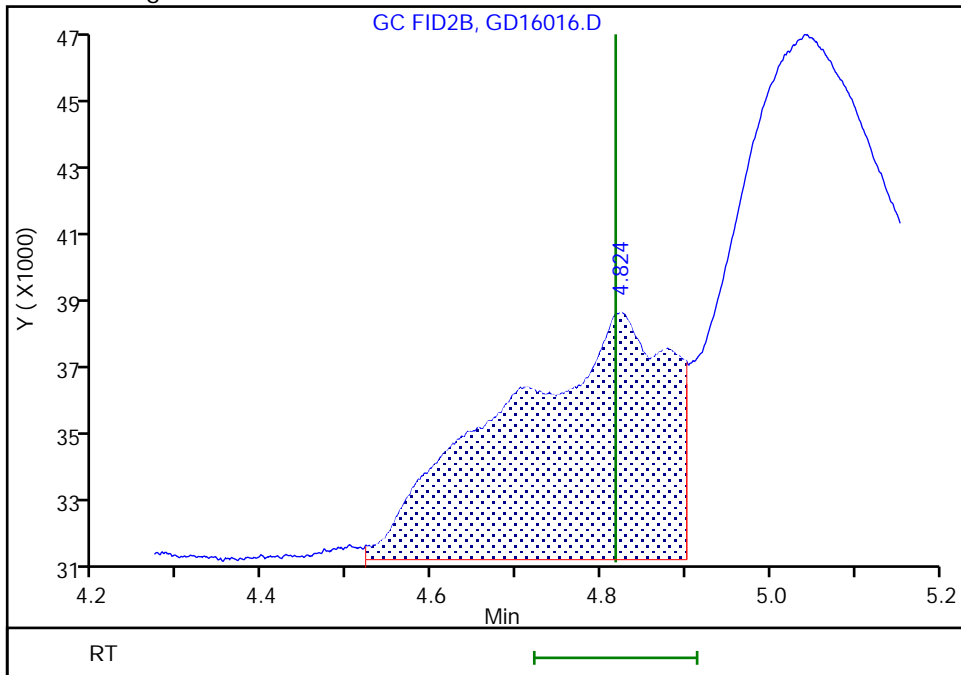
RT: 4.82  
Area: 49572  
Amount: 3.409050  
Amount Units: ug/ml

Processing Integration Results



RT: 4.82  
Area: 93857  
Amount: 4.767379  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 17-Apr-2023 10:15:24  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration  
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Eurofins Savannah

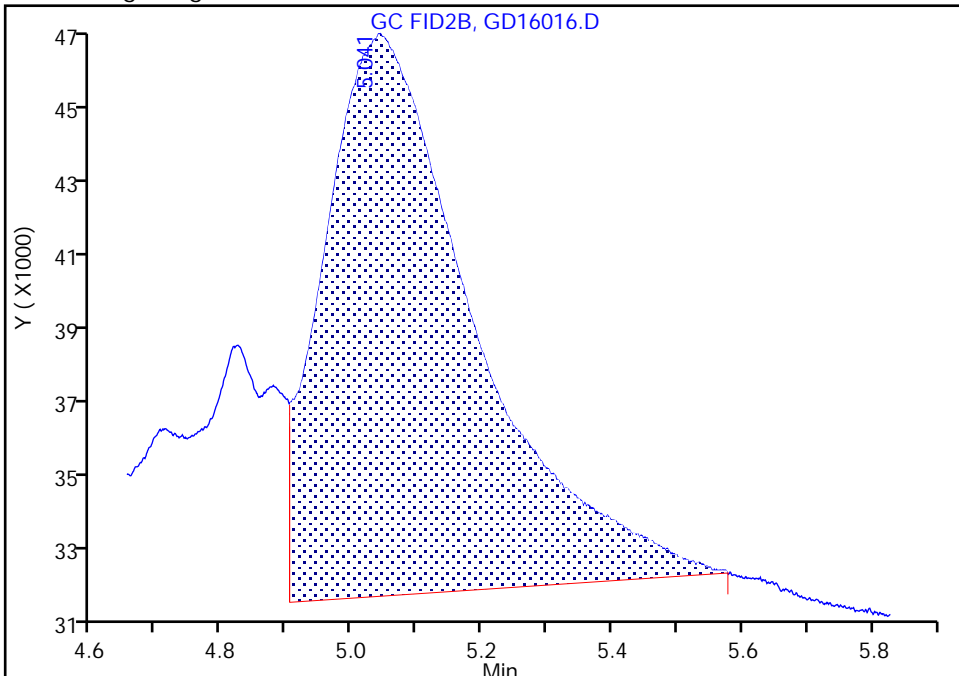
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16016.D  
Injection Date: 16-Apr-2023 21:52:25 Instrument ID: CVGG2  
Lims ID: ic g2  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

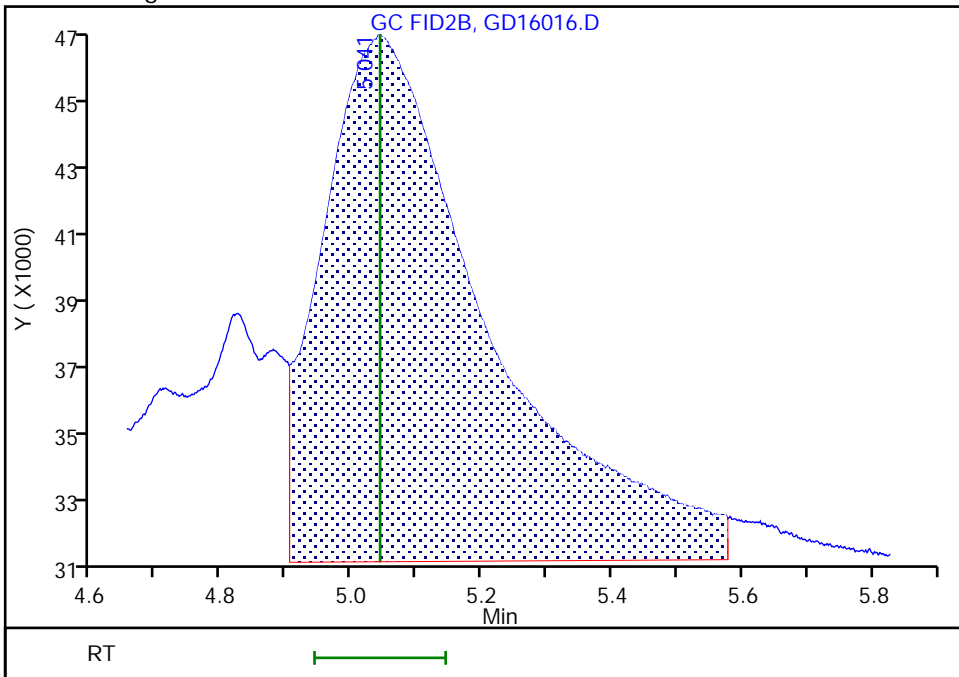
RT: 5.04  
Area: 224900  
Amount: 6.412326  
Amount Units: ug/ml

Processing Integration Results



RT: 5.04  
Area: 259464  
Amount: 4.087885  
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

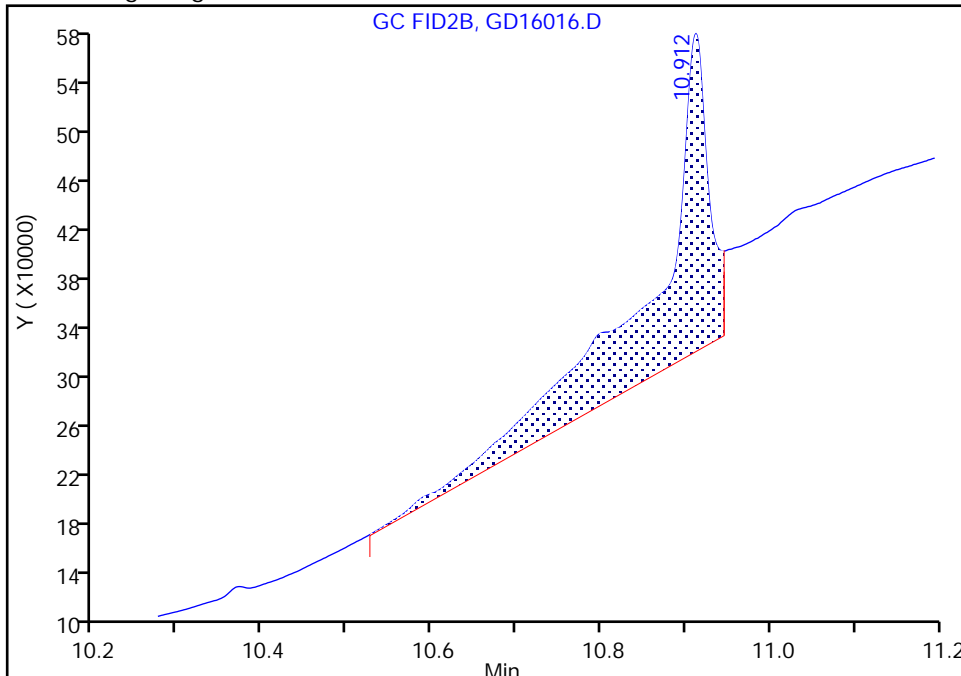
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16016.D  
Injection Date: 16-Apr-2023 21:52:25 Instrument ID: CVGG2  
Lims ID: ic g2  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

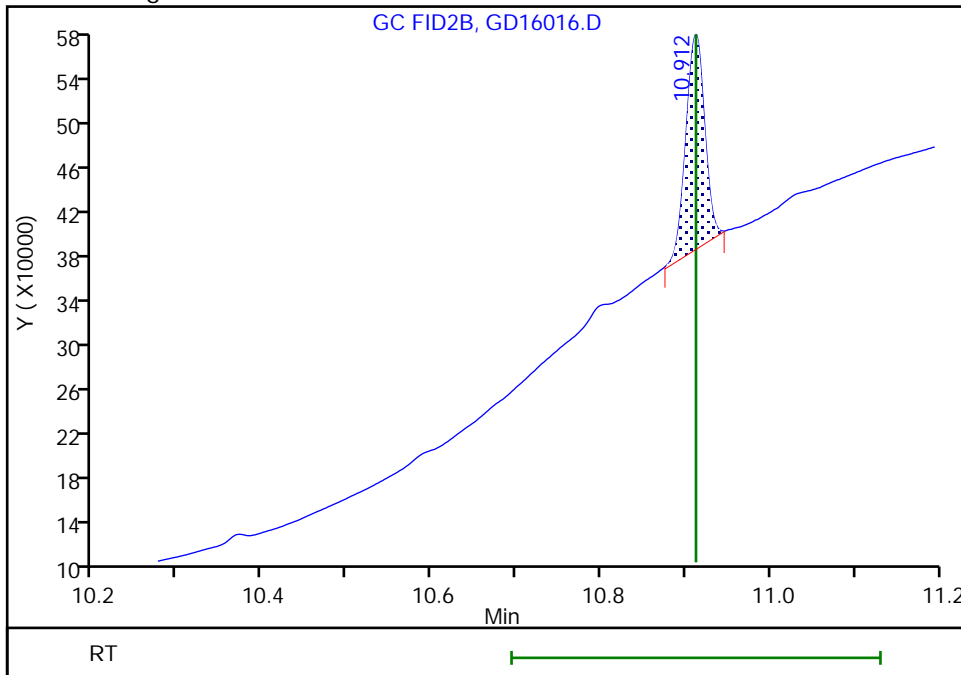
RT: 10.91  
Area: 1151194  
Amount: 17.518753  
Amount Units: ug/ml

Processing Integration Results



RT: 10.91  
Area: 295754  
Amount: 11.641940  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 17-Apr-2023 10:14:54  
Audit Action: Manually Integrated

Audit Reason: Shouldering  
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Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Lims ID: ic g1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 16-Apr-2023 22:15:38 ALS Bottle#: 0 Worklist Smp#: 10  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085300-010  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 17-Apr-2023 10:22:36 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1620

First Level Reviewer: SK9U Date: 17-Apr-2023 10:16:19

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.248	2.249	-0.001	182334	2.00	2.29	
2 4-Hydroxy-4-methyl-2-pentanone						
2.612	2.625	-0.013	145931	2.00	2.05	
3 2-Butoxyethanol						
2.794	2.795	-0.001	169523	2.00	2.13	
* 4 n-Heptyl Alcohol						
3.104	3.106	-0.002	5134596	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
3.864	3.869	-0.005	11357	2.00	1.79	
6 Propylene glycol						
4.822	4.817	0.005	33085	2.00	0.1527	M
7 Ethylene glycol						
5.044	5.043	0.001	85948	2.00	-1.16	M
8 2-(2-Butoxyethoxy)ethanol						
6.708	6.708	0.000	130789	2.00	2.08	
9 2,2'-Oxybisethanol						
8.821	8.820	0.001	64247	2.00	-0.4026	
10 Triethylene Glycol						
10.072	10.071	0.001	56726	2.00	2.25	
11 Tetraethylene Glycol						
10.913	10.912	0.001	117228	4.00	4.43	M

**QC Flag Legend**  
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 1.00

Units: uL

SG\_GLY\_ISTD\_00110

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D

Injection Date: 16-Apr-2023 22:15:38

Instrument ID: CVGG2

Operator ID:

Lims ID: ic g1

Worklist Smp#: 10

Client ID:

Injection Vol: 1.0 ul

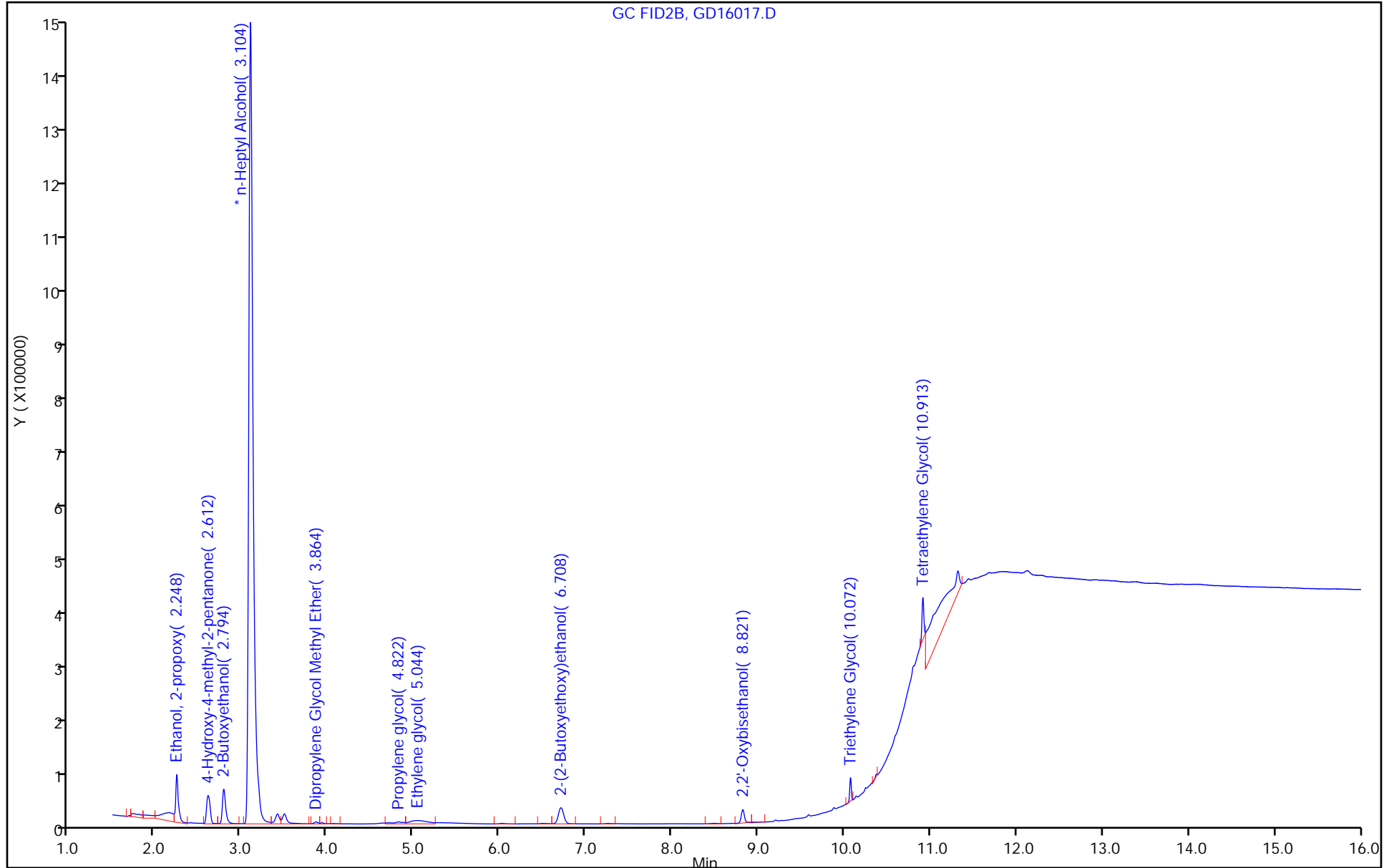
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)





Eurofins Savannah

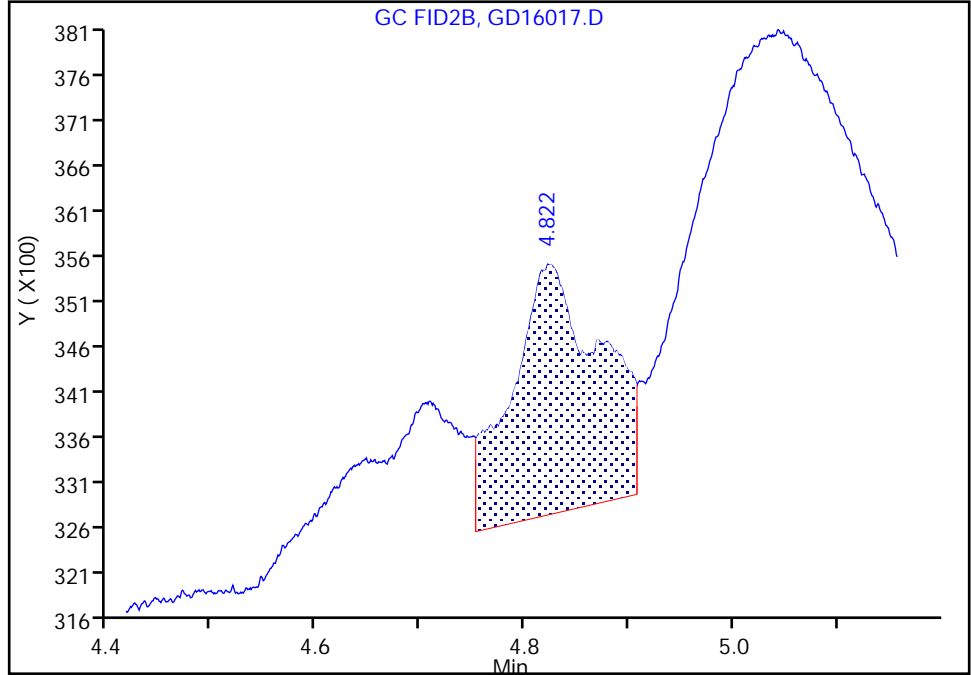
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
Injection Date: 16-Apr-2023 22:15:38 Instrument ID: CVGG2  
Lims ID: ic g1  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

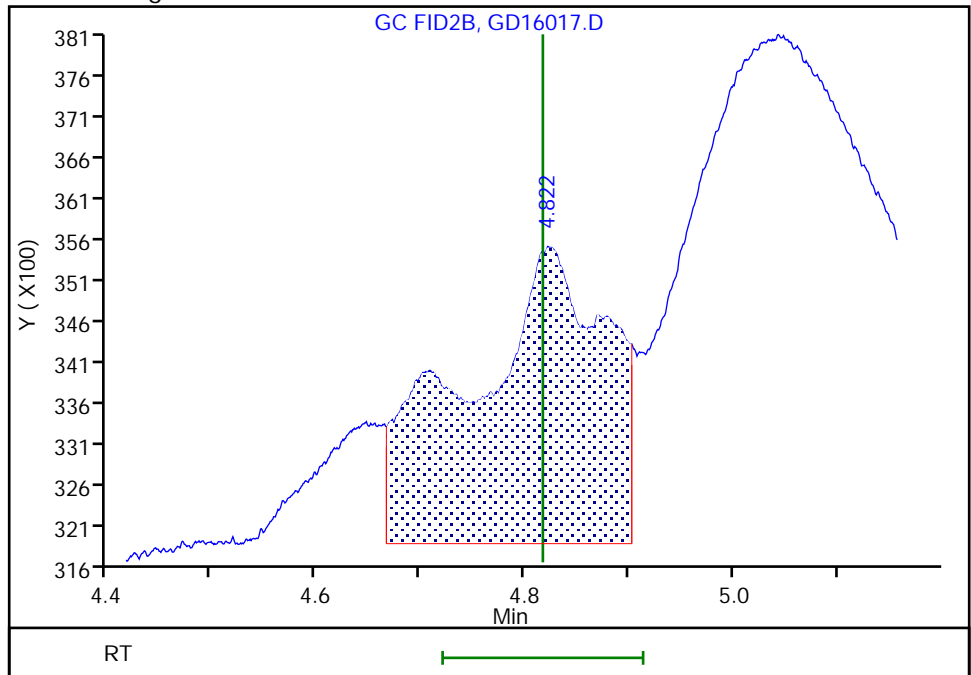
RT: 4.82  
Area: 16360  
Amount: 0.077734  
Amount Units: ug/ml

Processing Integration Results



RT: 4.82  
Area: 33085  
Amount: 0.152699  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 17-Apr-2023 10:15:47  
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
Injection Date: 16-Apr-2023 22:15:38 Instrument ID: CVGG2  
Lims ID: ic g1  
Client ID:  
Operator ID:  
Injection Vol: 1.0 ul  
Method: 8015\_GLY\_VGG  
Column: J&W DB WAX ( 0.45 mm)

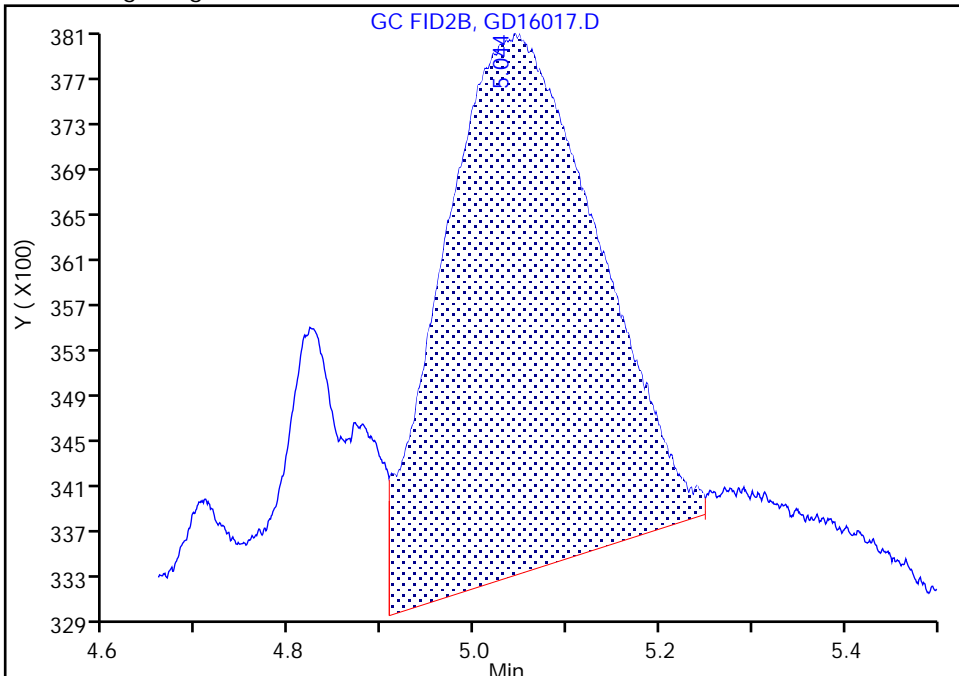
ALS Bottle#: 0 Worklist Smp#: 10  
Dil. Factor: 1.0000  
Limit Group: 8015C\_DAI  
Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

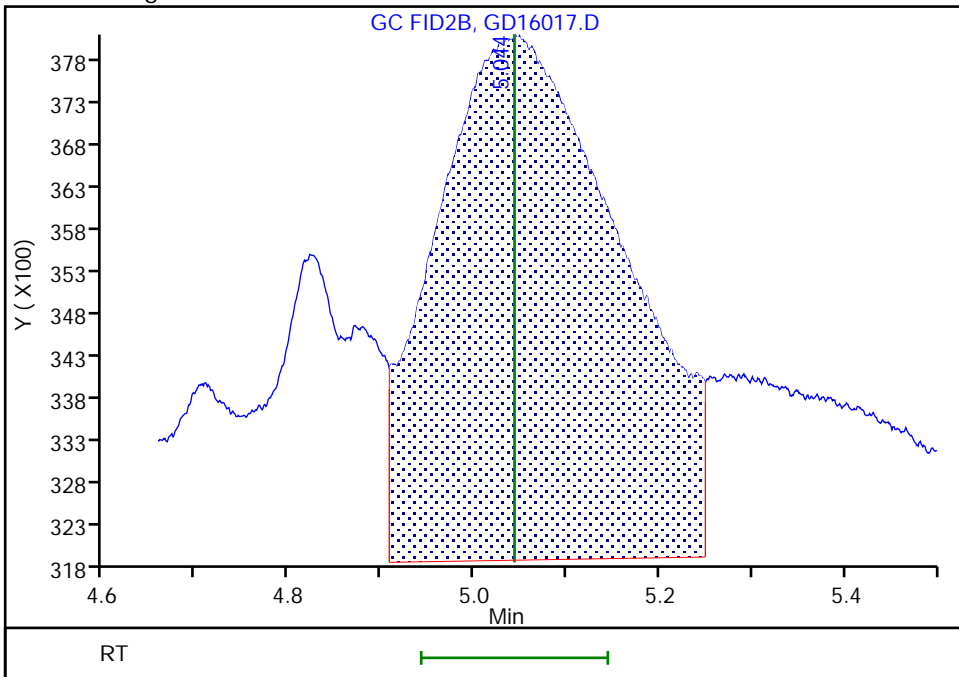
RT: 5.04  
Area: 55342  
Amount: 1.513652  
Amount Units: ug/ml

Processing Integration Results



RT: 5.04  
Area: 85948  
Amount: -1.155959  
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

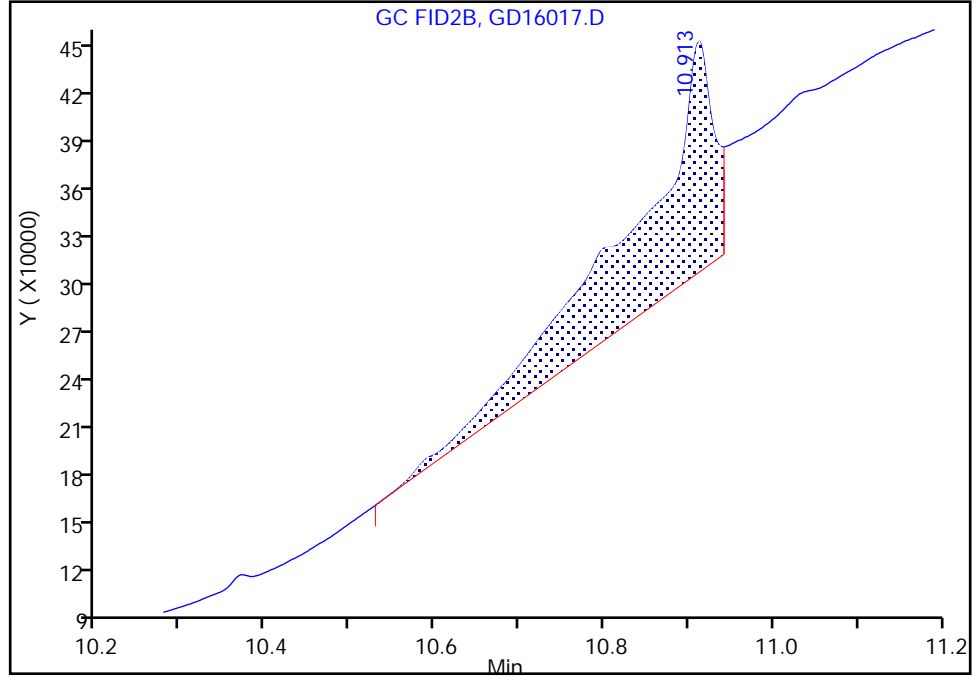
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
Injection Date: 16-Apr-2023 22:15:38 Instrument ID: CVGG2  
Lims ID: ic g1  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

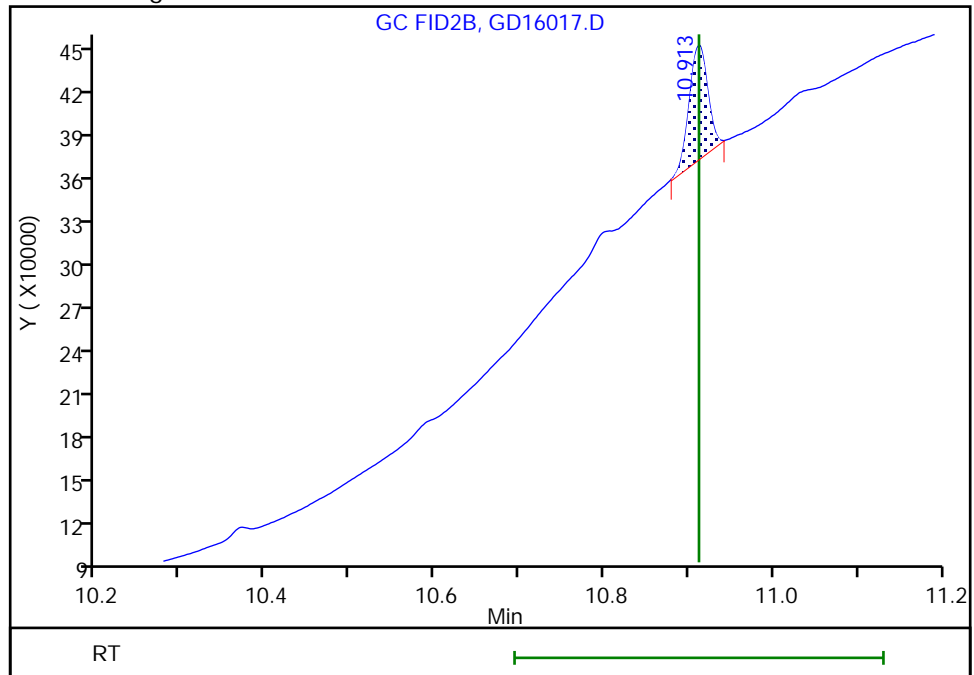
RT: 10.91  
Area: 936850  
Amount: 16.805062  
Amount Units: ug/ml

