



908 North Temperance Ave. ▽ Clovis, CA 93611 ▽ Phone 559-275-2175 ▽ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 4064.01

Data Validatable Report

June 9, 2021

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 95603-rev2

Project: 60571032 CV18F0126 Red Hill Fuel Storage, HI

Contract #: Prime contract # for DoD: NAVY CLEAN N62742-17-F-1800, CV18F0126
Subcontract: 18S-22209-HI27

Dear Ms. Pascua:

Four water samples were received March 25, 2021. Revised written results for the requested analyses are being provided on this June 9, 2021. **Revision 05/12/2021:** The duplicate result for ERH1295 has been added to the report. Revision 2, 06/09/21: 1,2,3-Trichloropane and 1,2-Dibromo-3-Chloro-Propane were added to the 524 results.

The 525.2 analysis was subcontracted to Weck Laboratories. Their report is separate.

The 8015B analysis was subcontracted to Energy Laboratories. Their report is separate.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Libby Cheeseborough, libby@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Loren Portwood, Laboratory Director
APPL, Inc.

LP/lac
Enclosure
cc: File

Data Validation Package
for
60571032 CV18F0126 Red Hill Fuel Storage
APPL SDG 95603
TABLE OF CONTENTS

LABORATORY NAME: APPL, Inc.

Case Narrative	<u>3</u>
Sample Management Records	<u>7</u>
Sample Results	<u>13</u>
QC Forms	<u>24</u>
Method 524.2 Calibration Data	<u>45</u>
Method 524.2 Raw Data	<u>98</u>
Method 200.8 Calibration Data	<u>117</u>
Method 200.8 Raw Data	<u>162</u>
Inorganic Analyses and Calibration Raw Data	<u>180</u>

CASE NARRATIVE

Case Narrative

ARF: 95603

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Sample Receipt Information:

Four water samples were received March 25, 2021 at 0.5°C and -1.1°C. The sample group was assigned Analytical Request Form (ARF) number 95603.

Sample Preparation and Analysis Information:

For the EPA 524.2 analysis, the samples were purged according to the method.

For the EPA 200.8 analysis, the samples were digested according to EPA method 200.8/11.2.

For the SM5310B, the samples were prepared according to the methods.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request. Measurement uncertainty can be reported upon request.

Analytical Exceptions, Deviations and Abnormalities.

qryCOC_APPLCaseNarrativeReport

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description
95603	03/25/21	ERH1293	BA29551	03/24/21 8:57:00 AM	WATER	EPA 524.2	EPA 524.2
95603	03/25/21	ERH1294	BA29552	03/24/21 9:15:00 AM	WATER	200.8	ICPMS 200.8 H2O TOTAL
95603	03/25/21	ERH1294	BA29552	03/24/21 9:15:00 AM	WATER	EPA 524.2	EPA 524.2
95603	03/25/21	ERH1294	BA29552	03/24/21 9:15:00 AM	WATER	EPA 525.2	EPA 525.2
95603	03/25/21	ERH1294	BA29552	03/24/21 9:15:00 AM	WATER	SM 5310C	DOC WATERS BY SM 5310C
95603	03/25/21	ERH1295	BA29553	03/24/21 9:55:00 AM	WATER	200.8	ICPMS 200.8 H2O TOTAL
95603	03/25/21	ERH1295	BA29553	03/24/21 9:55:00 AM	WATER	EPA 524.2	EPA 524.2
95603	03/25/21	ERH1295	BA29553	03/24/21 9:55:00 AM	WATER	EPA 525.2	EPA 525.2
95603	03/25/21	ERH1295	BA29553	03/24/21 9:55:00 AM	WATER	SM 5310C	DOC WATERS BY SM 5310C
95603	03/25/21	ERH1296	BA29554	03/24/21 10:08:00 AM	WATER	EPA 525.2	EPA 525.2

Abbreviations and Flags


FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
MI1	Manual integration: integration does not follow baseline
MI2	Manual integration: non-target peak interference
MI3	Manual integration: to split a peak that was integrated as one peak by the computer
MI4	Manual integration: to integrate a split peak
MI5	Manual integration: the whole peak or part of the peak was not integrated
MI6	Manual integration: computer integrated wrong peak
MI7	Manual integration: other - explain
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel.
Y	Percent difference between primary and confirmation column > 40%

**SAMPLE RECORDS MANAGEMENT
CHAIN OF CUSTODY,
ARF, CRF, AND
CLIENT COMMUNICATION**

APPL - Analysis Request Form

95603

Client: AECOM
 Address: 1001 Bishop Street, Suite 1600
Honolulu, HI 96813
 Attn: Margie Pascua
 Phone: 808-954-4536 Fax: 808-523-8950
 Job: 60571032 CV18F0126 Red Hill Fuel Storage
 PO #: 18S-22209-HI27 PO# 102604
 Chain of Custody (Y/N): Y # 58483,58484
 RAD Screen (Y/N): Y pH (Y/N): Y
 Turn Around Type: STD

Received by: RBR 
 Date Received: 03/25/21 Time: 10:15
 Delivered by: FEDEX
 Shuttle Custody Seals (Y/N): Y Time Zone: -10
 Chest Temp(s): -1.1,0.5°C
 Color: VFRG/B-Re/MM-PiLtB/S
 Samples Chilled until Placed in Refrig/Freezer: Y
 Project Manager: Libby Cheesebor
 QC Report Type: DVP4DOD/EQUIS/HI
 Due Date: 04/15/21

Comments:

PM: login and F1s to Margie.Pascua@aecom.com & alethea.ramos@aecom.com

*AN: 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms: LOD database
 Report MS/MSD/DUPs when AECOM sample used*

*FR: email ftp info to Margie, alethea.ramos@aecom.com, Stella, trommelfanger@lab-data.com & jcanlas@la
 EDD: AECOM EQUIS EDD 2.5.3 Red Hill 87DMEE->3535A to alethea.ramos@, Margie.Pascua@aecom.com, jecklund*

SUB: 525.2 subcontracted to Weck; TPH-d/o subcontracted to Engery Labs

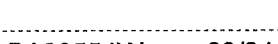
Sample Distribution:

VOA: 3-\$524
Metals: 2-\$2008(Pb)
Wetlab: 2-\$5310CD
Other: 2- M2008, 3-SUB

Charges:

Invoice To:

ACCOUNTS PAYABLE
 1001 Bishop Street, Ste 1600
 USAPImaging@aecom.com
 mary.basano@aecom.com

Client ID	APPL ID	Sampled	Analyses Requested
1. ERH1293	LCS D BA29551W 	03/24/21 08:57	\$524 -- See Comments
2. ERH1294	LCS D BA29552W 	03/24/21 09:15	\$2008(Pb), \$524, \$5310CD, SUB -- See Comments
3. ERH1295	LCS D BA29553W 	03/24/21 09:55	\$2008(Pb), \$524, \$5310CD, SUB -- See Comments
4. ERH1296	LCS D BA29554W 	03/24/21 10:08	SUB -- See Comments

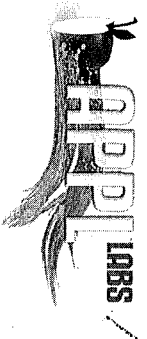
Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -10 UTC

APPL Sample Receipt Form

ARF# 95603

Sample	Container Type	Count	p
BA29551	¹³ VOAs - HCL	3	NA
BA29552	⁶ PL 500mL - HNO3	1	1.3
	¹³ VOAs - HCL	3	NA
	¹⁷ Amber Liter	3	NA
	³² Clear VOA - H2SO4	3	NA
	³⁹ Amber Liter, HCL prsvd	2	1.6
BA29553	⁶ PL 500mL - HNO3	1	1.3
	¹³ VOAs - HCL	3	NA
	¹⁷ Amber Liter	3	NA
	³² Clear VOA - H2SO4	3	NA
	³⁹ Amber Liter, HCL prsvd	2	1.6
BA29554	¹⁷ Amber Liter	3	NA

Sample Container Type Count p



APPL, Inc.
 908 N Temperance Ave
 Clovis, CA 93611
 www.applinc.com

CHAIN OF CUSTODY RECORD
 95603

Report to: PLEASE PRINT

Company Name: AECOM Phone: 808 356 5373

Address: 1001 Bishop St Suite 1600 Fax: _____

City: Honolulu, HI 96813

Attn: Margie Passera

Email: Margie.Passera@aecom.com

Invoice to: PLEASE PRINT

Company Name: _____ Phone: _____

Address: _____ Fax: _____

City: _____

Attn: USAP Imaging

Email: _____

Project Name/Number: 60571032

Sampler (Print): Gavin Mura

Sampler (Signature): [Signature]

Purchase Order Number: 60571032

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix			Analysis Requested/Method Number	Date Shipped: <u>03/24/21</u>
						Aq	Sed.	Soil		
EAH1293	Trip Blank	03/24/21	8:57	HST	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOCs by 524.2	Carrier: _____
EAH1294	Rechlorinated DW	03/24/21	9:15	HST	12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TPH D (C8-10, C10-C25) by 8015	Waybill No.: _____
EAH1295	Post Chlorinated DW	03/24/21	9:55	HST	7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SVOCs by 525.2	Comments: _____
EAH1296	Ambient	03/24/21	AM	HST	7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Lead by 8008	
									DOC by 135MS	

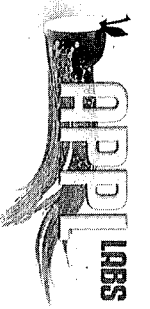
Shuttle Temperature: _____ Turnaround Requested: Check one
 Standard 2-3 wk One week 3 days 24/48 Hrs. Other: _____

Reinquired by sampler: Gavin Mura Date: 03/24/21 Time: 1220 Received by: _____
 Date: _____ Time: _____ Received by: _____

Reinquired by: _____ Date: _____ Time: _____ Received by: _____
 Date: 3-25-21 Time: 1015 Received by: [Signature]

White: Return to client with report Yellow: Laboratory Copy See reverse side for Container Preservative and Sampling Information

Sample Disposal: Return to client Disposal by Lab (30-day retention)



APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD
C.O.C. 58484

PLEASE PRINT

Report to:

PLEASE PRINT

Company Name: ACCOM

Phone: 868 356 5373

Invoice to:

PLEASE PRINT

Phone:

Address: 1001 Bishop St Suite 1600

Fax:

Company Name:

Address:

Fax:

Honolulu, HI 96813

USAP Imaging @acocom.com

Attn: Margie Pasqua

Attn:

Email: Margie.Pasqua@acocom.com

Email:

Project Name/Number
60571032

Sampler (Print)
Gavin Murn

No. of Containers

Analysis Requested/Method Number

Date Shipped: 03/24/20

Purchase Order Number
60571032

Sampler (Signature)
[Signature]

Matrix
Aq
Sed.
Soil

Carrier:
Waybill No.:

Sample Identification

Location

Date Collected

Time Collected

Time Zone

Matrix
Aq
Sed.
Soil

Comments:

ERH1255

Post Chlorination

03/24/20

9:55

HST

5 ✓

X

*Sub TPH samples on to every lab for CB-18 and C10-C20 analyses

ERH1296

Ambient

03/24/20

10:08

HST

3 ✓

X

Shuttle Temperature:

Turnaround Requested: Check one
 Standard 2-3 wk
 One week
 3 days
 24/48 Hrs.
 Other:

Sample Disposal:
 Return to client
 Disposal by Lab (30-day retention)

Relinquished by sampler:
Gavin Murn

Date: 03/24/20

Received by:

Relinquished by:

Date

Time

Received by:

Relinquished by:

Date

Time

Received by:

Relinquished by:

Date

Time

Received at lab by:

White: Return to client with report

Yellow: Laboratory Copy

See reverse side for Container Preservation and Sampling Information

SAMPLE RESULTS

EPA 524.2

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH1293

Sample Collection Date: 03/24/21

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 95603

APPL ID: BA29551

QCG: #524-210329AM-262420

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	1,1,1,2-TETRACHLOROETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,1-TRICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,2,2-TETRACHLOROETHANE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET	0.04 U	0.5	0.04	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,2-TRICHLOROETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/29/21	03/29/21
EPA 524.2	1,1-DICHLOROETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	1,1-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,1-DICHLOROPROPENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,3-TRICHLOROBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,3-TRICHLOROPROPANE	0.36 U	2.0	0.36	0.09	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,4-TRICHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,4-TRIMETHYLBENZENE	0.45 U	0.5	0.45	0.15	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DIBROMO-3-CHLOROPROPANE	0.92 U	1.0	0.92	0.23	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DIBROMOETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DICHLOROPROPANE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,3,5-TRIMETHYLBENZENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	1,3-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	1,3-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,4-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	2,2-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	2-CHLOROTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	4-CHLOROTOLUENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	BENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	BROMODICHLOROMETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOFORM	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOMETHANE	0.40 U	0.5	0.40	0.10	ug/L	03/29/21	03/29/21
EPA 524.2	C-1,2-DICHLOROETHENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	C-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	CARBON TETRACHLORIDE	0.18 U	0.2	0.18	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	CHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	CHLOROETHANE	0.40 U	0.5	0.40	0.14	ug/L	03/29/21	03/29/21

Quant Method: M0329524.M
Run #: 0329M28
Instrument: Max
Sequence: 210329
Dilution Factor: 1
Initials: CHE

Printed: 06/08/21 1:40:14 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 524.2

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH1293

Sample Collection Date: 03/24/21

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 95603

APPL ID: BA29551

CGC: #524-210329AM-262420

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	CHLOROFORM	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	CHLOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	DIBROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	DIBROMOMETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/29/21	03/29/21
EPA 524.2	DICHLORODIFLUOROMETHANE	0.36 U	0.5	0.36	0.09	ug/L	03/29/21	03/29/21
EPA 524.2	ETHYLBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	HEXACHLOROBUTADIENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	ISOPROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	METHYLENE CHLORIDE	3.0	0.5	0.45	0.15	ug/L	03/29/21	03/29/21
EPA 524.2	MTBE	0.47 U	0.5	0.47	0.23	ug/L	03/29/21	03/29/21
EPA 524.2	N-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	N-PROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	NAPHTHALENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	P-ISOPROPYLTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	SEC-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	STYRENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	T-1,2-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	T-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	TERT-BUTYLBENZENE	0.04 U	0.5	0.04	0.01	ug/L	03/29/21	03/29/21
EPA 524.2	TETRACHLOROETHENE	0.20 U	0.2	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	TOLUENE	0.40 U	0.5	0.40	0.10	ug/L	03/29/21	03/29/21
EPA 524.2	TRICHLOROETHENE	0.12 U	0.2	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	TRICHLOROFLUOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	VINYL CHLORIDE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	XYLENES	0.44 U	0.5	0.44	0.11	ug/L	03/29/21	03/29/21
EPA 524.2	SURROGATE: 1,2-DICHLOROETHANE-	102	70-130			%	03/29/21	03/29/21
EPA 524.2	SURROGATE: 4-BROMOFLUOROBENZ	96.8	70-130			%	03/29/21	03/29/21

Quant Method: M0329524.M
Run #: 0329M28
Instrument: Max
Sequence: 210329
Dilution Factor: 1
Initials: CHE

Printed: 06/08/21 1:40:14 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 524.2

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH1294

Sample Collection Date: 03/24/21

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 95603

APPL ID: BA29552

QCG: #524-210329AM-262420

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	1,1,1,2-TETRACHLOROETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,1-TRICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,2,2-TETRACHLOROETHANE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET	0.04 U	0.5	0.04	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,2-TRICHLOROETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/29/21	03/29/21
EPA 524.2	1,1-DICHLOROETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	1,1-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,1-DICHLOROPROPENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,3-TRICHLOROBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,3-TRICHLOROPROPANE	0.36 U	1.0	0.36	0.09	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,4-TRICHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,4-TRIMETHYLBENZENE	0.45 U	0.5	0.45	0.15	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DIBROMO-3-CHLOROPROPANE	0.92 U	2.0	0.92	0.23	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DIBROMOETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DICHLOROPROPANE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,3,5-TRIMETHYLBENZENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	1,3-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	1,3-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,4-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	2,2-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	2-CHLOROTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	4-CHLOROTOLUENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	BENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	BROMODICHLOROMETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOFORM	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOMETHANE	0.40 U	0.5	0.40	0.10	ug/L	03/29/21	03/29/21
EPA 524.2	C-1,2-DICHLOROETHENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	C-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	CARBON TETRACHLORIDE	0.18 U	0.2	0.18	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	CHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	CHLOROETHANE	0.40 U	0.5	0.40	0.14	ug/L	03/29/21	03/29/21

Quant Method: M0329524.M
Run #: 0329M27
Instrument: Max
Sequence: 210329
Dilution Factor: 1
Initials: CHE

Printed: 06/08/21 1:40:14 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 524.2

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH1294

Sample Collection Date: 03/24/21

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 95603

APPL ID: BA29552

CGC: #524-210329AM-262420

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	CHLOROFORM	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	CHLOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	DIBROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	DIBROMOMETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/29/21	03/29/21
EPA 524.2	DICHLORODIFLUOROMETHANE	0.36 U	0.5	0.36	0.09	ug/L	03/29/21	03/29/21
EPA 524.2	ETHYLBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	HEXACHLOROBUTADIENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	ISOPROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	METHYLENE CHLORIDE	0.45 U	0.5	0.45	0.15	ug/L	03/29/21	03/29/21
EPA 524.2	MTBE	0.47 U	0.5	0.47	0.23	ug/L	03/29/21	03/29/21
EPA 524.2	N-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	N-PROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	NAPHTHALENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	P-ISOPROPYLTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	SEC-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	STYRENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	T-1,2-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	T-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	TERT-BUTYLBENZENE	0.04 U	0.5	0.04	0.01	ug/L	03/29/21	03/29/21
EPA 524.2	TETRACHLOROETHENE	0.20 U	0.2	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	TOLUENE	0.40 U	0.5	0.40	0.10	ug/L	03/29/21	03/29/21
EPA 524.2	TRICHLOROETHENE	0.12 U	0.2	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	TRICHLOROFLUOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	VINYL CHLORIDE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	XYLENES	0.44 U	0.5	0.44	0.11	ug/L	03/29/21	03/29/21
EPA 524.2	SURROGATE: 1,2-DICHLOROETHANE-	101	70-130			%	03/29/21	03/29/21
EPA 524.2	SURROGATE: 4-BROMOFLUOROBENZ	97.9	70-130			%	03/29/21	03/29/21

Quant Method: M0329524.M
Run #: 0329M27
Instrument: Max
Sequence: 210329
Dilution Factor: 1
Initials: CHE

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APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 524.2

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH1295

Sample Collection Date: 03/24/21

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 95603

APPL ID: BA29553

QCG: #524-210329AM-262420

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	1,1,1,2-TETRACHLOROETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,1-TRICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,2,2-TETRACHLOROETHANE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET	0.04 U	0.5	0.04	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	1,1,2-TRICHLOROETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/29/21	03/29/21
EPA 524.2	1,1-DICHLOROETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	1,1-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,1-DICHLOROPROPENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,3-TRICHLOROBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,3-TRICHLOROPROPANE	0.36 U	1.0	0.36	0.09	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,4-TRICHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	1,2,4-TRIMETHYLBENZENE	0.45 U	0.5	0.45	0.15	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DIBROMO-3-CHLOROPROPANE	0.92 U	2.0	0.92	0.23	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DIBROMOETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,2-DICHLOROPROPANE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	1,3,5-TRIMETHYLBENZENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	1,3-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	1,3-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	1,4-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	2,2-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	2-CHLOROTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	4-CHLOROTOLUENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	BENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	BROMODICHLOROMETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOFORM	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	BROMOMETHANE	0.40 U	0.5	0.40	0.10	ug/L	03/29/21	03/29/21
EPA 524.2	C-1,2-DICHLOROETHENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
EPA 524.2	C-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	CARBON TETRACHLORIDE	0.18 U	0.2	0.18	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	CHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	CHLOROETHANE	0.40 U	0.5	0.40	0.14	ug/L	03/29/21	03/29/21

Quant Method: M0329524.M
Run #: 0329M29
Instrument: Max
Sequence: 210329
Dilution Factor: 1
Initials: CHE

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APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 524.2

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH1295

Sample Collection Date: 03/24/21

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 95603

APPL ID: BA29553

CGC: #524-210329AM-262420

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 524.2	CHLOROFORM	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	CHLOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	DIBROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	DIBROMOMETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/29/21	03/29/21
EPA 524.2	DICHLORODIFLUOROMETHANE	0.36 U	0.5	0.36	0.09	ug/L	03/29/21	03/29/21
EPA 524.2	ETHYLBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	HEXACHLOROBUTADIENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	ISOPROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	METHYLENE CHLORIDE	0.45 U	0.5	0.45	0.15	ug/L	03/29/21	03/29/21
EPA 524.2	MTBE	0.47 U	0.5	0.47	0.23	ug/L	03/29/21	03/29/21
EPA 524.2	N-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	N-PROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	NAPHTHALENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	P-ISOPROPYLTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	SEC-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	STYRENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
EPA 524.2	T-1,2-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	T-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	TERT-BUTYLBENZENE	0.04 U	0.5	0.04	0.01	ug/L	03/29/21	03/29/21
EPA 524.2	TETRACHLOROETHENE	0.20 U	0.2	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	TOLUENE	0.40 U	0.5	0.40	0.10	ug/L	03/29/21	03/29/21
EPA 524.2	TRICHLOROETHENE	0.12 U	0.2	0.12	0.03	ug/L	03/29/21	03/29/21
EPA 524.2	TRICHLOROFLUOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
EPA 524.2	VINYL CHLORIDE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
EPA 524.2	XYLENES	0.44 U	0.5	0.44	0.11	ug/L	03/29/21	03/29/21
EPA 524.2	SURROGATE: 1,2-DICHLOROETHANE-	101	70-130			%	03/29/21	03/29/21
EPA 524.2	SURROGATE: 4-BROMOFLUOROBENZ	98.8	70-130			%	03/29/21	03/29/21

Quant Method: M0329524.M
Run #: 0329M29
Instrument: Max
Sequence: 210329
Dilution Factor: 1
Initials: CHE

Printed: 06/08/21 1:40:14 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Metals Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 95603
APPL ID: BA29552

Sample ID: ERH1294
Sample Collection Date: 03/24/21

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
200.8	LEAD (PB)	0.18 U	0.2	0.18	0.09	ug/L	1	04/02/21	04/06/21

Metals Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH1295

Sample Collection Date: 03/24/21

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 95603

APPL ID: BA29553

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
200.8	LEAD (PB)	0.15 J	0.2	0.18	0.09	ug/L	1	04/02/21	04/06/21

J = Estimated value.