Processing Integration Results



RT: 10.91  
Area: 117228  
Amount: 4.427730  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 17-Apr-2023 10:16:16  
Audit Action: Manually Integrated

Audit Reason: Shouldering  
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Calibration

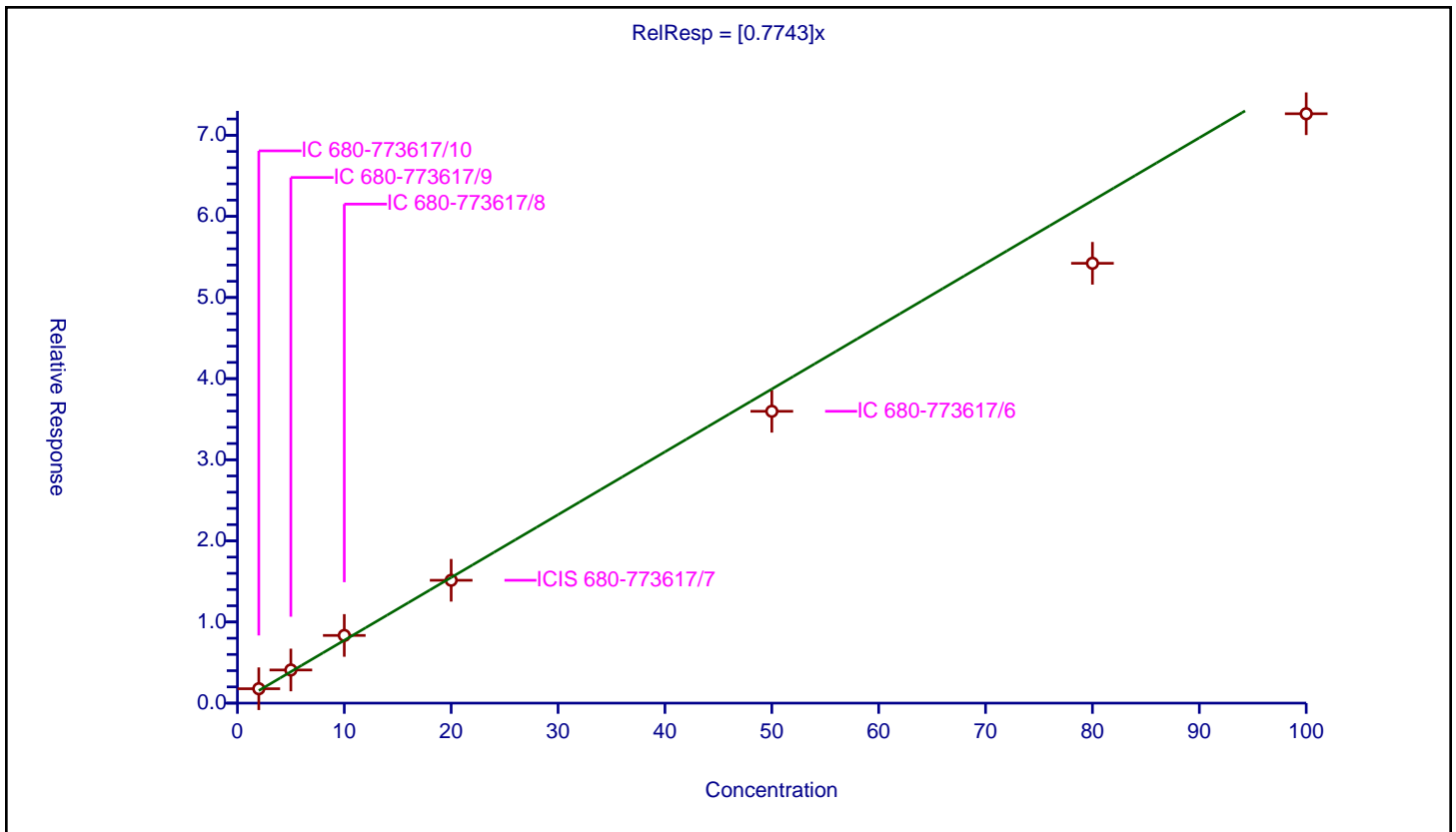
/ Ethanol, 2-propoxy

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

Curve Coefficients	
Intercept:	0
Slope:	0.7743

Error Coefficients	
Standard Error:	3540000
Relative Standard Error:	9.6
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-773617/10	2.0	1.775544	50.0	5134596.0	0.887772	Y
2	IC 680-773617/9	5.0	4.086297	50.0	4926759.0	0.817259	Y
3	IC 680-773617/8	10.0	8.342421	50.0	4747950.0	0.834242	Y
4	ICIS 680-773617/7	20.0	15.142322	50.0	5058415.0	0.757116	Y
5	IC 680-773617/6	50.0	35.971176	50.0	4416956.0	0.719424	Y
6	IC 680-773617/5	80.0	54.214139	50.0	4383303.0	0.677677	Y
7	IC 680-773617/4	100.0	72.649602	50.0	4326023.0	0.726496	Y



Calibration

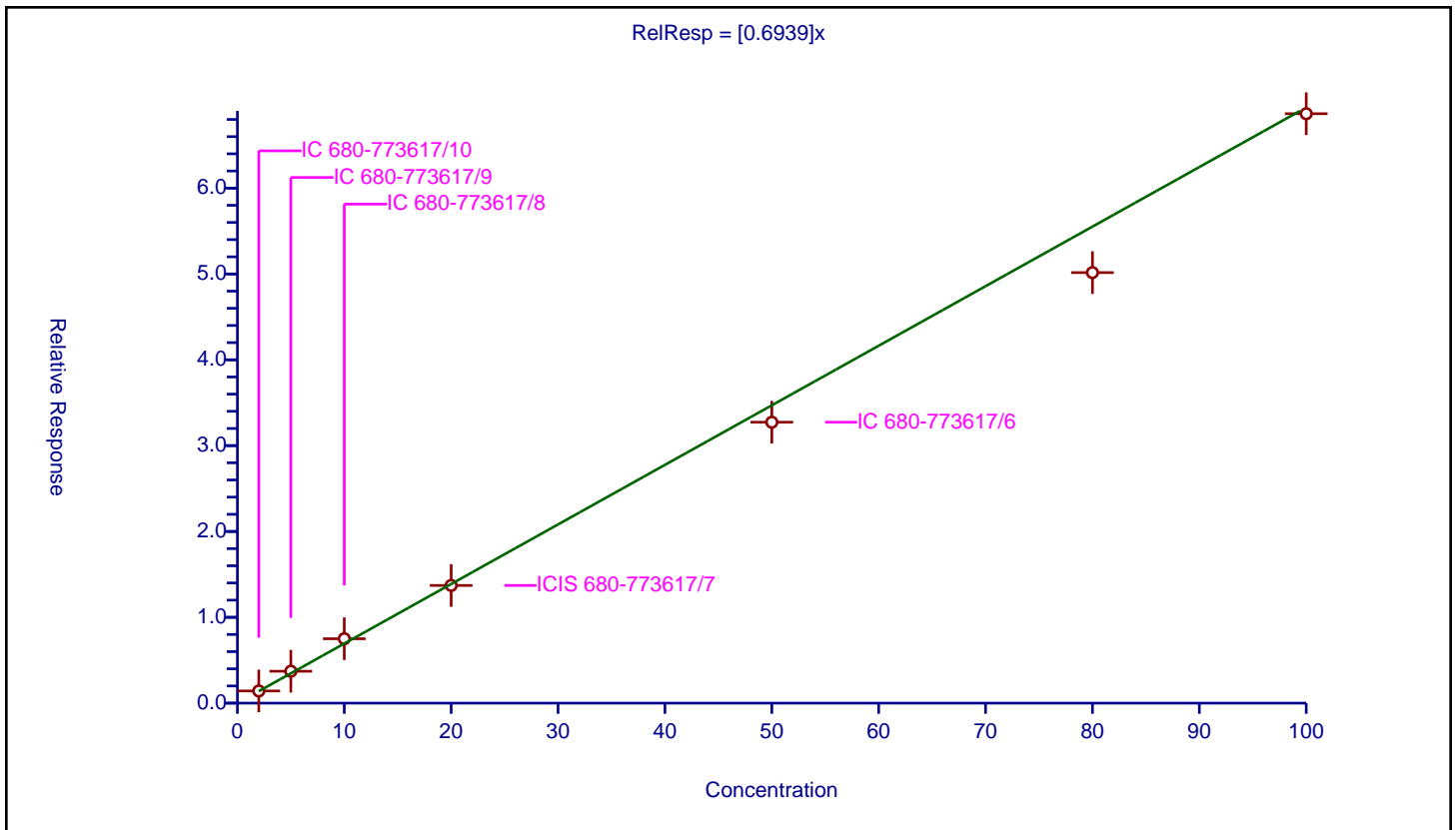
/ 4-Hydroxy-4-methyl-2-pentanone

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

Curve Coefficients	
Intercept:	0
Slope:	0.6939

Error Coefficients	
Standard Error:	3310000
Relative Standard Error:	6.4
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-773617/10	2.0	1.421056	50.0	5134596.0	0.710528	Y
2	IC 680-773617/9	5.0	3.715404	50.0	4926759.0	0.743081	Y
3	IC 680-773617/8	10.0	7.501322	50.0	4747950.0	0.750132	Y
4	ICIS 680-773617/7	20.0	13.711232	50.0	5058415.0	0.685562	Y
5	IC 680-773617/6	50.0	32.730131	50.0	4416956.0	0.654603	Y
6	IC 680-773617/5	80.0	50.158511	50.0	4383303.0	0.626981	Y
7	IC 680-773617/4	100.0	68.669596	50.0	4326023.0	0.686696	Y



Calibration

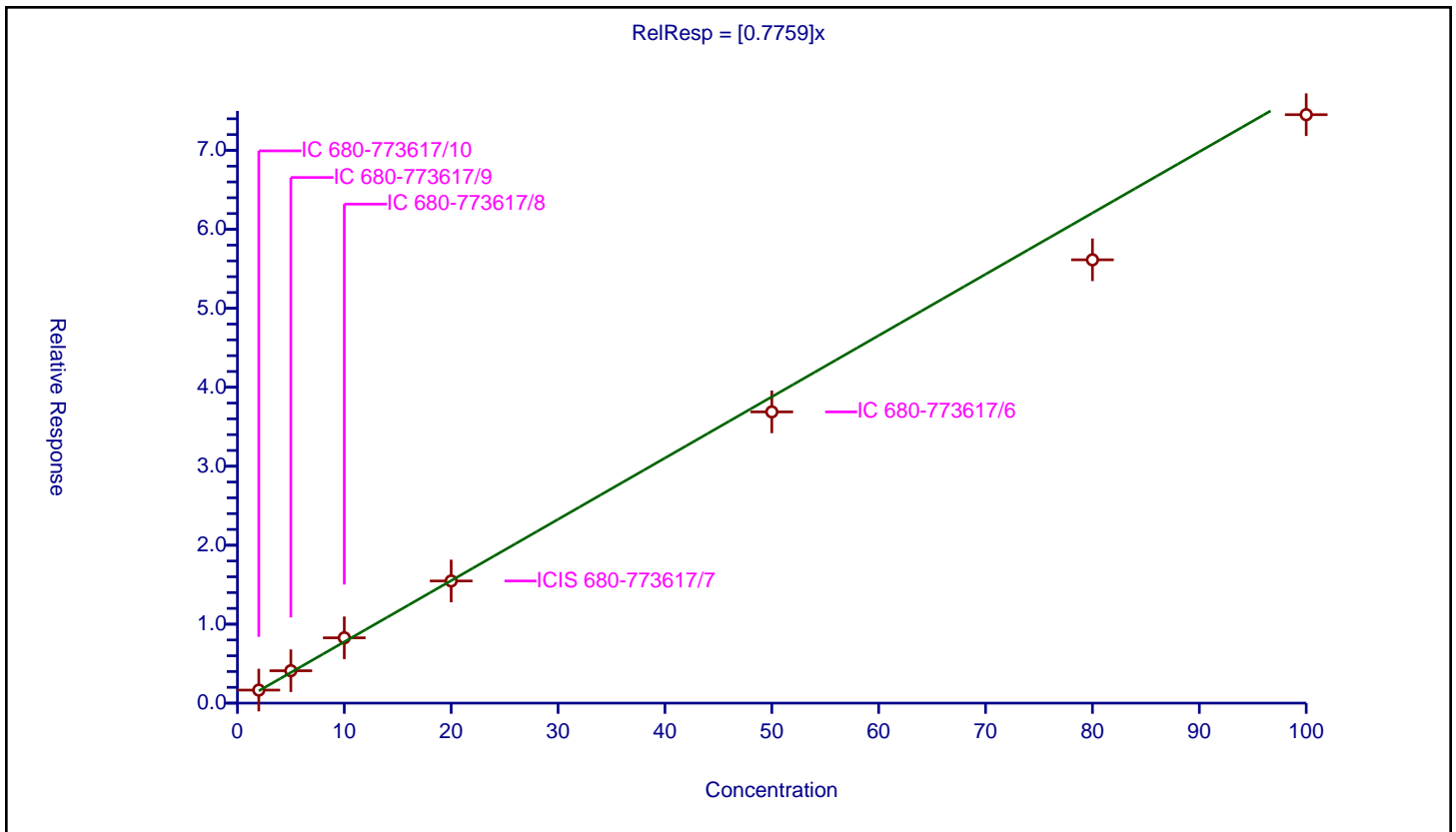
/ 2-Butoxyethanol

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

Curve Coefficients	
Intercept:	0
Slope:	0.7759

Error Coefficients	
Standard Error:	3640000
Relative Standard Error:	6.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-773617/10	2.0	1.650792	50.0	5134596.0	0.825396	Y
2	IC 680-773617/9	5.0	4.101632	50.0	4926759.0	0.820326	Y
3	IC 680-773617/8	10.0	8.272023	50.0	4747950.0	0.827202	Y
4	ICIS 680-773617/7	20.0	15.46859	50.0	5058415.0	0.77343	Y
5	IC 680-773617/6	50.0	36.883761	50.0	4416956.0	0.737675	Y
6	IC 680-773617/5	80.0	56.140769	50.0	4383303.0	0.70176	Y
7	IC 680-773617/4	100.0	74.520038	50.0	4326023.0	0.7452	Y



Calibration

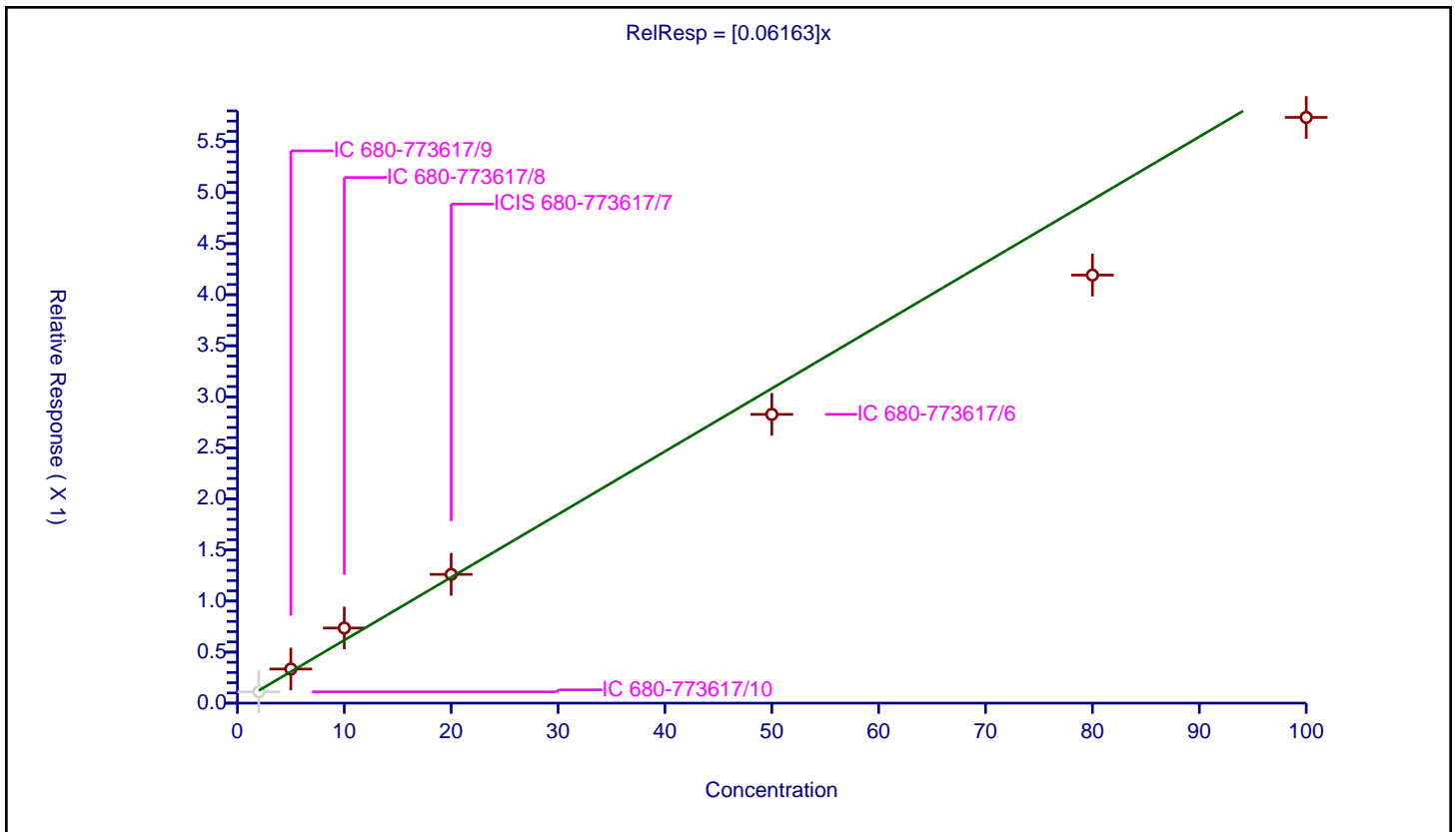
/ Dipropylene Glycol Methyl Ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.06163

Error Coefficients	
Standard Error:	305000
Relative Standard Error:	12.6
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.970

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-773617/10	2.0	0.110593	50.0	5134596.0	0.055296	N
2	IC 680-773617/9	5.0	0.334206	50.0	4926759.0	0.066841	Y
3	IC 680-773617/8	10.0	0.735886	50.0	4747950.0	0.073589	Y
4	ICIS 680-773617/7	20.0	1.260612	50.0	5058415.0	0.063031	Y
5	IC 680-773617/6	50.0	2.827705	50.0	4416956.0	0.056554	Y
6	IC 680-773617/5	80.0	4.192078	50.0	4383303.0	0.052401	Y
7	IC 680-773617/4	100.0	5.736458	50.0	4326023.0	0.057365	Y



**Calibration**

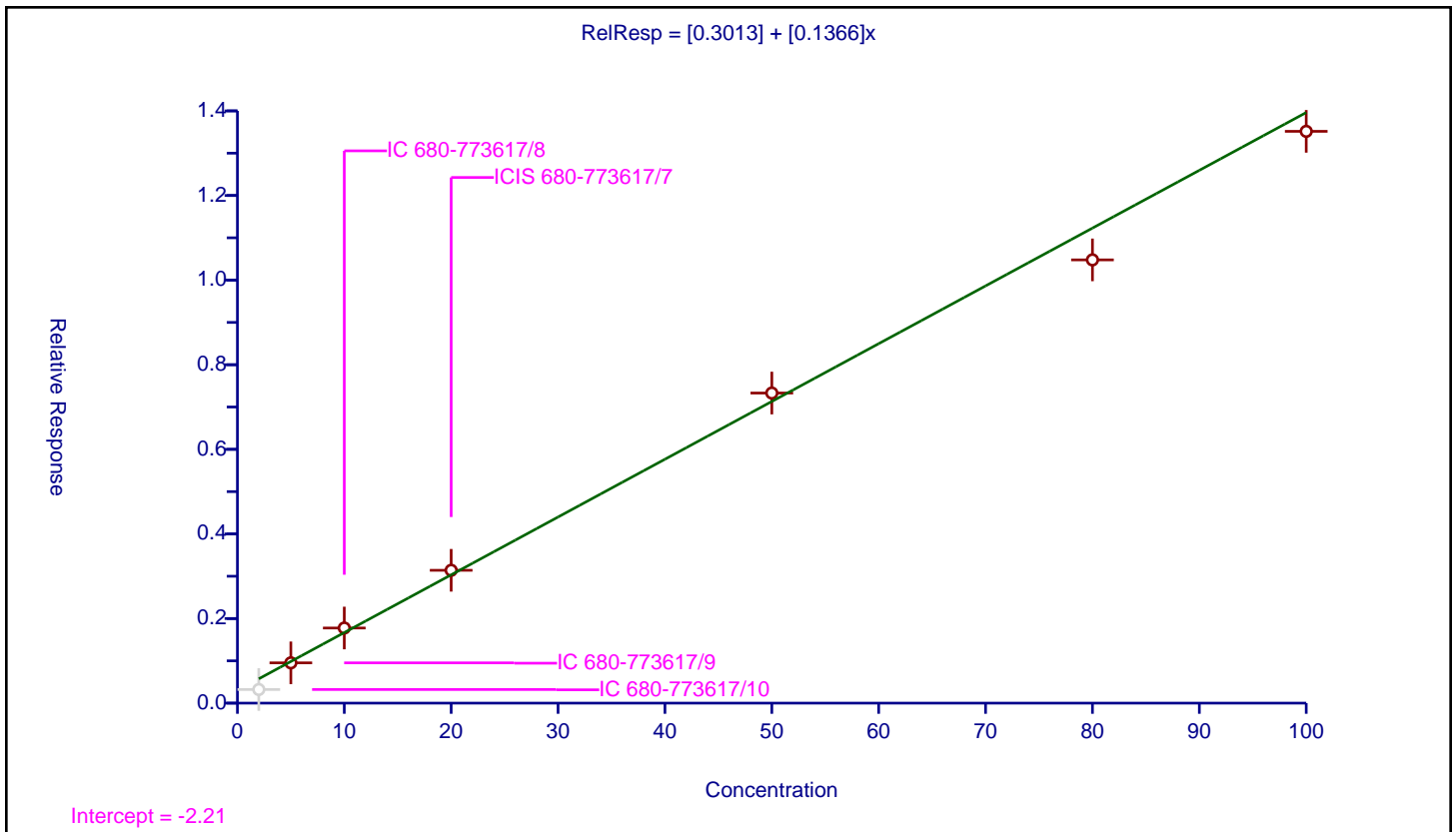
**/ Propylene glycol**

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

Curve Coefficients	
<b>Intercept:</b>	0.3013
<b>Slope:</b>	0.1366

Error Coefficients	
<b>Standard Error:</b>	832000
<b>Relative Standard Error:</b>	6.5
<b>Correlation Coefficient:</b>	0.996
<b>Coefficient of Determination (Adjusted):</b>	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-773617/10	2.0	0.322177	50.0	5134596.0	0.161089	N
2	IC 680-773617/9	5.0	0.952523	50.0	4926759.0	0.190505	Y
3	IC 680-773617/8	10.0	1.77584	50.0	4747950.0	0.177584	Y
4	ICIS 680-773617/7	20.0	3.140272	50.0	5058415.0	0.157014	Y
5	IC 680-773617/6	50.0	7.329912	50.0	4416956.0	0.146598	Y
6	IC 680-773617/5	80.0	10.478342	50.0	4383303.0	0.130979	Y
7	IC 680-773617/4	100.0	13.516248	50.0	4326023.0	0.135162	Y





Calibration

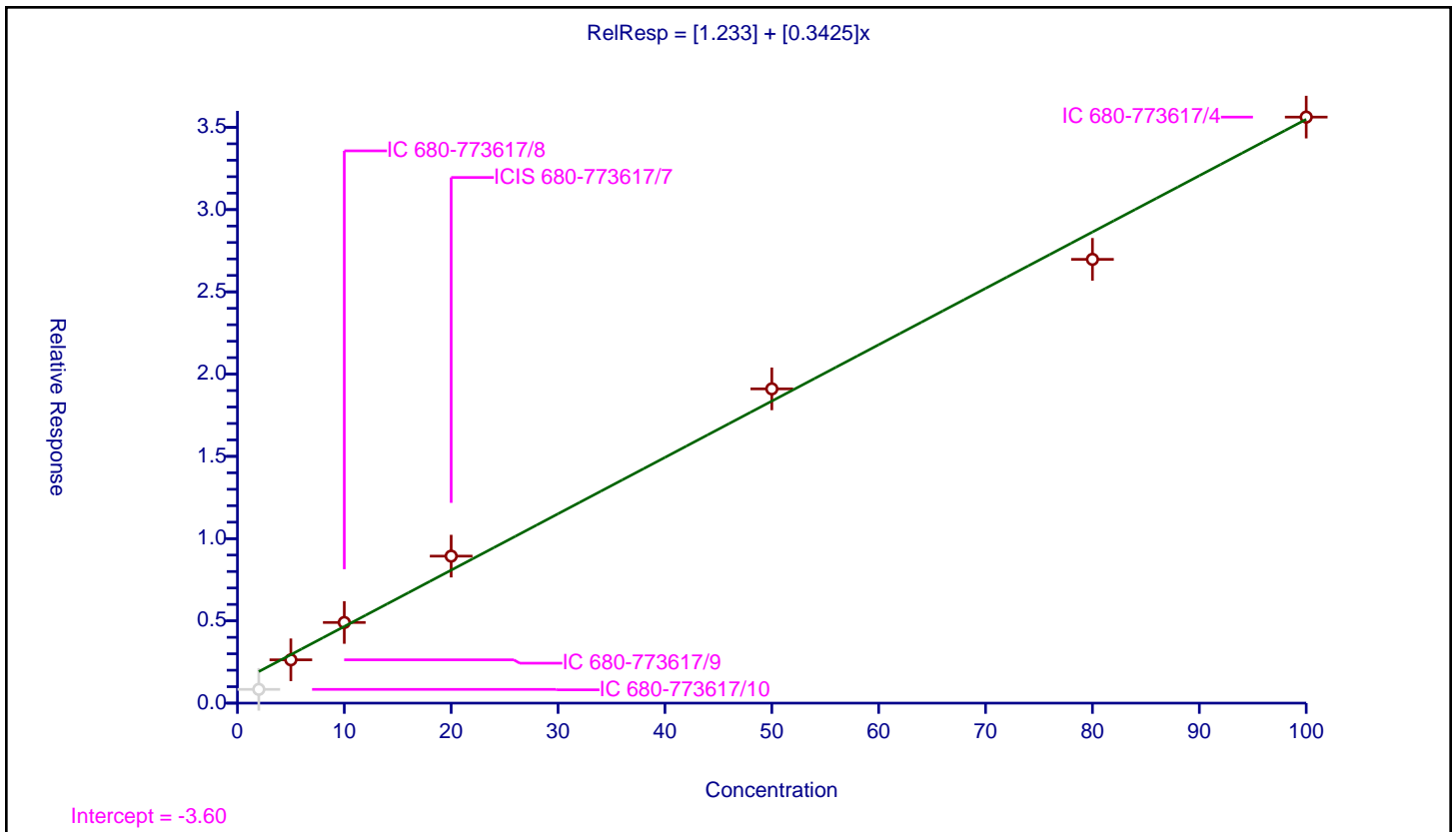
/ Ethylene glycol

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

Curve Coefficients	
Intercept:	1.233
Slope:	0.3425

Error Coefficients	
Standard Error:	2180000
Relative Standard Error:	12.2
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-773617/10	2.0	0.83695	50.0	5134596.0	0.418475	N
2	IC 680-773617/9	5.0	2.633212	50.0	4926759.0	0.526642	Y
3	IC 680-773617/8	10.0	4.903253	50.0	4747950.0	0.490325	Y
4	ICIS 680-773617/7	20.0	8.935151	50.0	5058415.0	0.446758	Y
5	IC 680-773617/6	50.0	19.103088	50.0	4416956.0	0.382062	Y
6	IC 680-773617/5	80.0	26.975092	50.0	4383303.0	0.337189	Y
7	IC 680-773617/4	100.0	35.622626	50.0	4326023.0	0.356226	Y