Printed: 04/09/21 1:33:44 PM
APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH1294
Sample Collection Date: 03/24/21

APPL ID: BA29552
ARF: 95603

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
SM 5310C	DISSOLVED ORGANIC CARB	0.37 J	0.5	0.35	0.13	mg/L	1	03/26/21	03/26/21

J = Estimated value.

Printed: 04/02/21 10:45:52 AM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH1295
Sample Collection Date: 03/24/21

APPL ID: BA29553
ARF: 95603

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
SM 5310C	DISSOLVED ORGANIC CARB	0.98	0.5	0.35	0.13	mg/L	1	03/26/21	03/26/21

QC FORMS

EPA 524.2

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 95603
Matrix: WATER

SDG No: 95603
Date Analyzed: 03/29/21
Instrument: Max

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
210329AM-LCS	Lab Control Spike	70-130	98.8		70-130	101	
210329AM-LCSD	Lab Control SpikeD	70-130	102		70-130	102	
210329AM-BLK	Blank	70-130	103		70-130	99.2	
BA29552	ERH1294	70-130	101		70-130	97.9	
BA29551	ERH1293	70-130	102		70-130	96.8	
BA29553	ERH1295	70-130	101		70-130	98.8	

Comments: Batch: #524-210329AM

Printed: 06/08/21 1:40:17 PM
Form 2 & 8, Surrogate Recovery Summary

EPA 524.2

Form 4

Blank Summary

Lab Name: APPL, Inc.

SDG No: 95603

Case No: 95603

Date Analyzed: 03/29/21

Matrix: WATER

Instrument: Max

Blank ID: 210329AM-BLK

Time Analyzed: 1520

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210329AM-LCS	Lab Control Spike	0329M17	03/29/21 1425
210329AM-LCSD	Lab Control Spiked	0329M18	03/29/21 1453
210329AM-BLK	Blank	0329M19	03/29/21 1520
BA29552	ERH1294	0329M27	03/29/21 1904
BA29551	ERH1293	0329M28	03/29/21 1932
BA29553	ERH1295	0329M29	03/29/21 2000

Comments: Batch: #524-210329AM

Printed: 06/08/21 1:40:19 PM
Form 4, Blank Summary

Method Blank

EPA 524.2

Blank Name/QCG: **210329W-29144 - 262420**
 Batch ID: #524-210329AM

APPL Inc.
 908 North Temperance Avenue
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	1,1,1-TRICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	1,1,2,2-TETRACHLOROETHANE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
BLANK	1,1,2-TRICHLORO-1,2,2-TRIFLUO	0.04 U	0.5	0.04	0.02	ug/L	03/29/21	03/29/21
BLANK	1,1,2-TRICHLOROETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/29/21	03/29/21
BLANK	1,1-DICHLOROETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
BLANK	1,1-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	1,1-DICHLOROPROPENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
BLANK	1,2,3-TRICHLOROBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
BLANK	1,2,3-TRICHLOROPROPANE	0.36 U	1.0	0.36	0.09	ug/L	03/29/21	03/29/21
BLANK	1,2,4-TRICHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
BLANK	1,2,4-TRIMETHYLBENZENE	0.45 U	0.5	0.45	0.15	ug/L	03/29/21	03/29/21
BLANK	1,2-DIBROMO-3-CHLOROPROPA	0.92 U	2.0	0.92	0.23	ug/L	03/29/21	03/29/21
BLANK	1,2-DIBROMOETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
BLANK	1,2-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	1,2-DICHLOROETHANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	1,2-DICHLOROPROPANE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
BLANK	1,3,5-TRIMETHYLBENZENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
BLANK	1,3-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	1,3-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	1,4-DICHLOROBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	2,2-DICHLOROPROPANE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	2-CHLOROTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	4-CHLOROTOLUENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
BLANK	BENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	BROMOBENZENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
BLANK	BROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	BROMODICHLOROMETHANE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
BLANK	BROMOFORM	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
BLANK	BROMOMETHANE	0.40 U	0.5	0.40	0.10	ug/L	03/29/21	03/29/21
BLANK	C-1,2-DICHLOROETHENE	0.08 U	0.5	0.08	0.02	ug/L	03/29/21	03/29/21
BLANK	C-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	CARBON TETRACHLORIDE	0.18 U	0.2	0.18	0.06	ug/L	03/29/21	03/29/21
BLANK	CHLOROBENZENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21

Quant Method:M0329524.M
Run #:0329M19
Instrument:Max
Sequence:210329
Initials:CHE

GC SC-Blank-REG MDLs-DOD
 Printed: 06/08/21 1:40:22 PM

Method Blank

EPA 524.2

Blank Name/QCG: **210329W-29144 - 262420**
 Batch ID: #524-210329AM

APPL Inc.
 908 North Temperance Avenue
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	CHLOROETHANE	0.40 U	0.5	0.40	0.14	ug/L	03/29/21	03/29/21
BLANK	CHLOROFORM	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	CHLOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
BLANK	DIBROMOCHLOROMETHANE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	DIBROMOMETHANE	0.32 U	0.5	0.32	0.08	ug/L	03/29/21	03/29/21
BLANK	DICHLORODIFLUOROMETHANE	0.36 U	0.5	0.36	0.09	ug/L	03/29/21	03/29/21
BLANK	ETHYLBENZENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	HEXACHLOROBUTADIENE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
BLANK	ISOPROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	METHYLENE CHLORIDE	0.45 U	0.5	0.45	0.15	ug/L	03/29/21	03/29/21
BLANK	MTBE	0.47 U	0.5	0.47	0.23	ug/L	03/29/21	03/29/21
BLANK	N-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	N-PROPYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	NAPHTHALENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
BLANK	P-ISOPROPYLTOLUENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	SEC-BUTYLBENZENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	STYRENE	0.24 U	0.5	0.24	0.06	ug/L	03/29/21	03/29/21
BLANK	T-1,2-DICHLOROETHENE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	T-1,3-DICHLOROPROPENE	0.12 U	0.5	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	TERT-BUTYLBENZENE	0.04 U	0.5	0.04	0.01	ug/L	03/29/21	03/29/21
BLANK	TETRACHLOROETHENE	0.20 U	0.2	0.20	0.05	ug/L	03/29/21	03/29/21
BLANK	TOLUENE	0.40 U	0.5	0.40	0.10	ug/L	03/29/21	03/29/21
BLANK	TRICHLOROETHENE	0.12 U	0.2	0.12	0.03	ug/L	03/29/21	03/29/21
BLANK	TRICHLOROFLUOROMETHANE	0.20 U	0.5	0.20	0.05	ug/L	03/29/21	03/29/21
BLANK	VINYL CHLORIDE	0.16 U	0.5	0.16	0.04	ug/L	03/29/21	03/29/21
BLANK	XYLENES	0.44 U	0.5	0.44	0.11	ug/L	03/29/21	03/29/21
BLANK	SURROGATE: 1,2-DICHLOROET	103	70-130			%	03/29/21	03/29/21
BLANK	SURROGATE: 4-BROMOFLUORO	99.2	70-130			%	03/29/21	03/29/21

Quant Method:M0329524.M
Run #:0329M19
Instrument:Max
Sequence:210329
Initials:CHE

GC SC-Blank-REG MDLs-DOD
 Printed: 06/08/21 1:40:22 PM

EPA 524.2

Form 4

LCS Summary

Lab Name: APPL, Inc.

SDG No: 95603

Case No: 95603

Date Analyzed: 03/29/21

Matrix: WATER

Instrument: Max

LCS ID: 210329AM-LCS

Time Analyzed: 1425

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210329AM-LCS	Lab Control Spike	0329M17	03/29/21 1425
210329AM-LCSD	Lab Control Spiked	0329M18	03/29/21 1453
210329AM-BLK	Blank	0329M19	03/29/21 1520
BA29552	ERH1294	0329M27	03/29/21 1904
BA29551	ERH1293	0329M28	03/29/21 1932
BA29553	ERH1295	0329M29	03/29/21 2000

Comments: Batch: #524-210329AM

Printed: 06/08/21 1:40:25 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 524.2

APPL ID: 210329W-29144 LCS - 262420

Batch ID: #524-210329AM

APPL Inc.

908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,1,1,2-TETRACHLOROETHANE	10.00	10.5	10.4	105	104	70-130	0.96	20
1,1,1-TRICHLOROETHANE	10.00	10.6	10.9	106	109	70-130	2.8	20
1,1,2,2-TETRACHLOROETHANE	10.00	9.87	9.88	98.7	98.8	70-130	0.10	20
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	10.00	11.6	11.9	116	119	70-130	2.6	20
1,1,2-TRICHLOROETHANE	10.00	9.85	10.3	98.5	103	70-130	4.5	20
1,1-DICHLOROETHANE	10.00	10.8	11.0	108	110	70-130	1.8	20
1,1-DICHLOROETHENE	10.00	10.6	10.9	106	109	70-130	2.8	20
1,1-DICHLOROPROPENE	10.00	10.7	10.8	107	108	70-130	0.93	20
1,2,3-TRICHLOROBENZENE	10.00	9.97	10.5	99.7	105	70-130	5.2	20
1,2,3-TRICHLOROPROPANE	10.00	9.87	10.1	98.7	101	70-130	2.3	20
1,2,4-TRICHLOROBENZENE	10.00	9.94	10.3	99.4	103	70-130	3.6	20
1,2,4-TRIMETHYLBENZENE	10.00	10.6	10.7	106	107	70-130	0.94	20
1,2-DIBROMO-3-CHLOROPROPANE	10.00	9.04	9.06	90.4	90.6	70-130	0.22	20
1,2-DIBROMOETHANE	10.00	9.78	9.79	97.8	97.9	70-130	0.10	20
1,2-DICHLOROBENZENE	10.00	10.4	10.4	104	104	70-130	0.0	20
1,2-DICHLOROETHANE	10.00	10.2	9.82	102	98.2	70-130	3.8	20
1,2-DICHLOROPROPANE	10.00	10.1	10.6	101	106	70-130	4.8	20
1,3,5-TRIMETHYLBENZENE	10.00	10.8	10.9	108	109	70-130	0.92	20
1,3-DICHLOROBENZENE	10.00	10.5	10.3	105	103	70-130	1.9	20
1,3-DICHLOROPROPANE	10.00	10.5	10.5	105	105	70-130	0.0	20
1,4-DICHLOROBENZENE	10.00	10.3	10.1	103	101	70-130	2.0	20
2,2-DICHLOROPROPANE	10.00	9.85	9.81	98.5	98.1	70-130	0.41	20
2-CHLOROTOLUENE	10.00	10.2	10.4	102	104	70-130	1.9	20
4-CHLOROTOLUENE	10.00	10.8	10.6	108	106	70-130	1.9	20

Comments: _____

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	M0329524.M	M0329524.M
Extraction Date :	03/29/21	03/29/21
Analysis Date :	03/29/21	03/29/21
Instrument :	Max	Max
Run :	0329M17	0329M18
Initials :	CHE	

Laboratory Control Spike Recoveries

EPA 524.2

APPL ID: 210329W-29144 LCS - 262420

Batch ID: #524-210329AM

APPL Inc.

908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BENZENE	10.00	10.6	10.8	106	108	70-130	1.9	20
BROMOBENZENE	10.00	10.6	10.4	106	104	70-130	1.9	20
BROMOCHLOROMETHANE	10.00	10.4	10.2	104	102	70-130	1.9	20
BROMODICHLOROMETHANE	10.00	9.87	10.2	98.7	102	70-130	3.3	20
BROMOFORM	10.00	9.74	9.55	97.4	95.5	70-130	2.0	20
BROMOMETHANE	10.00	11.8	11.6	118	116	70-130	1.7	20
C-1,2-DICHLOROETHENE	10.00	10.3	10.6	103	106	70-130	2.9	20
C-1,3-DICHLOROPROPENE	10.00	11.1	10.2	111	102	70-130	8.5	20
CARBON TETRACHLORIDE	10.00	10.8	11.2	108	112	70-130	3.6	20
CHLOROBENZENE	10.00	10.4	10.4	104	104	70-130	0.0	20
CHLOROETHANE	10.00	10.0	10.9	100	109	70-130	8.6	20
CHLOROFORM	10.00	10.2	10.6	102	106	70-130	3.8	20
CHLOROMETHANE	10.00	10.1	10.6	101	106	70-130	4.8	20
DIBROMOCHLOROMETHANE	10.00	10.5	9.96	105	99.6	70-130	5.3	20
DIBROMOMETHANE	10.00	10.3	10.1	103	101	70-130	2.0	20
DICHLORODIFLUOROMETHANE	10.00	10.3	10.8	103	108	70-130	4.7	20
ETHYLBENZENE	10.00	10.7	10.7	107	107	70-130	0.0	20
HEXACHLOROBUTADIENE	10.00	10.1	10.2	101	102	70-130	0.99	20
ISOPROPYLBENZENE	10.00	10.9	11.0	109	110	70-130	0.91	20
METHYLENE CHLORIDE	10.00	10.4	10.4	104	104	70-130	0.0	20
MTBE	10.00	10.2	10.4	102	104	70-130	1.9	20
N-BUTYLBENZENE	10.00	10.5	10.8	105	108	70-130	2.8	20
N-PROPYLBENZENE	10.00	11.1	11.0	111	110	70-130	0.90	20
NAPHTHALENE	10.00	8.68	9.07	86.8	90.7	70-130	4.4	20

Comments: _____

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	M0329524.M	M0329524.M
Extraction Date :	03/29/21	03/29/21
Analysis Date :	03/29/21	03/29/21
Instrument :	Max	Max
Run :	0329M17	0329M18
Initials :	CHE	

Laboratory Control Spike Recoveries

EPA 524.2

APPL ID: 210329W-29144 LCS - 262420

Batch ID: #524-210329AM

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
P-ISOPROPYLTOLUENE	10.00	10.6	10.5	106	105	70-130	0.95	20
SEC-BUTYLBENZENE	10.00	10.5	10.9	105	109	70-130	3.7	20
STYRENE	10.00	10.8	10.8	108	108	70-130	0.0	20
T-1,2-DICHLOROETHENE	10.00	10.3	10.4	103	104	70-130	0.97	20
T-1,3-DICHLOROPROPENE	10.00	10.4	9.96	104	99.6	70-130	4.3	20
TERT-BUTYLBENZENE	10.00	10.6	10.8	106	108	70-130	1.9	20
TETRACHLOROETHENE	10.00	10.7	11.0	107	110	70-130	2.8	20
TOLUENE	10.00	10.5	10.6	105	106	70-130	0.95	20
TRICHLOROETHENE	10.00	10.4	10.4	104	104	70-130	0.0	20
TRICHLOROFLUOROMETHANE	10.00	10.8	10.9	108	109	70-130	0.92	20
VINYL CHLORIDE	10.00	10.8	10.8	108	108	70-130	0.0	20
XYLENES	30.0	32.3	32.1	108	107	70-130	0.62	20

SURROGATE: 1,2-DICHLOROETHANE-D	25.0	24.7	25.4	98.8	102	70-130		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.2	25.4	101	102	70-130		

Comments: _____

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	M0329524.M	M0329524.M
Extraction Date :	03/29/21	03/29/21
Analysis Date :	03/29/21	03/29/21
Instrument :	Max	Max
Run :	0329M17	0329M18
Initials :	CHE	

Form 5
Tune Summary

Lab Name: APPL Inc.
 Case No: _____
 Matrix: Water
 ID: 0329M05.D

SDG No: _____
 Date Analyzed: 03/29/21
 Instrument: Max
 Time Analyzed: 8:49

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	0.2ug/L VOC-HCL STD	0329M06.D	03/29/21 9:17
2	0.5ug/L VOC-HCL STD	0329M07.D	03/29/21 9:45
3	1ug/L VOC-HCL STD 3/	0329M08.D	03/29/21 10:13
4	5ug/L VOC-HCL STD 3/	0329M09.D	03/29/21 10:41
5	10ug/L VOC-HCL STD 3	0329M10.D	03/29/21 11:09
6	20ug/L VOC-HCL STD 3	0329M11.D	03/29/21 11:37
7	40ug/L VOC-HCL STD 3	0329M12.D	03/29/21 12:05
8	100ug/L VOC-HCL STD	0329M13.D	03/29/21 12:32
9	(SS) 10ug/L VOC-HCL	0329M16.D	03/29/21 13:56
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	<u>15.7</u>
75 30 - 60.04% of mass 95	<u>45.2</u>
95 100 - 200% of mass 95	<u>100.0</u>
96 5 - 9% of mass 95	<u>6.3</u>
173 0 - 2% of mass 174	<u>0.0</u>
174 50 - 200% of mass 95	<u>114.4</u>
175 5 - 9.02% of mass 174	<u>7.6</u>
176 94.9 - 101% of mass 174	<u>98.1</u>
177 5 - 9% of mass 176	<u>6.1</u>

Form 5
Tune Summary

Lab Name: APPL Inc.
 Case No: 95603
 Matrix: Water
 ID: 0329M14.D

SDG No: 95603
 Date Analyzed: 03/29/21
 Instrument: Max
 Time Analyzed: 13:01

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		(SS) 10ug/L VOC-HCL	0329M16.D	03/29/21 13:56
2	Lab Control Spike	210329A LCS 10ug/L H	0329M17.D	03/29/21 14:25
3	Lab Control SpikeD	210329A LCSD 10ug/L	0329M18.D	03/29/21 14:53
4	Blank	210329A BLK HCL	0329M19.D	03/29/21 15:20
5	ERH1294	BA29552W01	0329M27.D	03/29/21 19:04
6	ERH1293	BA29551W01	0329M28.D	03/29/21 19:32
7	ERH1295	BA29553W01	0329M29.D	03/29/21 20:00
8		Ending CCV 10ug/L 3/	0329M30.D	03/30/21 5:54
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

50 15 - 40% of mass 95	<u>15.6</u>
75 30 - 60.04% of mass 95	<u>44.3</u>
95 100 - 200% of mass 95	<u>100.0</u>
96 5 - 9% of mass 95	<u>6.4</u>
173 0 - 2% of mass 174	<u>0.0</u>
174 50 - 200% of mass 95	<u>115.4</u>
175 5 - 9.02% of mass 174	<u>7.6</u>
176 94.9 - 101% of mass 174	<u>98.5</u>
177 5 - 9% of mass 176	<u>6.3</u>

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____
 Lab Code: _____ SDG No.: _____
 Lab File ID (Standard): 0329M16.D Date Analyzed: 03/29/21
 Instrument ID: Max Time Analyzed: 13:56
 GC Column: _____ ID: _____ Heated Purge: (Y/N) _____

	Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12 HOUR STD	1637680	5.56	1764400	8.84	1347100	11.17	
UPPER LIMIT	3275360	5.73	3528800	9.01	2694200	11.34	
LOWER LIMIT	818840	5.39	882200	8.67	673550	11.00	
SAMPLE NO.							
01	210329A LCS 10ug/L HCL	1650790	5.57	1772460	8.84	1352570	11.17
02	210329A LCSD 10ug/L HCL	1645010	5.56	1784510	8.84	1358470	11.17
03	210329A BLK HCL	1607020	5.57	1775900	8.84	1321240	11.17
04	BA29552W01	1601440	5.57	1747750	8.84	1289940	11.17
05	BA29551W01	1591420	5.57	1752540	8.84	1305730	11.17
06	BA29553W01	1574740	5.57	1728150	8.84	1298570	11.17
07	Ending CCV 10ug/L 3/29	1716820	5.55	1804040	8.83	1328580	11.16
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = -50% of internal standard area.
 RT UPPER LIMIT = +0.17 minutes of internal standard RT
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
 * Values outside of QC limits.

200.8

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 95603
Matrix: WATER
Blank ID: 210402A-BLK

SDG No: 95603
Date Analyzed: 04/06/21
Instrument: Megatron
Time Analyzed: 2137

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210402A-LCSD	Lab Control SpikeD	210406A	04/06/21 2150
210402A-LCS	Lab Control Spike	210406A	04/06/21 2143
210402A-BLK	Blank	210406A	04/06/21 2137
BA29553	ERH1295	210406A	04/06/21 2203
BA29552	ERH1294	210406A	04/06/21 2156

Comments: Batch: #2008-210402A

Printed: 04/09/21 1:48:09 PM
Form 4, Blank Summary

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
200.8	LEAD (PB)	0.18 U	0.2	0.18	0.09	ug/L	04/02/21	04/06/21	#2008-210402A-BA29552

Metals SC-Blank-REG MDLs
Printed: 04/09/21 1:33:48 PM

200.8

Form 4

LCS Summary

Lab Name: APPL, Inc.

SDG No: 95603

Case No: 95603

Date Analyzed: 04/06/21

Matrix: WATER

Instrument: Megatron

LCS ID: 210402A-LCS

Time Analyzed: 2143

APPL ID.	Client Sample No.	File ID.	Date Analyzed
210402A-LCSD	Lab Control SpikeD	210406A	04/06/21 2150
210402A-LCS	Lab Control Spike	210406A	04/06/21 2143
210402A-BLK	Blank	210406A	04/06/21 2137
BA29553	ERH1295	210406A	04/06/21 2203
BA29552	ERH1294	210406A	04/06/21 2156

Comments: Batch: #2008-210402A

Printed: 04/09/21 1:50:11 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

METALS

APPL Inc.
 908 North Temperance Avenue
 Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
200.8	LEAD (PB)	100.0	97.0	97.2	97.0	97.2	0.2	20	80-120	04/02/21	04/06/21	04/02/21	04/06/21	#2008-210402A-BA29552

Comments: _____

SM 5310C

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 95603
Matrix: WATER
Blank ID:

SDG No: 95603
Date Analyzed:
Instrument: TICTOC
Time Analyzed:

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA29553	ERH1295	33	03/25/21 2237
262523-LCS	Lab Control Spike	34	03/25/21 2316
262523-LCSD	Lab Control Spiked	35	03/25/21 2356
BA29552	ERH1294	36	03/26/21 0036
262523-DUP	Duplicate	37	03/26/21 0151
BA29553	ERH1295	37	03/26/21 0112

Comments: Batch: #5310CD-262523

Printed: 04/28/21 11:10:20 AM
Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM 5310C	DISSOLVED ORGA	0.35 U	0.5	0.35	0.13	mg/L	03/25/21	03/25/21	#5310CD-262523-BA29553

SM 5310C

Form 4

LCS Summary

Lab Name: APPL, Inc.
Case No: 95603
Matrix: WATER
LCS ID: 262523-LCS

SDG No: 95603
Date Analyzed: 03/25/21
Instrument: TICTOC
Time Analyzed: 2316

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA29553	ERH1295	33	03/25/21 2237
262523-LCS	Lab Control Spike	34	03/25/21 2316
262523-LCSD	Lab Control Spiked	35	03/25/21 2356
BA29552	ERH1294	36	03/26/21 0036
262523-DUP	Duplicate	37	03/26/21 0151
BA29553	ERH1295	37	03/26/21 0112

Comments: Batch: #5310CD-262523

Printed: 04/28/21 11:10:20 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
 908 North Temperance Avenue
 Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM 5310C	DISSOLVED ORGANIC CA	5	4.63	4.69	92.6	93.8	1.3	20	80-120	03/25/21	03/25/21	03/25/21	03/25/21	#5310CD-262523-BA29553

Comments: _____

WETLAB

Sample/Sample Duplicate Results

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Sample ID: BA29553
Client ID: ERH1295

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 95603

Method	Analyte	Sample ID	Sample Result	Sample Dup Result	RPD	RPD Max	MDL	PQL	Units	Sample Extract Date	Sample Analysis Date	Sample Dup Extract Date	Sample Dup Analysis Date
SM 5310C	DISSOLVED ORG	BA29553	0.98	0.95	3.1	20	0.13	0.5	mg/L	03/26/21	03/26/21	03/26/21	03/26/21

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No: _____
Matrix: Water

SDG No: _____
Initial Cal. Date: 03/29/21
Instrument: Max

Initials: CH

0329M06.D 0329M07.D 0329M08.D 0329M09.D 0329M10.D 0329M11.D 0329M12.D 0329M13.D

		Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TML	Dichlorodifluoromethane		0.1102	0.1558	0.1410	0.1810	0.1727	0.1753	0.1588			0.16	16	TM	0.998		
3	TM	Freon 114		0.1301	0.1243	0.1064	0.1421	0.1228	0.1221	0.1331			0.13	8.8	TM			
4	TM**	Chloromethane		0.2278	0.2173	0.1880	0.2016	0.1945	0.1951	0.1841			0.20	7.9	TM			
5	TM*	Vinyl chloride		0.1573	0.1774	0.1680	0.1907	0.1876	0.1857	0.1788			0.18	6.7	TM**			
6	TML	Bromomethane		0.1516	0.1285	0.1019	0.0949	0.0863	0.0846	0.0859			0.10	25	TM*	1.000		
7	TM	Chloroethane		0.0992	0.0909	0.0845	0.0886	0.0862	0.0851	0.0650			0.09	12	TM			
8	TM	Dichlorofluoromethane		0.2899	0.2950	0.2643	0.2934	0.2730	0.2668	0.2790			0.28	4.5	TM			
9	TM	Trichlorofluoromethane		0.2106	0.2243	0.2163	0.2321	0.2235	0.2286	0.2143			0.22	3.6	TM			
10	TM	Acrolein		0.0134	0.0144	0.0147	0.0140	0.0145	0.0150	0.0144			0.01	3.6	TM			
11	TM	Acetone		0.0543	0.0489	0.0439	0.0417	0.0419	0.0410	0.0420			0.04	11	TM			
12	TML	Freon-113		0.0627	0.0459	0.0372	0.0449	0.0405	0.0379	0.0407			0.04	20	TM	0.999		
13	TM	Acetonitrile		0.0212	0.0207	0.0203	0.0206	0.0219	0.0208	0.0221			0.02	3.2	TM			
14	TM*	1,1-DCE		0.2075	0.2226	0.1876	0.2078	0.2060	0.1942	0.2004			0.20	5.5	TM			
15	TM	t-Butanol		0.0117	0.0144	0.0141	0.0146	0.0145	0.0144	0.0178			0.01	12	TM			
16	TM	Methyl Acetate		0.1156	0.1235	0.1054	0.1016	0.0971	0.1040	0.0998			0.11	8.8	TM			
17	TML	Iodomethane		0.1103	0.0921	0.1133	0.1526	0.1724	0.2016	0.2269			0.15	33	TM	0.997		
18	TM	Acrylonitrile			0.0632	0.0496	0.0585	0.0508	0.0575	0.0598			0.06	9.4	TM*			
19	TML	Methylene chloride		0.2552	0.2267	0.1821	0.1843	0.1778	0.1663	0.1659			0.19	17	TM	1.000		
20	TM	Carbon disulfide		0.3379	0.2830	0.2437	0.2671	0.2539	0.2598	0.2704			0.27	11	TM			
21	TM	Methyl t-butyl ether (MtBE)		0.4159	0.4270	0.3984	0.4377	0.4061	0.4382	0.4249			0.42	3.6	TM			
22	TM	Trans-1,2-DCE		0.1618	0.1766	0.1582	0.1674	0.1628	0.1555	0.1585			0.16	4.4	TM			
23	TM	Diisopropyl Ether		0.4942	0.4427	0.4354	0.4824	0.4556	0.4743	0.4650			0.46	4.6	TM			
24	TM**	1,1-DCA		0.2414	0.2461	0.2614	0.2792	0.2718	0.2616	0.2661			0.26	5.1	TM			
25	TML	Vinyl Acetate		0.0074	0.0028	0.0755	0.0976	0.1020	0.1159	0.1182			0.07	66	TM	1.000		
26	TM	Ethyl tert Butyl Ether		0.4544	0.4587	0.4123	0.4493	0.4283	0.4565	0.4554			0.44	4.0	TM			
27	TM	MEK (2-Butanone)		0.0471	0.0564	0.0575	0.0572	0.0588	0.0604	0.0605			0.06	8.1	TM			
28	TML	Cis-1,2-DCE		0.0088	0.1773	0.1648	0.1832	0.1850	0.1778	0.1774			0.15	42	TM	1.000		
29	TM	2,2-Dichloropropane		0.2194	0.2452	0.2112	0.2283	0.2215	0.2060	0.2083			0.22	6.2	TM			
30	TM*	Chloroform		0.2824	0.2626	0.2735	0.2962	0.2843	0.2825	0.2782			0.28	3.7	TM**			
31	TM	Bromochloromethane		0.1276	0.1296	0.1223	0.1323	0.1329	0.1300	0.1297			0.13	2.7	TM			
32	S	Dibromofluoromethane(S)	0.3214	0.2728	0.2770	0.2858	0.2807	0.2783	0.2784	0.2630			0.28	6.1	TM			
33	TM	1,1,1-TCA		0.2530	0.2498	0.2346	0.2563	0.2521	0.2399	0.2473			0.25	3.1	TM			
34	TM	Cyclohexane		0.1342	0.1113	0.0954	0.1148	0.1043	0.1021	0.1075			0.11	11	TM			
35	TM	1,1-Dichloropropene		0.1686	0.1929	0.1727	0.2000	0.1924	0.1824	0.1883			0.19	6.1	TM			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc.

Case No:

Matrix: Water

SDG No:

Initial Cal. Date: 03/29/21

Instrument: Max

Initials: CH

		Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	Q	MRF
36	TM	2,2,4-Trimethylpentane		0.3541	0.3506	0.2650	0.3722	0.3146	0.3179	0.3493			0.33	11	TM		
37	S	1,2-DCA-D4(S)	0.2571	0.2283	0.2232	0.2348	0.2381	0.2311	0.2347	0.2246			0.23	4.6	TM*		
38	TM	Carbon Tetrachloride	0.1991	0.2214	0.2327	0.2116	0.2366	0.2270	0.2180	0.2237			0.22	5.4	TM		
39	TM	Tert Amyl Methyl Ether		0.4060	0.4213	0.3900	0.4236	0.3982	0.4229	0.4321			0.41	3.7	S		
40	TM	1,2-DCA		0.2152	0.2288	0.2069	0.2060	0.2110	0.2051	0.1999			0.21	4.5	TM		
41	TM	Benzene		0.5840	0.6542	0.6064	0.6553	0.6448	0.6273	0.6319			0.63	4.2	TM		
42	TM	TCE	0.2009	0.1607	0.1784	0.1664	0.1655	0.1661	0.1597	0.1659			0.17	7.9	TM		
43	TM	2-Pentanone		0.0928	0.0987	0.1019	0.1043	0.1060	0.1083	0.1174			0.10	7.4	TM		
44	TM*	1,2-Dichloropropane		0.0838	0.0812	0.0779	0.0844	0.0799	0.0806	0.0802			0.08	2.8	S		
45	TM	Bromodichloromethane		0.2331	0.2273	0.2182	0.2318	0.2313	0.2279	0.2284			0.23	2.2	TM		
46	TM	Methyl Cyclohexane		0.2277	0.2004	0.1806	0.2227	0.1997	0.2030	0.2129			0.21	7.7	TM		
47	TM	Dibromomethane		0.0936	0.0999	0.0952	0.0986	0.1022	0.1010	0.1019			0.10	3.4	TM		
48	TM	MIBK (methyl isobutyl ketone)		0.1044	0.1265	0.1288	0.1308	0.1373	0.1404	0.1526			0.13	11	TM		
49	TM	1-Bromo-2-chloroethane		0.0326	0.0356	0.0300	0.0325	0.0334	0.0335	0.0345			0.03	5.3	TM		
50	TM	2-Chloroethyl vinyl ether													TM		
51	TM	Cis-1,3-Dichloropropene		0.1055	0.1031	0.1154	0.1215	0.1190	0.1222	0.1234			0.12	7.1	TM*		
52	TM*	Toluene		0.7410	0.7070	0.6922	0.7571	0.7441	0.7275	0.7393			0.73	3.1	TM		
53	TM	Trans-1,3-Dichloropropene		0.2122	0.2285	0.2107	0.2406	0.2398	0.2460	0.2515			0.23	6.9	TM		
54	TM	1,1,2-TCA		0.1107	0.1288	0.1168	0.1295	0.1267	0.1236	0.1260			0.12	5.6	TM		
55	TM	2-Hexanone		0.0716	0.0837	0.0872	0.0876	0.0911	0.0960	0.1068			0.09	12	TM		
56	I	Chlorobenzene-D5 (IS)															
57	S	Toluene-D8(S)	0.9481	0.7918	0.7735	0.8323	0.8115	0.8119	0.8136	0.7400			0.82	7.5	TM		
58	TM	1,2-EDB		0.1370	0.1524	0.1450	0.1530	0.1588	0.1572	0.1538			0.15	5.0	TM		
59	TM	Tetrachloroethene	0.1276	0.1140	0.1098	0.1064	0.1152	0.1175	0.1118	0.1116			0.11	5.6	TM*		
60	TM	1-Chlorohexane		0.2149	0.1775	0.1720	0.1826	0.1798	0.1858	0.1929			0.19	7.6	TM		
61	TM	1,1,1,2-Tetrachloroethane		0.1858	0.1781	0.1765	0.1840	0.1877	0.1837	0.1843			0.18	2.2	TM		
62	TM	m&p-Xylene		0.2985	0.3036	0.3049	0.3378	0.3401	0.3222	0.3243			0.32	5.3	TM		
63	TM	o-Xylene		0.3212	0.2935	0.3149	0.3370	0.3471	0.3270	0.3347			0.33	5.4	I		
64	TM	Styrene		0.4748	0.4676	0.5049	0.5528	0.5715	0.5536	0.5668			0.53	8.4	S		
65	S	4-Bromofluorobenzene(S)	0.5431	0.4613	0.4454	0.4873	0.4829	0.4922	0.4974	0.4795			0.49	5.9	TM		
66	TM	1,3-Dichloropropane		0.2172	0.2123	0.2285	0.2329	0.2420	0.2321	0.2220			0.23	4.5	TM		
67	TM	Dibromochloromethane		0.1769	0.1820	0.1753	0.1930	0.1957	0.1954	0.1924			0.19	4.8	TM		
68	TM**	Chlorobenzene		0.4720	0.4644	0.4684	0.4981	0.5064	0.4807	0.4912			0.48	3.3	TM		
69	TM*	Ethylbenzene		0.6938	0.7084	0.7218	0.7801	0.7899	0.7627	0.7749			0.75	5.2	TM		
70	TM**	Bromoform		0.1497	0.1617	0.1558	0.1594	0.1648	0.1629	0.1728			0.16	4.5	TM		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc.

Case No: _____

Matrix: Water

SDG No: _____

Initial Cal. Date: 03/29/21

Instrument: Max

Initials: CH

		Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type		Q	MRF
71	I	1,4-Dichlorobenzene-D (IS)																
72	TM	Isopropylbenzene		1.009	0.9483	0.9834	1.097	1.087	1.073	1.064			1.0	5.5	S			
73	TM**	1,1,2,2-Tetrachloroethane		0.2952	0.2605	0.2411	0.2464	0.2474	0.2482	0.2517			0.26	7.2	TM			
74	TM	1,2,3-Trichloropropane		0.0810	0.0923	0.0773	0.0872	0.0832	0.0869	0.0840			0.08	5.7	TM			
75	TM	t-1,4-Dichloro-2-Butene			0.0514	0.0535	0.0530	0.0456	0.0499	0.0512			0.05	5.6	TM**			
76	TM	Bromobenzene		0.3665	0.3418	0.3051	0.3514	0.3487	0.3385	0.3351			0.34	5.6	TM*			
77	TM	n-Propylbenzene		1.066	1.033	1.072	1.198	1.224	1.186	1.186			1.1	6.8	TM**			
78	TM	4-Ethyltoluene		0.9802	0.9527	0.9769	1.076	1.039	1.073	1.079			1.0	5.3	I			
79	TM	2-Chlorotoluene		0.8588	0.8029	0.6799	0.7622	0.7576	0.7268	0.7167			0.76	7.8	TM			
80	TM	1,3,5-Trimethylbenzene		0.8242	0.9067	0.8487	0.9484	0.9308	0.9057	0.9090			0.90	4.9	TM**			
81	TM	4-Chlorotoluene		0.9189	0.8055	0.8114	0.8616	0.8771	0.8447	0.8411			0.85	4.6	TM			
82	TM	Tert-Butylbenzene		0.4748	0.4951	0.4743	0.5363	0.5519	0.5513	0.5662			0.52	7.5	TM			
83	TM	1,2,4-Trimethylbenzene		0.9015	0.7948	0.8603	0.9241	0.9448	0.9404	0.9467			0.90	6.2	TM			
84	TM	Sec-Butylbenzene		1.036	1.057	1.048	1.144	1.170	1.130	1.164			1.1	5.2	TM			
85	TM	p-Isopropyltoluene		1.010	0.9919	0.9284	1.036	1.036	1.015	1.058			1.0	4.2	TM			
86	TM	Benzyl Chloride		0.3107	0.3072	0.2629	0.2802	0.2866	0.3081	0.3449			0.30	8.8	TM			
87	TM	1,3-DCB		0.6110	0.6317	0.6222	0.6569	0.6500	0.6453	0.6483			0.64	2.6	TM			
88	TM	1,4-DCB		0.7620	0.6652	0.6039	0.6431	0.6458	0.6340	0.6403			0.66	7.6	TM			
89	TM	n-Butylbenzene		0.7079	0.6670	0.6919	0.7774	0.8024	0.7954	0.8305			0.75	8.4	TM			
90	TM	1,2-DCB		0.6376	0.6192	0.5902	0.6528	0.6497	0.6597	0.6808			0.64	4.6	TM			
91	TM	Hexachloroethane		0.1794	0.1584	0.1580	0.1597	0.1689	0.1718	0.1694			0.17	4.9	TM			
92	TM	1,2-Dibromo-3-chloropropane		0.0800	0.0821	0.0674	0.0780	0.0742	0.0836	0.0862			0.08	8.1	TM			
93	TM	1,2,4-Trichlorobenzene		0.4929	0.3817	0.3848	0.4373	0.4823	0.4926	0.5048			0.45	12	TM			
94	TM	Hexachlorobutadiene		0.2250	0.1980	0.2064	0.2374	0.2393	0.2322	0.2506			0.23	8.3	TM			
95	TML	Naphthalene		0.3406	0.3346	0.3380	0.4198	0.4847	0.5561	0.5627			0.43	23	TM	0.999		
96	TM	1,2,3-Trichlorobenzene		0.3596	0.3731	0.3344	0.3802	0.4296	0.4368	0.4243			0.39	10	TM			
97																		
98																		
99																		
100																		
101																		
102																		
103																		
104																		
105																		