**Calibration**

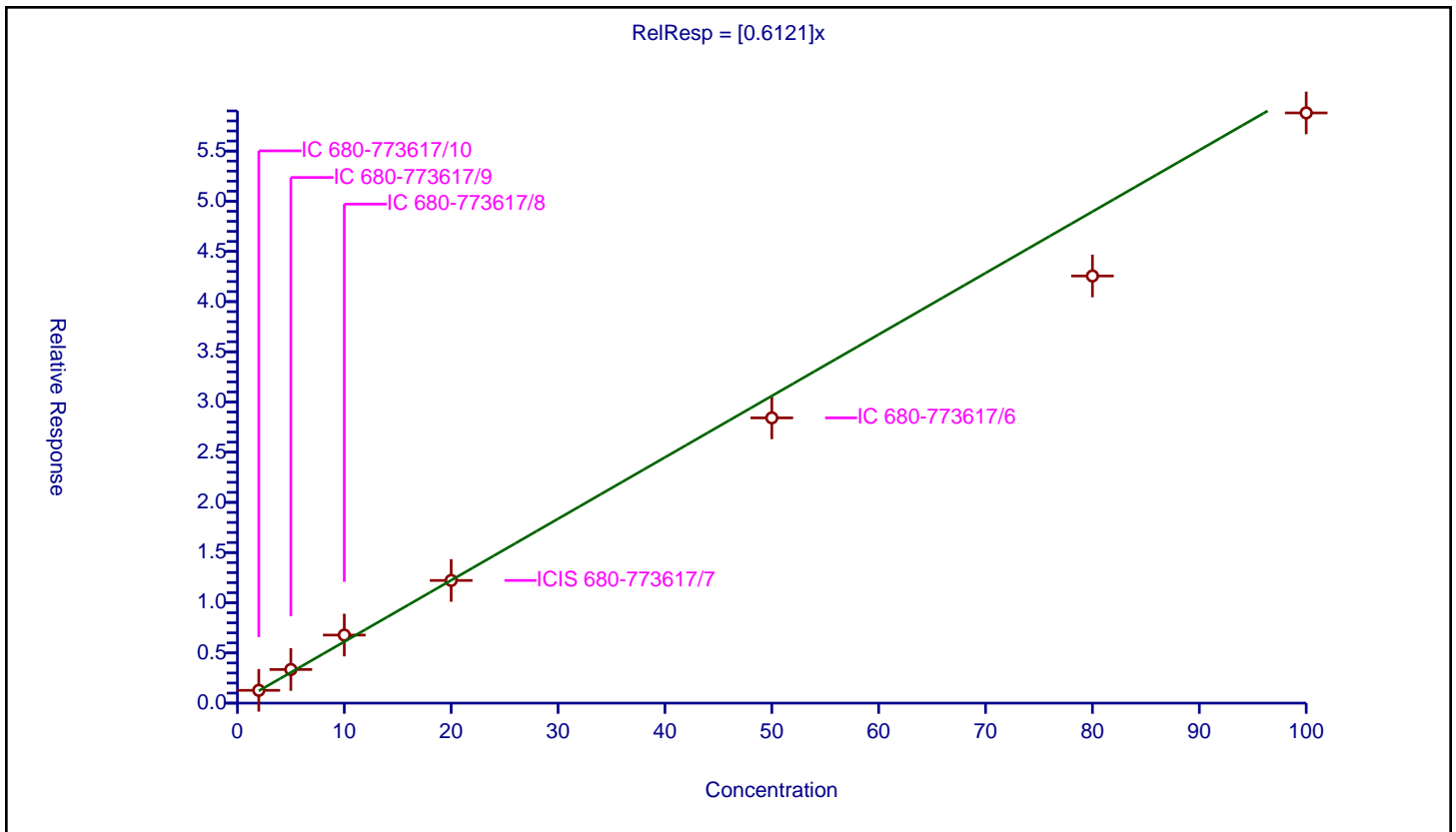
/ 2-(2-Butoxyethoxy)ethanol

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

Curve Coefficients	
Intercept:	0
Slope:	0.6121

Error Coefficients	
Standard Error:	2830000
Relative Standard Error:	8.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-773617/10	2.0	1.273606	50.0	5134596.0	0.636803	Y
2	IC 680-773617/9	5.0	3.351057	50.0	4926759.0	0.670211	Y
3	IC 680-773617/8	10.0	6.781074	50.0	4747950.0	0.678107	Y
4	ICIS 680-773617/7	20.0	12.222949	50.0	5058415.0	0.611147	Y
5	IC 680-773617/6	50.0	28.41741	50.0	4416956.0	0.568348	Y
6	IC 680-773617/5	80.0	42.555089	50.0	4383303.0	0.531939	Y
7	IC 680-773617/4	100.0	58.798821	50.0	4326023.0	0.587988	Y



Calibration

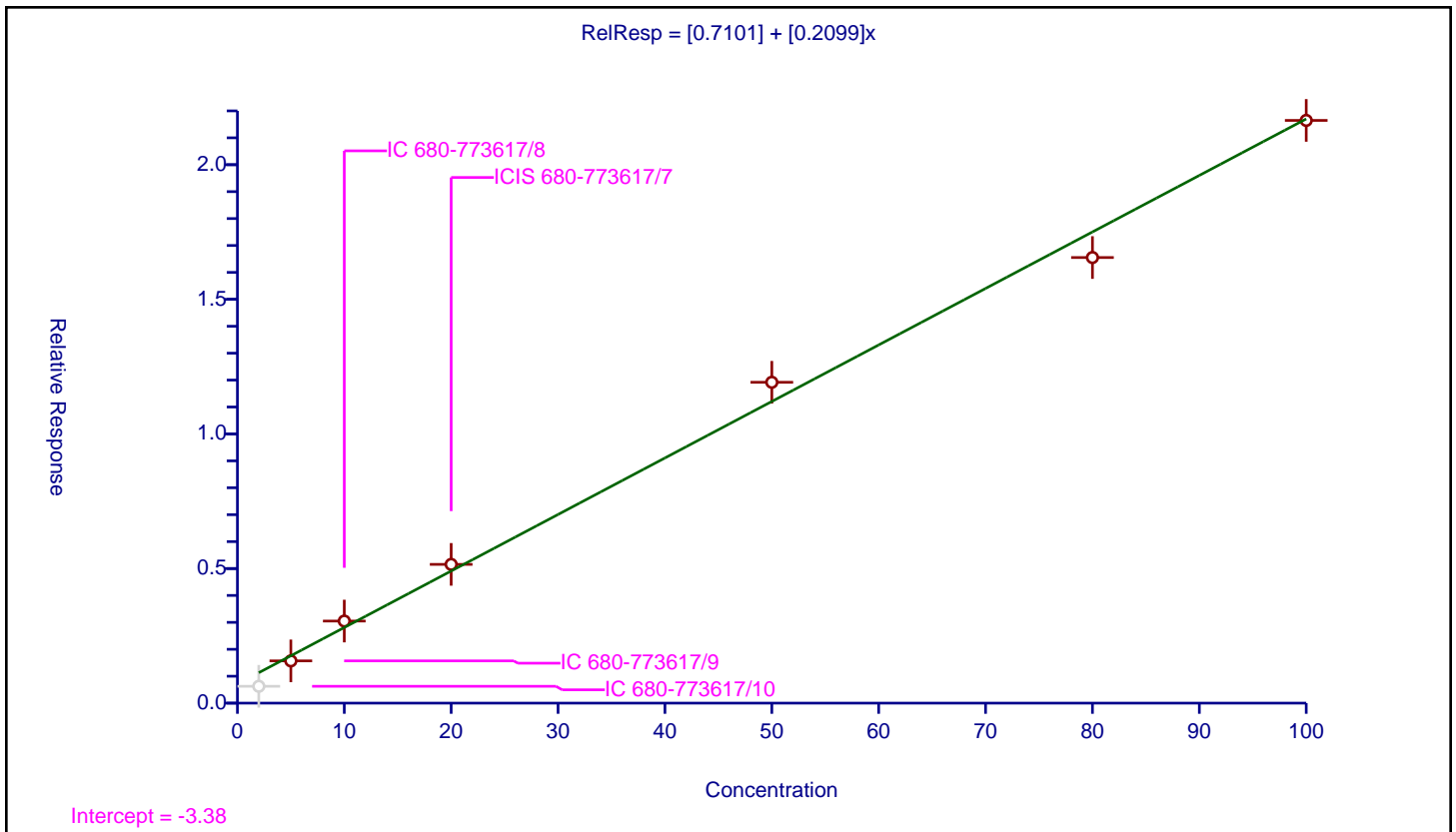
/ 2,2'-Oxybisethanol

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

Curve Coefficients	
Intercept:	0.7101
Slope:	0.2099

Error Coefficients	
Standard Error:	1330000
Relative Standard Error:	11.9
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-773617/10	2.0	0.625629	50.0	5134596.0	0.312814	N
2	IC 680-773617/9	5.0	1.569653	50.0	4926759.0	0.313931	Y
3	IC 680-773617/8	10.0	3.0488	50.0	4747950.0	0.30488	Y
4	ICIS 680-773617/7	20.0	5.153769	50.0	5058415.0	0.257688	Y
5	IC 680-773617/6	50.0	11.917936	50.0	4416956.0	0.238359	Y
6	IC 680-773617/5	80.0	16.552905	50.0	4383303.0	0.206911	Y
7	IC 680-773617/4	100.0	21.645504	50.0	4326023.0	0.216455	Y



Calibration

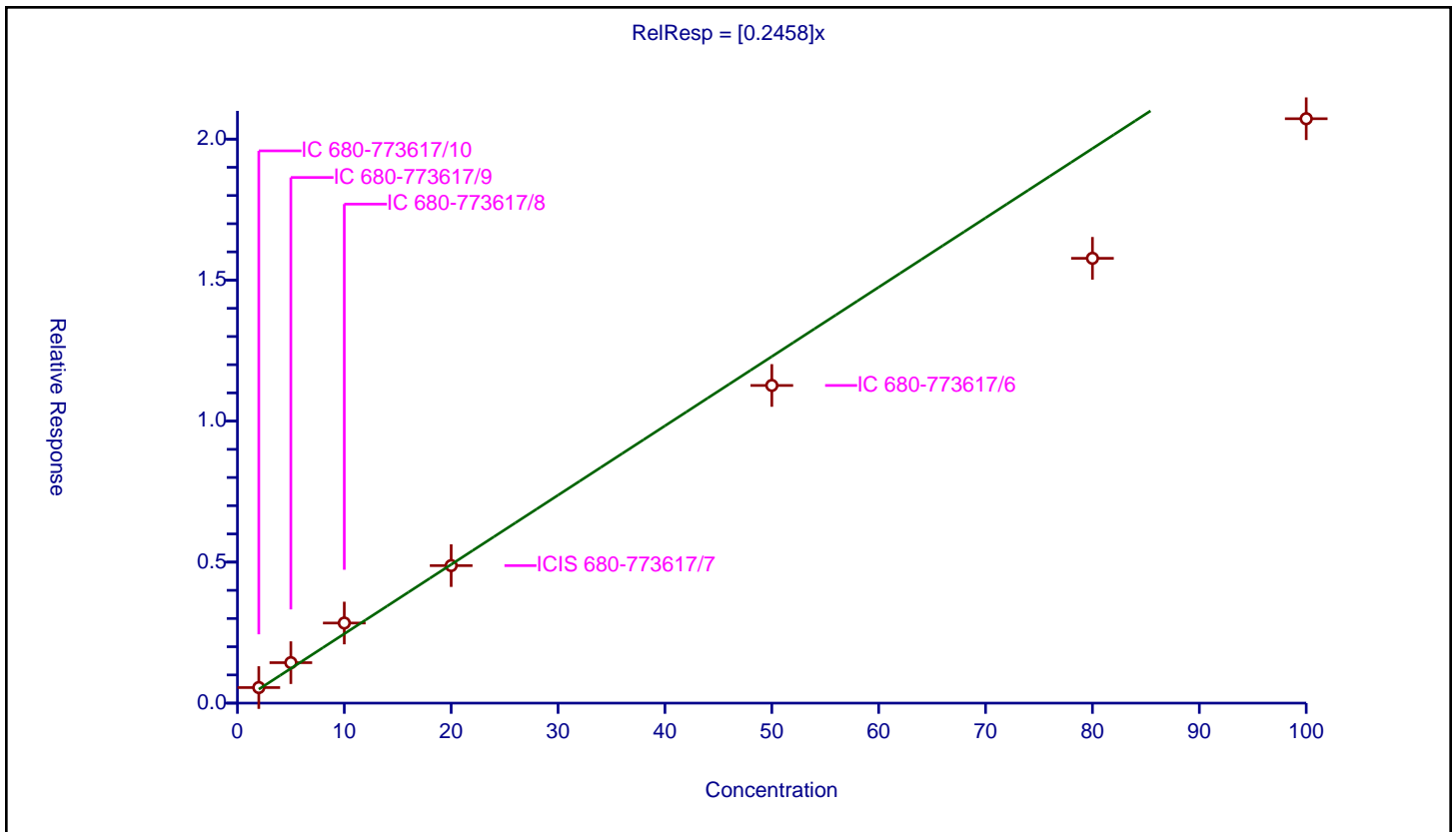
/ Triethylene Glycol

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

Curve Coefficients	
Intercept:	0
Slope:	0.2458

Error Coefficients	
Standard Error:	1040000
Relative Standard Error:	15.2
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.964

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-773617/10	2.0	0.55239	50.0	5134596.0	0.276195	Y
2	IC 680-773617/9	5.0	1.434929	50.0	4926759.0	0.286986	Y
3	IC 680-773617/8	10.0	2.839826	50.0	4747950.0	0.283983	Y
4	ICIS 680-773617/7	20.0	4.87628	50.0	5058415.0	0.243814	Y
5	IC 680-773617/6	50.0	11.264126	50.0	4416956.0	0.225283	Y
6	IC 680-773617/5	80.0	15.77241	50.0	4383303.0	0.197155	Y
7	IC 680-773617/4	100.0	20.722185	50.0	4326023.0	0.207222	Y



**Calibration**

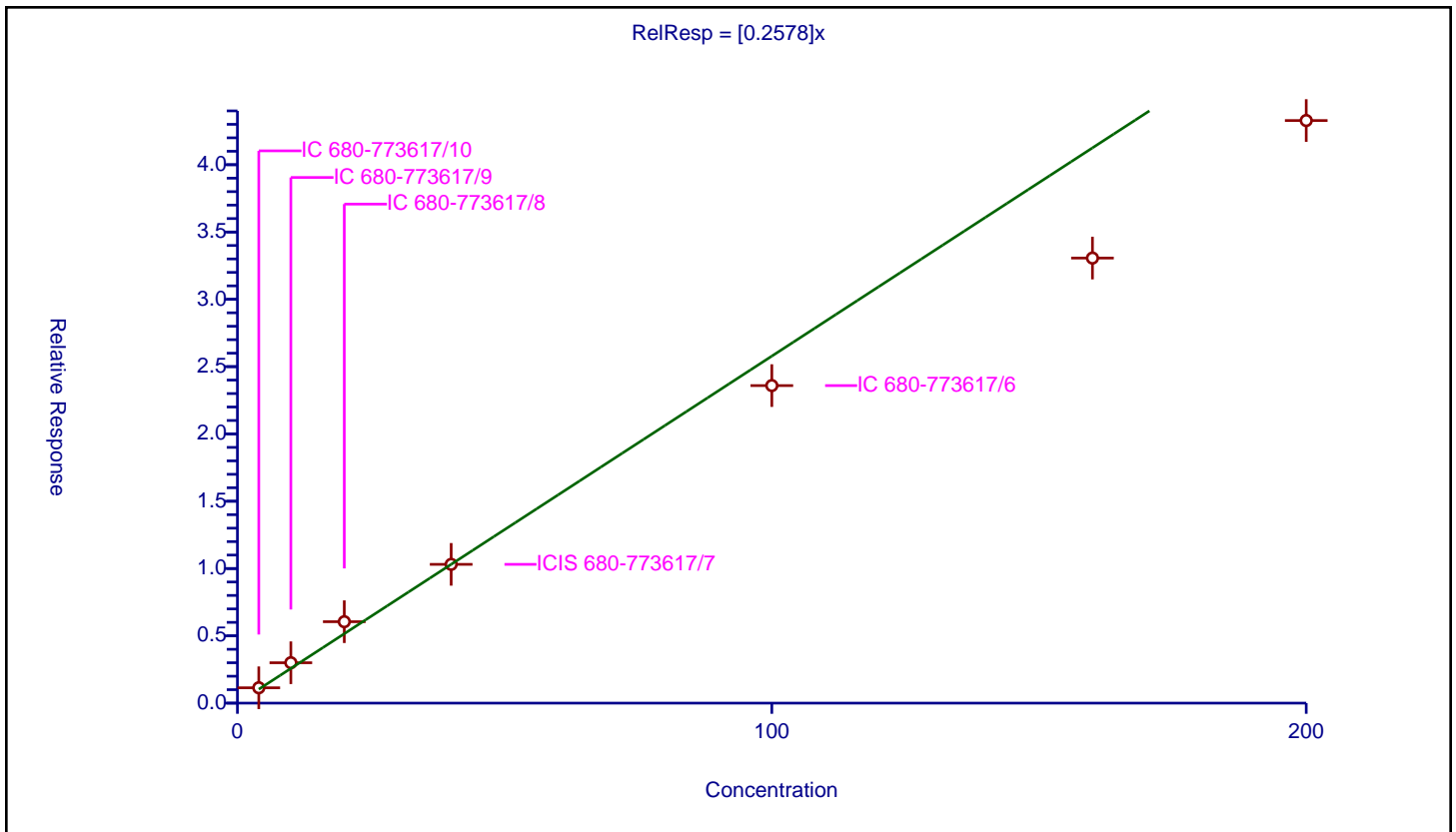
/ Tetraethylene Glycol

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

Curve Coefficients	
Intercept:	0
Slope:	0.2578

Error Coefficients	
Standard Error:	2170000
Relative Standard Error:	15.3
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.964

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-773617/10	4.0	1.14155	50.0	5134596.0	0.285388	Y
2	IC 680-773617/9	10.0	3.001507	50.0	4926759.0	0.300151	Y
3	IC 680-773617/8	20.0	6.049221	50.0	4747950.0	0.302461	Y
4	ICIS 680-773617/7	40.0	10.309484	50.0	5058415.0	0.257737	Y
5	IC 680-773617/6	100.0	23.592119	50.0	4416956.0	0.235921	Y
6	IC 680-773617/5	160.0	33.064712	50.0	4383303.0	0.206654	Y
7	IC 680-773617/4	200.0	43.283392	50.0	4326023.0	0.216417	Y



FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 680-773617/11 Calibration Date: 04/16/2023 22:38  
 Instrument ID: CVGG2 Calib Start Date: 04/16/2023 19:56  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/16/2023 22:15  
 Lab File ID: GD16018.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.7743	0.7539		19.5	20.0	-2.6	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6939	0.7216		20.8	20.0	4.0	20.0
2-Butoxyethanol	Ave	0.7759	0.8075		20.8	20.0	4.1	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0616	0.0624		20.2	20.0	1.2	20.0
Propylene glycol	Lin2		0.1371		17.9	20.0	-10.6	20.0
Ethylene glycol	Lin1		0.3981		19.6	20.0	-1.8	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.6121	0.6218		20.3	20.0	1.6	20.0
2,2'-Oxybisethanol	Lin1		0.2161		17.2	20.0	-14.0	20.0
Triethylene Glycol	Ave	0.2458	0.2222		18.1	20.0	-9.6	20.0
Tetraethylene Glycol	Ave	0.2578	0.2303		35.7	40.0	-10.7	20.0

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 680-773617/11 Calibration Date: 04/16/2023 22:38  
 Instrument ID: CVGG2 Calib Start Date: 04/16/2023 19:56  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/16/2023 22:15  
 Lab File ID: GD16018.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.25	2.21	2.30
4-Hydroxy-4-methyl-2-pentanone	2.61	2.57	2.67
2-Butoxyethanol	2.79	2.74	2.85
Dipropylene Glycol Methyl Ether	3.87	3.80	3.96
Propylene glycol	4.82	4.73	4.93
Ethylene glycol	5.04	4.95	5.15
2-(2-Butoxyethoxy)ethanol	6.71	6.58	6.84
2,2'-Oxybisethanol	8.82	8.65	9.00
Triethylene Glycol	10.07	9.87	10.28
Tetraethylene Glycol	10.91	10.70	11.13

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16018.D  
 Lims ID: icv glycol  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 16-Apr-2023 22:38:49 ALS Bottle#: 0 Worklist Smp#: 11  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085300-011  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 17-Apr-2023 13:09:50 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1630

First Level Reviewer: SK9U Date: 17-Apr-2023 10:16:35

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.248	2.252	-0.004	1556415	20.0	19.5	
2 4-Hydroxy-4-methyl-2-pentanone						
2.614	2.617	-0.003	1489874	20.0	20.8	
3 2-Butoxyethanol						
2.794	2.795	-0.001	1667191	20.0	20.8	
* 4 n-Heptyl Alcohol						
3.103	3.094	0.009	5161550	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
3.866	3.879	-0.013	128786	20.0	20.2	
6 Propylene glycol						
4.820	4.831	-0.011	283107	20.0	17.9	
7 Ethylene glycol						
5.042	5.049	-0.007	822022	20.0	19.6	
8 2-(2-Butoxyethoxy)ethanol						
6.709	6.709	0.000	1283800	20.0	20.3	
9 2,2'-Oxybisethanol						
8.819	8.828	-0.009	446111	20.0	17.2	
10 Triethylene Glycol						
10.070	10.074	-0.004	458670	20.0	18.1	
11 Tetraethylene Glycol						
10.911	10.915	-0.004	950896	40.0	35.7	M M

**QC Flag Legend**  
Processing Flags



Review Flags

M - Manually Integrated

Reagents:

SG\_GlyICV\_00052

Amount Added: 10.00

Units: uL

SG\_GLY\_ISTD\_00110

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16018.D

Injection Date: 16-Apr-2023 22:38:49

Instrument ID: CVGG2

Operator ID:

Lims ID: icv glycol

Worklist Smp#: 11

Client ID:

Injection Vol: 1.0 ul

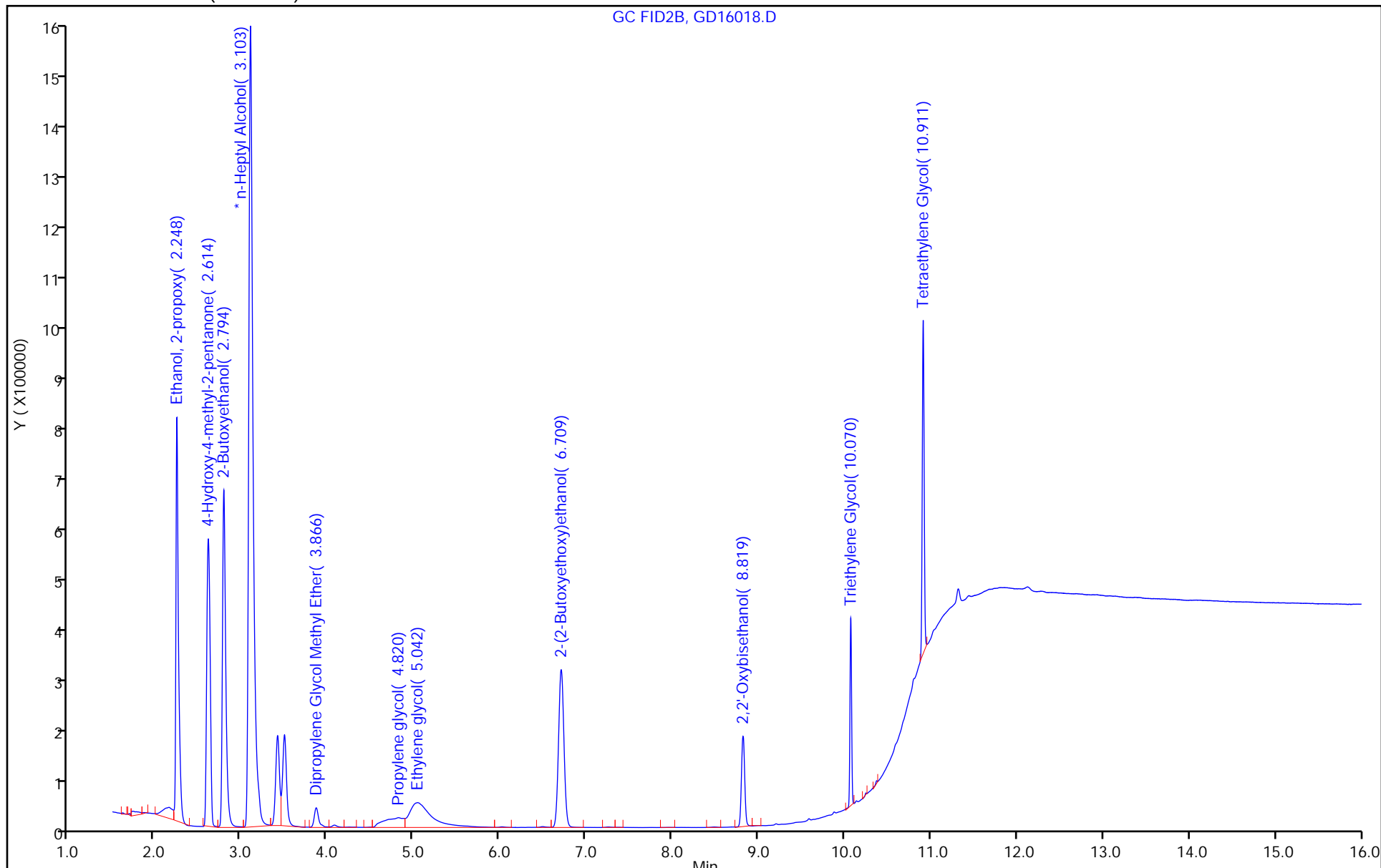
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

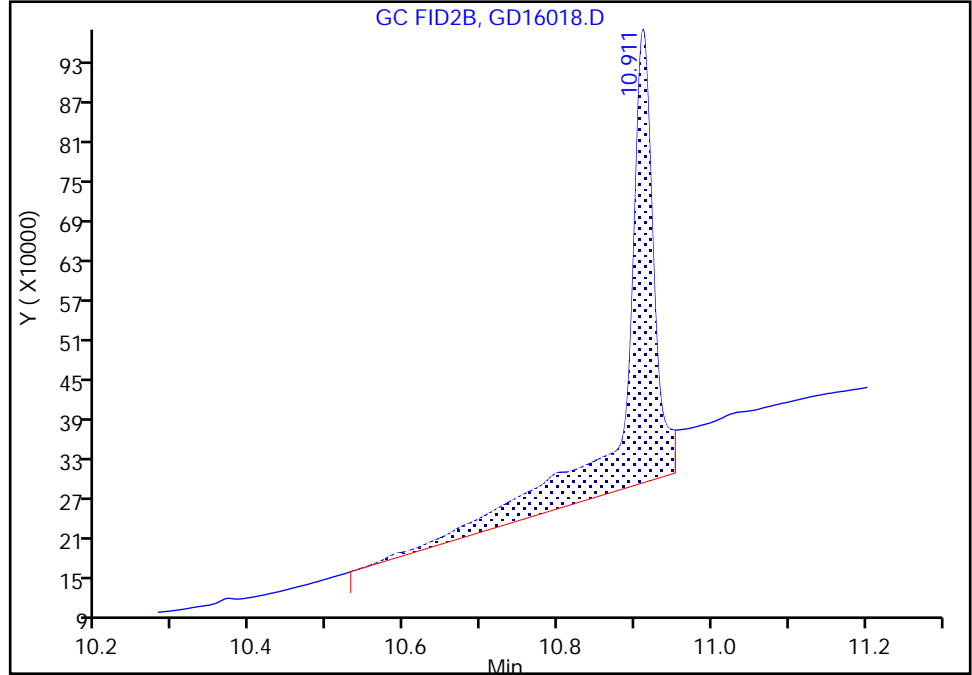
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16018.D  
Injection Date: 16-Apr-2023 22:38:49 Instrument ID: CVGG2  
Lims ID: icv glycol  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

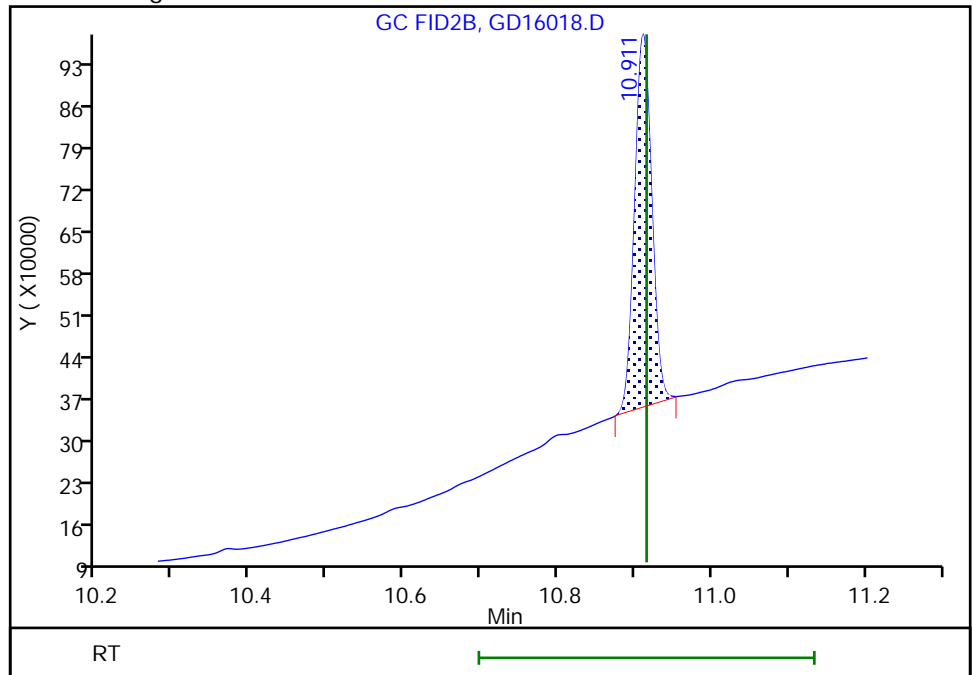
RT: 10.91  
Area: 1776068  
Amount: 66.732208  
Amount Units: ug/ml

Processing Integration Results



RT: 10.91  
Area: 950896  
Amount: 35.728018  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 17-Apr-2023 10:16:32  
Audit Action: Manually Integrated

Audit Reason: Shouldering  
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FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 680-776112/4 Calibration Date: 05/01/2023 01:14  
 Instrument ID: CVGG2 Calib Start Date: 04/16/2023 19:56  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/16/2023 22:15  
 Lab File ID: GD30004.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.7743	0.8110		20.9	20.0	4.7	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6939	0.8134		23.4	20.0	17.2	20.0
2-Butoxyethanol	Ave	0.7759	0.8595		22.2	20.0	10.8	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0616	0.0633		20.5	20.0	2.7	20.0
Propylene glycol	Lin2		0.1565		20.7	20.0	3.6	20.0
Ethylene glycol	Lin1		0.4205		21.0	20.0	4.8	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.6121	0.6651		21.7	20.0	8.7	20.0
2,2'-Oxybisethanol	Lin1		0.2594		21.3	20.0	6.7	20.0
Triethylene Glycol	Ave	0.2458	0.2628		21.4	20.0	6.9	20.0
Tetraethylene Glycol	Ave	0.2578	0.2679		41.6	40.0	3.9	20.0