Data File : M:\MAX\DATA\210329\0329M06.D
 Acq On : 29 Mar 21 9:17
 Sample : 0.2ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 6
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:02 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.56	96	1606447	25.000	ppb	0.00
63) Chlorobenzene-D5 (IS)	8.84	117	1725024	25.000	ppb	0.00
78) 1,4-Dichlorobenzene-D (IS)	11.17	152	1272639	25.000	ppb	0.00
System Monitoring Compounds						
39) Dibromofluoromethane(S)	4.69	111	103248	7.726	ppb	0.00
Spiked Amount	25.000		Recovery	=	30.904%	
44) 1,2-DCA-D4(S)	5.11	65	82590	7.280	ppb	0.00
Spiked Amount	25.000		Recovery	=	29.120%	
64) Toluene-D8(S)	7.37	98	327102	7.870	ppb	0.00
Spiked Amount	25.000		Recovery	=	31.480%	
72) 4-Bromofluorobenzene(S)	10.02	95	187360	7.782	ppb	0.00
Spiked Amount	25.000		Recovery	=	31.128%	
Target Compounds						
45) Carbon Tetrachloride	4.93	117	2559	0.179	ppb #	80
49) TCE	6.02	95	2582	0.242	ppb #	53
66) Tetrachloroethene	8.01	164	1761	0.226	ppb #	83

Quantitation Report

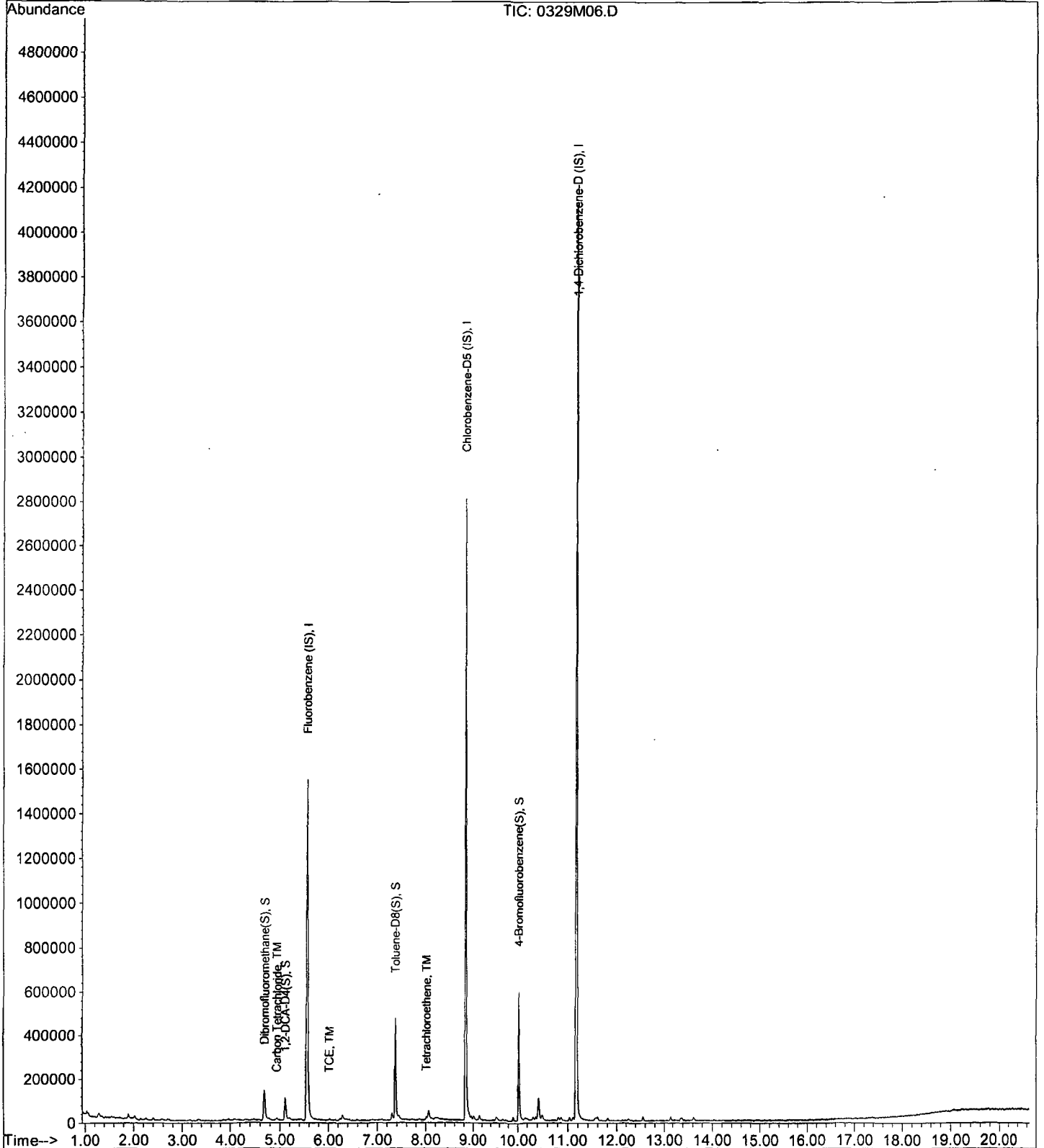
Data File : M:\MAX\DATA\210329\0329M06.D
Acq On : 29 Mar 21 9:17
Sample : 0.2ug/L VOC-HCL STD 3/29/21
Misc : IS 10/16/20

Vial: 6
Operator: LP,DG,CH
Inst : Max
Multiplr: 1.00

Quant Time: Mar 31 7:02 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration



Data File : M:\MAX\DATA\210329\0329M07.D
 Acq On : 29 Mar 21 9:45
 Sample : 0.5ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 7
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.56	96	1591508	25.000	ppb	0.00
63) Chlorobenzene-D5 (IS)	8.84	117	1724277	25.000	ppb	0.00
78) 1,4-Dichlorobenzene-D (IS)	11.17	152	1269079	25.000	ppb	0.00
System Monitoring Compounds						
39) Dibromofluoromethane(S)	4.69	111	173636	13.115	ppb	0.00
Spiked Amount	25.000		Recovery	=	52.460%	
44) 1,2-DCA-D4(S)	5.11	65	145357	12.933	ppb	0.00
Spiked Amount	25.000		Recovery	=	51.732%	
64) Toluene-D8(S)	7.37	98	546120	13.145	ppb	0.00
Spiked Amount	25.000		Recovery	=	52.580%	
72) 4-Bromofluorobenzene(S)	10.02	95	318173	13.221	ppb	0.00
Spiked Amount	25.000		Recovery	=	52.884%	
Target Compounds						
2) Chlorotrifluoroethene	1.04	116	116	0.874	ppb	# 1
3) Dichlorodifluoromethane	0.96	85	3509	0.368	ppb	# 66
4) Freon 114	1.04	85	4142	0.545	ppb	91
5) Chloromethane	1.07	50	7252	0.634	ppb	96
6) Vinyl chloride	1.14	62	5007	0.452	ppb	99
8) Bromomethane	1.34	94	4824	0.915	ppb	# 72
9) Chloroethane	1.42	64	3156	-58.055	ppb	# 84
10) Dichlorofluoromethane	1.55	67	9226	0.524	ppb	99
11) Trichlorofluoromethane	1.60	101	6705	0.496	ppb	94
12) 2,2-Dichloro-1,1,1-trifluo	2.22	83	64	8.462	ppb	# 13
13) Acrolein	1.90	56	21368	29.600	ppb	97
14) Acetone	2.03	43	34588	14.286	ppb	93
15) Freon-113	2.01	103	1996	0.902	ppb	# 64
16) Acetonitrile	2.25	41	33662	27.905	ppb	91
17) 2-propanol	2.52	45	121	3.486	ppb	# 57
18) 1,1-DCE	1.98	61	6606	0.547	ppb	94
19) t-Butanol	2.57	59	18546	21.576	ppb	100
20) Methyl Acetate	2.33	43	3680	0.643	ppb	# 73
21) Iodomethane	2.09	142	3511	0.362	ppb	99
22) Acrylonitrile	2.64	53	228	0.080	ppb	# 22
23) 2-Methylpentane	2.51	71	90	6.010	ppb	# 34
24) Methylene chloride	2.40	84	8122	-102.373	ppb	# 71
25) Carbon disulfide	2.15	76	10754	0.654	ppb	# 91
26) Methyl t-butyl ether (MtBE)	2.72	73	13237	0.507	ppb	# 91
27) Trans-1,2-DCE	2.69	96	5149	0.521	ppb	95
28) 3-Methylpentane	2.74	57	3461	0.619	ppb	# 47
29) Diisopropyl Ether	3.34	45	15731	0.556	ppb	# 89
30) 1,1-DCA	3.15	63	7684	0.489	ppb	98
31) Vinyl Acetate	3.26	43	236	-57.402	ppb	# 71
32) Ethyl tert Butyl Ether	3.86	59	14464	0.577	ppb	# 76
33) Methylcyclopentane	4.08	56	222	1.98148e+017	ppb	100
34) MEK (2-Butanone)	4.06	43	29973	9.438	ppb	90
36) 2,2-Dichloropropane	3.96	77	6982	0.545	ppb	# 58
37) Chloroform	4.48	83	8990	0.509	ppb	81
38) Bromochloromethane	4.32	130	4062	0.516	ppb	# 67
40) 1,1,1-TCA	4.70	97	8053	0.542	ppb	# 83
41) Cyclohexane	4.77	41	4272	0.636	ppb	# 40
42) 1,1-Dichloropropene	4.94	75	5368	0.491	ppb	98
43) 2,2,4-Trimethylpentane	5.38	57	11271	0.560	ppb	# 86

(#) = qualifier out of range (m) = manual integration
 0329M07.D M0329524.M Wed Mar 31 08:16:38 2021

Data File : M:\MAX\DATA\210329\0329M07.D
 Acq On : 29 Mar 21 9:45
 Sample : 0.5ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 7
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) Carbon Tetrachloride	4.93	117	7046	0.499	ppb	88
46) Tert Amyl Methyl Ether	5.43	73	12923	0.519	ppb	99
47) 1,2-DCA	5.21	62	6849	0.576	ppb	98
48) Benzene	5.20	78	18589	0.490	ppb	92
49) TCE	6.03	95	5114	0.484	ppb	85
50) 2-Pentanone	6.28	43	147630	25.314	ppb	96
51) 1,2-Dichloropropane	6.25	63	2668	0.577	ppb #	62
52) Bromodichloromethane	6.59	83	7419	0.561	ppb	85
53) Methyl Cyclohexane	6.24	83	7247	0.601	ppb #	75
54) Dibromomethane	6.38	93	2979	0.477	ppb #	80
55) MIBK (methyl isobutyl ket	7.30	43	66468	9.437	ppb #	92
56) 1-Bromo-2-chloroethane	6.90	144	1039	0.510	ppb #	51
57) 2-Chloroethyl vinyl ether	6.88	43	3115	41.856	ppb #	78
58) Cis-1,3-Dichloropropene	7.10	39	3359	0.511	ppb #	73
59) Toluene	7.45	91	23586	0.541	ppb	85
60) Trans-1,3-Dichloropropene	7.70	75	6755	0.483	ppb	94
61) 1,1,2-TCA	7.87	83	3524	0.451	ppb	91
62) 2-Hexanone	8.18	43	45583	9.601	ppb	93
65) 1,2-EDB	8.34	107	4724	0.477	ppb #	80
66) Tetrachloroethene	8.01	164	3931	0.505	ppb #	92
67) 1-Chlorohexane	8.91	91	7410	0.641	ppb	85
68) 1,1,1,2-Tetrachloroethane	8.96	131	6409	0.546	ppb	93
69) m&p-Xylene	9.14	106	20586	0.988	ppb	94
70) o-Xylene	9.52	106	11077	0.555	ppb	88
71) Styrene	9.54	104	16375	0.492	ppb	98
73) 1,3-Dichloropropane	8.03	76	7491	0.545	ppb	92
74) Dibromochloromethane	8.25	129	6099	0.489	ppb	87
75) Chlorobenzene	8.87	112	16276	0.508	ppb	92
76) Ethylbenzene	9.01	91	23926	0.492	ppb	98
77) Bromoform	9.67	173	5162	0.507	ppb	88
79) Isopropylbenzene	9.91	105	25621	0.523	ppb	94
80) 1,1,2,2-Tetrachloroethane	10.19	83	7493	0.624	ppb #	96
81) 1,2,3-Trichloropropane	10.21	110	2056	0.464	ppb	99
83) Bromobenzene	10.15	156	9303	0.558	ppb	95
84) n-Propylbenzene	10.32	91	27062	0.519	ppb	91
85) 4-Ethyltoluene	10.44	105	24879	0.522	ppb	98
86) 2-Chlorotoluene	10.37	91	21797	0.600	ppb	98
87) 1,3,5-Trimethylbenzene	10.50	105	20920	0.507	ppb	98
88) 4-Chlorotoluene	10.48	91	23323	0.575	ppb	92
89) Tert-Butylbenzene	10.81	119	12050	0.503	ppb	91
90) 1,2,4-Trimethylbenzene	10.86	105	22882	0.558	ppb	98
91) Sec-Butylbenzene	11.03	105	26290	0.499	ppb	96
92) p-Isopropyltoluene	11.19	119	25628	0.526	ppb	93
93) Benzyl Chloride	11.34	91	7887	0.554	ppb #	88
94) 1,3-DCB	11.11	146	15507	0.510	ppb	95
95) 1,4-DCB	11.19	146	19341	0.607	ppb	99
96) n-Butylbenzene	11.60	91	17967	0.500	ppb	96
97) 1,2-DCB	11.55	146	16184	0.524	ppb	95
98) Hexachloroethane	11.81	117	4553	0.573	ppb	83
99) 1,2-Dibromo-3-chloropropan	12.32	157	2031	0.556	ppb #	66
100) 1,2,4-Trichlorobenzene	13.15	180	12510	0.568	ppb	90
101) Hexachlorobutadiene	13.36	225	5710	0.472	ppb	95
102) Naphthalene	13.38	128	8646	0.443	ppb #	93
103) 1,2,3-Trichlorobenzene	13.62	180	9126	0.477	ppb	92

(#) = qualifier out of range (m) = manual integration
 0329M07.D M0329524.M Wed Mar 31 08:26:34 2021

Data File : M:\MAX\DATA\210329\0329M08.D
 Acq On : 29 Mar 21 10:13
 Sample : lug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 8
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.57	96	1595904	25.000	ppb	0.00
63) Chlorobenzene-D5 (IS)	8.84	117	1741079	25.000	ppb	0.00
78) 1,4-Dichlorobenzene-D (IS)	11.17	152	1300006	25.000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Dibromofluoromethane(S)	4.69	111	176845	13.321	ppb	0.00
Spiked Amount						
			Recovery	=	53.284%	
44) 1,2-DCA-D4(S)	5.11	65	142501	12.644	ppb	0.00
Spiked Amount						
			Recovery	=	50.576%	
64) Toluene-D8(S)	7.37	98	538688	12.841	ppb	0.00
Spiked Amount						
			Recovery	=	51.364%	
72) 4-Bromofluorobenzene(S)	10.02	95	310191	12.765	ppb	0.00
Spiked Amount						
			Recovery	=	51.060%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chlorotrifluoroethene	1.04	116	373	2.802	ppb	# 1
3) Dichlorodifluoromethane	0.96	85	9947	1.039	ppb	98
4) Freon 114	1.04	85	7934	1.042	ppb	94
5) Chloromethane	1.07	50	13869	1.209	ppb	100
6) Vinyl chloride	1.14	62	11325	1.019	ppb	94
7) 2-Chloro-1,1,1-trifluoroet	1.09	118	318	0.076	ppb	100
8) Bromomethane	1.34	94	8200	1.551	ppb	81
9) Chloroethane	1.42	64	5800	-51.742	ppb	93
10) Dichlorofluoromethane	1.56	67	18834	1.066	ppb	98
11) Trichlorofluoromethane	1.60	101	14318	1.056	ppb	95
12) 2,2-Dichloro-1,1,1-trifluo	2.20	83	23	3.033	ppb	# 13
13) Acrolein	1.89	56	45928	63.446	ppb	95
14) Acetone	2.02	43	62447	25.722	ppb	90
15) Freon-113	2.01	103	2930	1.320	ppb	87
16) Acetonitrile	2.25	41	66143	54.680	ppb	98
17) 2-propanol	2.48	45	181	5.200	ppb	# 57
18) 1,1-DCE	1.98	61	14209	1.173	ppb	96
19) t-Butanol	2.57	59	45832	53.173	ppb	# 86
20) Methyl Acetate	2.35	43	7881	1.373	ppb	95
21) Iodomethane	2.09	142	5882	0.605	ppb	# 75
22) Acrylonitrile	2.66	53	4034	1.409	ppb	# 80
23) 2-Methylpentane	2.44	71	211	14.051	ppb	# 19
24) Methylene chloride	2.40	84	14472	-92.412	ppb	93
25) Carbon disulfide	2.14	76	18064	1.095	ppb	# 93
26) Methyl t-butyl ether (MtBE)	2.72	73	27261	1.042	ppb	96
27) Trans-1,2-DCE	2.69	96	11272	1.136	ppb	91
28) 3-Methylpentane	2.72	57	5811	1.037	ppb	# 88
29) Diisopropyl Ether	3.35	45	28259	0.996	ppb	98
30) 1,1-DCA	3.15	63	15707	0.997	ppb	99
31) Vinyl Acetate	3.26	43	179	-57.520	ppb	# 71
32) Ethyl tert Butyl Ether	3.87	59	29281	1.164	ppb	97
33) Methylcyclopentane	4.10	56	158	-25907894798256450.000	ppb	100
34) MEK (2-Butanone)	4.04	43	71943	22.591	ppb	94
35) Cis-1,2-DCE	3.97	96	11319	1.073	ppb	84
36) 2,2-Dichloropropane	3.95	77	15655	1.219	ppb	# 88
37) Chloroform	4.47	83	16761	0.946	ppb	97
38) Bromochloromethane	4.32	130	8276	1.049	ppb	# 83
40) 1,1,1-TCA	4.69	97	15948	1.070	ppb	98
41) Cyclohexane	4.78	41	7104	1.055	ppb	92