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 680-776112/4 Calibration Date: 05/01/2023 01:14  
 Instrument ID: CVGG2 Calib Start Date: 04/16/2023 19:56  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/16/2023 22:15  
 Lab File ID: GD30004.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.27	2.23	2.32
4-Hydroxy-4-methyl-2-pentanone	2.63	2.58	2.69
2-Butoxyethanol	2.81	2.75	2.87
Dipropylene Glycol Methyl Ether	3.87	3.79	3.95
Propylene glycol	4.82	4.73	4.92
Ethylene glycol	5.04	4.94	5.14
2-(2-Butoxyethoxy)ethanol	6.70	6.56	6.83
2,2'-Oxybisethanol	8.82	8.64	9.00
Triethylene Glycol	10.07	9.87	10.27
Tetraethylene Glycol	10.91	10.69	11.13

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30004.D  
 Lims ID: ccvis g4  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 01-May-2023 01:14:55 ALS Bottle#: 0 Worklist Smp#: 4  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085636-004  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 13:00:18 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1659

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy	2.272	2.272	0.000	1491623	20.0	20.9
2 4-Hydroxy-4-methyl-2-pentanone	2.632	2.632	0.000	1496137	20.0	23.4
3 2-Butoxyethanol	2.809	2.809	0.000	1580882	20.0	22.2
* 4 n-Heptyl Alcohol	3.113	3.113	0.000	4598154	50.0	50.0
5 Dipropylene Glycol Methyl Ether	3.868	3.868	0.000	116378	20.0	20.5
6 Propylene glycol	4.824	4.824	0.000	287913	20.0	20.7
7 Ethylene glycol	5.036	5.036	0.000	773383	20.0	21.0
8 2-(2-Butoxyethoxy)ethanol	6.697	6.697	0.000	1223335	20.0	21.7
9 2,2'-Oxybisethanol	8.819	8.819	0.000	477188	20.0	21.3
10 Triethylene Glycol	10.071	10.071	0.000	483368	20.0	21.4
11 Tetraethylene Glycol	10.911	10.911	0.000	985506	40.0	41.6

Reagents:

SG\_Gly\_CAL\_00049 Amount Added: 10.00 Units: uL  
 SG\_GLY\_ISTD\_00117 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30004.D

Injection Date: 01-May-2023 01:14:55

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis g4

Worklist Smp#: 4

Client ID:

Injection Vol: 1.0 ul

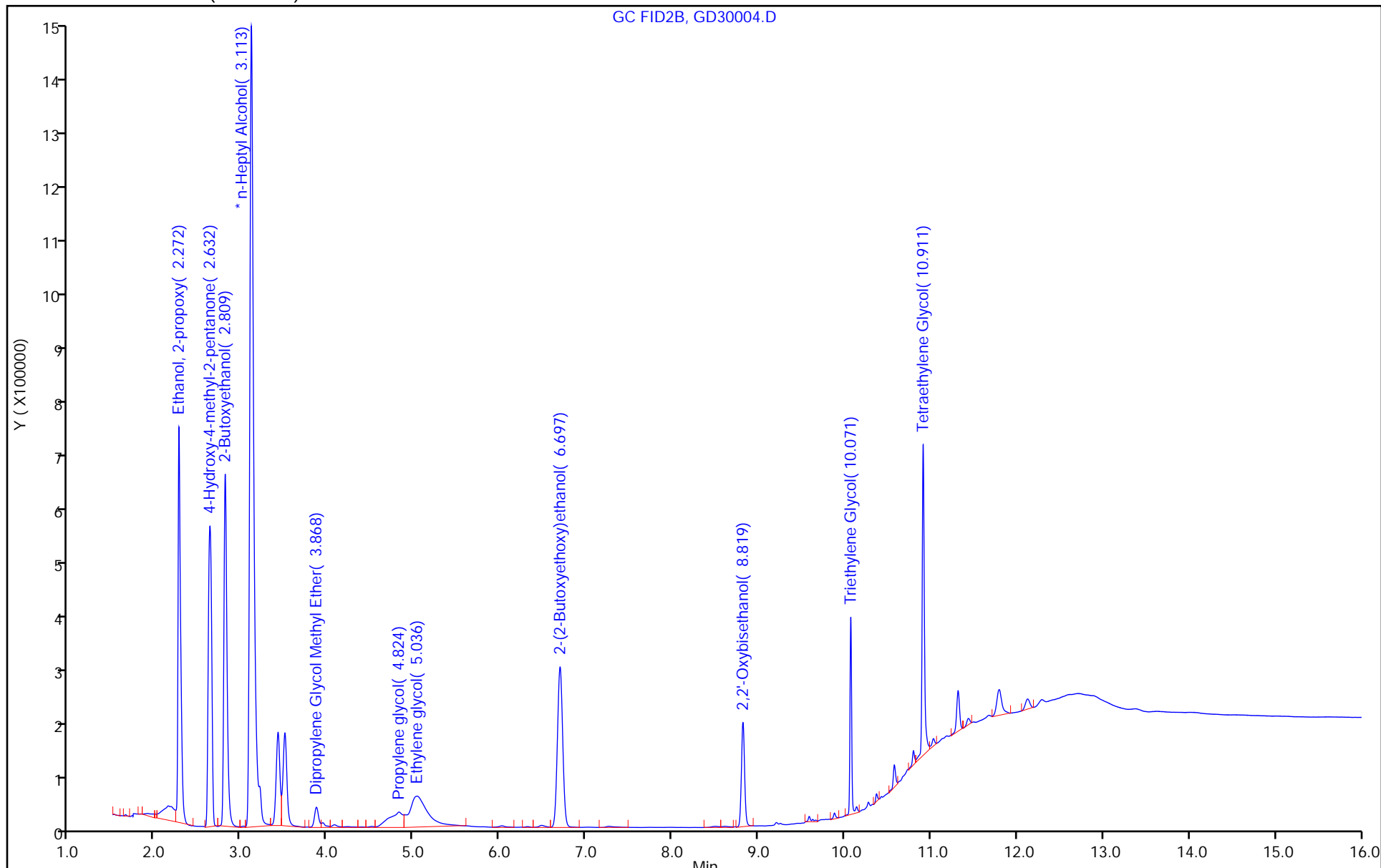
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 680-776112/26 Calibration Date: 05/01/2023 09:44  
 Instrument ID: CVGG2 Calib Start Date: 04/16/2023 19:56  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/16/2023 22:15  
 Lab File ID: GD30026.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.7743	0.6703		17.3	20.0	-13.4	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6939	0.5838		16.8	20.0	-15.9	20.0
2-Butoxyethanol	Ave	0.7759	0.6951		17.9	20.0	-10.4	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0616	0.0524		17.0	20.0	-14.9	20.0
Propylene glycol	Lin2		0.1295		16.8	20.0	-16.2	20.0
Ethylene glycol	Lin1		0.3341		15.9	20.0	-20.5*	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.6121	0.4826		15.8	20.0	-21.2*	20.0
2,2'-Oxybisethanol	Lin1		0.1391		9.87	20.0	-50.7*	20.0
Triethylene Glycol	Ave	0.2458	0.0645		5.25	20.0	-73.8*	20.0
Tetraethylene Glycol	Ave	0.2578	0.0094		10.0	40.0	-96.3*	20.0



FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 680-776112/26 Calibration Date: 05/01/2023 09:44  
 Instrument ID: CVGG2 Calib Start Date: 04/16/2023 19:56  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/16/2023 22:15  
 Lab File ID: GD30026.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.25	2.20	2.29
4-Hydroxy-4-methyl-2-pentanone	2.60	2.55	2.66
2-Butoxyethanol	2.79	2.73	2.84
Dipropylene Glycol Methyl Ether	3.85	3.77	3.93
Propylene glycol	4.81	4.71	4.91
Ethylene glycol	5.04	4.93	5.14
2-(2-Butoxyethoxy)ethanol	6.69	6.56	6.82
2,2'-Oxybisethanol	8.83	8.65	9.00
Triethylene Glycol	10.08	9.87	10.28
Tetraethylene Glycol	10.93	10.72	11.15

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30026.D  
 Lims ID: ccv g4  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 01-May-2023 09:44:43 ALS Bottle#: 0 Worklist Smp#: 26  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085636-026  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 13:00:22 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1659

First Level Reviewer: SK9U Date: 01-May-2023 11:38:46

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.246	2.246	0.000	1522139	20.0	17.3	
2 4-Hydroxy-4-methyl-2-pentanone						M
2.603	2.603	0.000	1325730	20.0	16.8	M
3 2-Butoxyethanol						M
2.787	2.787	0.000	1578443	20.0	17.9	M
* 4 n-Heptyl Alcohol						M
3.098	3.098	0.000	5676804	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						M
3.848	3.848	0.000	119070	20.0	17.0	M
6 Propylene glycol						M
4.810	4.810	0.000	294043	20.0	16.8	M
7 Ethylene glycol						M
5.035	5.035	0.000	758652	20.0	15.9	M
8 2-(2-Butoxyethoxy)ethanol						M
6.689	6.689	0.000	1095813	20.0	15.8	M
9 2,2'-Oxybisethanol						
8.826	8.826	0.000	315794	20.0	9.87	
10 Triethylene Glycol						
10.076	10.076	0.000	146507	20.0	5.25	
11 Tetraethylene Glycol						
10.934	10.934	0.000	42747	40.0	1.46	

QC Flag Legend  
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 10.00

Units: uL

SG\_GLY\_ISTD\_00117

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30026.D

Injection Date: 01-May-2023 09:44:43

Instrument ID: CVGG2

Operator ID:

Lims ID: ccv g4

Worklist Smp#: 26

Client ID:

Injection Vol: 1.0 ul

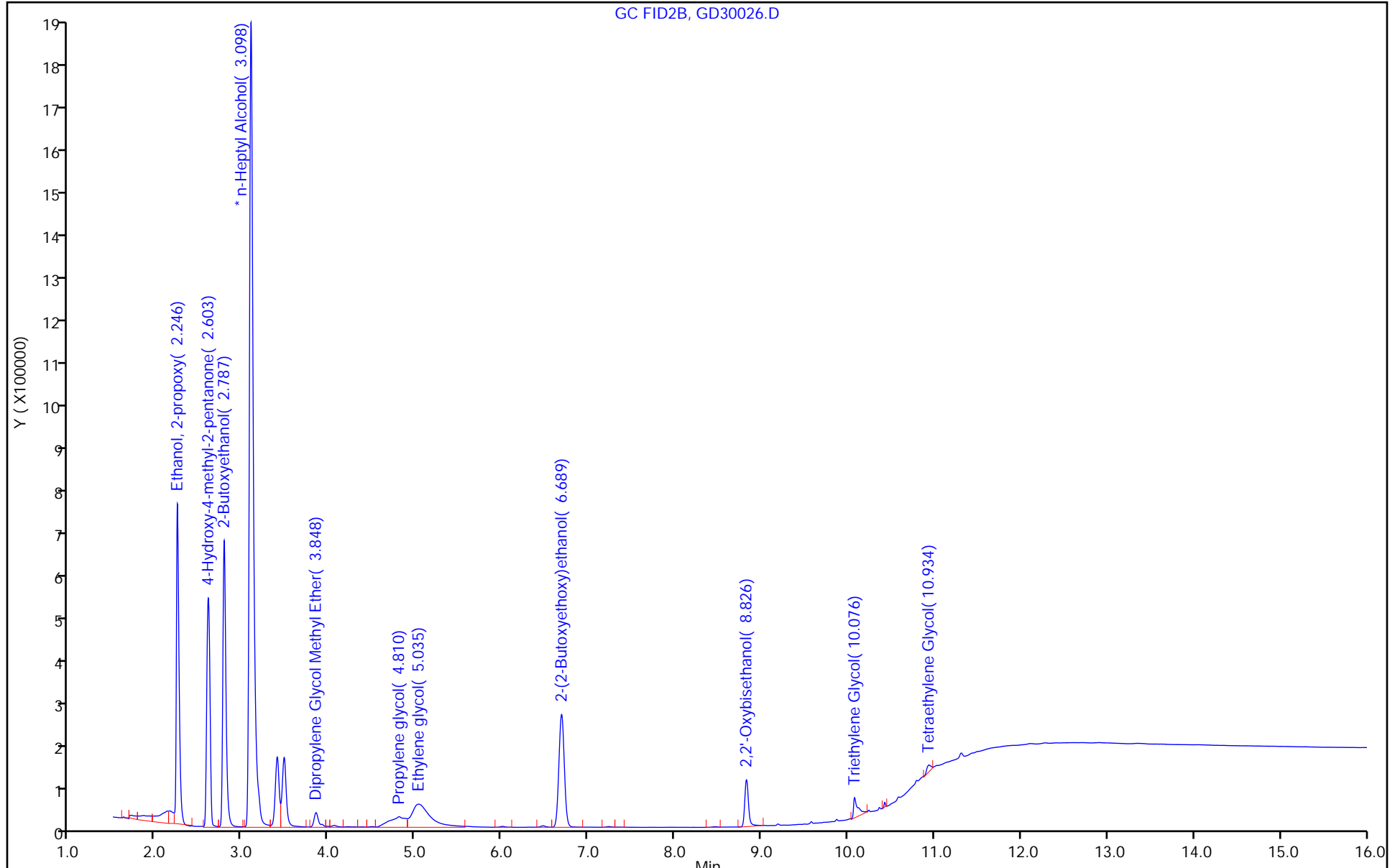
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

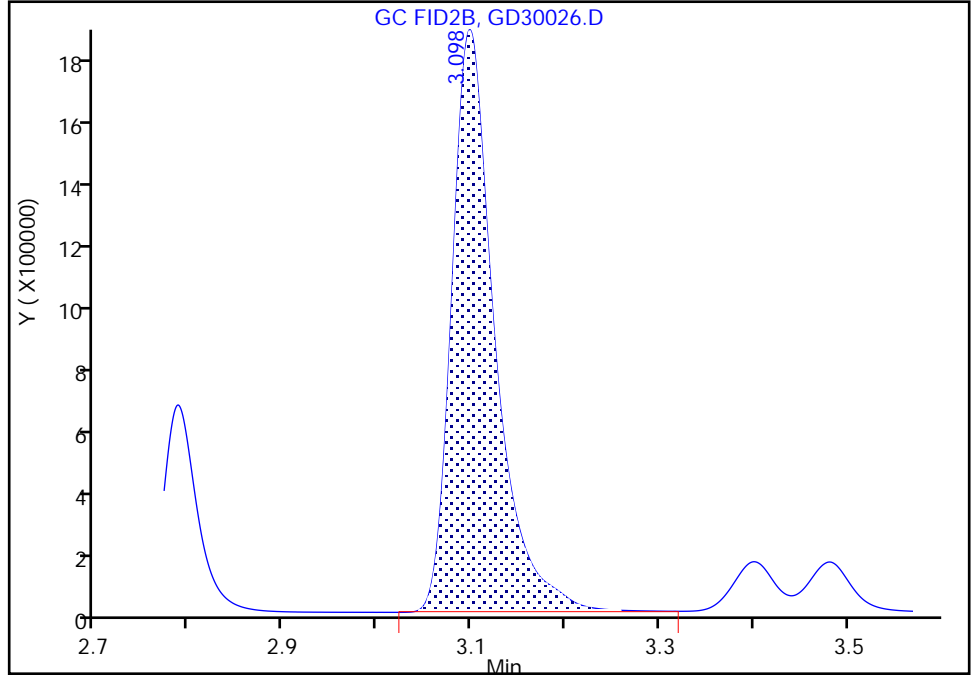
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30026.D  
Injection Date: 01-May-2023 09:44:43 Instrument ID: CVGG2  
Lims ID: ccv g4  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 26  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

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

Signal: 1

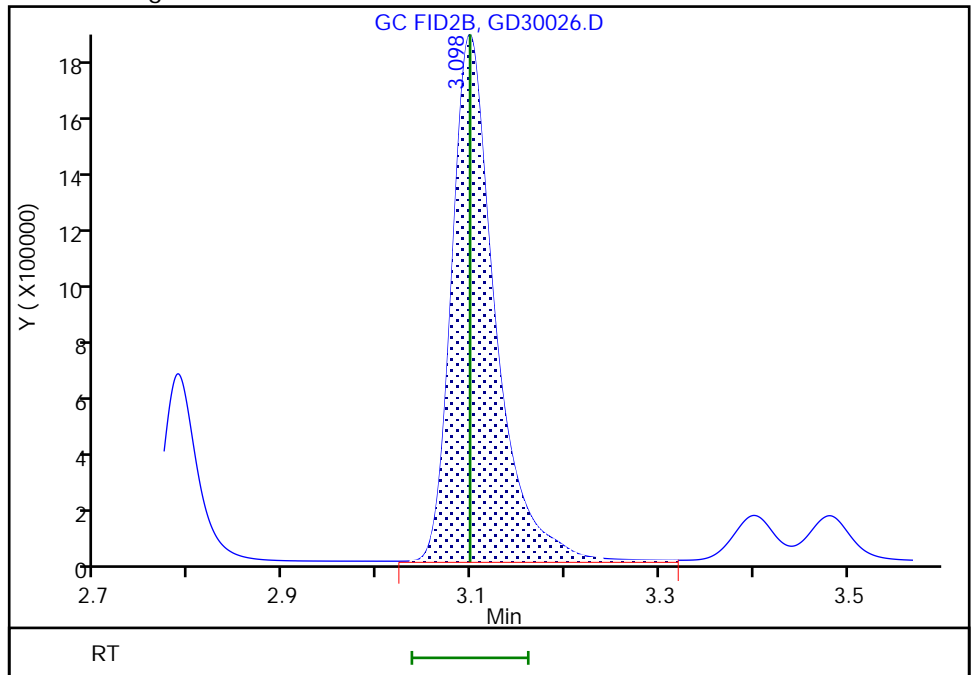
Processing Integration Results

RT: 3.10  
Area: 5648190  
Amount: 50.000000  
Amount Units: ug/ml



Manual Integration Results

RT: 3.10  
Area: 5676804  
Amount: 50.000000  
Amount Units: ug/ml



Reviewer: SK9U, 01-May-2023 11:37:52  
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

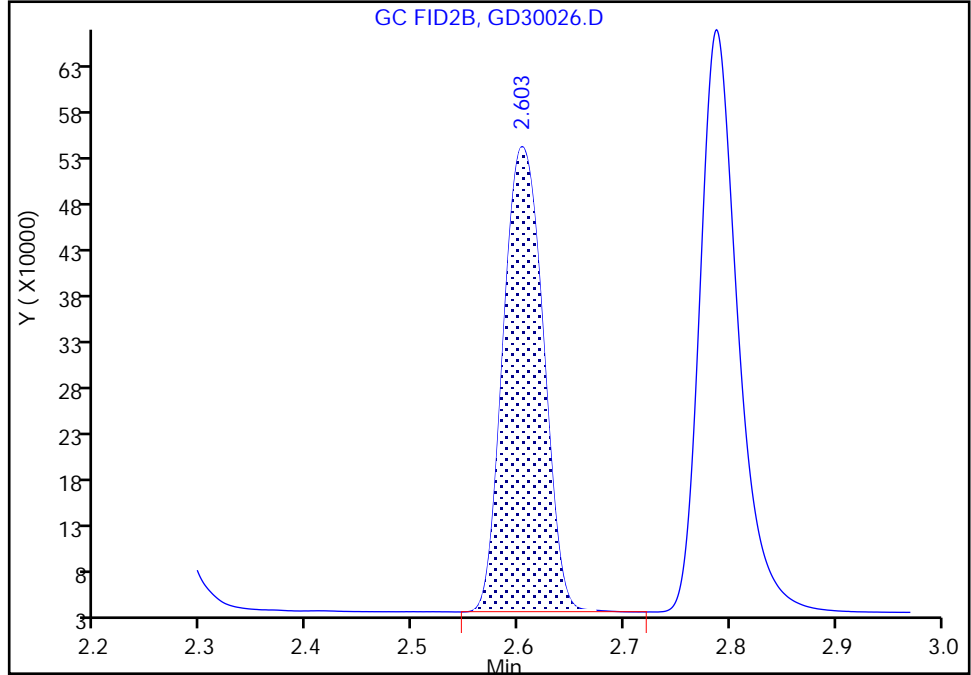
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Injection Date: 01-May-2023 09:44:43 Instrument ID: CVGG2  
Lims ID: ccv g4  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 26  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

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

Signal: 1

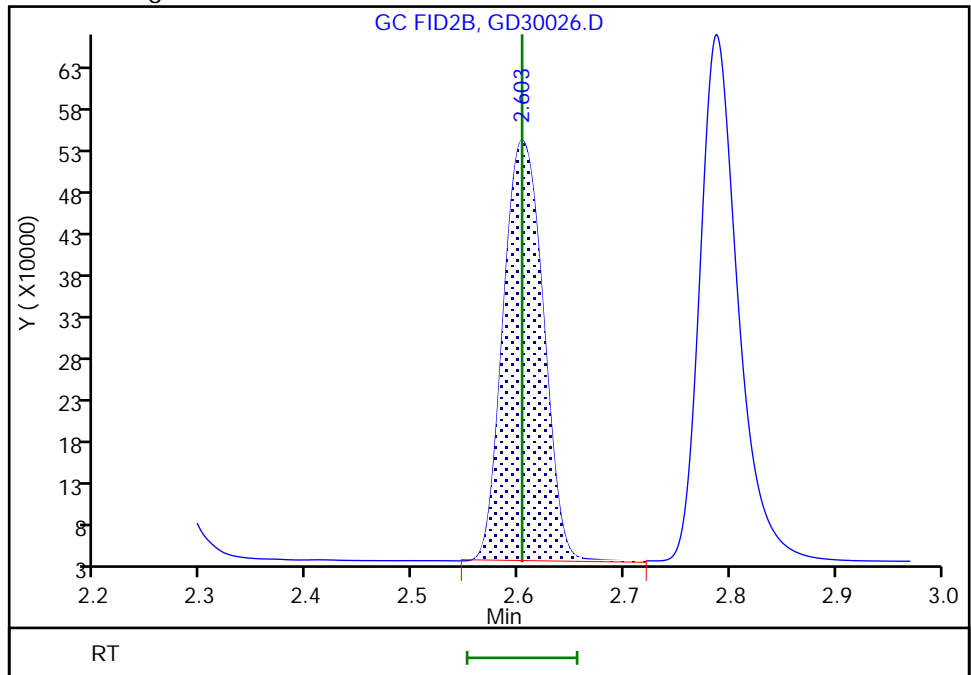
RT: 2.60  
Area: 1324370  
Amount: 16.894599  
Amount Units: ug/ml

Processing Integration Results



RT: 2.60  
Area: 1325730  
Amount: 16.826703  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 01-May-2023 11:37:52  
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

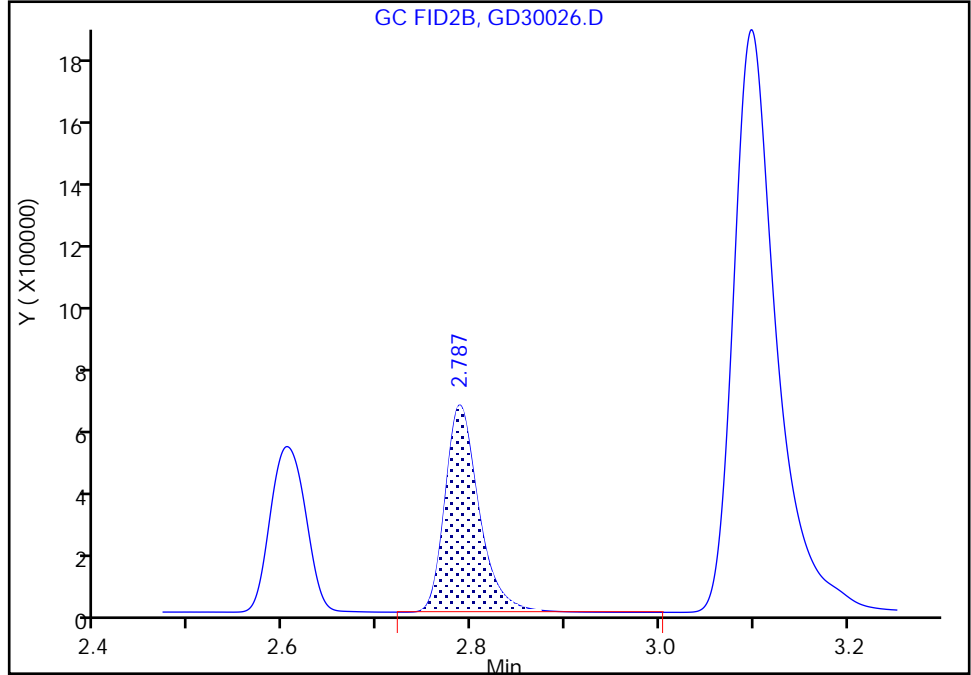
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Injection Date: 01-May-2023 09:44:43 Instrument ID: CVGG2  
Lims ID: ccv g4  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 26  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

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

Signal: 1

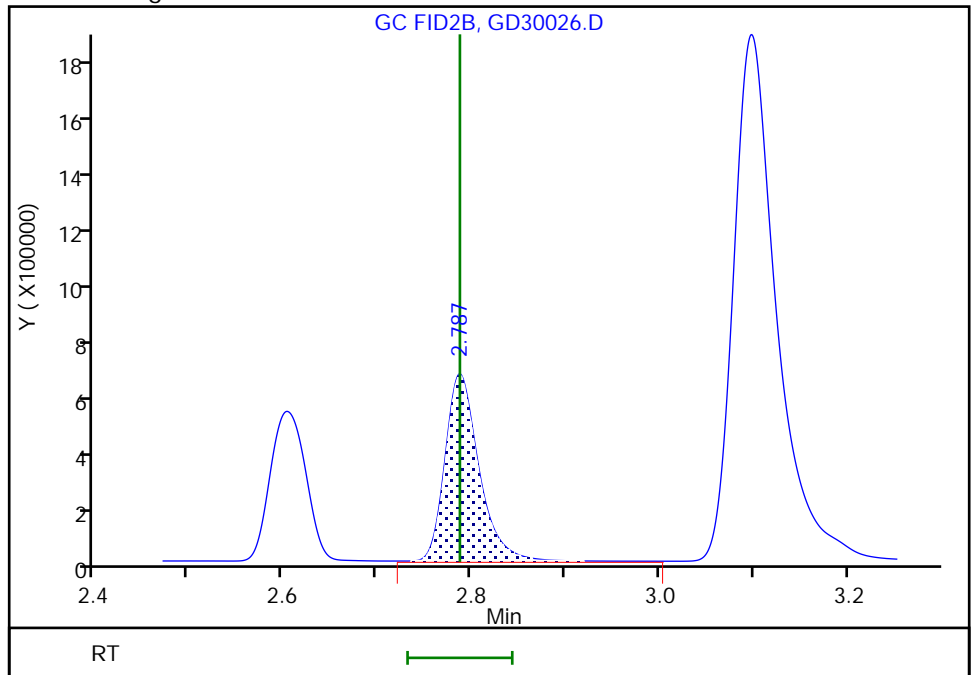
RT: 2.79  
Area: 1577816  
Amount: 18.002638  
Amount Units: ug/ml

Processing Integration Results



RT: 2.79  
Area: 1578443  
Amount: 17.919014  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 01-May-2023 11:37:52  
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Savannah

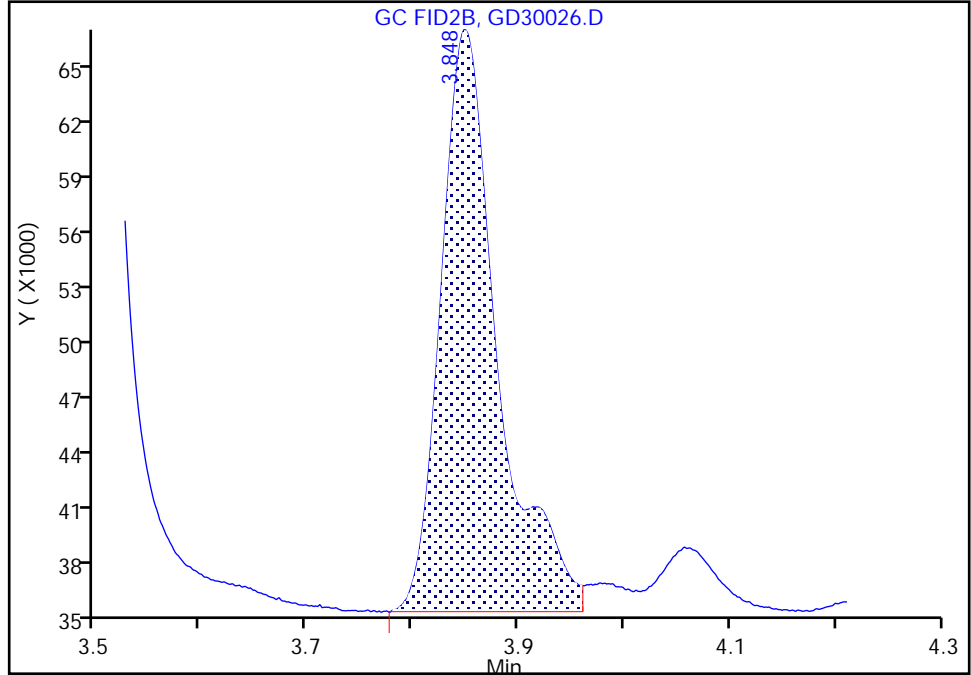
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30026.D  
Injection Date: 01-May-2023 09:44:43 Instrument ID: CVGG2  
Lims ID: ccv g4  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 26  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