Data File : M:\MAX\DATA\210329\0329M08.D
 Acq On : 29 Mar 21 10:13
 Sample : 1ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 8
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
42) 1,1-Dichloropropene	4.95	75	12312	1.122	ppb	# 85
43) 2,2,4-Trimethylpentane	5.39	57	22379	1.110	ppb	84
45) Carbon Tetrachloride	4.93	117	14856	1.049	ppb	89
46) Tert Amyl Methyl Ether	5.44	73	26891	1.078	ppb	# 91
47) 1,2-DCA	5.22	62	14606	1.224	ppb	96
48) Benzene	5.19	78	41759	1.097	ppb	90
49) TCE	6.02	95	11389	1.075	ppb	79
50) 2-Pentanone	6.27	43	314929	53.852	ppb	99
51) 1,2-Dichloropropane	6.24	63	5186	1.119	ppb	96
52) Bromodichloromethane	6.58	83	14507	1.094	ppb	96
53) Methyl Cyclohexane	6.24	83	12791	1.057	ppb	99
54) Dibromomethane	6.37	93	6378	1.019	ppb	82
55) MIBK (methyl isobutyl ket	7.29	43	161444	22.858	ppb	98
56) 1-Bromo-2-chloroethane	6.90	144	2272	1.112	ppb	# 69
57) 2-Chloroethyl vinyl ether	6.92	43	280	3.752	ppb	# 81
58) Cis-1,3-Dichloropropene	7.10	39	6580	0.997	ppb	# 77
59) Toluene	7.44	91	45134	1.032	ppb	95
60) Trans-1,3-Dichloropropene	7.70	75	14587	1.041	ppb	# 82
61) 1,1,2-TCA	7.87	83	8219	1.049	ppb	91
62) 2-Hexanone	8.18	43	106859	22.446	ppb	98
65) 1,2-EDB	8.34	107	10611	1.060	ppb	93
66) Tetrachloroethene	8.01	164	7647	0.972	ppb	90
67) 1-Chlorohexane	8.90	91	12360	1.059	ppb	89
68) 1,1,1,2-Tetrachloroethane	8.96	131	12403	1.047	ppb	87
69) m&p-Xylene	9.14	106	42288	2.011	ppb	95
70) o-Xylene	9.52	106	20440	1.014	ppb	95
71) Styrene	9.54	104	32568	0.969	ppb	99
73) 1,3-Dichloropropane	8.03	76	14783	1.065	ppb	90
74) Dibromochloromethane	8.25	129	12674	1.006	ppb	100
75) Chlorobenzene	8.87	112	32345	0.999	ppb	98
76) Ethylbenzene	9.01	91	49337	1.005	ppb	96
77) Bromoform	9.68	173	11261	1.096	ppb	92
79) Isopropylbenzene	9.91	105	49311	0.982	ppb	93
80) 1,1,2,2-Tetrachloroethane	10.19	83	13544	1.101	ppb	# 94
81) 1,2,3-Trichloropropane	10.21	110	4800	1.057	ppb	100
82) t-1,4-Dichloro-2-Butene	10.26	53	2671	1.137	ppb	# 71
83) Bromobenzene	10.16	156	17776	1.040	ppb	90
84) n-Propylbenzene	10.32	91	53737	1.006	ppb	97
85) 4-Ethyltoluene	10.44	105	49539	1.014	ppb	100
86) 2-Chlorotoluene	10.37	91	41753	1.123	ppb	92
87) 1,3,5-Trimethylbenzene	10.50	105	47149	1.116	ppb	92
88) 4-Chlorotoluene	10.48	91	41884	1.008	ppb	87
89) Tert-Butylbenzene	10.81	119	25744	1.048	ppb	90
90) 1,2,4-Trimethylbenzene	10.86	105	41328	0.984	ppb	96
91) Sec-Butylbenzene	11.04	105	54987	1.019	ppb	99
92) p-Isopropyltoluene	11.19	119	51579	1.034	ppb	98
93) Benzyl Chloride	11.34	91	15977	1.096	ppb	96
94) 1,3-DCB	11.11	146	32847	1.054	ppb	93
95) 1,4-DCB	11.19	146	34588	1.060	ppb	96
96) n-Butylbenzene	11.59	91	34686	0.942	ppb	90
97) 1,2-DCB	11.55	146	32196	1.018	ppb	96
98) Hexachloroethane	11.81	117	8238	1.012	ppb	89
99) 1,2-Dibromo-3-chloropropan	12.32	157	4271	1.142	ppb	# 81
100) 1,2,4-Trichlorobenzene	13.15	180	19849	0.879	ppb	94

(#) = qualifier out of range (m) = manual integration
 0329M08.D M0329524.M Wed Mar 31 08:56:43 2021

Data File : M:\MAX\DATA\210329\0329M08.D
 Acq On : 29 Mar 21 10:13
 Sample : 1ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 8
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
101) Hexachlorobutadiene	13.36	225	10297	0.831	ppb	90
102) Naphthalene	13.38	128	17400	0.870	ppb	99
103) 1,2,3-Trichlorobenzene	13.62	180	19403	0.990	ppb	93

Quantitation Report

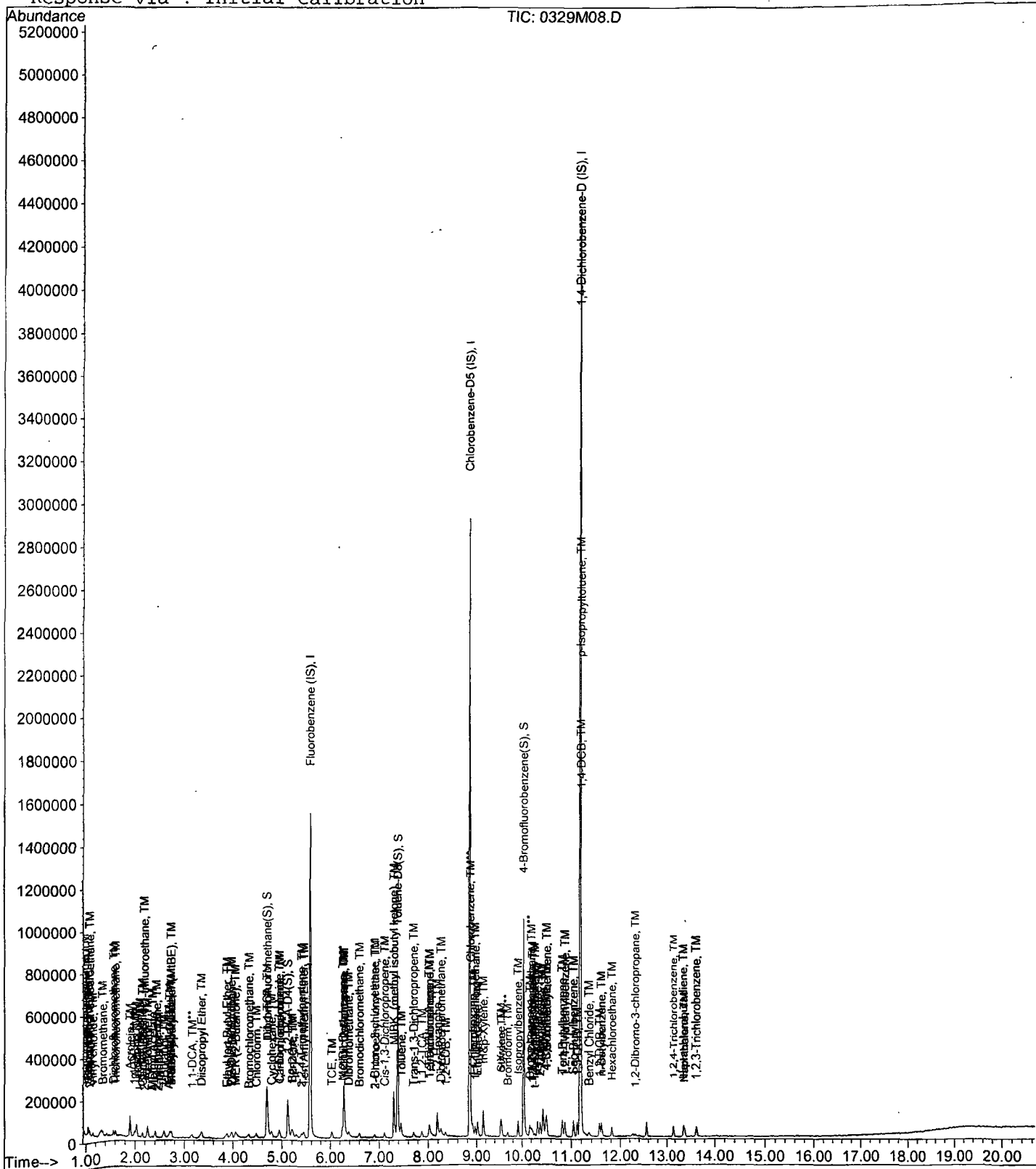
Data File : M:\MAX\DATA\210329\0329M08.D
 Acq On : 29 Mar 21 10:13
 Sample : 1ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 8
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration



Data File : M:\MAX\DATA\210329\0329M09.D
 Acq On : 29 Mar 21 10:41
 Sample : 5ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 9
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.56	96	1611357	25.000	ppb	0.00
63) Chlorobenzene-D5 (IS)	8.84	117	1737698	25.000	ppb	0.00
78) 1,4-Dichlorobenzene-D (IS)	11.17	152	1318390	25.000	ppb	0.00

System Monitoring Compounds

39) Dibromofluoromethane(S)	4.69	111	460553	34.359	ppb	0.00
Spiked Amount	25.000		Recovery	=	137.436%	
44) 1,2-DCA-D4(S)	5.11	65	378373	33.251	ppb	0.00
Spiked Amount	25.000		Recovery	=	133.004%	
64) Toluene-D8(S)	7.37	98	1446371	34.544	ppb	0.00
Spiked Amount	25.000		Recovery	=	138.176%	
72) 4-Bromofluorobenzene(S)	10.02	95	846741	34.912	ppb	0.00
Spiked Amount	25.000		Recovery	=	139.648%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chlorotrifluoroethene	1.04	116	835	6.213	ppb	# 93
3) Dichlorodifluoromethane	0.96	85	45442	4.703	ppb	91
4) Freon 114	1.04	85	34286	4.458	ppb	97
5) Chloromethane	1.07	50	60579	5.229	ppb	98
6) Vinyl chloride	1.14	62	54141	4.827	ppb	100
8) Bromomethane	1.34	94	32848	6.155	ppb	93
9) Chloroethane	1.41	64	27224	-1.042	ppb	95
10) Dichlorofluoromethane	1.55	67	85171	4.774	ppb	95
11) Trichlorofluoromethane	1.60	101	69696	5.092	ppb	100
12) 2,2-Dichloro-1,1,1-trifluo	2.14	83	21	2.742	ppb	# 13
13) Acrolein	1.89	56	94936	129.890	ppb	98
14) Acetone	2.02	43	113053	46.119	ppb	90
15) Freon-113	2.01	103	12004	5.356	ppb	98
16) Acetonitrile	2.24	41	130755	107.058	ppb	98
17) 2-propanol	2.48	45	144	4.097	ppb	# 57
18) 1,1-DCE	1.98	61	60453	4.941	ppb	93
19) t-Butanol	2.57	59	90858	104.401	ppb	99
20) Methyl Acetate	2.34	43	33980	5.862	ppb	92
21) Iodomethane	2.09	142	36508	3.717	ppb	95
22) Acrylonitrile	2.65	53	15984	5.528	ppb	93
23) 2-Methylpentane	2.36	71	99	6.530	ppb	# 1
24) Methylene chloride	2.40	84	58701	-23.670	ppb	98
25) Carbon disulfide	2.14	76	78544	4.715	ppb	99
26) Methyl t-butyl ether (MtBE)	2.72	73	128403	4.862	ppb	92
27) Trans-1,2-DCE	2.69	96	50972	5.090	ppb	99
28) 3-Methylpentane	2.72	57	29076	5.137	ppb	# 96
29) Diisopropyl Ether	3.34	45	140308	4.897	ppb	98
30) 1,1-DCA	3.15	63	84248	5.298	ppb	95
31) Vinyl Acetate	3.29	43	24320	-8.509	ppb	94
32) Ethyl tert Butyl Ether	3.86	59	132870	5.232	ppb	99
33) Methylcyclopentane	4.10	56	97	-240659759411482300.000	ppb	# 100
34) MEK (2-Butanone)	4.04	43	148207	46.092	ppb	96
35) Cis-1,2-DCE	3.96	96	53123	4.988	ppb	93
36) 2,2-Dichloropropane	3.96	77	68057	5.248	ppb	95
37) Chloroform	4.47	83	88155	4.929	ppb	98
38) Bromochloromethane	4.31	130	39421	4.950	ppb	96
40) 1,1,1-TCA	4.69	97	75597	5.022	ppb	96
41) Cyclohexane	4.78	41	30748	4.524	ppb	93
42) 1,1-Dichloropropene	4.94	75	55649	5.024	ppb	92

Data File : M:\MAX\DATA\210329\0329M09.D
 Acq On : 29 Mar 21 10:41
 Sample : 5ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 9
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2,2,4-Trimethylpentane	5.39	57	85400	4.193	ppb	95
45) Carbon Tetrachloride	4.93	117	68199	4.769	ppb	97
46) Tert Amyl Methyl Ether	5.44	73	125678	4.989	ppb	98
47) 1,2-DCA	5.21	62	66690	5.535	ppb	97
48) Benzene	5.19	78	195417	5.083	ppb	97
49) TCE	6.02	95	53625	5.014	ppb	91
50) 2-Pentanone	6.27	43	657096	111.285	ppb	100
51) 1,2-Dichloropropane	6.25	63	25096	5.364	ppb	95
52) Bromodichloromethane	6.58	83	70324	5.253	ppb	95
53) Methyl Cyclohexane	6.24	83	58204	4.764	ppb	98
54) Dibromomethane	6.37	93	30686	4.855	ppb	95
55) MIBK (methyl isobutyl ket	7.29	43	332188	46.581	ppb	98
56) 1-Bromo-2-chloroethane	6.90	144	9682	4.695	ppb	99
57) 2-Chloroethyl vinyl ether	6.87	43	1267	16.815	ppb	# 87
58) Cis-1,3-Dichloropropene	7.09	39	37196	5.584	ppb	96
59) Toluene	7.44	91	223076	5.053	ppb	99
60) Trans-1,3-Dichloropropene	7.70	75	67907	4.798	ppb	97
61) 1,1,2-TCA	7.86	83	37629	4.758	ppb	90
62) 2-Hexanone	8.17	43	224863	46.781	ppb	99
65) 1,2-EDB	8.34	107	50406	5.045	ppb	96
66) Tetrachloroethene	8.01	164	36968	4.710	ppb	97
67) 1-Chlorohexane	8.91	91	59760	5.129	ppb	94
68) 1,1,1,2-Tetrachloroethane	8.96	131	61356	5.189	ppb	99
69) m&p-Xylene	9.14	106	211927	10.096	ppb	99
70) o-Xylene	9.52	106	109448	5.442	ppb	100
71) Styrene	9.53	104	175456	5.229	ppb	98
73) 1,3-Dichloropropane	8.03	76	79400	5.731	ppb	97
74) Dibromochloromethane	8.25	129	60936	4.848	ppb	96
75) Chlorobenzene	8.87	112	162794	5.039	ppb	97
76) Ethylbenzene	9.01	91	250843	5.121	ppb	95
77) Bromoform	9.67	173	54142	5.278	ppb	100
79) Isopropylbenzene	9.91	105	259298	5.094	ppb	93
80) 1,1,2,2-Tetrachloroethane	10.18	83	63569	5.093	ppb	90
81) 1,2,3-Trichloropropane	10.21	110	20382	4.427	ppb	# 82
82) t-1,4-Dichloro-2-Butene	10.25	53	14118	5.924	ppb	85
83) Bromobenzene	10.16	156	80439	4.641	ppb	96
84) n-Propylbenzene	10.31	91	282712	5.219	ppb	99
85) 4-Ethyltoluene	10.43	105	257600	5.201	ppb	97
86) 2-Chlorotoluene	10.37	91	179274	4.753	ppb	93
87) 1,3,5-Trimethylbenzene	10.50	105	223790	5.222	ppb	97
88) 4-Chlorotoluene	10.48	91	213954	5.077	ppb	96
89) Tert-Butylbenzene	10.81	119	125064	5.021	ppb	98
90) 1,2,4-Trimethylbenzene	10.86	105	226850	5.324	ppb	97
91) Sec-Butylbenzene	11.03	105	276376	5.051	ppb	92
92) p-Isopropyltoluene	11.19	119	244796	4.839	ppb	99
93) Benzyl Chloride	11.33	91	69321	4.688	ppb	98
94) 1,3-DCB	11.10	146	164048	5.191	ppb	95
95) 1,4-DCB	11.19	146	159231	4.811	ppb	98
96) n-Butylbenzene	11.59	91	182451	4.884	ppb	97
97) 1,2-DCB	11.55	146	155611	4.850	ppb	94
98) Hexachloroethane	11.81	117	41648	5.046	ppb	97
99) 1,2-Dibromo-3-chloropropan	12.31	157	17773	4.684	ppb	# 82
100) 1,2,4-Trichlorobenzene	13.15	180	101451	4.430	ppb	99
101) Hexachlorobutadiene	13.35	225	54420	4.330	ppb	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\210329\0329M09.D Vial: 9
 Acq On : 29 Mar 21 10:41 Operator: LP,DG,CH
 Sample : 5ug/L VOC-HCL STD 3/29/21 Inst : Max
 Misc : IS 10/16/20 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021 Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) Naphthalene	13.38	128	89128	4.396	ppb	100
103) 1,2,3-Trichlorobenzene	13.62	180	88185	4.437	ppb	91

Data File : M:\MAX\DATA\210329\0329M10.D
 Acq On : 29 Mar 21 11:09
 Sample : 10ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 10
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.56	96	1620292	25.000	ppb	0.00
63) Chlorobenzene-D5 (IS)	8.84	117	1754823	25.000	ppb	0.00
78) 1,4-Dichlorobenzene-D (IS)	11.17	152	1343992	25.000	ppb	0.00
System Monitoring Compounds						
39) Dibromofluoromethane(S)	4.69	111	454751	33.739	ppb	0.00
Spiked Amount 25.000			Recovery =	134.956%		
44) 1,2-DCA-D4(S)	5.11	65	385751	33.713	ppb	0.00
Spiked Amount 25.000			Recovery =	134.852%		
64) Toluene-D8(S)	7.37	98	1424042	33.679	ppb	0.00
Spiked Amount 25.000			Recovery =	134.716%		
72) 4-Bromofluorobenzene(S)	10.02	95	847364	34.596	ppb	0.00
Spiked Amount 25.000			Recovery =	138.384%		
Target Compounds						Qvalue
2) Chlorotrifluoroethene	1.04	116	1755	12.987	ppb	100
3) Dichlorodifluoromethane	0.96	85	117304	12.074	ppb	100
4) Freon 114	1.04	85	92110	11.911	ppb	100
5) Chloromethane	1.07	50	130639	11.214	ppb	100
6) Vinyl chloride	1.14	62	123590	10.957	ppb	100
7) 2-Chloro-1,1,1-trifluoroet	1.03	118	1030	0.244	ppb	100
8) Bromomethane	1.34	94	61493	11.459	ppb	100
9) Chloroethane	1.41	64	57414	69.840	ppb	100
10) Dichlorofluoromethane	1.55	67	190164	10.600	ppb	100
11) Trichlorofluoromethane	1.60	101	150438	10.930	ppb	100
12) 2,2-Dichloro-1,1,1-trifluo	2.17	83	100	12.987	ppb	100
13) Acrolein	1.89	56	113232	154.068	ppb	100
14) Acetone	2.02	43	135158	54.833	ppb	100
15) Freon-113	2.00	103	29088	12.908	ppb	100
16) Acetonitrile	2.24	41	166636	135.684	ppb	100
17) 2-propanol	2.51	45	459	12.987	ppb	100
18) 1,1-DCE	1.98	61	134687	10.949	ppb	100
19) t-Butanol	2.57	59	117877	134.700	ppb	100
20) Methyl Acetate	2.34	43	65867	11.300	ppb	100
21) Iodomethane	2.09	142	98928	10.017	ppb	100
22) Acrylonitrile	2.64	53	37943	13.051	ppb	100
23) 2-Methylpentane	2.47	71	198	12.987	ppb	100
24) Methylene chloride	2.40	84	119454	70.026	ppb	100
25) Carbon disulfide	2.14	76	173082	10.334	ppb	100
26) Methyl t-butyl ether (MtBE)	2.72	73	283652	10.682	ppb	100
27) Trans-1,2-DCE	2.69	96	108485	10.772	ppb	100
28) 3-Methylpentane	2.72	57	58140	10.216	ppb	100
29) Diisopropyl Ether	3.34	45	312673	10.852	ppb	100
30) 1,1-DCA	3.15	63	180949	11.316	ppb	100
31) Vinyl Acetate	3.29	43	63264	69.852	ppb	100
32) Ethyl tert Butyl Ether	3.86	59	291168	11.402	ppb	100
33) Methylcyclopentane	4.10	56	168	75.000	ppb	100
34) MEK (2-Butanone)	4.03	43	185271	57.301	ppb	100
35) Cis-1,2-DCE	3.96	96	118767	11.090	ppb	100
36) 2,2-Dichloropropane	3.95	77	147945	11.346	ppb	100
37) Chloroform	4.47	83	191986	10.674	ppb	100
38) Bromochloromethane	4.31	130	85751	10.709	ppb	100
40) 1,1,1-TCA	4.70	97	166104	10.974	ppb	100
41) Cyclohexane	4.78	41	74421	10.889	ppb	100