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

Signal: 1

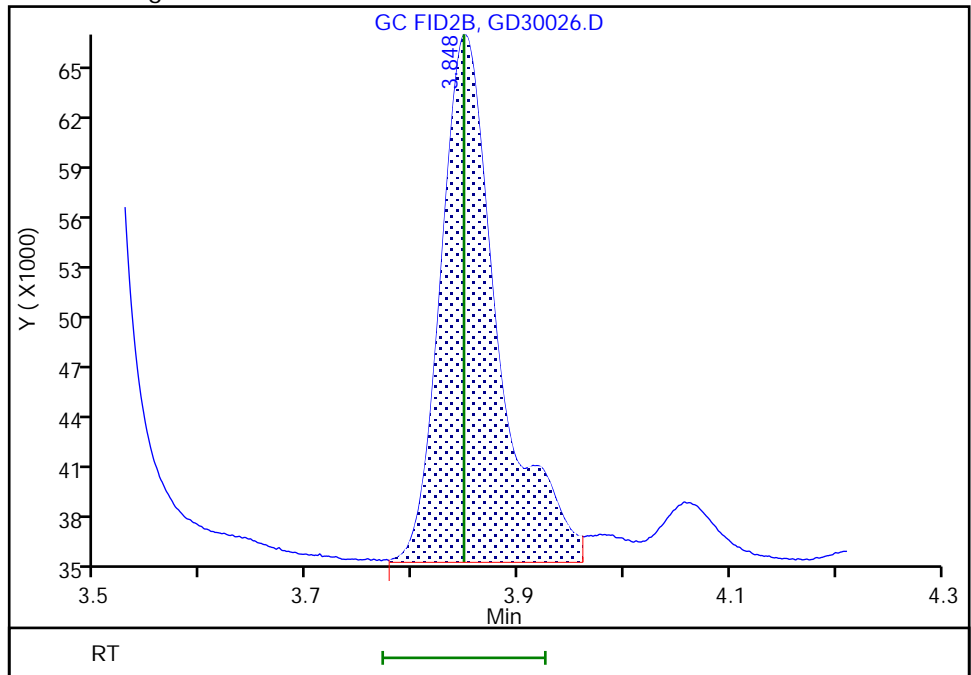
RT: 3.85  
Area: 118647  
Amount: 17.042187  
Amount Units: ug/ml

Processing Integration Results



RT: 3.85  
Area: 119070  
Amount: 17.016738  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 01-May-2023 11:37:48  
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing



Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30026.D  
Injection Date: 01-May-2023 09:44:43 Instrument ID: CVGG2  
Lims ID: ccv g4  
Client ID:  
Operator ID:  
Injection Vol: 1.0 ul  
Method: 8015\_GLY\_VGG  
Column: J&W DB WAX ( 0.45 mm)

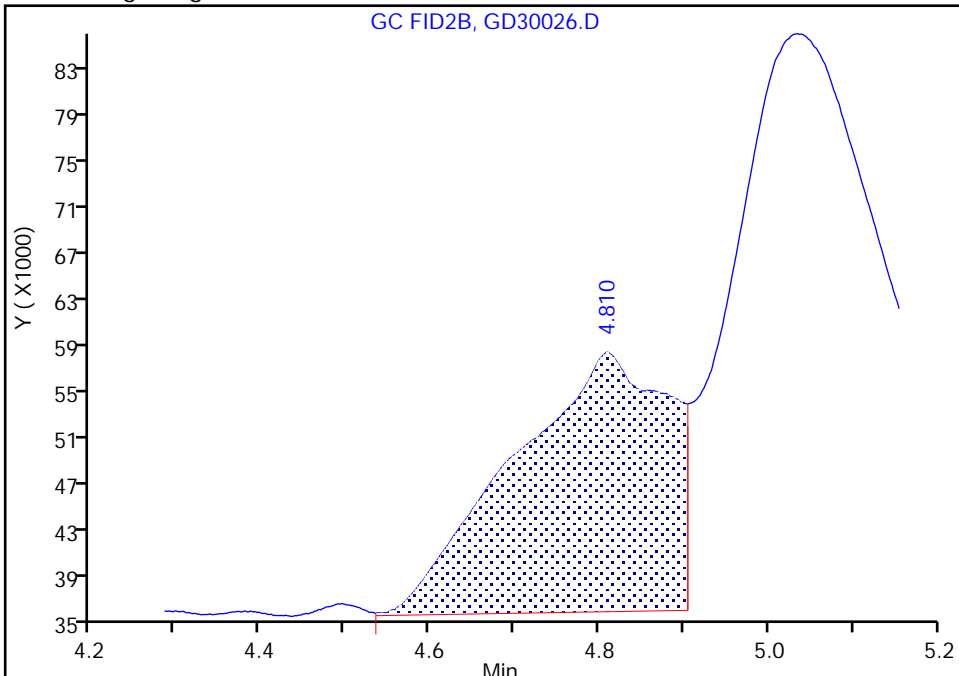
ALS Bottle#: 0 Worklist Smp#: 26  
Dil. Factor: 1.0000  
Limit Group: 8015C\_DAI  
Detector: GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

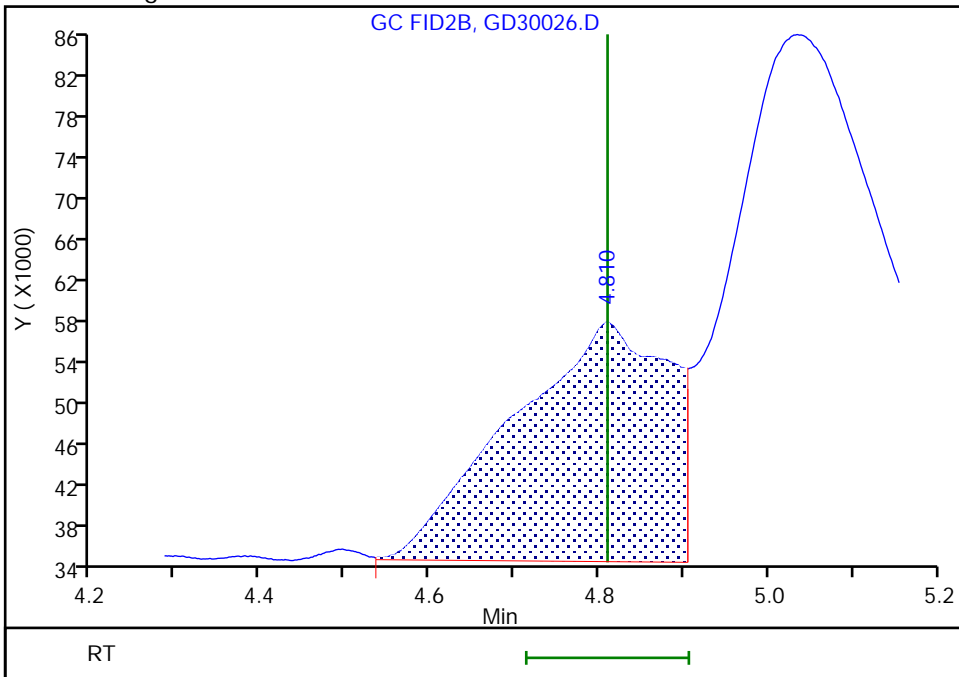
RT: 4.81  
Area: 284562  
Amount: 16.142805  
Amount Units: ug/ml

Processing Integration Results



RT: 4.81  
Area: 294043  
Amount: 16.754145  
Amount Units: ug/ml

Manual Integration Results



Eurofins Savannah

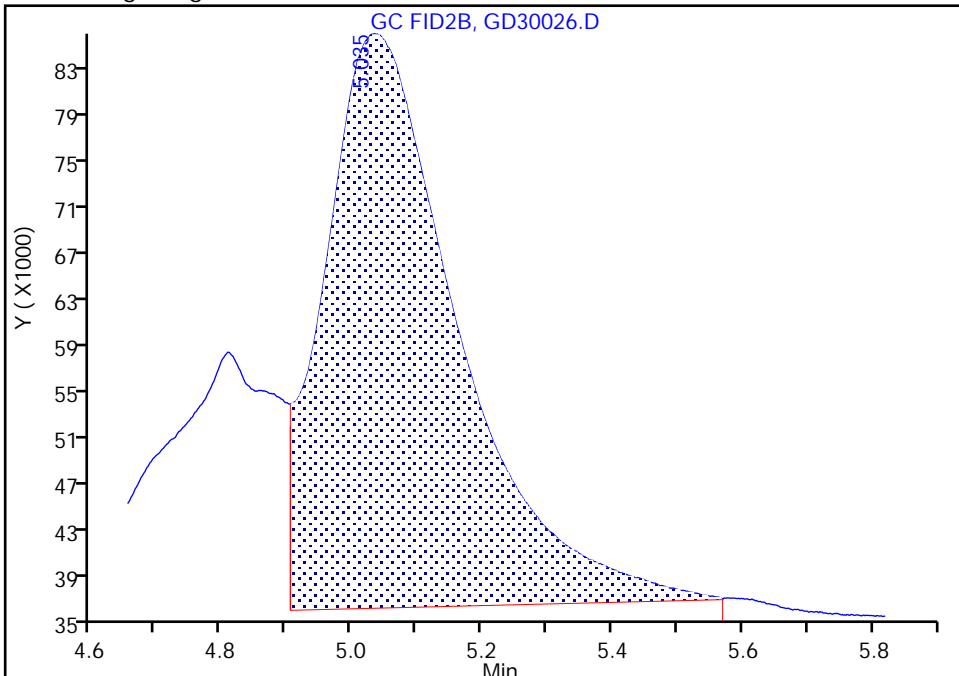
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Injection Date: 01-May-2023 09:44:43 Instrument ID: CVGG2  
Lims ID: ccv g4  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 26  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

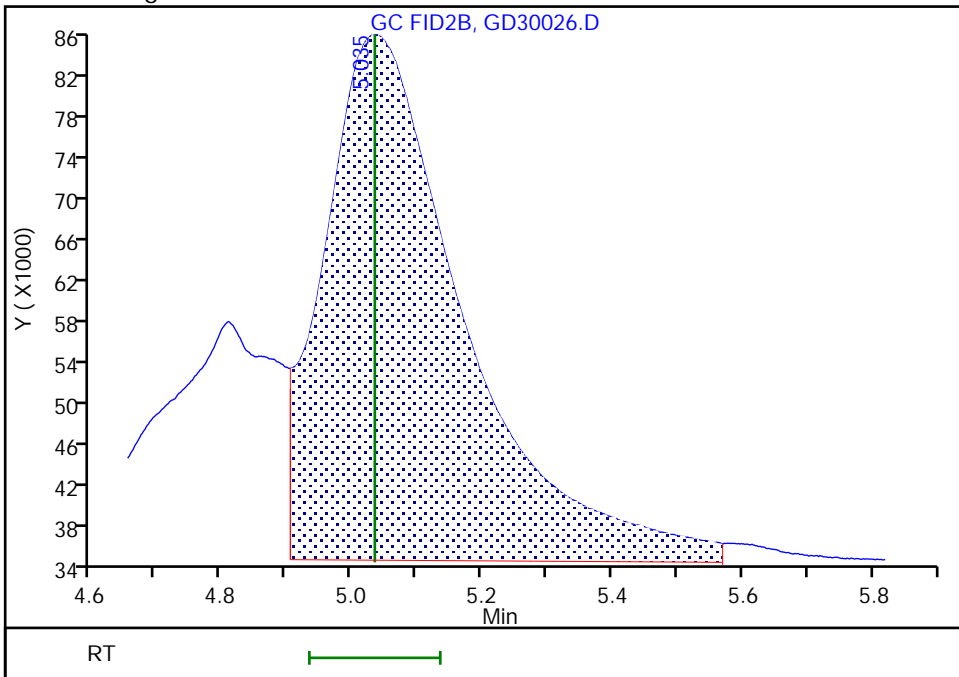
RT: 5.03  
Area: 711730  
Amount: 14.701163  
Amount Units: ug/ml

Processing Integration Results



RT: 5.03  
Area: 758652  
Amount: 15.907650  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 01-May-2023 11:38:12  
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing  
Page 146 of 214

Eurofins Savannah

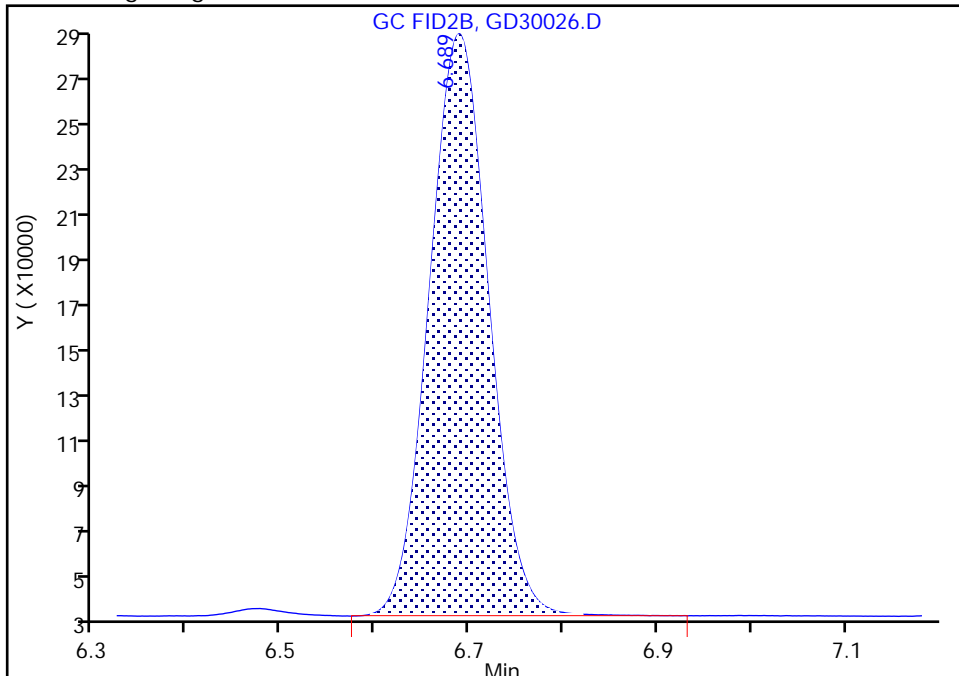
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Injection Date: 01-May-2023 09:44:43 Instrument ID: CVGG2  
Lims ID: ccv g4  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 26  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

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

Signal: 1

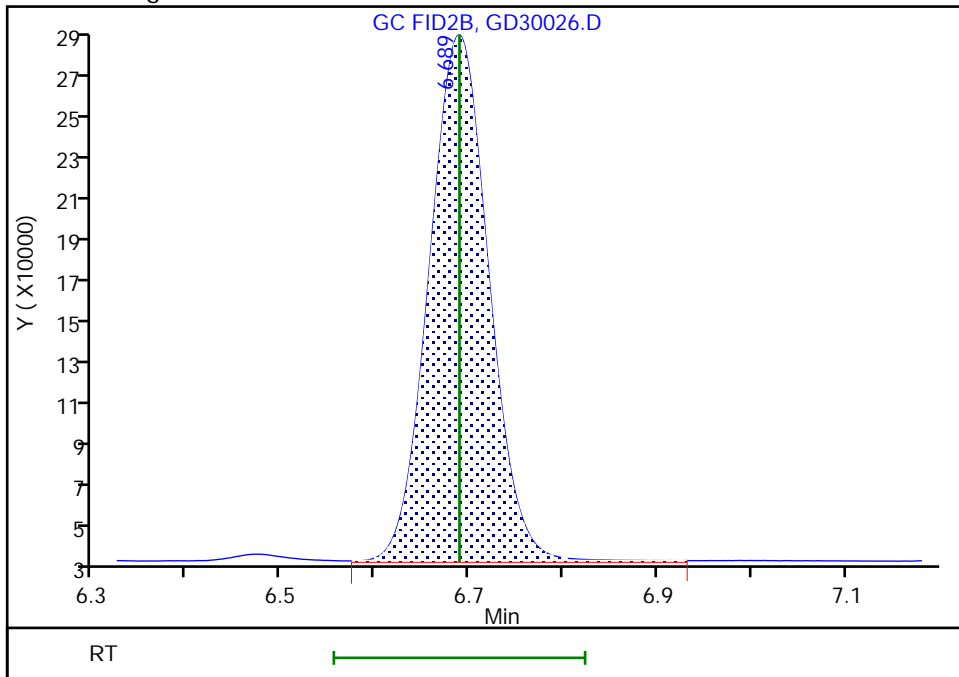
RT: 6.69  
Area: 1093518  
Amount: 15.735678  
Amount Units: ug/ml

Processing Integration Results



RT: 6.69  
Area: 1095813  
Amount: 15.768703  
Amount Units: ug/ml

Manual Integration Results



FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 680-776218/4 Calibration Date: 05/01/2023 13:02  
 Instrument ID: CVGG2 Calib Start Date: 04/16/2023 19:56  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/16/2023 22:15  
 Lab File ID: GE01004.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.7743	0.6516		16.8	20.0	-15.8	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6939	0.6000		17.3	20.0	-13.5	20.0
2-Butoxyethanol	Ave	0.7759	0.6926		17.9	20.0	-10.7	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0616	0.0479		15.5	20.0	-22.3*	20.0
Propylene glycol	Lin2		0.1842		24.8	20.0	23.8*	20.0
Ethylene glycol	Lin1		0.4259		21.3	20.0	6.3	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.6121	0.5391		17.6	20.0	-11.9	20.0
2,2'-Oxybisethanol	Lin1		0.2799		23.3	20.0	16.4	20.0
Triethylene Glycol	Ave	0.2458	0.2855		23.2	20.0	16.2	20.0
Tetraethylene Glycol	Ave	0.2578	0.2743		42.6	40.0	6.4	20.0

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 680-776218/4 Calibration Date: 05/01/2023 13:02  
 Instrument ID: CVGG2 Calib Start Date: 04/16/2023 19:56  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/16/2023 22:15  
 Lab File ID: GE01004.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.24	2.20	2.29
4-Hydroxy-4-methyl-2-pentanone	2.60	2.55	2.65
2-Butoxyethanol	2.78	2.73	2.84
Dipropylene Glycol Methyl Ether	3.84	3.77	3.92
Propylene glycol	4.81	4.71	4.91
Ethylene glycol	5.03	4.93	5.13
2-(2-Butoxyethoxy)ethanol	6.69	6.55	6.82
2,2'-Oxybisethanol	8.82	8.64	8.99
Triethylene Glycol	10.07	9.87	10.27
Tetraethylene Glycol	10.91	10.69	11.13

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01004.D  
 Lims ID: ccvis g4  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 01-May-2023 13:02:57 ALS Bottle#: 0 Worklist Smp#: 4  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085650-004  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 02-May-2023 10:34:59 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1628

First Level Reviewer: SK9U Date: 02-May-2023 10:34:59

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

1 Ethanol, 2-propoxy	2.242	2.242	0.000	1044677	20.0	16.8
2 4-Hydroxy-4-methyl-2-pentanone	2.598	2.598	0.000	961850	20.0	17.3
3 2-Butoxyethanol	2.784	2.784	0.000	1110309	20.0	17.9
* 4 n-Heptyl Alcohol	3.099	3.099	0.000	4007815	50.0	50.0 M
5 Dipropylene Glycol Methyl Ether	3.843	3.843	0.000	76753	20.0	15.5
6 Propylene glycol	4.809	4.809	0.000	295279	20.0	24.8
7 Ethylene glycol	5.033	5.033	0.000	682729	20.0	21.3
8 2-(2-Butoxyethoxy)ethanol	6.686	6.686	0.000	864189	20.0	17.6
9 2,2'-Oxybisethanol	8.818	8.818	0.000	448659	20.0	23.3
10 Triethylene Glycol	10.071	10.071	0.000	457755	20.0	23.2
11 Tetraethylene Glycol	10.911	10.911	0.000	879523	40.0	42.6

QC Flag Legend  
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 10.00

Units: uL

SG\_GLY\_ISTD\_00117

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01004.D

Injection Date: 01-May-2023 13:02:57

Instrument ID: CVGG2

Operator ID:

Lims ID: ccvis g4

Worklist Smp#: 4

Client ID:

Injection Vol: 1.0 ul

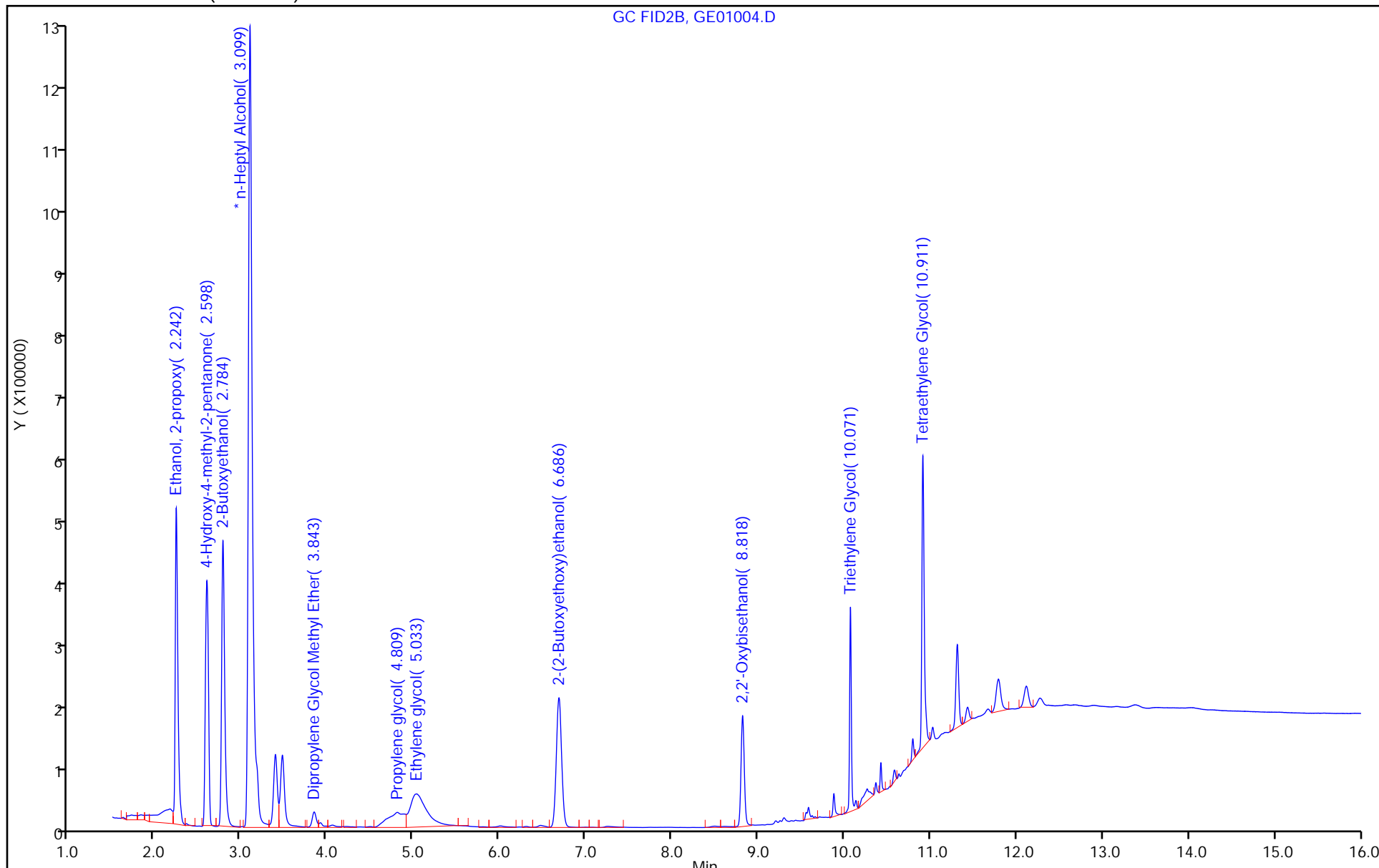
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)





Eurofins Savannah

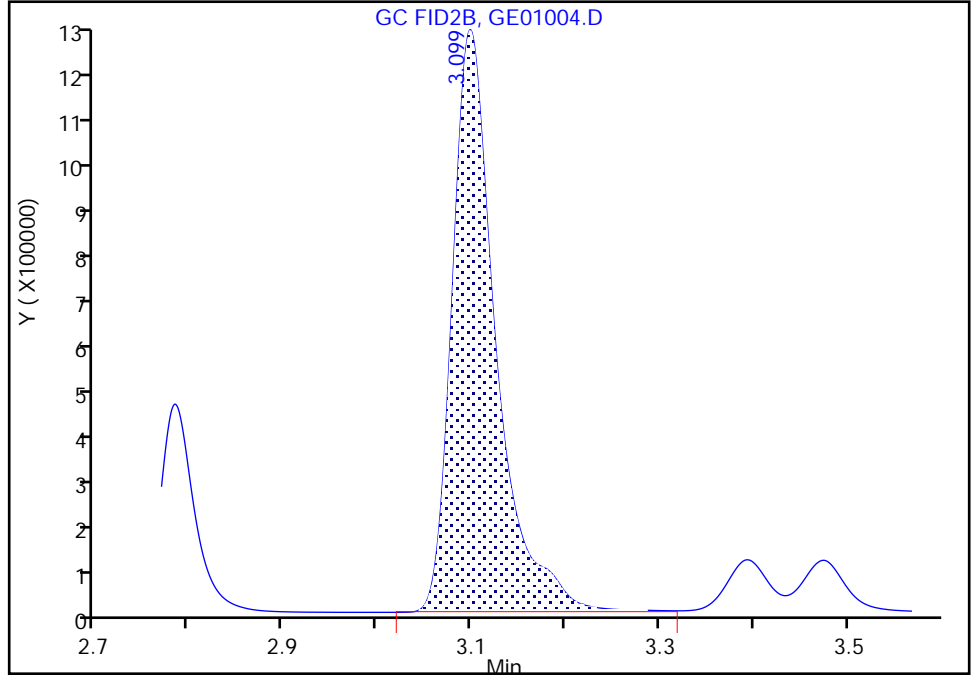
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01004.D  
Injection Date: 01-May-2023 13:02:57 Instrument ID: CVGG2  
Lims ID: ccvis g4  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

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

Signal: 1

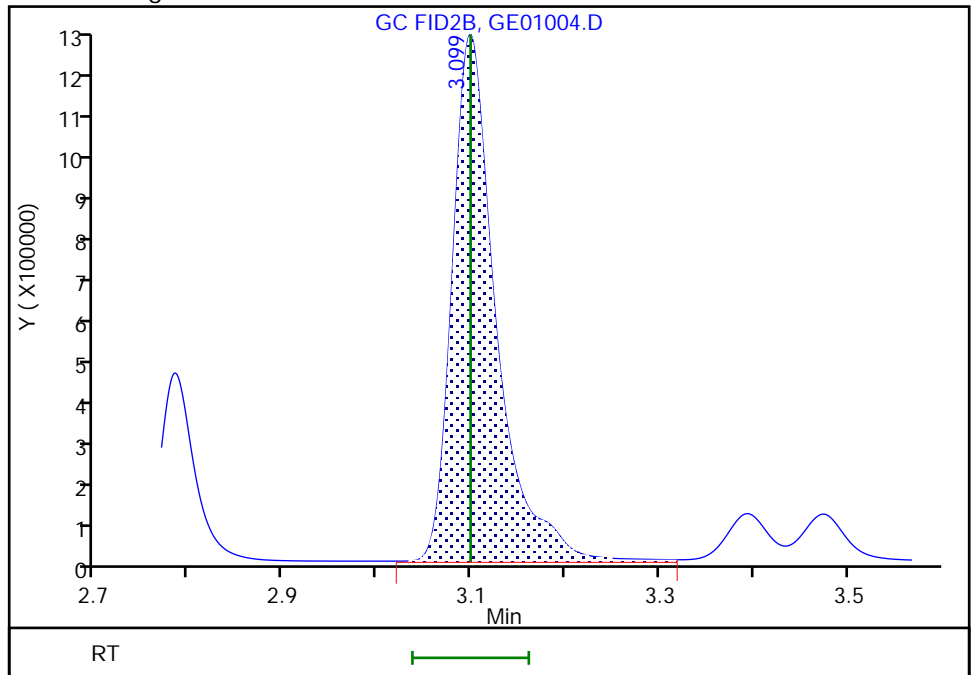
Processing Integration Results

RT: 3.10  
Area: 3976977  
Amount: 50.000000  
Amount Units: ug/ml



Manual Integration Results

RT: 3.10  
Area: 4007815  
Amount: 50.000000  
Amount Units: ug/ml



Reviewer: SK9U, 01-May-2023 13:24:54  
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 680-776218/23 Calibration Date: 05/01/2023 20:25  
 Instrument ID: CVGG2 Calib Start Date: 04/16/2023 19:56  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/16/2023 22:15  
 Lab File ID: GE01023.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.7743	0.7388		19.1	20.0	-4.6	20.0
4-Hydroxy-4-methyl-2-pentano ne	Ave	0.6939	0.6529		18.8	20.0	-5.9	20.0
2-Butoxyethanol	Ave	0.7759	0.7650		19.7	20.0	-1.4	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0616	0.0591		19.2	20.0	-4.0	20.0
Propylene glycol	Lin2		0.1783		23.9	20.0	19.5	20.0
Ethylene glycol	Lin1		0.4930		25.2	20.0	25.9*	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.6121	0.5946		19.4	20.0	-2.8	20.0
2,2'-Oxybisethanol	Lin1		0.2765		23.0	20.0	14.8	20.0
Triethylene Glycol	Ave	0.2458	0.2264		18.4	20.0	-7.9	20.0
Tetraethylene Glycol	Ave	0.2578	0.1256		19.5	40.0	-51.3*	20.0

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 680-776218/23 Calibration Date: 05/01/2023 20:25  
 Instrument ID: CVGG2 Calib Start Date: 04/16/2023 19:56  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 04/16/2023 22:15  
 Lab File ID: GE01023.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.24	2.19	2.28
4-Hydroxy-4-methyl-2-pentanone	2.60	2.55	2.65
2-Butoxyethanol	2.78	2.72	2.83
Dipropylene Glycol Methyl Ether	3.84	3.77	3.92
Propylene glycol	4.80	4.71	4.90
Ethylene glycol	5.03	4.93	5.13
2-(2-Butoxyethoxy)ethanol	6.68	6.55	6.81
2,2'-Oxybisethanol	8.82	8.64	8.99
Triethylene Glycol	10.07	9.87	10.27
Tetraethylene Glycol	10.91	10.69	11.13

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01023.D  
 Lims ID: ccv g4  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 01-May-2023 20:25:03 ALS Bottle#: 0 Worklist Smp#: 23  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085650-023  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 02-May-2023 10:33:00 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1628