Data File : M:\MAX\DATA\210329\0329M10.D
 Acq On : 29 Mar 21 11:09
 Sample : 10ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 10
 Operator: LP, DG, CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
42) 1,1-Dichloropropene	4.94	75	129596	11.635	ppb	100
43) 2,2,4-Trimethylpentane	5.39	57	241259	11.781	ppb	100
45) Carbon Tetrachloride	4.93	117	153325	10.662	ppb	100
46) Tert Amyl Methyl Ether	5.43	73	274556	10.838	ppb	100
47) 1,2-DCA	5.21	62	133538	11.021	ppb	100
48) Benzene	5.19	78	424739	10.986	ppb	100
49) TCE	6.02	95	107282	9.975	ppb	100
50) 2-Pentanone	6.27	43	845107	142.337	ppb	100
51) 1,2-Dichloropropane	6.24	63	54728	11.632	ppb	100
52) Bromodichloromethane	6.58	83	150243	11.160	ppb	100
53) Methyl Cyclohexane	6.24	83	144366	11.752	ppb	100
54) Dibromomethane	6.37	93	63901	10.055	ppb	100
55) MIBK (methyl isobutyl ket	7.29	43	423828	59.103	ppb	100
56) 1-Bromo-2-chloroethane	6.89	144	21041	10.146	ppb	100
57) 2-Chloroethyl vinyl ether	6.86	43	984	12.987	ppb	# 100
58) Cis-1,3-Dichloropropene	7.09	39	78722	11.753	ppb	100
59) Toluene	7.44	91	490663	11.053	ppb	100
60) Trans-1,3-Dichloropropene	7.69	75	155937	10.956	ppb	100
61) 1,1,2-TCA	7.86	83	83905	10.552	ppb	100
62) 2-Hexanone	8.17	43	283951	58.748	ppb	100
65) 1,2-EDB	8.34	107	107414	10.647	ppb	100
66) Tetrachloroethene	8.01	164	80832	10.199	ppb	100
67) 1-Chlorohexane	8.90	91	128178	10.895	ppb	100
68) 1,1,1,2-Tetrachloroethane	8.96	131	129144	10.815	ppb	100
69) m&p-Xylene	9.13	106	474261	22.373	ppb	100
70) o-Xylene	9.52	106	236515	11.645	ppb	100
71) Styrene	9.53	104	388002	11.451	ppb	100
73) 1,3-Dichloropropane	8.02	76	163487	11.685	ppb	100
74) Dibromochloromethane	8.25	129	135462	10.671	ppb	100
75) Chlorobenzene	8.87	112	349613	10.715	ppb	100
76) Ethylbenzene	9.01	91	547596	11.070	ppb	100
77) Bromoform	9.67	173	111901	10.801	ppb	100
79) Isopropylbenzene	9.90	105	589605	11.362	ppb	100
80) 1,1,2,2-Tetrachloroethane	10.18	83	132469	10.412	ppb	100
81) 1,2,3-Trichloropropane	10.21	110	46867	9.985	ppb	100
82) t-1,4-Dichloro-2-Butene	10.25	53	28481	11.723	ppb	100
83) Bromobenzene	10.15	156	188914	10.692	ppb	100
84) n-Propylbenzene	10.31	91	643821	11.659	ppb	100
85) 4-Ethyltoluene	10.43	105	578373	11.456	ppb	100
86) 2-Chlorotoluene	10.37	91	409772	10.656	ppb	100
87) 1,3,5-Trimethylbenzene	10.50	105	509876	11.670	ppb	100
88) 4-Chlorotoluene	10.48	91	463208	10.783	ppb	100
89) Tert-Butylbenzene	10.81	119	288320	11.354	ppb	100
90) 1,2,4-Trimethylbenzene	10.86	105	496774	11.437	ppb	100
91) Sec-Butylbenzene	11.03	105	614757	11.022	ppb	100
92) p-Isopropyltoluene	11.19	119	556974	10.801	ppb	100
93) Benzyl Chloride	11.33	91	150630	9.992	ppb	100
94) 1,3-DCB	11.10	146	353167	10.962	ppb	100
95) 1,4-DCB	11.19	146	345751	10.248	ppb	100
96) n-Butylbenzene	11.59	91	417945	10.976	ppb	100
97) 1,2-DCB	11.55	146	350942	10.729	ppb	100
98) Hexachloroethane	11.81	117	85840	10.203	ppb	100
99) 1,2-Dibromo-3-chloropropan	12.31	157	41923	10.839	ppb	100
100) 1,2,4-Trichlorobenzene	13.15	180	235066	10.069	ppb	100

(#) = qualifier out of range (m) = manual integration
 0329M10.D M0329524.M Wed Mar 31 08:16:52 2021

Data File : M:\MAX\DATA\210329\0329M10.D
 Acq On : 29 Mar 21 11:09
 Sample : 10ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 10
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
101) Hexachlorobutadiene	13.35	225	127629	9.961	ppb	100
102) Naphthalene	13.37	128	225664	10.918	ppb	100
103) 1,2,3-Trichlorobenzene	13.62	180	204381	10.088	ppb	100

Quantitation Report

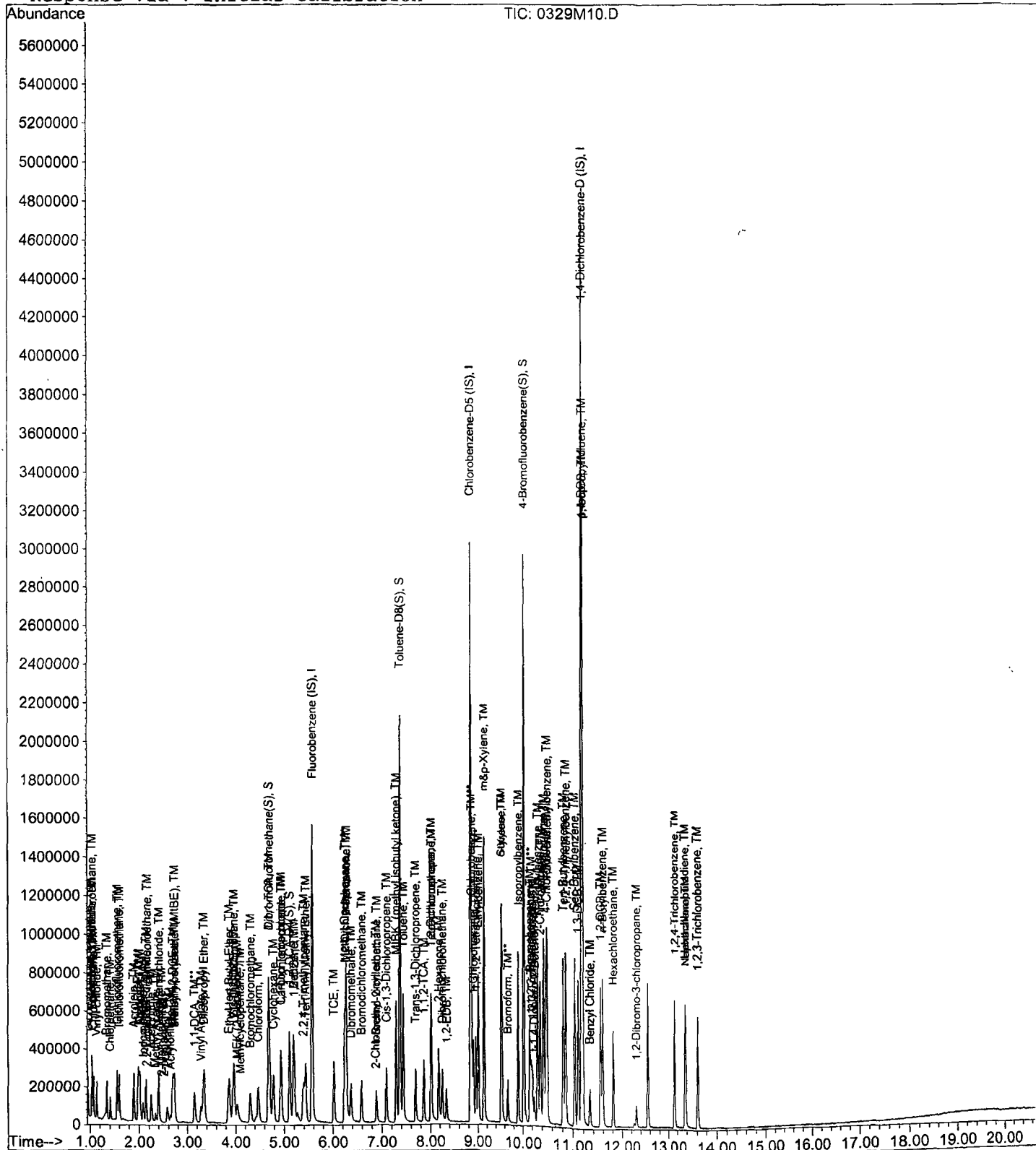
Data File : M:\MAX\DATA\210329\0329M10.D
Acq On : 29 Mar 21 11:09
Sample : 10ug/L VOC-HCL STD 3/29/21
Misc : IS 10/16/20

Vial: 10
Operator: LP,DG,CH
Inst : Max
Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration



Data File : M:\MAX\DATA\210329\0329M11.D
 Acq On : 29 Mar 21 11:37
 Sample : 20ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 11
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.56	96	1610451	25.000	ppb	0.00
63) Chlorobenzene-D5 (IS)	8.84	117	1715628	25.000	ppb	0.00
78) 1,4-Dichlorobenzene-D (IS)	11.17	152	1332348	25.000	ppb	0.00

System Monitoring Compounds

39) Dibromofluoromethane(S)	4.69	111	896493	66.919	ppb	0.00
Spiked Amount	25.000		Recovery	=	267.676%	
44) 1,2-DCA-D4(S)	5.11	65	744342	65.449	ppb	0.00
Spiked Amount	25.000		Recovery	=	261.796%	
64) Toluene-D8(S)	7.37	98	2785754	67.389	ppb	0.00
Spiked Amount	25.000		Recovery	=	269.556%	
72) 4-Bromofluorobenzene(S)	10.02	95	1688702	70.522	ppb	0.00
Spiked Amount	25.000		Recovery	=	282.088%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chlorotrifluoroethene	1.04	116	2874	21.398	ppb	# 14
3) Dichlorodifluoromethane	0.96	85	222457	23.037	ppb	99
4) Freon 114	1.04	85	158161	20.577	ppb	97
5) Chloromethane	1.07	50	250635	21.646	ppb	96
6) Vinyl chloride	1.14	62	241687	21.558	ppb	99
7) 2-Chloro-1,1,1-trifluoroet	1.04	118	1658	0.395	ppb	100
8) Bromomethane	1.34	94	111184	20.846	ppb	96
9) Chloroethane	1.41	64	111056	198.017	ppb	99
10) Dichlorofluoromethane	1.55	67	351775	19.728	ppb	96
11) Trichlorofluoromethane	1.59	101	288002	21.053	ppb	98
12) 2,2-Dichloro-1,1,1-trifluo	2.15	83	85	11.106	ppb	# 13
13) Acrolein	1.89	56	140224	191.960	ppb	100
14) Acetone	2.02	43	162108	66.168	ppb	91
15) Freon-113	2.00	103	52168	23.291	ppb	95
16) Acetonitrile	2.24	41	211212	173.031	ppb	93
17) 2-propanol	2.50	45	157	4.469	ppb	# 57
18) 1,1-DCE	1.98	61	265374	21.704	ppb	98
19) t-Butanol	2.58	59	140081	161.051	ppb	99
20) Methyl Acetate	2.33	43	125084	21.590	ppb	98
21) Iodomethane	2.09	142	222088	22.626	ppb	98
22) Acrylonitrile	2.63	53	65422	22.640	ppb	# 88
23) 2-Methylpentane	2.57	71	347	22.899	ppb	# 1
24) Methylene chloride	2.40	84	229097	242.205	ppb	98
25) Carbon disulfide	2.14	76	327104	19.649	ppb	99
26) Methyl t-butyl ether (MtBE)	2.72	73	523189	19.823	ppb	98
27) Trans-1,2-DCE	2.69	96	209803	20.961	ppb	98
28) 3-Methylpentane	2.72	57	109893	19.427	ppb	# 92
29) Diisopropyl Ether	3.34	45	586998	20.497	ppb	96
30) 1,1-DCA	3.15	63	350157	22.031	ppb	98
31) Vinyl Acetate	3.28	43	131456	209.163	ppb	94
32) Ethyl tert Butyl Ether	3.86	59	551761	21.738	ppb	97
33) Methylcyclopentane	4.09	56	78	-305762404843584700	ppb	100
34) MEK (2-Butanone)	4.03	43	227097	70.666	ppb	98
35) Cis-1,2-DCE	3.96	96	238406	22.398	ppb	100
36) 2,2-Dichloropropane	3.95	77	285316	22.016	ppb	95
37) Chloroform	4.47	83	366341	20.493	ppb	95
38) Bromochloromethane	4.30	130	171172	21.507	ppb	97
40) 1,1,1-TCA	4.69	97	324798	21.590	ppb	93
41) Cyclohexane	4.78	41	134377	19.782	ppb	96

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\210329\0329M11.D
 Acq On : 29 Mar 21 11:37
 Sample : 20ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 11
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
42) 1,1-Dichloropropene	4.94	75	247924	22.394	ppb	93
43) 2,2,4-Trimethylpentane	5.39	57	405381	19.917	ppb	99
45) Carbon Tetrachloride	4.93	117	292412	20.457	ppb	97
46) Tert Amyl Methyl Ether	5.43	73	513014	20.375	ppb	96
47) 1,2-DCA	5.21	62	271803	22.570	ppb	96
48) Benzene	5.19	78	830709	21.618	ppb	98
49) TCE	6.02	95	213998	20.019	ppb	95
50) 2-Pentanone	6.27	43	1024010	173.523	ppb	99
51) 1,2-Dichloropropane	6.24	63	102960	22.017	ppb	99
52) Bromodichloromethane	6.58	83	298061	22.275	ppb	99
53) Methyl Cyclohexane	6.24	83	257256	21.069	ppb	97
54) Dibromomethane	6.36	93	131716	20.853	ppb	93
55) MIBK (methyl isobutyl ket	7.29	43	530818	74.476	ppb	98
56) 1-Bromo-2-chloroethane	6.89	144	42979	20.852	ppb	99
57) 2-Chloroethyl vinyl ether	6.92	43	1392	18.484	ppb	# 82
58) Cis-1,3-Dichloropropene	7.09	39	153268	23.022	ppb	91
59) Toluene	7.44	91	958673	21.728	ppb	100
60) Trans-1,3-Dichloropropene	7.69	75	308903	21.836	ppb	99
61) 1,1,2-TCA	7.86	83	163186	20.648	ppb	97
62) 2-Hexanone	8.17	43	351980	73.268	ppb	96
65) 1,2-EDB	8.34	107	218000	22.102	ppb	99
66) Tetrachloroethene	8.01	164	161280	20.814	ppb	97
67) 1-Chlorohexane	8.90	91	246764	21.453	ppb	98
68) 1,1,1,2-Tetrachloroethane	8.96	131	257591	22.063	ppb	99
69) m&p-Xylene	9.13	106	933673	45.053	ppb	99
70) o-Xylene	9.52	106	476330	23.987	ppb	95
71) Styrene	9.53	104	784321	23.677	ppb	96
73) 1,3-Dichloropropane	8.02	76	332197	24.285	ppb	99
74) Dibromochloromethane	8.24	129	268628	21.645	ppb	99
75) Chlorobenzene	8.87	112	695102	21.791	ppb	98
76) Ethylbenzene	9.01	91	1084156	22.418	ppb	99
77) Bromoform	9.67	173	226241	22.337	ppb	99
79) Isopropylbenzene	9.90	105	1158440	22.520	ppb	97
80) 1,1,2,2-Tetrachloroethane	10.18	83	263666	20.904	ppb	94
81) 1,2,3-Trichloropropane	10.20	110	88671	19.057	ppb	85
82) t-1,4-Dichloro-2-Butene	10.25	53	48593	20.175	ppb	88
83) Bromobenzene	10.15	156	371698	21.222	ppb	99
84) n-Propylbenzene	10.31	91	1304600	23.832	ppb	99
85) 4-Ethyltoluene	10.43	105	1107580	22.130	ppb	100
86) 2-Chlorotoluene	10.37	91	807476	21.183	ppb	97
87) 1,3,5-Trimethylbenzene	10.50	105	992167	22.907	ppb	97
88) 4-Chlorotoluene	10.48	91	934914	21.954	ppb	97
89) Tert-Butylbenzene	10.81	119	588224	23.368	ppb	96
90) 1,2,4-Trimethylbenzene	10.86	105	1007055	23.387	ppb	99
91) Sec-Butylbenzene	11.03	105	1247012	22.553	ppb	98
92) p-Isopropyltoluene	11.19	119	1104519	21.606	ppb	99
93) Benzyl Chloride	11.33	91	305455	20.440	ppb	99
94) 1,3-DCB	11.10	146	692800	21.693	ppb	99
95) 1,4-DCB	11.19	146	688324	20.579	ppb	98
96) n-Butylbenzene	11.59	91	855273	22.657	ppb	99
97) 1,2-DCB	11.55	146	692497	21.356	ppb	96
98) Hexachloroethane	11.81	117	180025	21.584	ppb	99
99) 1,2-Dibromo-3-chloropropan	12.31	157	79048	20.616	ppb	97
100) 1,2,4-Trichlorobenzene	13.15	180	514074	22.213	ppb	100

(#) = qualifier out of range (m) = manual integration
 0329M11.D M0329524.M Wed Mar 31 08:16:51 2021

Data File : M:\MAX\DATA\210329\0329M11.D
 Acq On : 29 Mar 21 11:37
 Sample : 20ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 11
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
101) Hexachlorobutadiene	13.35	225	255048	20.080	ppb	96
102) Naphthalene	13.37	128	516672	25.216	ppb	99
103) 1,2,3-Trichlorobenzene	13.62	180	457941	22.801	ppb	99

Quantitation Report

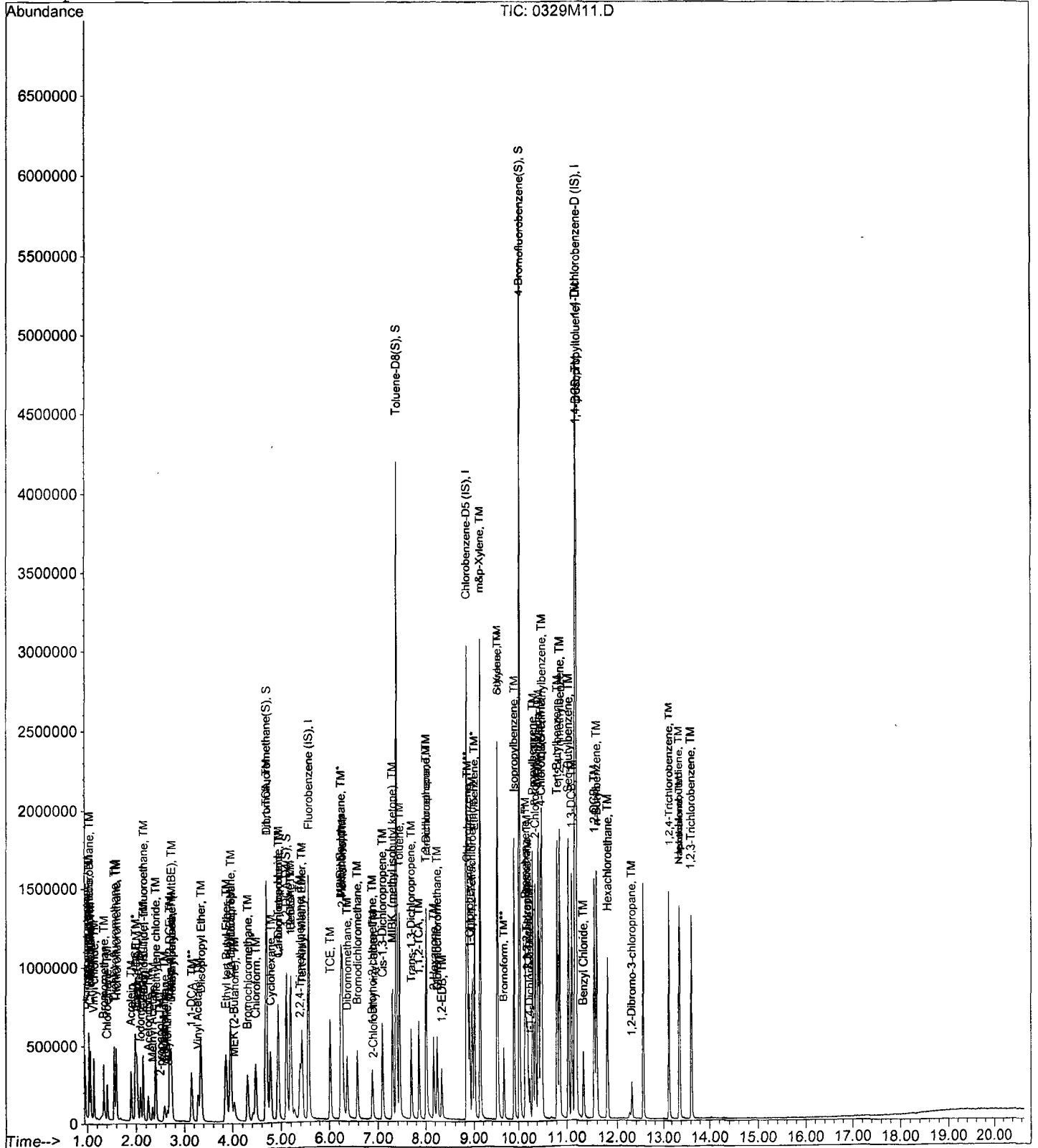
Data File : M:\MAX\DATA\210329\0329M11.D
Acq On : 29 Mar 21 11:37
Sample : 20ug/L VOC-HCL STD 3/29/21
Misc : IS 10/16/20

Vial: 11
Operator: LP,DG,CH
Inst : Max
Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration



Data File : M:\MAX\DATA\210329\0329M12.D
 Acq On : 29 Mar 21 12:05
 Sample : 40ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 12
 Operator: LP, DG, CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.56	96	1607602	25.000	ppb	0.00
63) Chlorobenzene-D5 (IS)	8.84	117	1744632	25.000	ppb	0.00
78) 1,4-Dichlorobenzene-D (IS)	11.17	152	1347148	25.000	ppb	0.00

System Monitoring Compounds

39) Dibromofluoromethane(S)	4.69	111	895241	66.944	ppb	0.00
Spiked Amount	25.000		Recovery	=	267.776%	
44) 1,2-DCA-D4(S)	5.11	65	754601	66.469	ppb	0.00
Spiked Amount	25.000		Recovery	=	265.876%	
64) Toluene-D8(S)	7.37	98	2838916	67.533	ppb	0.00
Spiked Amount	25.000		Recovery	=	270.132%	
72) 4-Bromofluorobenzene(S)	10.02	95	1735548	71.273	ppb	0.00
Spiked Amount	25.000		Recovery	=	285.092%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chlorotrifluoroethene	1.04	116	6064	45.228	ppb	# 23
3) Dichlorodifluoromethane	0.96	85	451023	46.789	ppb	98
4) Freon 114	1.04	85	314046	40.930	ppb	98
5) Chloromethane	1.07	50	501784	43.413	ppb	96
6) Vinyl chloride	1.14	62	477707	42.687	ppb	100
7) 2-Chloro-1,1,1-trifluoroet	1.04	118	2851	0.680	ppb	# 100
8) Bromomethane	1.34	94	217664	40.883	ppb	99
9) Chloroethane	1.40	64	218775	454.669	ppb	97
10) Dichlorofluoromethane	1.55	67	686353	38.561	ppb	99
11) Trichlorofluoromethane	1.59	101	588075	43.065	ppb	95
12) 2,2-Dichloro-1,1,1-trifluo	2.18	83	84	10.995	ppb	# 95
13) Acrolein	1.89	56	169088	231.884	ppb	98
14) Acetone	2.03	43	210768	86.183	ppb	97
15) Freon-113	2.00	103	97360	43.545	ppb	95
16) Acetonitrile	2.24	41	233641	191.745	ppb	97
17) 2-propanol	2.47	45	417	11.892	ppb	# 1
18) 1,1-DCE	1.98	61	499404	40.917	ppb	99
19) t-Butanol	2.58	59	161915	186.484	ppb	98
20) Methyl Acetate	2.33	43	267458	46.246	ppb	96
21) Iodomethane	2.09	142	518480	52.915	ppb	98
22) Acrylonitrile	2.63	53	147905	51.275	ppb	90
23) 2-Methylpentane	2.39	71	316	20.890	ppb	# 1
24) Methylene chloride	2.40	84	427782	553.343	ppb	97
25) Carbon disulfide	2.14	76	668224	40.210	ppb	100
26) Methyl t-butyl ether (MtBE)	2.72	73	1127113	42.780	ppb	96
27) Trans-1,2-DCE	2.68	96	399874	40.021	ppb	100
28) 3-Methylpentane	2.72	57	240986	42.677	ppb	93
29) Diisopropyl Ether	3.34	45	1219982	42.675	ppb	95
30) 1,1-DCA	3.15	63	672812	42.407	ppb	99
31) Vinyl Acetate	3.28	43	298106	548.783	ppb	99
32) Ethyl tert Butyl Ether	3.86	59	1174209	46.343	ppb	93
33) Methylcyclopentane	4.11	56	192	8.71472e+016	ppb	# 100
34) MEK (2-Butanone)	4.03	43	310501	96.790	ppb	98
35) Cis-1,2-DCE	3.96	96	457333	43.041	ppb	99
36) 2,2-Dichloropropane	3.95	77	529978	40.967	ppb	95
37) Chloroform	4.47	83	726649	40.720	ppb	97
38) Bromochloromethane	4.30	130	334409	42.092	ppb	98
40) 1,1,1-TCA	4.69	97	617150	41.096	ppb	95
41) Cyclohexane	4.78	41	262666	38.736	ppb	96

(#) = qualifier out of range (m) = manual integration
 0329M12.D M0329524.M Wed Mar 31 08:00:18 2021

Data File : M:\MAX\DATA\210329\0329M12.D
 Acq On : 29 Mar 21 12:05
 Sample : 40ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 12
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
42) 1,1-Dichloropropene	4.94	75	469182	42.455	ppb	93
43) 2,2,4-Trimethylpentane	5.39	57	817573	40.239	ppb	99
45) Carbon Tetrachloride	4.93	117	560626	39.292	ppb	99
46) Tert Amyl Methyl Ether	5.43	73	1087758	43.278	ppb	98
47) 1,2-DCA	5.21	62	527537	43.884	ppb	96
48) Benzene	5.19	78	1613449	42.063	ppb	98
49) TCE	6.01	95	410743	38.492	ppb	96
50) 2-Pentanone	6.27	43	1218249	206.803	ppb	98
51) 1,2-Dichloropropane	6.24	63	207360	44.421	ppb	99
52) Bromodichloromethane	6.58	83	586189	43.885	ppb	99
53) Methyl Cyclohexane	6.24	83	522274	42.849	ppb	99
54) Dibromomethane	6.36	93	259904	41.220	ppb	98
55) MIBK (methyl isobutyl ket	7.29	43	722317	101.523	ppb	99
56) 1-Bromo-2-chloroethane	6.89	144	86261	41.925	ppb	93
57) 2-Chloroethyl vinyl ether	6.89	43	852	11.334	ppb	# 94
58) Cis-1,3-Dichloropropene	7.09	39	314280	47.290	ppb	94
59) Toluene	7.44	91	1871257	42.487	ppb	98
60) Trans-1,3-Dichloropropene	7.69	75	632708	44.805	ppb	97
61) 1,1,2-TCA	7.86	83	317840	40.287	ppb	94
62) 2-Hexanone	8.17	43	493878	102.988	ppb	97
65) 1,2-EDB	8.33	107	438694	43.737	ppb	96
66) Tetrachloroethene	8.01	164	312128	39.612	ppb	98
67) 1-Chlorohexane	8.90	91	518680	44.343	ppb	96
68) 1,1,1,2-Tetrachloroethane	8.96	131	512763	43.190	ppb	99
69) m&p-Xylene	9.13	106	1798654	85.348	ppb	98
70) o-Xylene	9.52	106	912908	45.209	ppb	100
71) Styrene	9.53	104	1545317	45.874	ppb	99
73) 1,3-Dichloropropane	8.02	76	647962	46.581	ppb	99
74) Dibromochloromethane	8.24	129	545336	43.210	ppb	99
75) Chlorobenzene	8.87	112	1341958	41.371	ppb	98
76) Ethylbenzene	9.01	91	2129111	43.294	ppb	99
77) Bromoform	9.67	173	454613	44.138	ppb	95
79) Isopropylbenzene	9.90	105	2313469	44.479	ppb	100
80) 1,1,2,2-Tetrachloroethane	10.18	83	535081	41.957	ppb	95
81) 1,2,3-Trichloropropane	10.20	110	187251	39.802	ppb	91
82) t-1,4-Dichloro-2-Butene	10.24	53	107601	44.184	ppb	85
83) Bromobenzene	10.15	156	729639	41.200	ppb	95
84) n-Propylbenzene	10.31	91	2555867	46.177	ppb	99
85) 4-Ethyltoluene	10.43	105	2311944	45.685	ppb	99
86) 2-Chlorotoluene	10.37	91	1566483	40.642	ppb	97
87) 1,3,5-Trimethylbenzene	10.50	105	1952218	44.577	ppb	100
88) 4-Chlorotoluene	10.48	91	1820679	42.285	ppb	96
89) Tert-Butylbenzene	10.81	119	1188352	46.689	ppb	95
90) 1,2,4-Trimethylbenzene	10.86	105	2026985	46.556	ppb	99
91) Sec-Butylbenzene	11.03	105	2436111	43.574	ppb	97
92) p-Isopropyltoluene	11.19	119	2187874	42.328	ppb	99
93) Benzyl Chloride	11.33	91	663985	43.943	ppb	97
94) 1,3-DCB	11.10	146	1390943	43.074	ppb	100
95) 1,4-DCB	11.19	146	1366578	40.409	ppb	97
96) n-Butylbenzene	11.59	91	1714484	44.918	ppb	99
97) 1,2-DCB	11.55	146	1421940	43.370	ppb	98
98) Hexachloroethane	11.81	117	370282	43.907	ppb	98
99) 1,2-Dibromo-3-chloropropan	12.31	157	180278	46.502	ppb	98
100) 1,2,4-Trichlorobenzene	13.15	180	1061698	45.372	ppb	100

(#) = qualifier out of range (m) = manual integration
 0329M12.D M0329524.M Wed Mar 31 07:17:08 2021

Data File : M:\MAX\DATA\210329\0329M12.D
 Acq On : 29 Mar 21 12:05
 Sample : 40ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 12
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
101) Hexachlorobutadiene	13.35	225	500460	38.968	ppb	94
102) Naphthalene	13.37	128	1198592	57.855	ppb	99
103) 1,2,3-Trichlorobenzene	13.62	180	941503	46.362	ppb	99

Quantitation Report

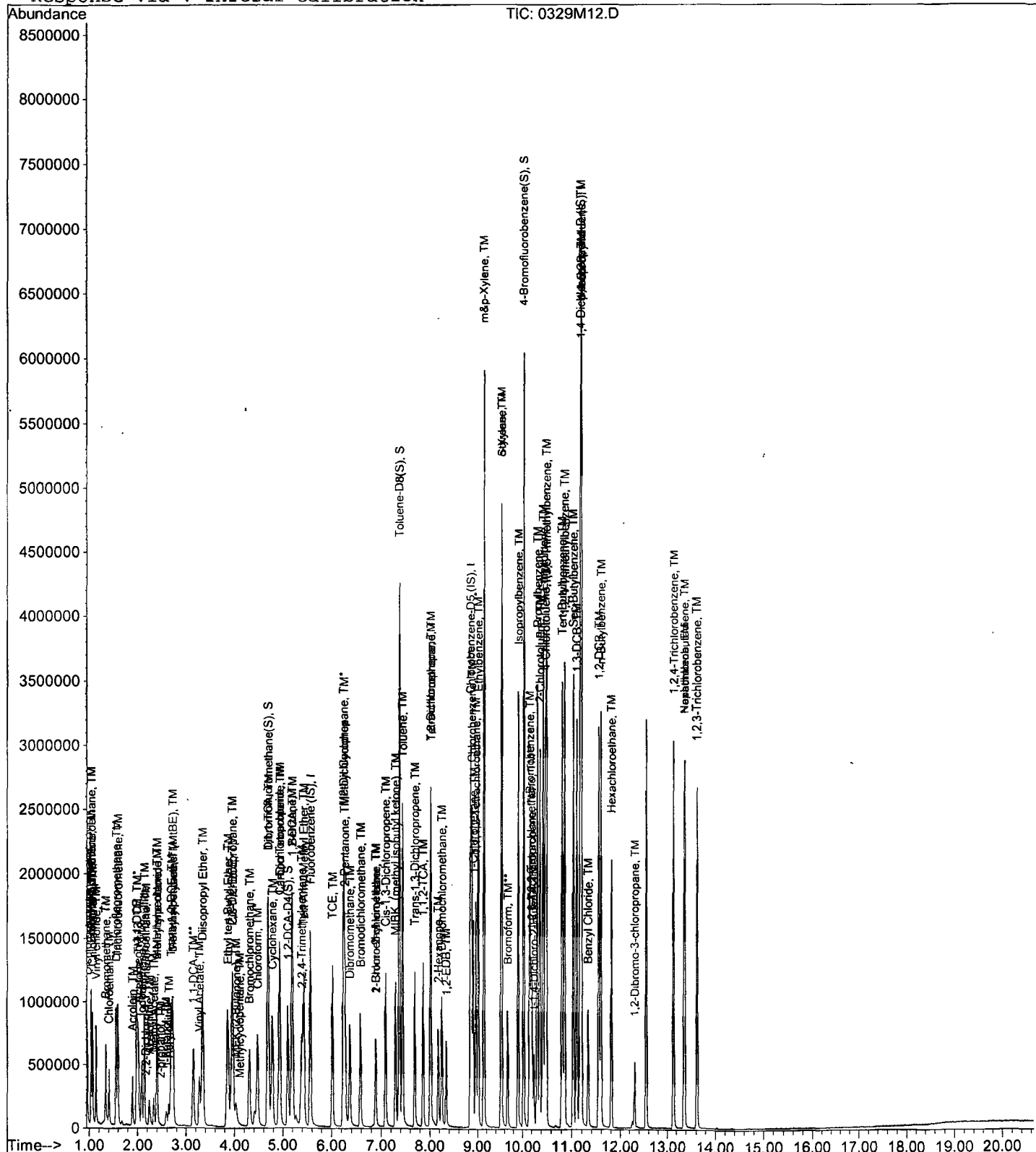
Data File : M:\MAX\DATA\210329\0329M12.D
Acq On : 29 Mar 21 12:05
Sample : 40ug/L VOC-HCL STD 3/29/21
Misc : IS 10/16/20

Vial: 12
Operator: LP, DG, CH
Inst : Max
Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration



Data File : M:\MAX\DATA\210329\0329M13.D
 Acq On : 29 Mar 21 12:32
 Sample : 100ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 13
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.56	96	1566621	25.000	ppb	0.00
63) Chlorobenzene-D5 (IS)	8.84	117	1762379	25.000	ppb	0.00
78) 1,4-Dichlorobenzene-D (IS)	11.17	152	1436545	25.000	ppb	0.00
System Monitoring Compounds						
39) Dibromofluoromethane(S)	4.68	111	1648185	126.471	ppb	0.00
Spiked Amount 25.000			Recovery =	505.884%		
44) 1,2-DCA-D4(S)	5.10	65	1407397	127.213	ppb	0.00
Spiked Amount 25.000			Recovery =	508.852%		
64) Toluene-D8(S)	7.37	98	5216785	122.849	ppb	0.00
Spiked Amount 25.000			Recovery =	491.396%		
72) 4-Bromofluorobenzene(S)	10.03	95	3380348	137.422	ppb	0.00
Spiked Amount 25.000			Recovery =	549.688%		
Target Compounds						
2) Chlorotrifluoroethene	1.04	116	18536	141.866	ppb	# 67
3) Dichlorodifluoromethane	0.96	85	995290	105.951	ppb	99
4) Freon 114	1.04	85	834073	111.549	ppb	98
5) Chloromethane	1.06	50	1153459	102.404	ppb	98
6) Vinyl chloride	1.14	62	1120197	102.717	ppb	99
7) 2-Chloro-1,1,1-trifluoroet	1.04	118	7086	1.735	ppb	100
8) Bromomethane	1.33	94	538229	103.737	ppb	96
9) Chloroethane	1.40	64	407156	928.019	ppb	99
10) Dichlorofluoromethane	1.55	67	1748085	100.780	ppb	98
11) Trichlorofluoromethane	1.58	101	1343090	100.928	ppb	96
12) 2,2-Dichloro-1,1,1-trifluo	2.18	83	19	2.552	ppb	# 13
13) Acrolein	1.90	56	180608	254.161	ppb	86
14) Acetone	2.03	43	263276	110.469	ppb	94
15) Freon-113	2.00	103	255102	117.082	ppb	98
16) Acetonitrile	2.25	41	276944	233.228	ppb	96
17) 2-propanol	2.51	45	331	9.686	ppb	# 1
18) 1,1-DCE	1.97	61	1255791	105.581	ppb	98
19) t-Butanol	2.61	59	251616	297.376	ppb	98
20) Methyl Acetate	2.33	43	625629	111.008	ppb	100
21) Iodomethane	2.08	142	1421707	148.891	ppb	97
22) Acrylonitrile	2.63	53	374791	133.328	ppb	91
23) 2-Methylpentane	2.40	71	333	22.590	ppb	# 1
24) Methylene chloride	2.39	84	1039536	1551.888	ppb	98
25) Carbon disulfide	2.13	76	1694208	104.615	ppb	100
26) Methyl t-butyl ether (MtBE)	2.72	73	2662697	103.708	ppb	97
27) Trans-1,2-DCE	2.68	96	993251	102.008	ppb	98
28) 3-Methylpentane	2.72	57	558463	101.487	ppb	94
29) Diisopropyl Ether	3.35	45	2914018	104.598	ppb	94
30) 1,1-DCA	3.15	63	1667681	107.862	ppb	97
31) Vinyl Acetate	3.28	43	740930	1489.409	ppb	98
32) Ethyl tert Butyl Ether	3.86	59	2853944	115.585	ppb	96
33) Methylcyclopentane	4.09	56	255	3.26982e+017	ppb	# 100
34) MEK (2-Butanone)	4.03	43	379429	121.371	ppb	100
35) Cis-1,2-DCE	3.95	96	1111533	107.347	ppb	99
36) 2,2-Dichloropropane	3.95	77	1305308	103.539	ppb	94
37) Chloroform	4.47	83	1743260	100.244	ppb	95
38) Bromochloromethane	4.30	130	813065	105.018	ppb	97
40) 1,1,1-TCA	4.70	97	1549580	105.887	ppb	96
41) Cyclohexane	4.78	41	673542	101.928	ppb	94

(#) = qualifier out of range (m) = manual integration
 0329M13.D M0329524.M Wed Mar 31 07:07:08 2021