First Level Reviewer: SK9U

Date: 02-May-2023 10:33:00

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy	2.235	2.235	0.000	1589996	20.0	19.1
2 4-Hydroxy-4-methyl-2-pentanone	2.599	2.599	0.000	1405064	20.0	18.8
3 2-Butoxyethanol	2.778	2.778	0.000	1646284	20.0	19.7
* 4 n-Heptyl Alcohol	3.088	3.088	0.000	5380104	50.0	50.0
5 Dipropylene Glycol Methyl Ether	3.842	3.842	0.000	127269	20.0	19.2
6 Propylene glycol	4.803	4.803	0.000	383674	20.0	23.9
7 Ethylene glycol	5.027	5.027	0.000	1060913	20.0	25.2
8 2-(2-Butoxyethoxy)ethanol	6.681	6.681	0.000	1279682	20.0	19.4
9 2,2'-Oxybisethanol	8.816	8.816	0.000	594979	20.0	23.0
10 Triethylene Glycol	10.070	10.070	0.000	487155	20.0	18.4
11 Tetraethylene Glycol	10.909	10.909	0.000	540651	40.0	19.5

### QC Flag Legend

Processing Flags

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 10.00

Units: uL

SG\_GLY\_ISTD\_00117

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01023.D

Injection Date: 01-May-2023 20:25:03

Instrument ID: CVGG2

Operator ID:

Lims ID: ccv g4

Worklist Smp#: 23

Client ID:

Injection Vol: 1.0 ul

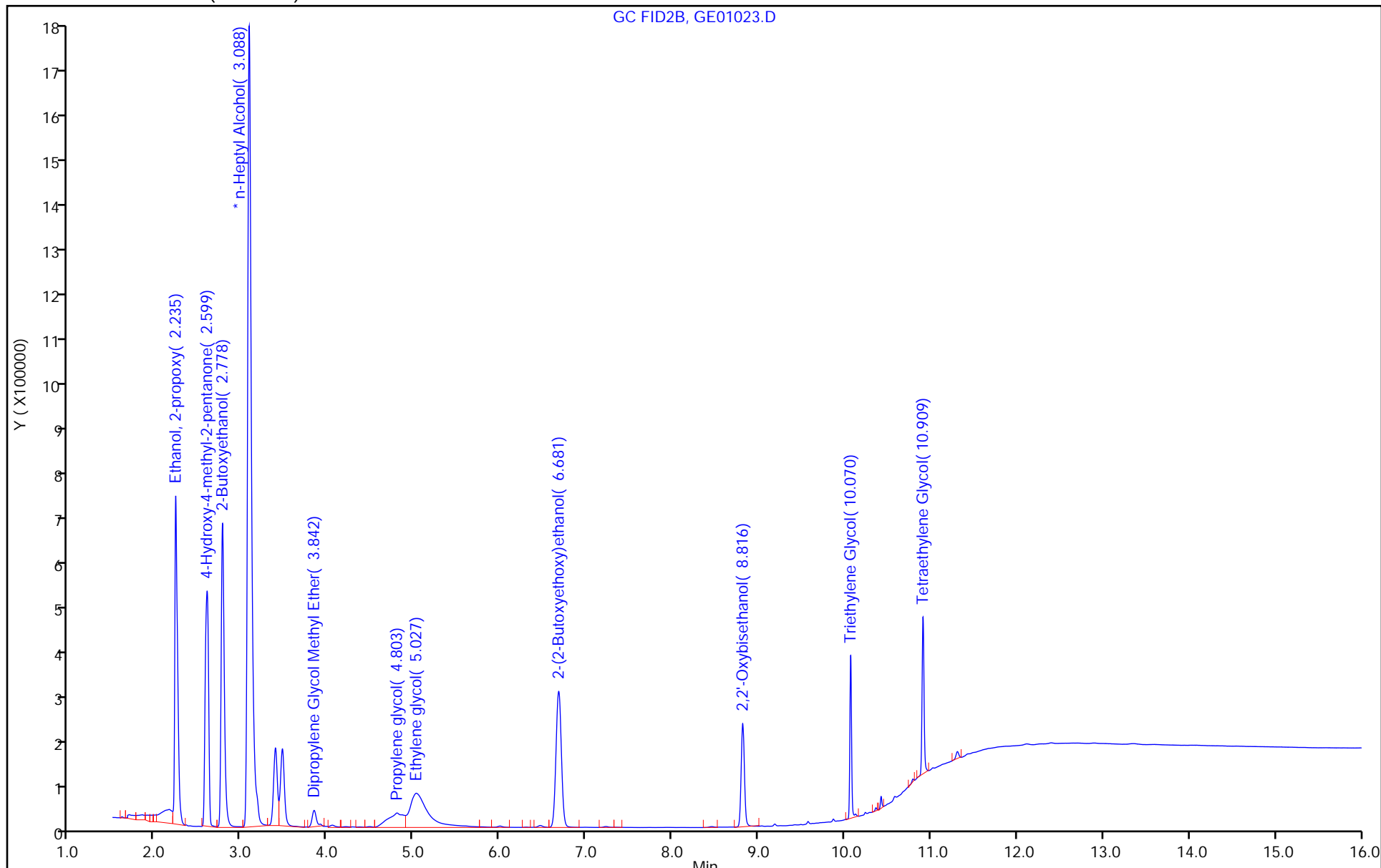
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 680-776112/11  
 Matrix: Water Lab File ID: GD30011.D  
 Analysis Method: 8015C GLY Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 03:57  
 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.: 776112 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\20230430-85636.b\GD30011.D  
 Lims ID: mb  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 01-May-2023 03:57:14      ALS Bottle#: 0      Worklist Smp#: 11  
 Injection Vol: 1.0 ul      Dil. Factor: 1.0000  
 Sample Info: 680-0085636-011  
 Operator ID:      Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 11:39:51      Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm)      Det: GC FID2B  
 Process Host: CTX1659

First Level Reviewer: SK9U      Date: 01-May-2023 11:39:51

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 2-Butoxyethanol						
2.795	2.787	0.008	8279		0.0941	7
LOD = 0.5000						
* 4 n-Heptyl Alcohol						
3.107	3.098	0.009	5671371	50.0	50.0	
6 Propylene glycol						
4.818	4.810	0.008	10724		-1.51	7
LOD = 0.5000						
7 Ethylene glycol						
5.039	5.035	0.004	13106		-3.26	7
LOD = 0.6600						
9 2,2'-Oxybisethanol						
8.823	8.826	-0.003	13930		-2.80	7
LOD = 1.60						

**QC Flag Legend**

Processing Flags

7 - Failed Limit of Detection

**Reagents:**

SG\_GLY\_ISTD\_00117      Amount Added: 10.00      Units: uL      Run Reagent



Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30011.D

Injection Date: 01-May-2023 03:57:14

Instrument ID: CVGG2

Operator ID:

Lims ID: mb

Worklist Smp#: 11

Client ID:

Injection Vol: 1.0 ul

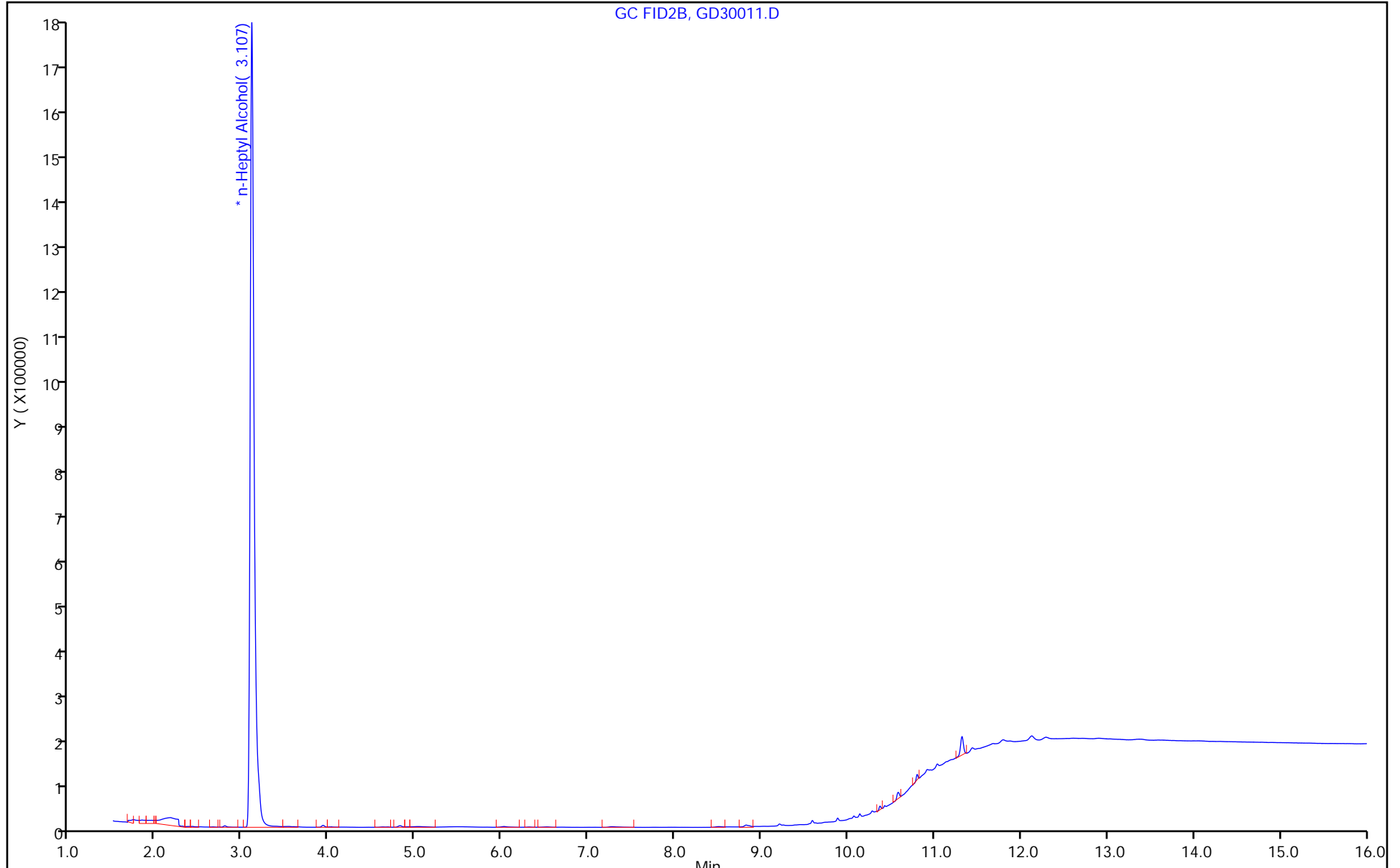
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



GC FID2B, GD30011.D

FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 680-776218/9  
 Matrix: Water Lab File ID: GE01009.D  
 Analysis Method: 8015C GLY Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 14:59  
 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.: 776218 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\20230501-85650.b\GE01009.D  
 Lims ID: mb  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 01-May-2023 14:59:12 ALS Bottle#: 0 Worklist Smp#: 9  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085650-009  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 02-May-2023 10:36:43 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1628

First Level Reviewer: SK9U Date: 02-May-2023 10:36:43

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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3 2-Butoxyethanol						7
2.779	2.784	-0.005	7171		0.0886	7
LOD = 0.5000						
* 4 n-Heptyl Alcohol						
3.091	3.099	-0.008	5215629	50.0	50.0	
6 Propylene glycol						7
4.809	4.809	0.000	6780		-1.73	7
LOD = 0.5000						
7 Ethylene glycol						7
5.023	5.033	-0.010	4331		-3.48	7
LOD = 0.6600						
9 2,2'-Oxybisethanol						7
8.843	8.818	0.025	11294		-2.87	7
LOD = 1.60						

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

SG\_GLY\_ISTD\_00117 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01009.D

Injection Date: 01-May-2023 14:59:12

Instrument ID: CVGG2

Operator ID:

Lims ID: mb

Worklist Smp#: 9

Client ID:

Injection Vol: 1.0 ul

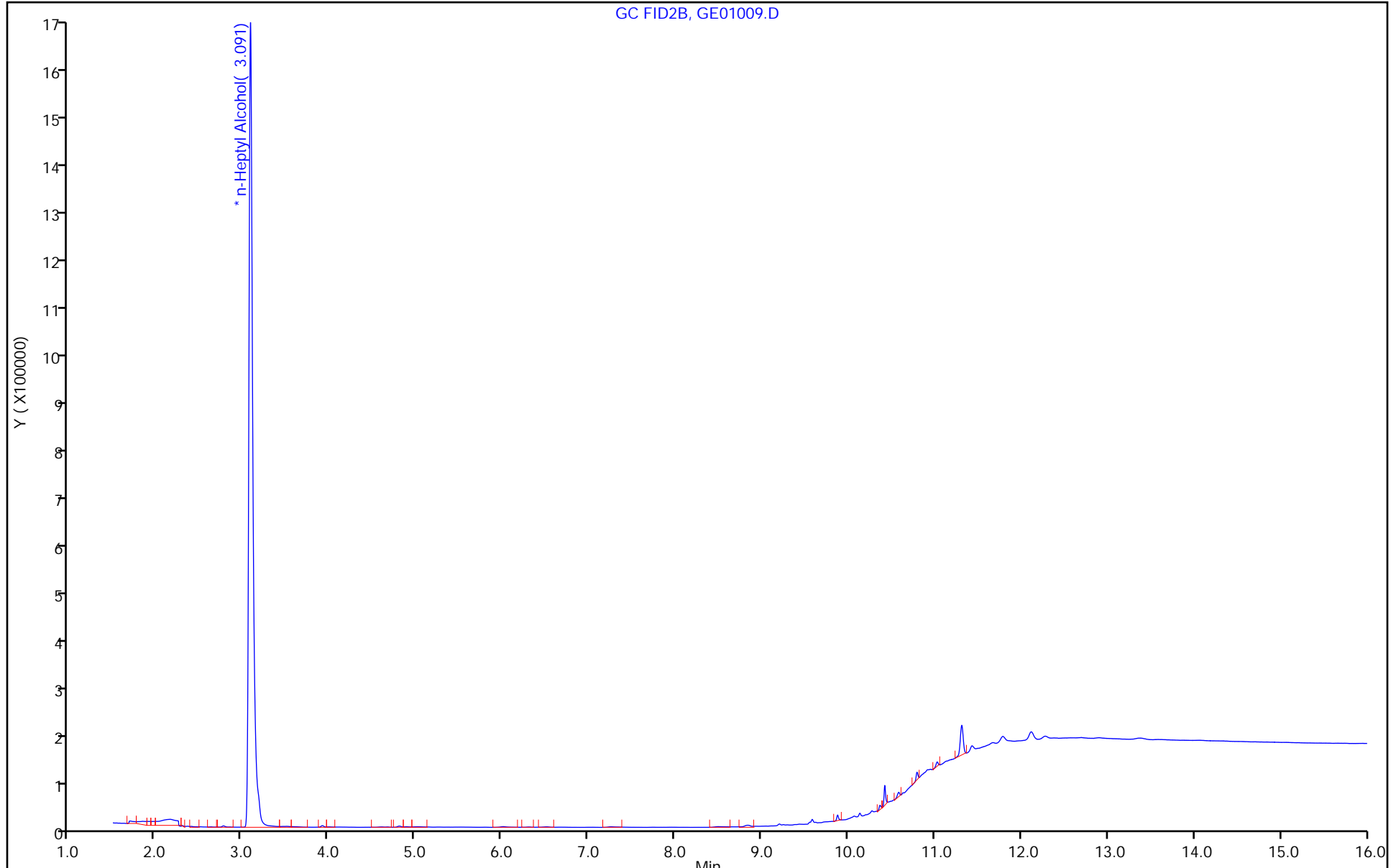
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



GC FID2B, GE01009.D

FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 680-776112/5  
 Matrix: Water Lab File ID: GD30005.D  
 Analysis Method: 8015C GLY Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 01:38  
 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.: 776112 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	21.0		5.0	3.0	1.1

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30005.D  
 Lims ID: lcs  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 01-May-2023 01:38:07 ALS Bottle#: 0 Worklist Smp#: 5  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085636-005  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 13:00:18 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1659

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

1 Ethanol, 2-propoxy	2.265	2.272	-0.007	1528037	20.0	20.1
2 4-Hydroxy-4-methyl-2-pentanone	2.626	2.632	-0.006	1518603	20.0	22.3
3 2-Butoxyethanol	2.804	2.809	-0.005	1614408	20.0	21.2
* 4 n-Heptyl Alcohol	3.108	3.113	-0.005	4899200	50.0	50.0
5 Dipropylene Glycol Methyl Ether	3.865	3.868	-0.003	119180	20.0	19.7
6 Propylene glycol	4.828	4.824	0.004	287344	20.0	19.3
7 Ethylene glycol	5.037	5.036	0.001	874192	20.0	22.4
8 2-(2-Butoxyethoxy)ethanol	6.695	6.697	-0.002	1260809	20.0	21.0
9 2,2'-Oxybisethanol	8.819	8.819	0.000	528979	20.0	22.3
10 Triethylene Glycol	10.069	10.071	-0.002	530452	20.0	22.0
11 Tetraethylene Glycol	10.910	10.911	-0.001	1125932	40.0	44.6

## Reagents:

SG\_Gly\_CAL\_00049 Amount Added: 10.00 Units: uL  
 SG\_GLY\_ISTD\_00117 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30005.D

Injection Date: 01-May-2023 01:38:07

Instrument ID: CVGG2

Operator ID:

Lims ID: lcs

Worklist Smp#: 5

Client ID:

Injection Vol: 1.0 ul

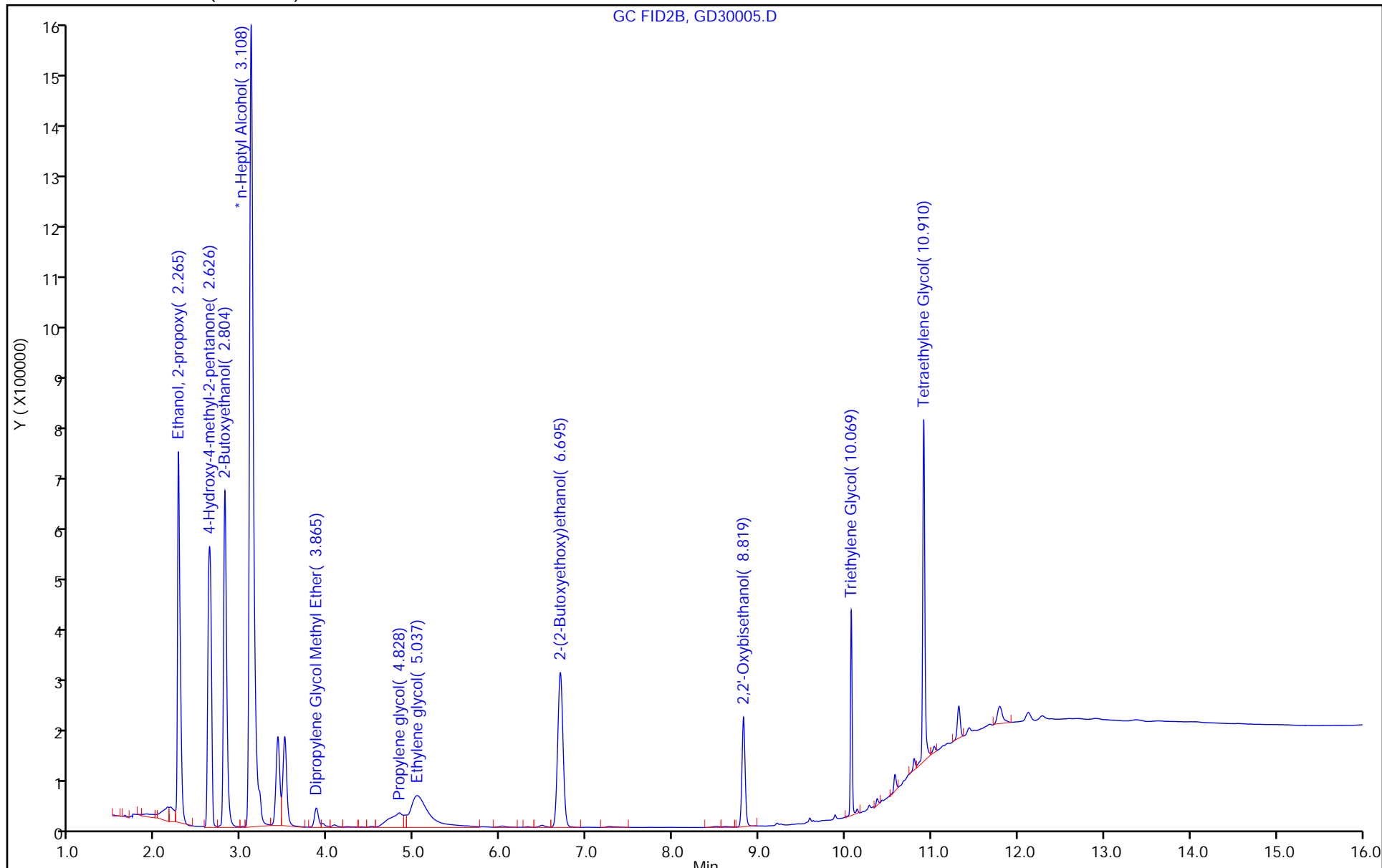
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 680-776218/5  
 Matrix: Water Lab File ID: GE01005.D  
 Analysis Method: 8015C GLY Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 13:26  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 776218 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	18.0		5.0	3.0	1.1



Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01005.D  
 Lims ID: lcs  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 01-May-2023 13:26:09 ALS Bottle#: 0 Worklist Smp#: 5  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085650-005  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 02-May-2023 10:35:36 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1628

First Level Reviewer: SK9U Date: 02-May-2023 10:35:36

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.242	2.242	0.000	1652612	20.0	18.8	
2 4-Hydroxy-4-methyl-2-pentanone						
2.602	2.598	0.004	1524278	20.0	19.4	
3 2-Butoxyethanol						
2.785	2.784	0.001	1758013	20.0	20.0	
* 4 n-Heptyl Alcohol						
3.096	3.099	-0.003	5668537	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
3.846	3.843	0.003	128721	20.0	18.4	M
6 Propylene glycol						
4.811	4.809	0.002	351479	20.0	20.5	
7 Ethylene glycol						
5.031	5.033	-0.002	942365	20.0	20.7	
8 2-(2-Butoxyethoxy)ethanol						
6.686	6.686	0.000	1250008	20.0	18.0	
9 2,2'-Oxybisethanol						
8.817	8.818	-0.001	565993	20.0	20.4	
10 Triethylene Glycol						
10.069	10.071	-0.002	564245	20.0	20.2	
11 Tetraethylene Glycol						
10.910	10.911	-0.001	1117457	40.0	38.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 10.00

Units: uL

SG\_GLY\_ISTD\_00117

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01005.D

Injection Date: 01-May-2023 13:26:09

Instrument ID: CVGG2

Operator ID:

Lims ID: lcs

Worklist Smp#: 5

Client ID:

Injection Vol: 1.0 ul

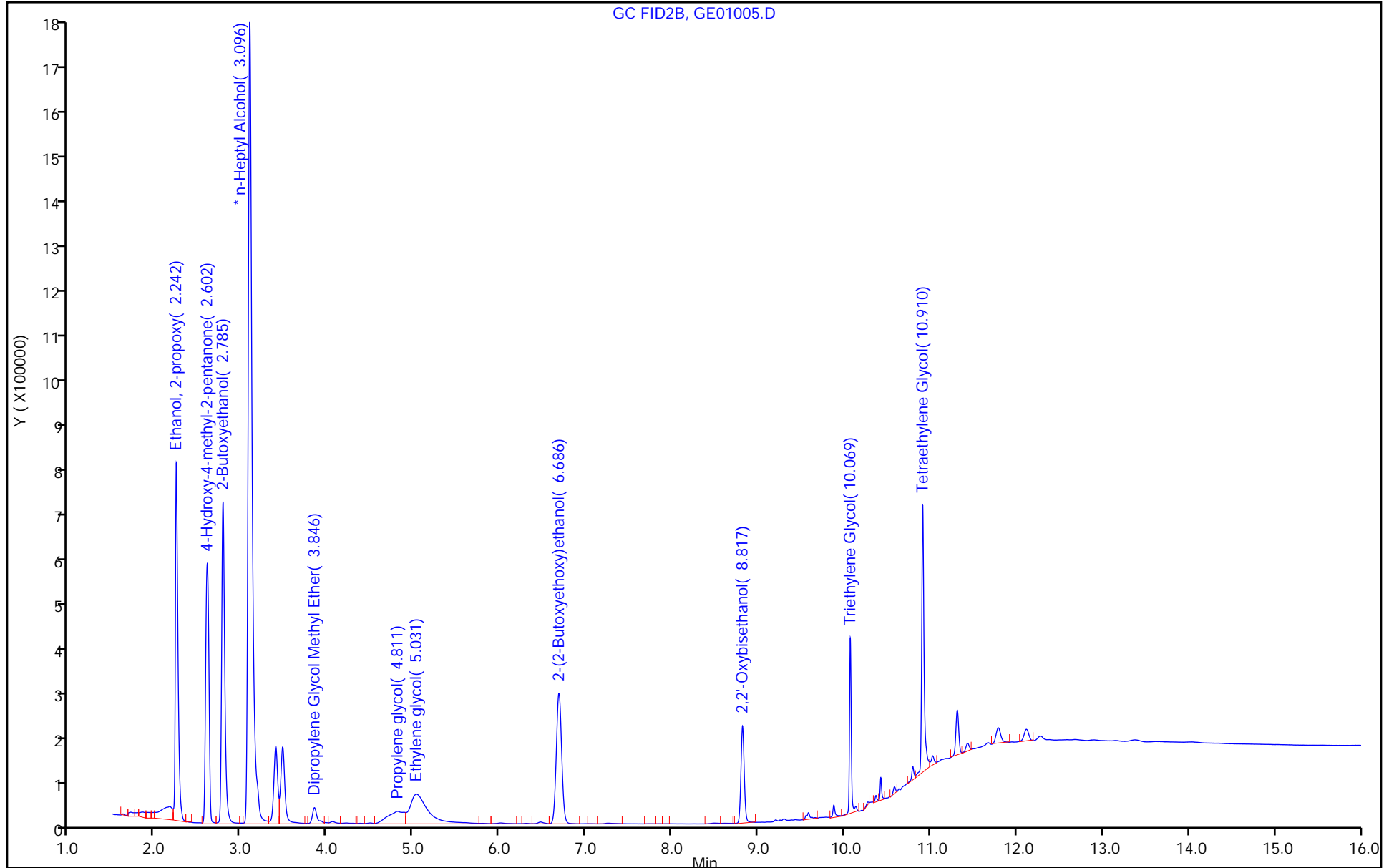
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



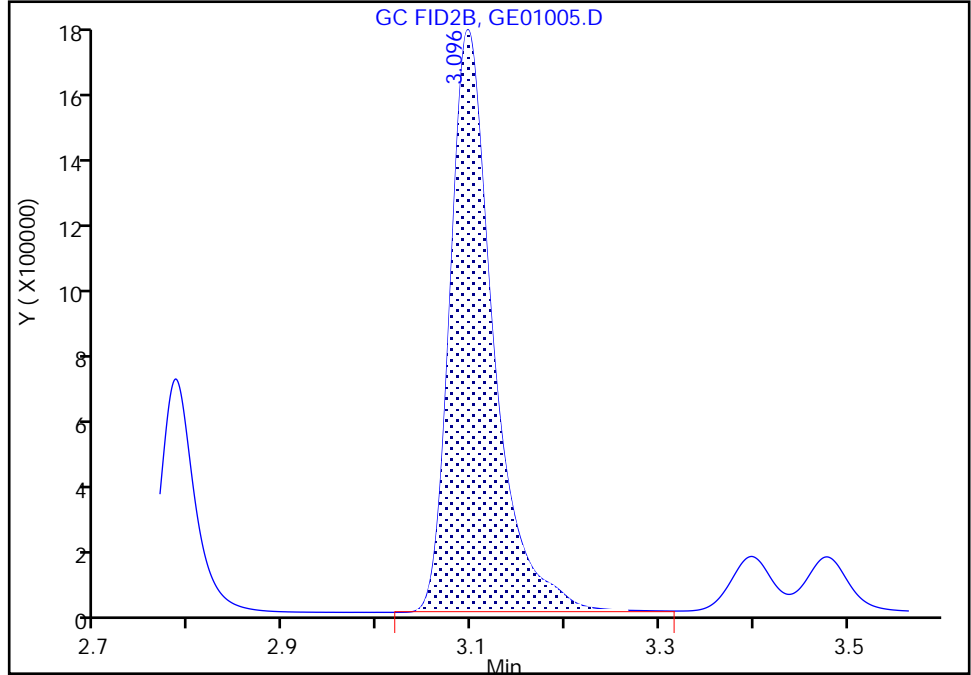
Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01005.D  
Injection Date: 01-May-2023 13:26:09 Instrument ID: CVGG2  
Lims ID: lcs  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

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

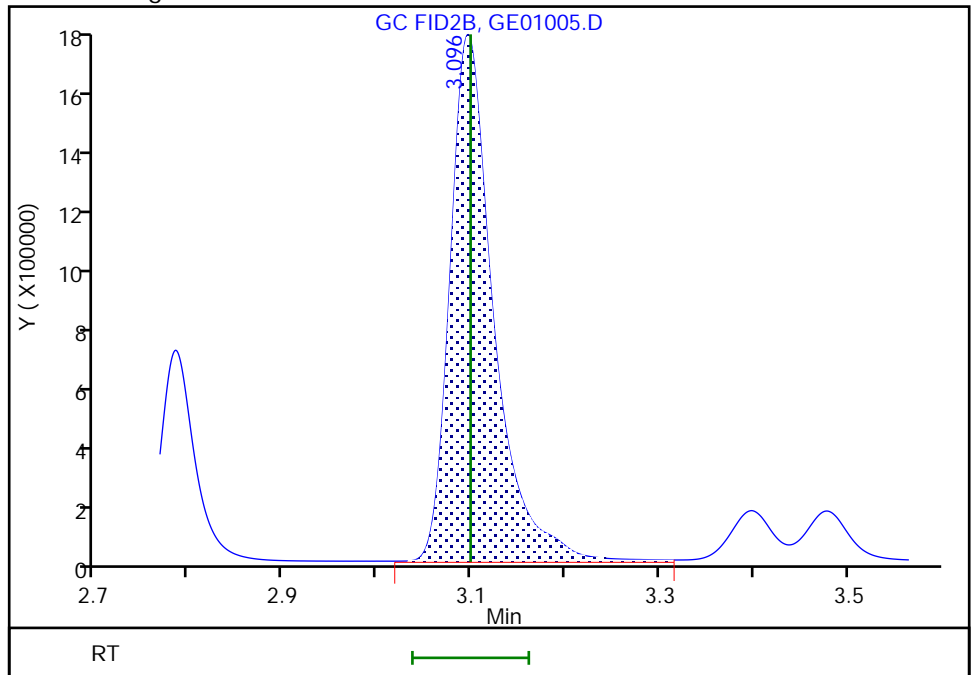
RT: 3.10  
Area: 5630713  
Amount: 50.000000  
Amount Units: ug/ml

Processing Integration Results



RT: 3.10  
Area: 5668537  
Amount: 50.000000  
Amount Units: ug/ml

Manual Integration Results



Reviewer: SK9U, 02-May-2023 10:35:31  
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing  
Page 172 of 214

FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 680-776112/6  
 Matrix: Water Lab File ID: GD30006.D  
 Analysis Method: 8015C GLY Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 02:01  
 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.: 776112 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	18.7		5.0	3.0	1.1

Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30006.D  
 Lims ID: lcsd  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 01-May-2023 02:01:17 ALS Bottle#: 0 Worklist Smp#: 6  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085636-006  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 13:00:18 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1659

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

1 Ethanol, 2-propoxy	2.258	2.272	-0.014	1504118	20.0	17.1
2 4-Hydroxy-4-methyl-2-pentanone	2.615	2.632	-0.017	1440193	20.0	18.3
3 2-Butoxyethanol	2.798	2.809	-0.011	1627624	20.0	18.5
* 4 n-Heptyl Alcohol	3.109	3.113	-0.004	5671888	50.0	50.0
5 Dipropylene Glycol Methyl Ether	3.857	3.868	-0.011	117580	20.0	16.8
6 Propylene glycol	4.820	4.824	-0.004	406866	20.0	24.1
7 Ethylene glycol	5.033	5.036	-0.003	1152428	20.0	26.1
8 2-(2-Butoxyethoxy)ethanol	6.693	6.697	-0.004	1295292	20.0	18.7
9 2,2'-Oxybisethanol	8.819	8.819	0.000	701387	20.0	26.1
10 Triethylene Glycol	10.069	10.071	-0.002	698319	20.0	25.0
11 Tetraethylene Glycol	10.909	10.911	-0.002	1464407	40.0	50.1

## Reagents:

SG\_Gly\_CAL\_00049 Amount Added: 10.00 Units: uL  
 SG\_GLY\_ISTD\_00117 Amount Added: 10.00 Units: uL Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30006.D

Injection Date: 01-May-2023 02:01:17

Instrument ID: CVGG2

Operator ID:

Lims ID: lcsd

Worklist Smp#: 6

Client ID:

Injection Vol: 1.0 ul

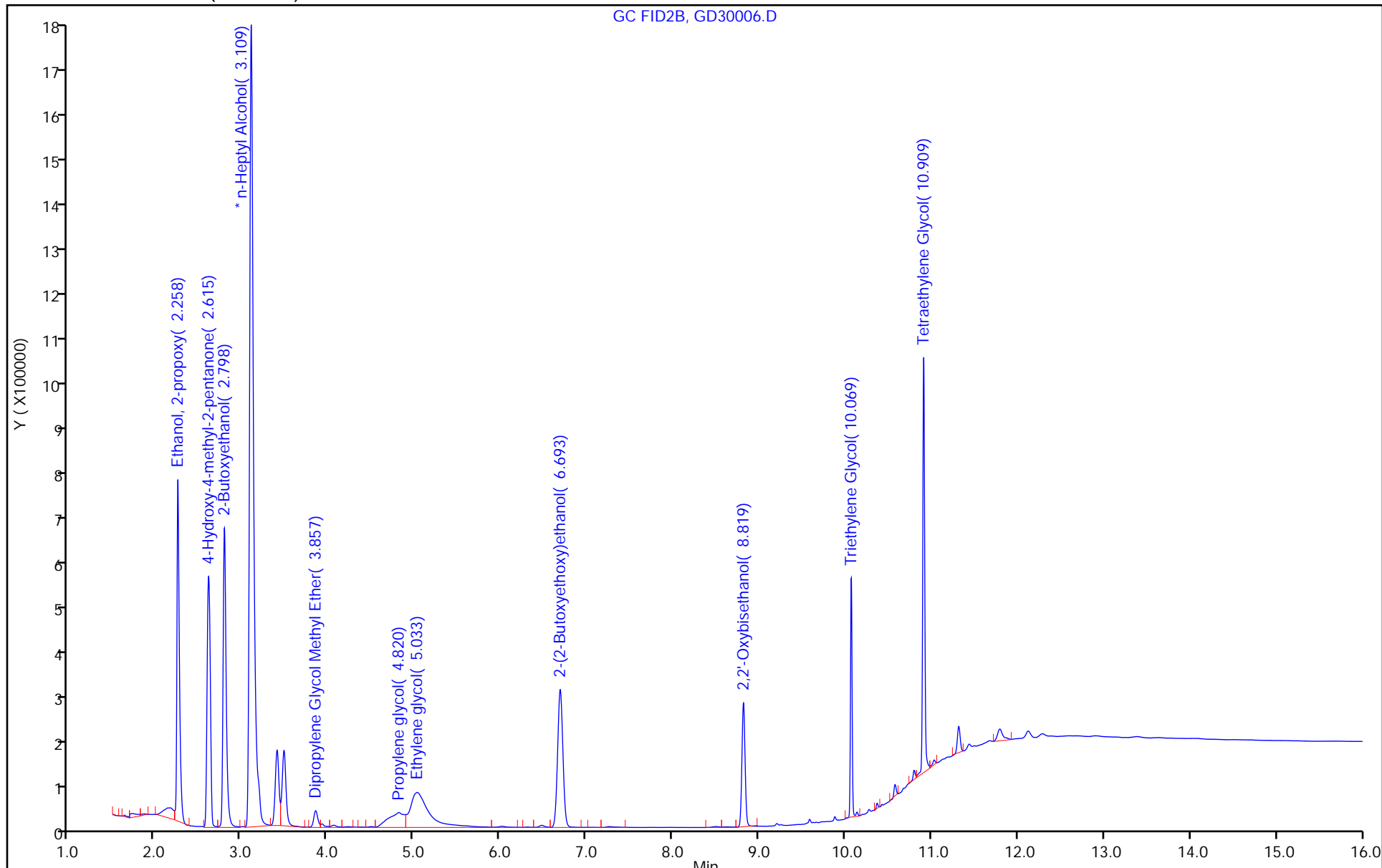
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 680-776218/6  
 Matrix: Water Lab File ID: GE01006.D  
 Analysis Method: 8015C GLY Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 05/01/2023 13:49  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 776218 Units: mg/L

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



Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01006.D  
 Lims ID: lcsd  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 01-May-2023 13:49:23 ALS Bottle#: 0 Worklist Smp#: 6  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085650-006  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 02-May-2023 10:36:09 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1628

First Level Reviewer: SK9U Date: 02-May-2023 10:36:09

RT (min.)	Exp RT (min.)	Diff RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy	2.239	2.242	-0.003	1537546	20.0	17.9	
2 4-Hydroxy-4-methyl-2-pentanone							M
2.597	2.598	-0.001	1396089	20.0	18.1	M	
3 2-Butoxyethanol							M
2.783	2.784	-0.001	1629204	20.0	18.9	M	
* 4 n-Heptyl Alcohol							M
3.097	3.099	-0.002	5551461	50.0	50.0	M	
5 Dipropylene Glycol Methyl Ether							M
3.843	3.843	0.000	123261	20.0	18.0	M	
6 Propylene glycol							
4.811	4.809	0.002	384153	20.0	23.1		
7 Ethylene glycol							
5.029	5.033	-0.004	1031063	20.0	23.5		
8 2-(2-Butoxyethoxy)ethanol							
6.686	6.686	0.000	1194482	20.0	17.6		
9 2,2'-Oxybisethanol							
8.817	8.818	-0.001	630506	20.0	23.7		
10 Triethylene Glycol							
10.069	10.071	-0.002	624552	20.0	22.9		
11 Tetraethylene Glycol							
10.909	10.911	-0.002	1271822	40.0	44.4		

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 10.00

Units: uL

SG\_GLY\_ISTD\_00117

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01006.D

Injection Date: 01-May-2023 13:49:23

Instrument ID: CVGG2

Operator ID:

Lims ID: lcsd

Worklist Smp#: 6

Client ID:

Injection Vol: 1.0 ul

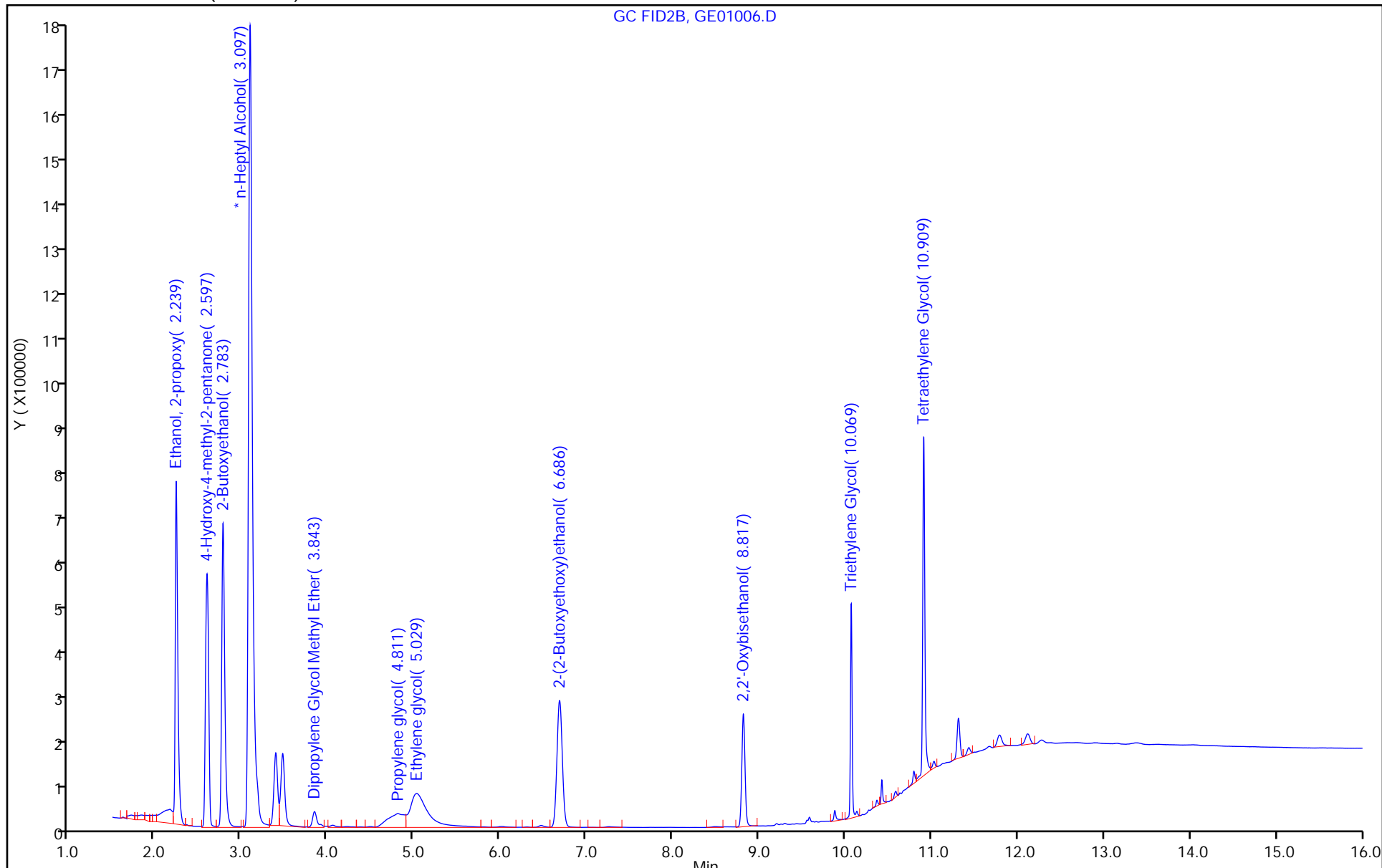
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



Eurofins Savannah

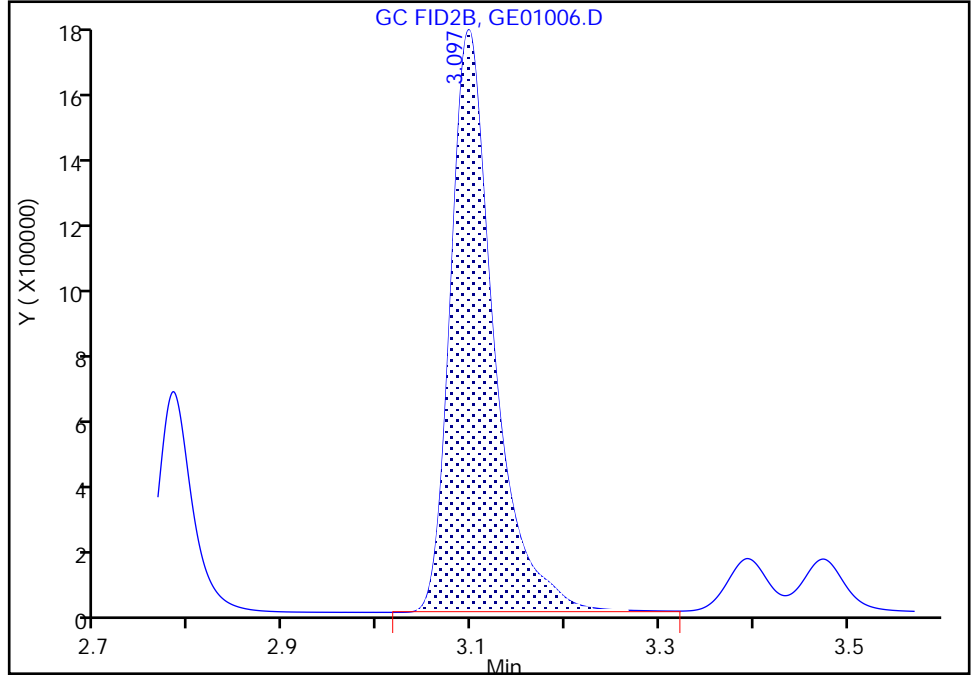
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230501-85650.b\GE01006.D  
Injection Date: 01-May-2023 13:49:23 Instrument ID: CVGG2  
Lims ID: lcsd  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

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

Signal: 1

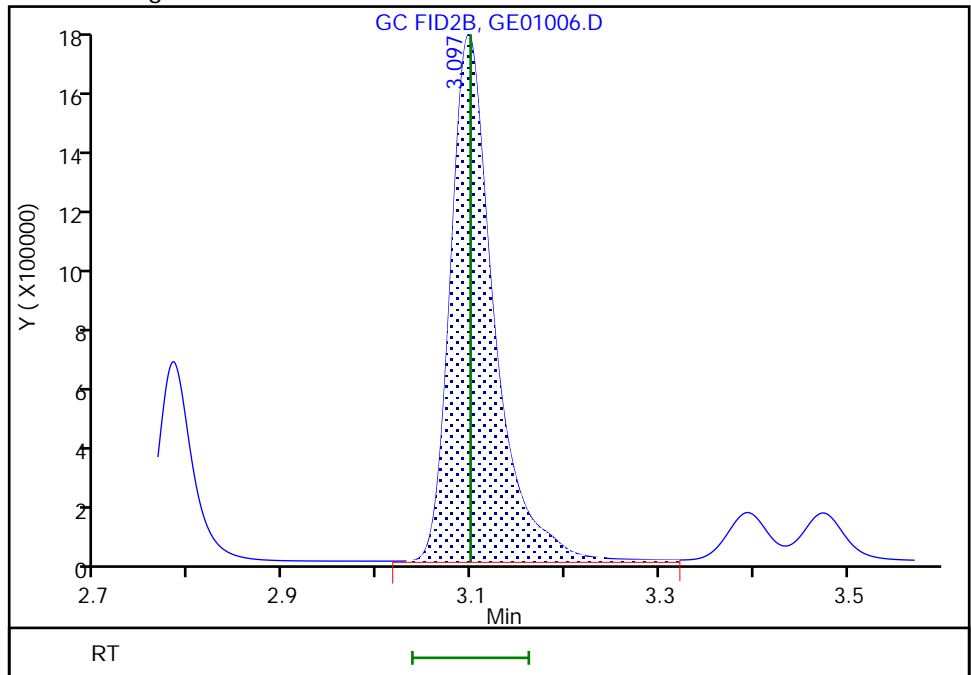
Processing Integration Results

RT: 3.10  
Area: 5513889  
Amount: 50.000000  
Amount Units: ug/ml



Manual Integration Results

RT: 3.10  
Area: 5551461  
Amount: 50.000000  
Amount Units: ug/ml



Reviewer: SK9U, 02-May-2023 10:35:47  
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing



Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30016.D  
 Lims ID: 580-126438-C-1 MS  
 Client ID:  
 Sample Type: MS  
 Inject. Date: 01-May-2023 05:53:05 ALS Bottle#: 0 Worklist Smp#: 16  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085636-016  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 12:55:20 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1659

First Level Reviewer: SK9U

Date: 01-May-2023 12:56:08

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

1 Ethanol, 2-propoxy	2.249	2.246	0.003	1385818	20.0	19.1
2 4-Hydroxy-4-methyl-2-pentanone	2.613	2.603	0.010	1259429	20.0	19.4
3 2-Butoxyethanol	2.791	2.787	0.004	1526361	20.0	21.0
* 4 n-Heptyl Alcohol	3.102	3.098	0.004	4680882	50.0	50.0
5 Dipropylene Glycol Methyl Ether	3.852	3.848	0.004	106372	20.0	18.4
6 Propylene glycol	4.807	4.810	-0.003	342289	20.0	24.6
7 Ethylene glycol	5.024	5.035	-0.011	1004361	20.0	27.7
8 2-(2-Butoxyethoxy)ethanol	6.688	6.689	-0.001	1168822	20.0	20.4
9 2,2'-Oxybisethanol	8.817	8.826	-0.009	510283	20.0	22.6
10 Triethylene Glycol	10.069	10.076	-0.007	404713	20.0	17.6
11 Tetraethylene Glycol	10.911	10.934	-0.023	497170	40.0	20.6

## QC Flag Legend

Processing Flags

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 10.00

Units: uL

SG\_GLY\_ISTD\_00117

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30016.D

Injection Date: 01-May-2023 05:53:05

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-1 MS

Worklist Smp#: 16

Client ID:

Injection Vol: 1.0 ul

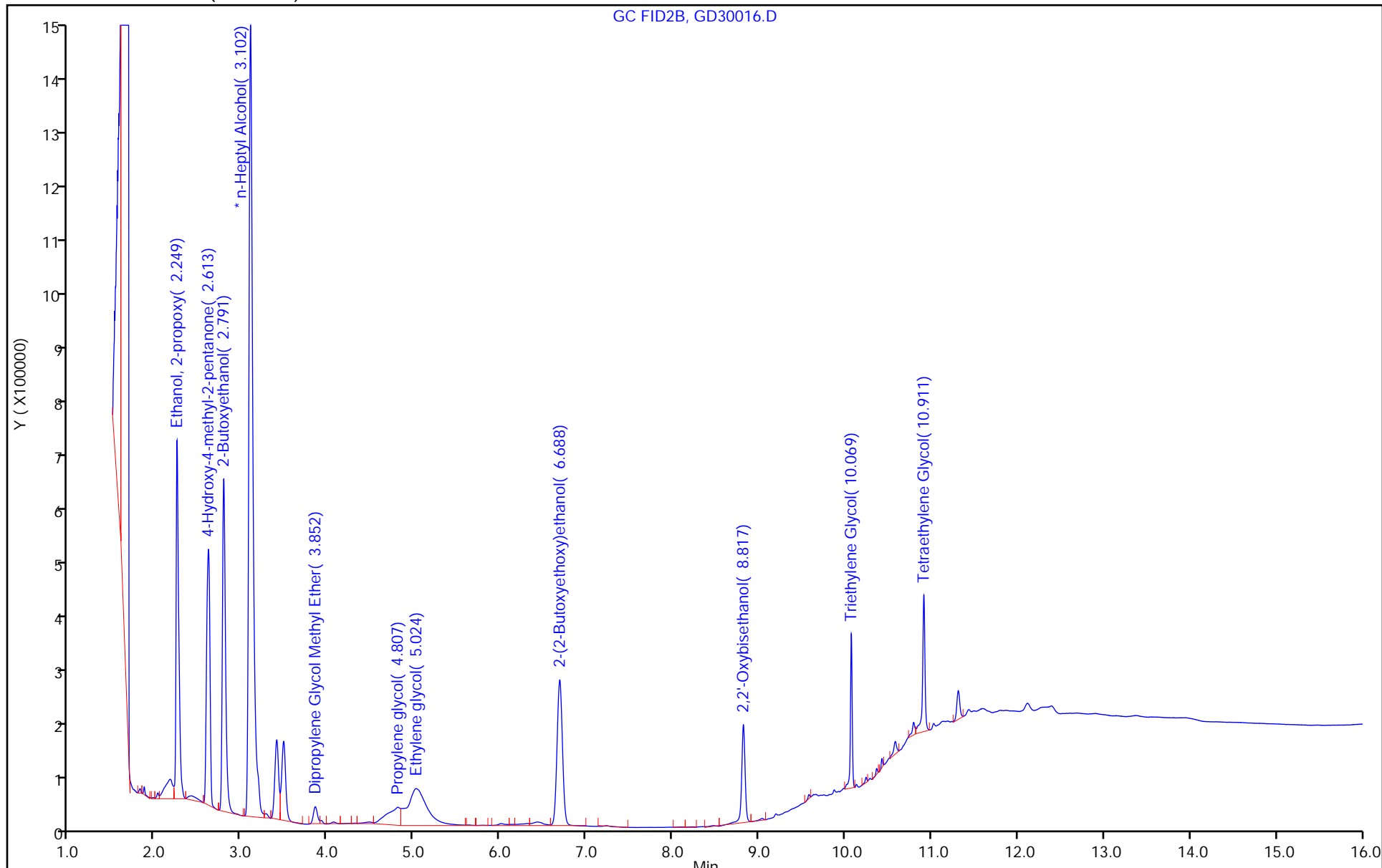
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)







Eurofins Savannah  
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30017.D  
 Lims ID: 580-126438-C-1 MSD  
 Client ID:  
 Sample Type: MSD  
 Inject. Date: 01-May-2023 06:16:14 ALS Bottle#: 0 Worklist Smp#: 17  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0085636-017  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-May-2023 13:00:18 Calib Date: 16-Apr-2023 22:15:38  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230416-85300.b\GD16017.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1659

First Level Reviewer: SK9U Date: 01-May-2023 12:56:52

RT (min.)	Exp RT (min.)	Diff RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy						
2.253	2.272	-0.019	1526419	20.0	18.4	
2 4-Hydroxy-4-methyl-2-pentanone						
2.613	2.632	-0.019	1489306	20.0	20.0	
3 2-Butoxyethanol						
2.793	2.809	-0.016	1665184	20.0	20.0	
* 4 n-Heptyl Alcohol						
3.097	3.113	-0.016	5355805	50.0	50.0	M
5 Dipropylene Glycol Methyl Ether						
3.860	3.868	-0.008	136662	20.0	20.7	
6 Propylene glycol						
4.813	4.824	-0.011	364476	20.0	22.7	M
7 Ethylene glycol						
5.035	5.036	-0.001	823054	20.0	18.8	
8 2-(2-Butoxyethoxy)ethanol						
6.692	6.697	-0.005	1283137	20.0	19.6	
9 2,2'-Oxybisethanol						
8.818	8.819	-0.001	516727	20.0	19.6	
10 Triethylene Glycol						
10.071	10.071	0.000	461306	20.0	17.5	
11 Tetraethylene Glycol						
10.914	10.911	0.003	485142	40.0	17.6	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG\_Gly\_CAL\_00049

Amount Added: 10.00

Units: uL

SG\_GLY\_ISTD\_00117

Amount Added: 10.00

Units: uL

Run Reagent

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30017.D

Injection Date: 01-May-2023 06:16:14

Instrument ID: CVGG2

Operator ID:

Lims ID: 580-126438-C-1 MSD

Worklist Smp#: 17

Client ID:

Injection Vol: 1.0 ul

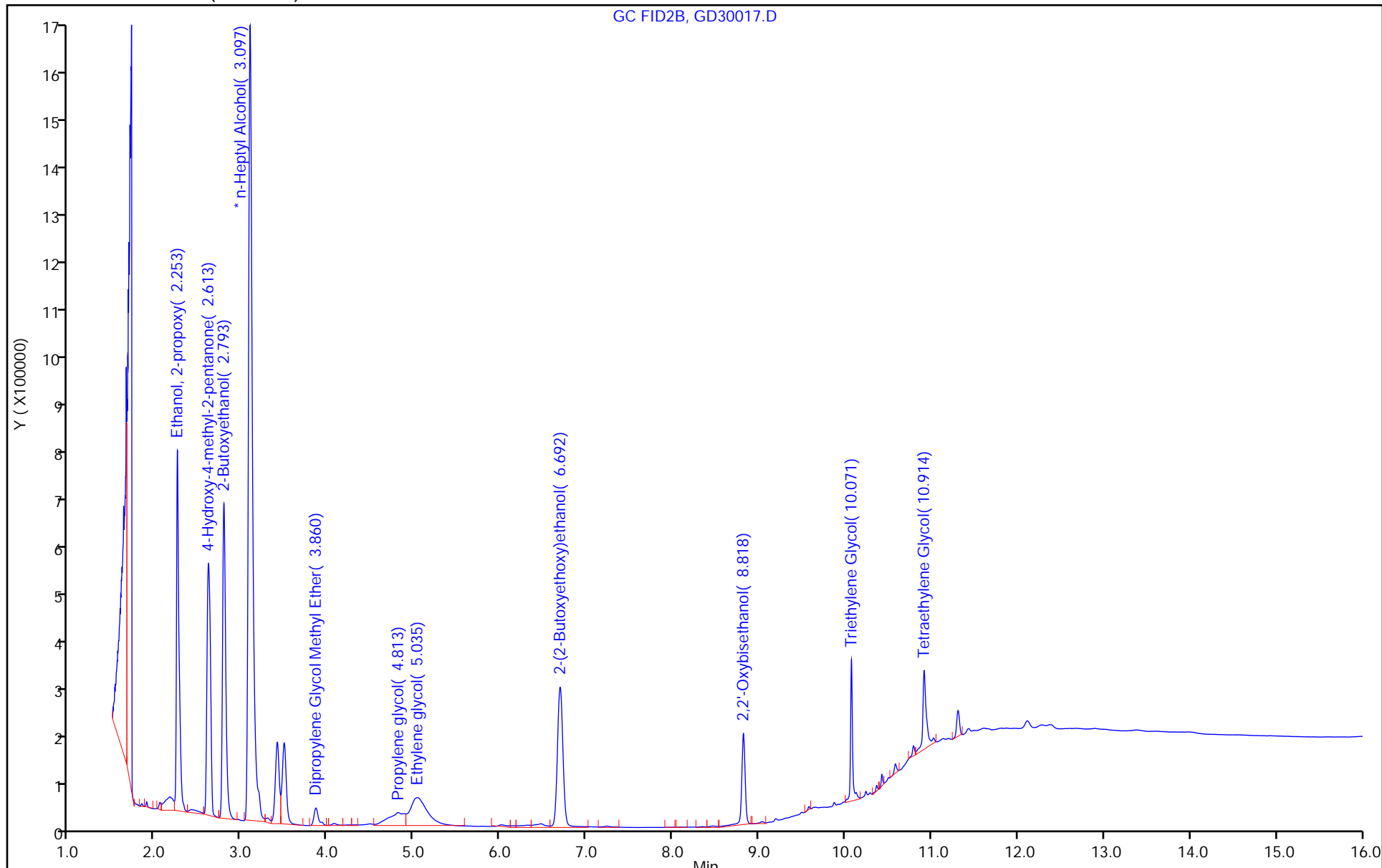
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX (0.45 mm)



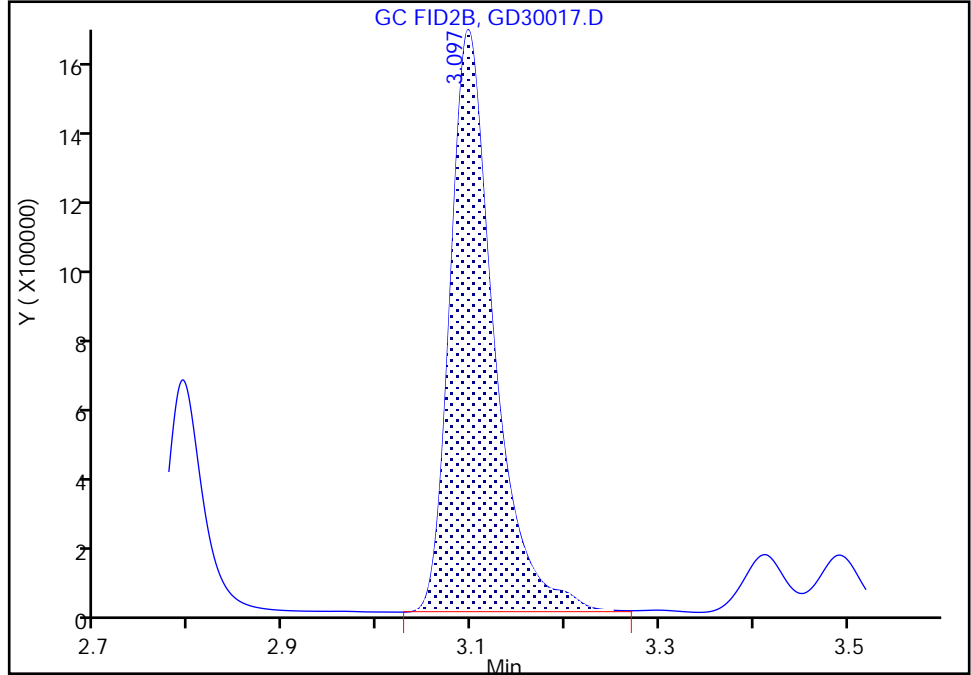
Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230430-85636.b\GD30017.D  
Injection Date: 01-May-2023 06:16:14 Instrument ID: CVGG2  
Lims ID: 580-126438-C-1 MSD  
Client ID:  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 17  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX (0.45 mm) Detector: GC FID2B

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

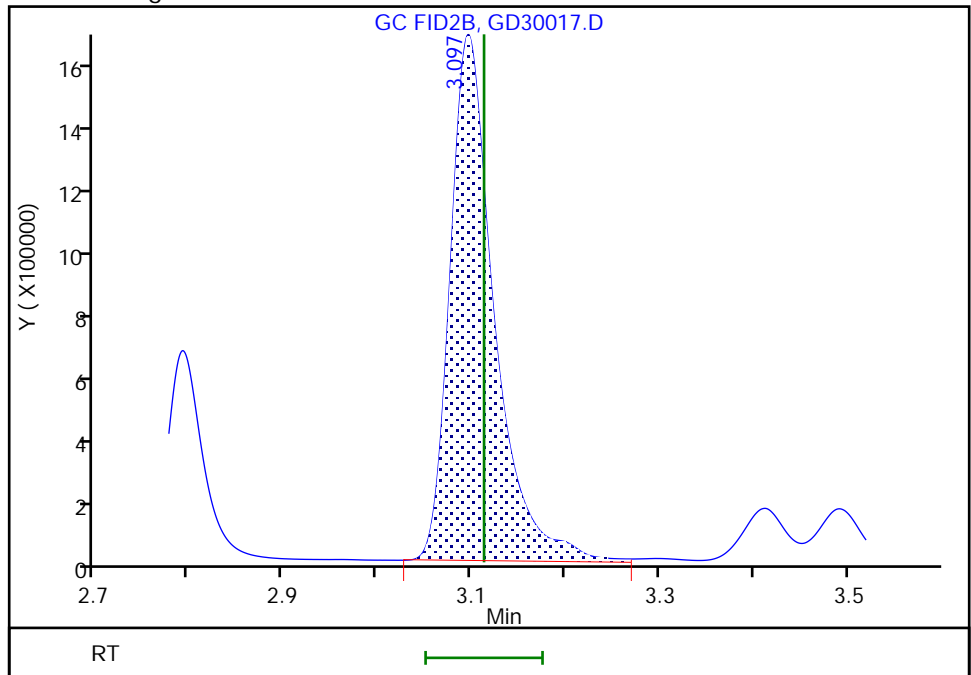
RT: 3.10  
Area: 5308444  
Amount: 50.000000  
Amount Units: ug/ml

Processing Integration Results



RT: 3.10  
Area: 5355805  
Amount: 50.000000  
Amount Units: ug/ml

Manual Integration Results



GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-126438-1

SDG No.: \_\_\_\_\_

Instrument ID: CVGG2 Start Date: 04/16/2023 19:56

Analysis Batch Number: 773617 End Date: 04/17/2023 05:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 680-773617/4		04/16/2023 19:56	1	GD16011.D	J&W DB WAX 0.45 (mm)
IC 680-773617/5		04/16/2023 20:19	1	GD16012.D	J&W DB WAX 0.45 (mm)
IC 680-773617/6		04/16/2023 20:42	1	GD16013.D	J&W DB WAX 0.45 (mm)
ICIS 680-773617/7		04/16/2023 21:05	1	GD16014.D	J&W DB WAX 0.45 (mm)
IC 680-773617/8		04/16/2023 21:29	1	GD16015.D	J&W DB WAX 0.45 (mm)
IC 680-773617/9		04/16/2023 21:52	1	GD16016.D	J&W DB WAX 0.45 (mm)
IC 680-773617/10		04/16/2023 22:15	1	GD16017.D	J&W DB WAX 0.45 (mm)
ICV 680-773617/11 CCV		04/16/2023 22:38	1	GD16018.D	J&W DB WAX 0.45 (mm)
ZZZZZ		04/16/2023 23:02	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/16/2023 23:25	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 00:34	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 00:58	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 01:21	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 01:44	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 02:07	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 02:30	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 02:54	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 03:17	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 03:40	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 04:03	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 04:27	1		J&W DB WAX 0.45 (mm)
ZZZZZ		04/17/2023 04:50	1		J&W DB WAX 0.45 (mm)
CCV 680-773617/29		04/17/2023 05:36	1		J&W DB WAX 0.45 (mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-126438-1

SDG No.: \_\_\_\_\_

Instrument ID: CVGG2 Start Date: 05/01/2023 01:14

Analysis Batch Number: 776112 End Date: 05/01/2023 09:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-776112/4		05/01/2023 01:14	1	GD30004.D	J&W DB WAX 0.45 (mm)
LCS 680-776112/5		05/01/2023 01:38	1	GD30005.D	J&W DB WAX 0.45 (mm)
LCSD 680-776112/6		05/01/2023 02:01	1	GD30006.D	J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 02:24	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 02:47	1		J&W DB WAX 0.45 (mm)
MB 680-776112/11		05/01/2023 03:57	1	GD30011.D	J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 04:20	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 04:43	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 05:06	1		J&W DB WAX 0.45 (mm)
580-126438-1	AF-RHMW17-WGN01LF-230 4W3	05/01/2023 05:29	1	GD30015.D	J&W DB WAX 0.45 (mm)
580-126438-1 MS	AF-RHMW17-WGN01LF-230 4W3 MS	05/01/2023 05:53	1	GD30016.D	J&W DB WAX 0.45 (mm)
580-126438-1 MSD	AF-RHMW17-WGN01LF-230 4W3 MSD	05/01/2023 06:16	1	GD30017.D	J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 06:39	10		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 07:02	1		J&W DB WAX 0.45 (mm)
580-126438-2	AF-RHMW17S-WGN01LF-23 04W3	05/01/2023 07:25	1	GD30020.D	J&W DB WAX 0.45 (mm)
580-126438-3	AF-RHMW17S-WQEB01-230 4W3	05/01/2023 07:48	1	GD30021.D	J&W DB WAX 0.45 (mm)
580-126438-4	AF-RHMW04-WGN01LF-230 4W3	05/01/2023 08:12	1	GD30022.D	J&W DB WAX 0.45 (mm)
580-126438-5	AF-RHMW06-WGN01LF-230 4W3	05/01/2023 08:35	1	GD30023.D	J&W DB WAX 0.45 (mm)
580-126438-6	AF-RHMW10-WGN01LF-230 4W3	05/01/2023 08:58	1	GD30024.D	J&W DB WAX 0.45 (mm)
CCV 680-776112/26		05/01/2023 09:44	1	GD30026.D	J&W DB WAX 0.45 (mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-126438-1

SDG No.: \_\_\_\_\_

Instrument ID: CVGG2 Start Date: 05/01/2023 13:02

Analysis Batch Number: 776218 End Date: 05/02/2023 01:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-776218/4		05/01/2023 13:02	1	GE01004.D	J&W DB WAX 0.45 (mm)
LCS 680-776218/5		05/01/2023 13:26	1	GE01005.D	J&W DB WAX 0.45 (mm)
LCSD 680-776218/6		05/01/2023 13:49	1	GE01006.D	J&W DB WAX 0.45 (mm)
MB 680-776218/9		05/01/2023 14:59	1	GE01009.D	J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 15:22	100		J&W DB WAX 0.45 (mm)
580-126438-7	AF-HDMW225303-WGN01LF-2304W3	05/01/2023 15:45	1	GE01011.D	J&W DB WAX 0.45 (mm)
580-126438-8	AF-RHMW16-WGN01LF-2304W3	05/01/2023 16:09	1	GE01012.D	J&W DB WAX 0.45 (mm)
580-126438-9	AF-RHMW12A-WGN01LF-2304W3	05/01/2023 16:32	1	GE01013.D	J&W DB WAX 0.45 (mm)
580-126438-10	AF-RHMW12A-WGFD01LF-2304W3	05/01/2023 16:55	1	GE01014.D	J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 17:18	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 17:42	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 18:05	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 18:28	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 18:52	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 19:15	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 19:38	1		J&W DB WAX 0.45 (mm)
CCV 680-776218/23		05/01/2023 20:25	1	GE01023.D	J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 21:34	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 21:57	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 22:21	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 22:44	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 23:07	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 23:30	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/01/2023 23:54	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/02/2023 00:17	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/02/2023 00:40	1		J&W DB WAX 0.45 (mm)
ZZZZZ		05/02/2023 01:03	1		J&W DB WAX 0.45 (mm)
CCV 680-776218/37		05/02/2023 01:49	1		J&W DB WAX 0.45 (mm)



GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1

SDG No.: \_\_\_\_\_

Batch Number: 773617 Batch Start Date: 04/16/23 19:56 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 00049	SG_GLY_ISTD 00110	SG_GlyICV 00052		
IC 680-773617/4		8015C GLY		1 mL	50 uL	10 uL			
IC 680-773617/5		8015C GLY		1 mL	40 uL	10 uL			
IC 680-773617/6		8015C GLY		1 mL	25 uL	10 uL			
ICIS 680-773617/7		8015C GLY		1 mL	10 uL	10 uL			
IC 680-773617/8		8015C GLY		1 mL	5 uL	10 uL			
IC 680-773617/9		8015C GLY		1 mL	2.5 uL	10 uL			
IC 680-773617/10		8015C GLY		1 mL	1 uL	10 uL			
ICV 680-773617/11 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.: 580-126438-1

SDG No.: \_\_\_\_\_

Batch Number: 776112 Batch Start Date: 05/01/23 01:14 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 00049	SG_GLY_ISTD 00117			
CCVIS 680-776112/4		8015C GLY		1 mL	10 uL	10 uL			
LCS 680-776112/5		8015C GLY		1 mL	10 uL	10 uL			
LCSD 680-776112/6		8015C GLY		1 mL	10 uL	10 uL			
MB 680-776112/11		8015C GLY		1 mL		10 uL			
580-126438-C-1	AF-RHMW17-WGN01L F-2304W3	8015C GLY	T	1 mL		10 uL			
580-126438-C-1	AF-RHMW17-WGN01L F-2304W3	8015C GLY	T	1 mL	10 uL	10 uL			
580-126438-C-1	AF-RHMW17-WGN01L F-2304W3	8015C GLY	T	1 mL	10 uL	10 uL			
580-126438-C-2	AF-RHMW17S-WGN01 LF-2304W3	8015C GLY	T	1 mL		10 uL			
580-126438-C-3	AF-RHMW17S-WQEB0 1-2304W3	8015C GLY	T	1 mL		10 uL			
580-126438-C-4	AF-RHMW04-WGN01L F-2304W3	8015C GLY	T	1 mL		10 uL			
580-126438-C-5	AF-RHMW06-WGN01L F-2304W3	8015C GLY	T	1 mL		10 uL			
580-126438-C-6	AF-RHMW10-WGN01L F-2304W3	8015C GLY	T	1 mL		10 uL			
CCV 680-776112/26		8015C GLY		1 mL	10 uL	10 uL			

Batch Notes	

Basis	Basis Description
T	Total/NA

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

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-126438-1

SDG No.: \_\_\_\_\_

Batch Number: 776218 Batch Start Date: 05/01/23 13:02 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 00049	SG_GLY_ISTD 00117			
CCVIS 680-776218/4		8015C GLY		1 mL	10 uL	10 uL			
LCS 680-776218/5		8015C GLY		1 mL	10 uL	10 uL			
LCSD 680-776218/6		8015C GLY		1 mL	10 uL	10 uL			
MB 680-776218/9		8015C GLY		1 mL		10 uL			
580-126438-C-7	AF-HDMW225303-WG N01LF-2304W3	8015C GLY	T	1 mL		10 uL			
580-126438-C-8	AF-RHMW16-WGN01L F-2304W3	8015C GLY	T	1 mL		10 uL			
580-126438-C-9	AF-RHMW12A-WGN01 LF-2304W3	8015C GLY	T	1 mL		10 uL			
580-126438-C-10	AF-RHMW12A-WGFDO 1LF-2304W3	8015C GLY	T	1 mL		10 uL			
CCV 680-776218/23		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

United Avia 016-73024852

<b>Client Information</b>		Sampler: <i>E. Maxia</i>		Lab PM: Elaine Walker		Carrier Tracking No(s): <i>ExEx United</i>		COC No: 2304W3AFE12													
Client Contact:		Phone: <i>317-599-7915</i>		E-Mail: M.Elaine.Walker@EurofinsET.com		State of Origin: Hawaii		Page: Page 1 of 1													
Company: AECOM		PWSID:		<b>Analysis Requested</b>						Job #:											
Address: 1001 Bishop St. Suite 1600		Due Date Requested: see subcontract		<table border="1"> <tr> <td>0016_C_DAL_OI_DSf_2(2-nitroxyethoxy)-ethanol</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						0016_C_DAL_OI_DSf_2(2-nitroxyethoxy)-ethanol										Preservation Codes:	
0016_C_DAL_OI_DSf_2(2-nitroxyethoxy)-ethanol																					
City: Honolulu		TAT Requested (days): <b>Rush - 5 Day</b>								A - HCL		M - Hexane									
State, Zip: Hawaii 96813		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No								B - NaOH		N - None									
Phone: 808-954-4512 / 770-331-0794		PO #:								C - Zn Acetate		O - AsNaO2									
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		WO #:		D - Nitric Acid		P - Na2O4S															
Project Name: CTO N6274223F0104		Project #: 60697810		E - NaHSO4		Q - Na2SO3															
Site: RHSF		SSOV#:		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:																	
				Special Instructions/Note:																	

**Sample Identification**		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=organic, M=metal, A=air)		Preservation Code:	
AF-RHMW17S-WGN01LF-2304W3		04/20/23		0945		G		W		N N X	
AF-RHMW17S-WQEB01-2304W3		04/20/23		0755		G		W		N N X	
*EM* *Dr. D. 13*											
**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 FQIS EDD.					
Empty Kit Relinquished by:						Special Instructions/QC Requirements: DOD QSM project.					
Relinquished by: *E. Maxia*		Date/Time: 04/20/23 1340		Company: AECOM		Received by: *[Signature]*		Date/Time: 4/20/23 1340		Company: AECOM	
Relinquished by: *[Signature]*		Date/Time: 4/20/23 1445		Company: AECOM		Received by: *[Signature]*		Date/Time: 4/20/23 1370		Company:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact  Yes  No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: *4.7/53*							

Ver: 01/16/2019











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

**Chain of Custody Record**

eurofins  
 Environment Testing  
 America  
 816-73024862  
 UNITED AND 06-48357586

<b>Client Information</b>		Sampler: <i>Eli Martin</i>		Lab PM: Elaine Walker		Carrier Tracking No(s): FedEx		COC No: 2304W3AFE06			
Client Contact:		Phone: <i>817-999-7614</i>		E-Mail: M.Elaine.Walker@EurofinsET.com		State of Origin: Hawaii		Page: Page 1 of 1			
Company: AECOM		PWSID:		<b>Analysis Requested</b>		<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <i>EA</i>  <i>04/19/23</i>  <i>2</i> </div>		<b>Preservation Codes:</b> 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:			
Address: 1001 Bishop St. Suite 1600		Due Date Requested: see subcontract									
City: Honolulu		TAT Requested (days): <b>Rush - 5 Day</b>		<small>8018C_DALGL_DS/2-(2-butoxyethoxy)-ethanol</small>		<small>Pos: Number of Replicate</small>		<b>Special Instructions/Note:</b>			
State, Zip: Hawaii 96813		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 808-954-4512 / 770-331-0794		PO #:		<small>8018C_DALGL_DS/2-(2-butoxyethoxy)-ethanol</small>		<small>Pos: Number of Replicate</small>		<b>Special Instructions/Note:</b>			
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		WO #:									
Project Name: CTO N6274223F0104		Project #: 60697810		<small>8018C_DALGL_DS/2-(2-butoxyethoxy)-ethanol</small>		<small>Pos: Number of Replicate</small>		<b>Special Instructions/Note:</b>			
Site: RHSF		SSOW#:									
<b>Sample Identification</b>		<b>Sample Date</b>		<b>Sample Time</b>		<b>Sample Type (C=Comp, G=grab)</b>		<b>Matrix (W=water, S=solid, O=soil/sed, BT=Tissue, A=Air)</b>			
AF-RHMW16-WGN01LF-2304W3		04/11/23		1245		G W		N N X			
<div style="border: 1px solid black; padding: 10px; display: inline-block;"> <i>EA</i>  <i>04/11/23</i> </div>											
<b>Possible Hazard Identification</b>					<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>						
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify)					Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQIS EDD.						
Empty Kit Relinquished by:					Special Instructions/QC Requirements: DOD QSM project.						
Relinquished by: <i>Eli Martin</i>		Date/Time: <i>04/11/23 1300</i>		Company: AECOM		Received by: <i>Miranda DelCorral</i>		Date/Time: <i>04/11/23 1300</i>		Company: AECOM	
Relinquished by: <i>Miranda DelCorral</i>		Date/Time: <i>04/20/23 1445</i>		Company: AECOM		Received by: <i>[Signature]</i>		Date/Time: <i>4/19/23 1300</i>		Company: AECOM	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <i>4.7/5.3</i>							







**Chain of Custody Record**

United AWR 016-7302482

<b>Client Information</b> Company: AECOM Address: 1001 Bishop St. Suite 1600 City: Honolulu State Zip: Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: Watson.Tanji@aecom.com / Mark.Kromis@aecom.com Project Name: CTO N6274223F0104 Site: RHSF		Lab PM: Elaine Walker E-Mail: M.Elaine.Walker@EurofinsET.com PWSID:	
Sampler: <i>see subcontract</i> Phone: <i>808 954 4512</i>		Carrier Tracking No(s): <i>FEDEX 016782</i> State of Origin: Hawaii Job #:	
Due Date Requested: <i>see subcontract</i> TAT Requested (days): <b>Rush - 5 Day</b> Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: <i>60697810</i> WO #: <i>60697810</i> Project #: <i>60697810</i> SSOW#:		COC No.: 2304W3AFE08 Page: Page 1 of 1 Job #:	
Matrix: <i>see subcontract</i> Sample Type: <i>see subcontract</i> Sample Time: <i>see subcontract</i> Sample Date: <i>see subcontract</i> Preservation Code: <i>see subcontract</i>		Preservation Codes: M - Hexane N - None O - Ash/AlO2 P - Na2SO4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
Field Filtered Sample (Yes or No): <i>see subcontract</i> Perform MS/MSD (Yes or No): <i>see subcontract</i> 8015C_DAL_GL_DS1/2-(2-butoxyethoxy)-ethanol		Total Number of Containers: <i>see subcontract</i>	
Sample Identification: AF-RHWW04-WGN01LF-2304W3 Date: <i>4/14/23</i> Time: <i>14:45</i>		Special Instructions/Note:	
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I II III IV Other (specify)		Special Instructions/QC Requirements: DOD QSM project 4 report standard IAT_AECOM.EQUIS.FDD	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <i>Jana in</i> Date/Time: <i>4/14/23 1640</i>		Received by: <i>Miranda Johnson</i> Date/Time: <i>4/19/23 1640</i>	
Relinquished by: <i>Miranda Johnson</i> Date/Time: <i>4/10/23 1445</i>		Received by: <i>[Signature]</i> Date/Time: <i>4/20/23 1330</i>	
Relinquished by:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: <i>4.7/5.3</i>	



**Chain of Custody Record**

Water #008 016-73624802

<b>Client Information</b>		Company: AECOM		Lab PM: Elaine Walker		Carrier Tracking No(s): 2304W3AFEA09	
Client Contact:		Phone: 509 268 1004		E-Mail: M.Elaine.Walker@EurofinsET.com		Page: Page 1 of 1	
Company Address:		1001 Bishop St. Suite 1600		City: Honolulu		State of Origin: Hawaii	
City:		Honolulu		State:		Job #:	
State Zip:		Hawaii, 96813		Due Date Requested (see subcontract):		Analysis Requested:	
Phone:		808-954-4512 / 770-331-0794		TAT Requested (days):		Rush - 5 Day	
Email:		Watson.Tanji@aeom.com / Mark.Kromis@aeom.com		Compliance Project:		Delta Yes <input type="checkbox"/> No <input type="checkbox"/>	
Project Name:		CTO N6274223F0104		PO #:		WO #:	
Site:		RHSF		Project #:		60697810	
SSOW#:				Sample Date:		4/23/23	
Sample Identification:		AF-RHMM06-WGN01LF-2304W3		Sample Time (C=comp, G=grab):		1440	
Sample Type (C=comp, G=grab):		G		Matrix (Water, Solid, Other):		W	
Preservation Code:		A		Field Filtered Sample (Yes or No):		N	
Perform MS/MSD (Yes or No):		N		8015c_DAL_GL_DS/2-(2-butylhexylthoxy)-ethanol		A	
Total Number of Containers:		0		Special Instructions/Note:			
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 - EDTA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecaldehyde, U - Acetone, V - MCAA, W - pH 4-5, X - other (Specify), Z - other (Specify)		Other:			
Possible Hazard Identification:		<input type="checkbox"/> Non-Hazard, <input type="checkbox"/> Flammable, <input type="checkbox"/> Skin Irritant, <input type="checkbox"/> Poison B, <input type="checkbox"/> Unknown, <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month):		<input type="checkbox"/> Return To Client, <input type="checkbox"/> Disposal By Lab, <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested I II III IV Other (Specify):		I		Prelim data (Level 1 or 2) - see TAT above DoD Stage 4 record standard IAT_AECOMEQUL5EDD		Special Instructions/QC Requirements: DOD GSM project.	
Empty Kit Relinquished by:				Date:		Time:	
Relinquished by:		Oliver W		Date/Time:		4/19/23 1640	
Relinquished by:		Miranda DeCaro		Date/Time:		4/21/23 1330	
Relinquished by:				Date/Time:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No:		Cooler Temperature (°C and Other Remarks):		4.7/5.3	

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 5755 8th Street East  
 Tacoma, WA 98424

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 Environment Testing  
 America

# Chain of Custody Record

16-73534832  
 WRED AND

<b>Client Information</b>		Sampler: <i>ELI MARTIN</i>	Lab Piv: Elaine Walker	Carrier Tracking No(s): 2304W3AFEAD3
Client Contact:		Phone: 617-599-3612	E-Mail: Elaine.Walker@EurofinsET.com	Page: Page 1 of 1
Company: AECOM		Job #:		
Address: 1001 Bishop St, Suite 1600		Analysis Requested		
City: Honolulu		State of Origin: Hawaii		
State, Zip: Hawaii 96813		Preservation Codes:		
Phone: 808-954-4512 / 770-331-0794		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amehlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		
Project Name: CTO N6274223F0104		Total Number of Containers: 6		
Site: RHSE		Special Instructions/Note:		
<b>Sample Identification</b>		AF-RHMM10-WGN01LF-2304W3		
Due Date Requested: see subcontract	TAT Requested (days): Rush - 5 Day	Sample Date: 04/18/23	Sample Time: 1430	Sample Type (C=comp, G=grab): G
Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	PO #:	Field Filtered Sample (Yes or No): N	Perform MS/MSD (Yes or No): N	Preservation Code: W
WO #:	Project #: 60697810	Matrix (Liquid, Solid, Other):	8015C_DAL_GL_D5/2-(2-butoxyethoxy)-ethanol	
SSOW#:				
<b>Possible Hazard Identification</b>		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
<input checked="" type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Radiological
Deliverable Requested I II III IV Other (specify)		Return To Client <input type="checkbox"/> Archive For <input type="checkbox"/> Monifis		
Empty Kit Relinquished by: <i>Eli Martin</i>		Special Instructions/QC Requirements: DOD QSM project.		
Relinquished by: <i>Micanda DeCarne</i>		Method of Shipment:		
Relinquished by: <i>Micanda DeCarne</i>		Date/Time: 04/18/23 1515		
Relinquished by: <i>Micanda DeCarne</i>		Date/Time: 04/18/23 1445		
Relinquished by: <i>Micanda DeCarne</i>		Date/Time: 04/20/23 1730		
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No: 427523		

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 Tacoma, WA 98424

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 Environment Testing  
 America

**Chain of Custody Record**

016-73024802  
 United ANB

<b>Client Information</b> Company: AECOM Address: 1001 Bishop St. Suite 1600 City: Honolulu State/Zip: Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: Watson.Tanji@aecom.com / Mark.Kromis@aecom.com Project Name: CTO N6274223F0104 Site: RHSF		Lab PM: Elaine Walker E-Mail: M.Elaine.Walker@EurofinsET.com State of Origin: Hawaii		Camer Tracking No(s): 2304W3AFE04 Page: Page 1 of 1 Job #:	
Due Date Requested: see subcontract TAT Requested (days): <b>Rush - 5 Day</b> Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: W/O #: Project #: 60697810 SSON#:		<b>Analysis Requested</b> 8015C_DAL_GL_Dst/2-(2-butoxyethoxy)-ethanol Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> A Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> X Total Number of Containers: 3			
<b>Sample Identification</b> AF-HDMW225303-WGN01LF-2304W3 Sample Date: 04/18/23 Sample Time: 1100 Sample Type (C=Comp, G=grab): G Matrix (Water, Solid, Swastical, On-water, In-tissue, A-U): W Preservation Code:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amiclor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:			
<b>Possible Hazard Identification</b> <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I II III IV Other (specify)		<b>Sample Disposal</b> (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
<b>Empty Kit Relinquished by</b> Relinquished by: ELL MATH Date/Time: 04/18/23 1530 Company: AECOM		<b>Method of Shipment</b> Received by: MARIANNA DEGAJME Date/Time: 04/18/23 1930 Company: AECOM Received by: MARIANNA DEGAJME Date/Time: 04/21/23 1330 Company: AECOM Cooler Temperature(s) °C and Other Remarks: 4.7/15.3			

**Chain of Custody Record**

816-7302-1862  
UNITED KINGDOM 04-18-2023

<b>Client Information</b>		Sampler: <u>2-1-24</u>		Lab PM: Elaine Walker		Carrier Tracking No(s): 2304W3AFE06	
Client Contact: AECOM		Phone: <u>1-206-201-1740</u>		E-Mail: M.Elaine.Walker@EurofinsET.com		Page 1 of 1	
Address: 1001 Bishop St. Suite 1600		City: Honolulu		State of Origin: Hawaii		Job #:	
City: Honolulu		State Zip: Hawaii 96813		Compliance Project: <u>Rush - 5 Day</u>		Analysis Requested	
Phone: 808-954-4512 / 770-331-0794		PO #: <u>60697810</u>		Field Filled Sample (Yes or No): <u>X</u>		Form MS/MSD (Yes or No): <u>X</u>	
Email: Watson.Tanji@aeom.com / Mark.Kromis@aeom.com		Project #: <u>60697810</u>		Matrix (Residue, Spill, On-site, Asab)		Preservation Codes	
Project Name: CTO N6274223F0104		SSOW#: <u>RHSF</u>		Sample Date: <u>04/10/23</u>		Sample Type (C=Comp, G=grab): <u>G</u>	
Site: <u>AF-RHMMW16-WGN01LF-2304W3</u>		Sample Time: <u>11:00</u>		Preservation Code: <u>A</u>		Special Instructions/Note: <u>3</u>	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Deliverable Requested I II III IV Other (specify)		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Empty Kit Relinquished by: <u>Elaine Walker</u>		Date: <u>04/11/23</u>		Time: _____		Method of Shipment: _____	
Relinquished by: <u>Mardo Walker</u>		Date/Time: <u>04/11/23 1300</u>		Company: <u>AECOM</u>		Received by: <u>Miranda Decarmo</u>	
Relinquished by: _____		Date/Time: <u>04/11/23 1300</u>		Company: <u>AECOM</u>		Received by: _____	
Relinquished by: _____		Date/Time: <u>04/21/23 1350</u>		Company: _____		Received by: _____	
Custody Seals Intact: <u>Δ Yes Δ No</u>		Custody Seal No. <u>4-7/5.3</u>		Cooler Temperature(s) °C and Other Remarks: _____		Company: _____	

# Chain of Custody Record

616-7302-4862  
 unmet AND 0104655560  
 Eurofins

<b>Client Information</b>		Lab Pk: Elaine Walker	Carrier Tracking No(s): 2304W3AFE05
Client Contact: 1001 Bishop St, Suite 1600		E-Mail: Elaine Walker@EurofinsET.com	Page: Page 1 of 1
City: Honolulu		State of Origin: Hawaii	Job #:
State Zip: Hawaii 96813		<b>Analysis Requested</b>	
Phone: 808-954-4512 / 770-331-0794		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2SO4, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)	
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		Total Number of Containers: 3	
Project Name: CTO N6274223F0104		Special Instructions/Note:	
Site: RH5F			
<b>Sample Identification</b>			
Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=oil, B=bitumen, A=air)
6/19/25	200	G	W
6/19/25	200	G	W
AF-RHMM12A-WGN01LF-2304W3			
AF-RHMM12A-WGFD01LF-2304W3			
<b>Possible Hazard Identification</b>			
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/> Deliverable Requested I II III IV Other (specify)			
Prelim data (Level 1 or 2) - see TAT above. DoD Stage 4 report standard TAT. AECOM/EQUIS EDD			
<b>Sample Disposal</b> (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/OC Requirements: DOD QSM project.			
<b>Empty Kit Relinquished by:</b>			
Relinquished by: [Signature]	Date: 6/19/25	Time: 1300	Method of Shipment: 414123
Relinquished by: [Signature]	Date/Time: 7/20/25	Time: 1445	Date/Time: 7/20/25
Relinquished by: [Signature]	Date/Time: 7/21/25	Time: 1330	Date/Time: 7/21/25
Custody Seals Intact: <input checked="" type="checkbox"/> Custody Seal No: _____			
Cooler Temperature(s) °C and Other Remarks: _____			

Ver 01/16/2019  
 4.7/5.3

# Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-126438-1

**Login Number: 126438**  
**List Number: 2**  
**Creator: Johnson, Corey M**

**List Source: Eurofins Savannah**  
**List Creation: 04/26/23 02:51 PM**

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