Data File : M:\MAX\DATA\210329\0329M13.D
 Acq On : 29 Mar 21 12:32
 Sample : 100ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 13
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
42) 1,1-Dichloropropene	4.94	75	1180242	109.590	ppb	94
43) 2,2,4-Trimethylpentane	5.39	57	2189043	110.558	ppb	97
45) Carbon Tetrachloride	4.93	117	1401882	100.821	ppb	97
46) Tert Amyl Methyl Ether	5.43	73	2707667	110.546	ppb	96
47) 1,2-DCA	5.20	62	1252584	106.923	ppb	97
48) Benzene	5.19	78	3959623	105.928	ppb	98
49) TCE	6.01	95	1039630	99.977	ppb	95
50) 2-Pentanone	6.27	43	1470919	256.227	ppb	98
51) 1,2-Dichloropropane	6.24	63	502720	110.511	ppb	97
52) Bromodichloromethane	6.58	83	1430974	109.933	ppb	98
53) Methyl Cyclohexane	6.24	83	1334267	112.332	ppb	99
54) Dibromomethane	6.36	93	638689	103.943	ppb	96
55) MIBK (methyl isobutyl ket	7.29	43	955955	137.876	ppb	98
56) 1-Bromo-2-chloroethane	6.89	144	216176	107.815	ppb	99
57) 2-Chloroethyl vinyl ether	6.90	43	597	8.149	ppb	# 85
58) Cis-1,3-Dichloropropene	7.09	39	773587	119.448	ppb	94
59) Toluene	7.44	91	4633080	107.947	ppb	99
60) Trans-1,3-Dichloropropene	7.69	75	1575971	114.522	ppb	98
61) 1,1,2-TCA	7.86	83	789321	102.666	ppb	95
62) 2-Hexanone	8.17	43	669019	143.159	ppb	99
65) 1,2-EDB	8.33	107	1084376	107.022	ppb	97
66) Tetrachloroethene	8.01	164	786880	98.856	ppb	97
67) 1-Chlorohexane	8.90	91	1359646	115.068	ppb	95
68) 1,1,1,2-Tetrachloroethane	8.96	131	1299169	108.326	ppb	99
69) m&p-Xylene	9.13	106	4571843	214.754	ppb	97
70) o-Xylene	9.52	106	2359727	115.680	ppb	99
71) Styrene	9.53	104	3995357	117.411	ppb	98
73) 1,3-Dichloropropane	8.02	76	1565200	111.386	ppb	100
74) Dibromochloromethane	8.24	129	1356293	106.385	ppb	98
75) Chlorobenzene	8.86	112	3462866	105.680	ppb	98
76) Ethylbenzene	9.01	91	5462620	109.961	ppb	98
77) Bromoform	9.67	173	1217877	117.052	ppb	97
79) Isopropylbenzene	9.90	105	6114715	110.245	ppb	100
80) 1,1,2,2-Tetrachloroethane	10.18	83	1446560	106.368	ppb	96
81) 1,2,3-Trichloropropane	10.20	110	482685	96.215	ppb	92
82) t-1,4-Dichloro-2-Butene	10.24	53	294283	113.321	ppb	85
83) Bromobenzene	10.15	156	1925474	101.959	ppb	96
84) n-Propylbenzene	10.31	91	6816814	115.495	ppb	98
85) 4-Ethyltoluene	10.43	105	6200870	114.908	ppb	99
86) 2-Chlorotoluene	10.37	91	4118021	100.192	ppb	98
87) 1,3,5-Trimethylbenzene	10.50	105	5223426	111.850	ppb	99
88) 4-Chlorotoluene	10.48	91	4832881	105.257	ppb	96
89) Tert-Butylbenzene	10.81	119	3253760	119.882	ppb	96
90) 1,2,4-Trimethylbenzene	10.86	105	5439739	117.166	ppb	99
91) Sec-Butylbenzene	11.03	105	6687468	112.173	ppb	98
92) p-Isopropyltoluene	11.19	119	6078561	110.281	ppb	98
93) Benzyl Chloride	11.33	91	1982041	123.009	ppb	98
94) 1,3-DCB	11.10	146	3725230	108.182	ppb	99
95) 1,4-DCB	11.19	146	3679386	102.026	ppb	98
96) n-Butylbenzene	11.59	91	4772176	117.248	ppb	99
97) 1,2-DCB	11.55	146	3911916	111.890	ppb	98
98) Hexachloroethane	11.81	117	973452	108.246	ppb	98
99) 1,2-Dibromo-3-chloropropan	12.31	157	495474	119.851	ppb	95
100) 1,2,4-Trichlorobenzene	13.15	180	2900605	116.245	ppb	99

(#) = qualifier out of range (m) = manual integration
 0329M13.D M0329524.M Wed Mar 31 07:01:08 2021

Data File : M:\MAX\DATA\210329\0329M13.D
 Acq On : 29 Mar 21 12:32
 Sample : 100ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 13
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:00:07 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
101) Hexachlorobutadiene	13.35	225	1440160	105.159	ppb	94
102) Naphthalene	13.37	128	3233624	146.371	ppb	98
103) 1,2,3-Trichlorobenzene	13.62	180	2437932	112.580	ppb	99

Quantitation Report

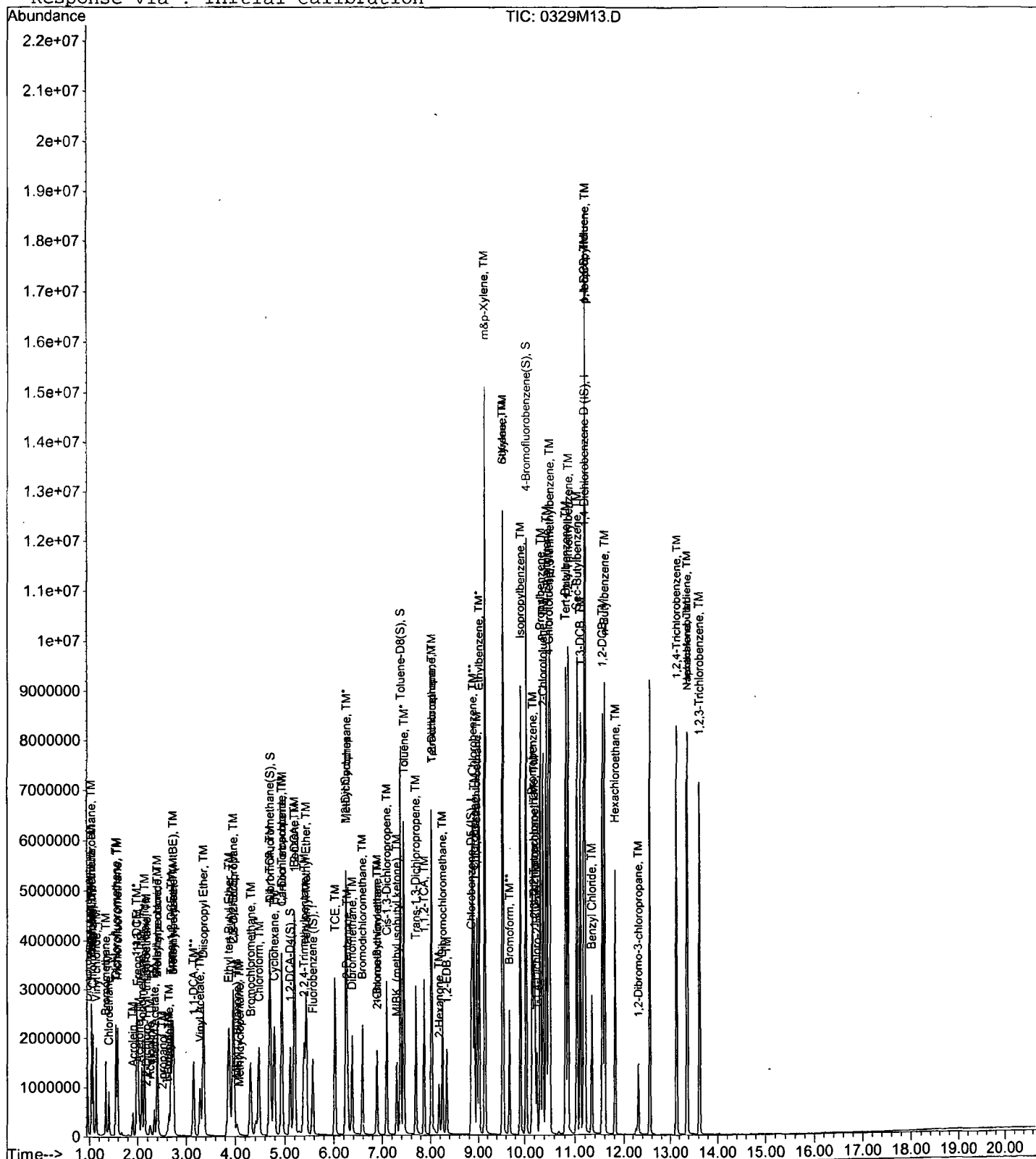
Data File : M:\MAX\DATA\210329\0329M13.D
Acq On : 29 Mar 21 12:32
Sample : 100ug/L VOC-HCL STD 3/29/21
Misc : IS 10/16/20

Vial: 13
Operator: LP,DG,CH
Inst : Max
Multiplr: 1.00

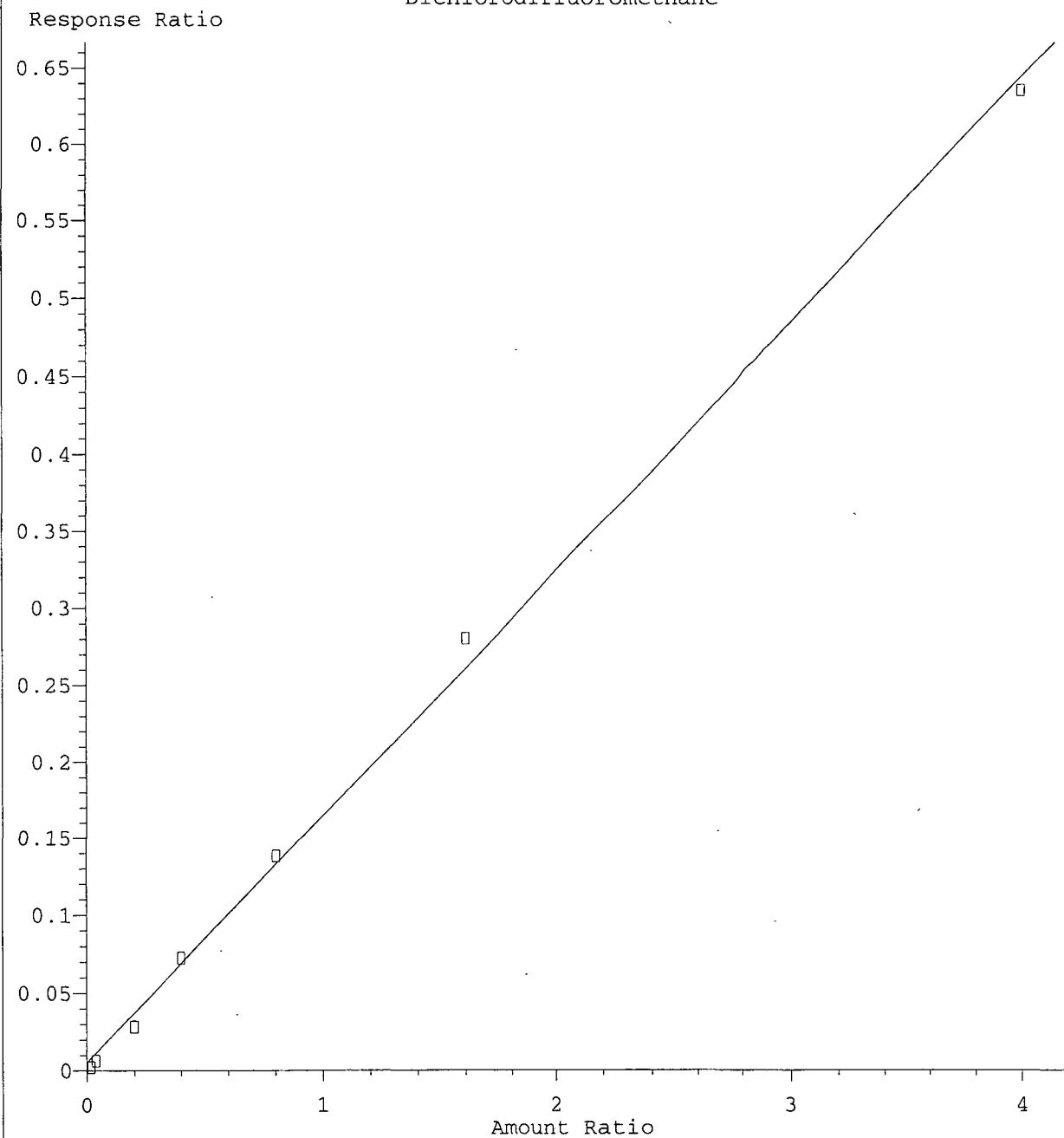
Quant Time: Mar 31 7:00 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration

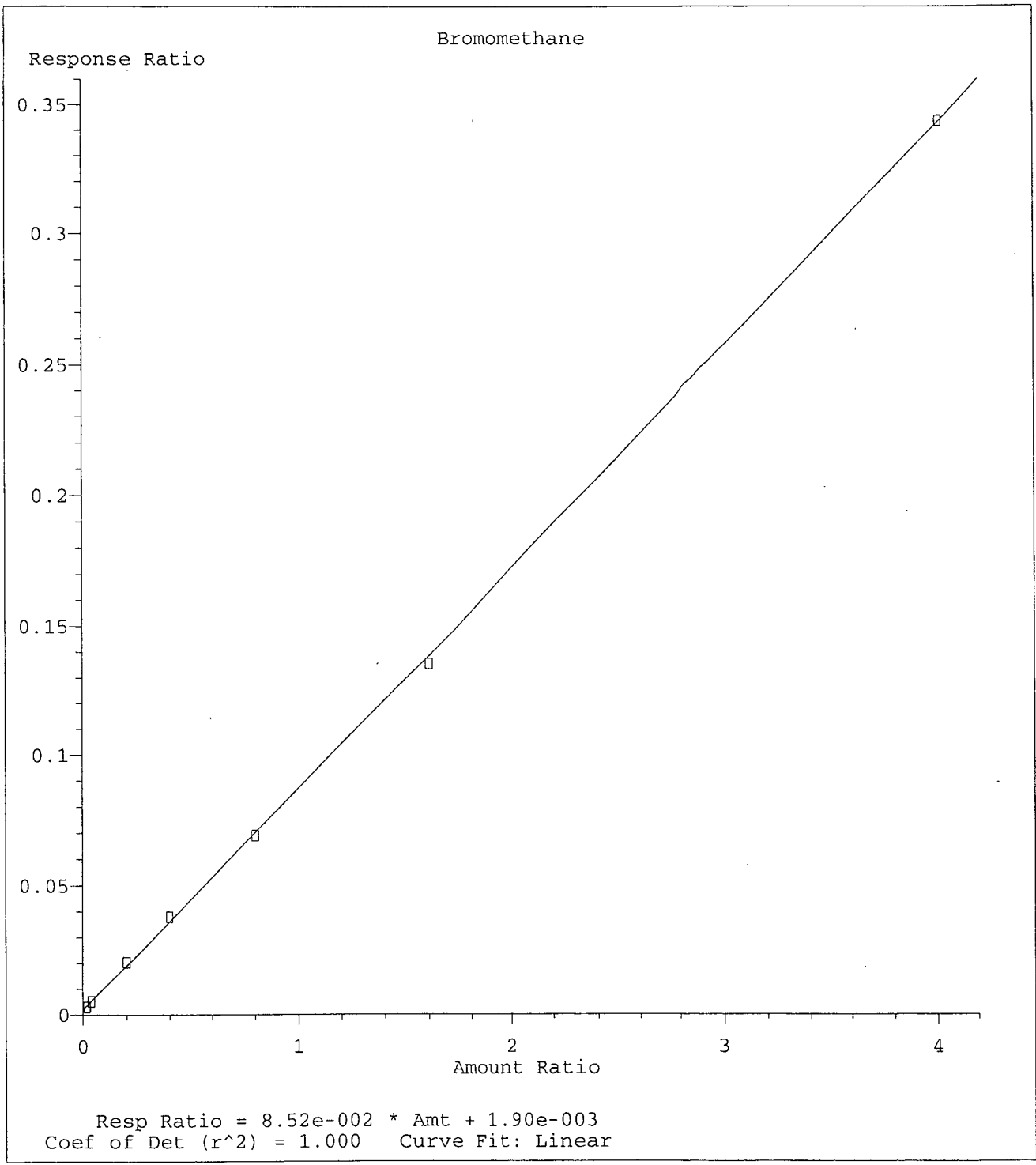


Dichlorodifluoromethane

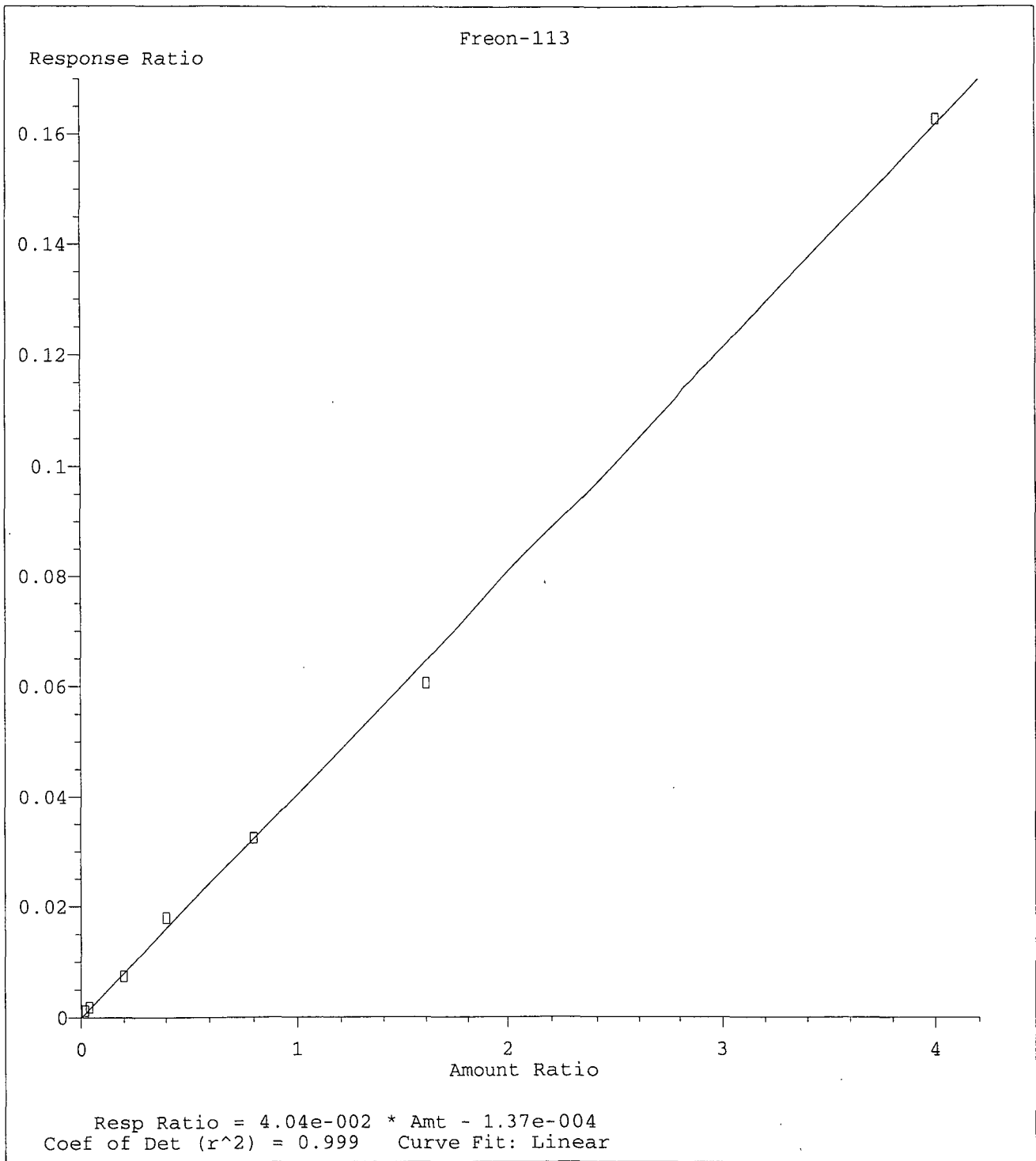


Resp Ratio = 1.60e-001 * Amt + 4.98e-003
Coef of Det (r^2) = 0.998 Curve Fit: Linear

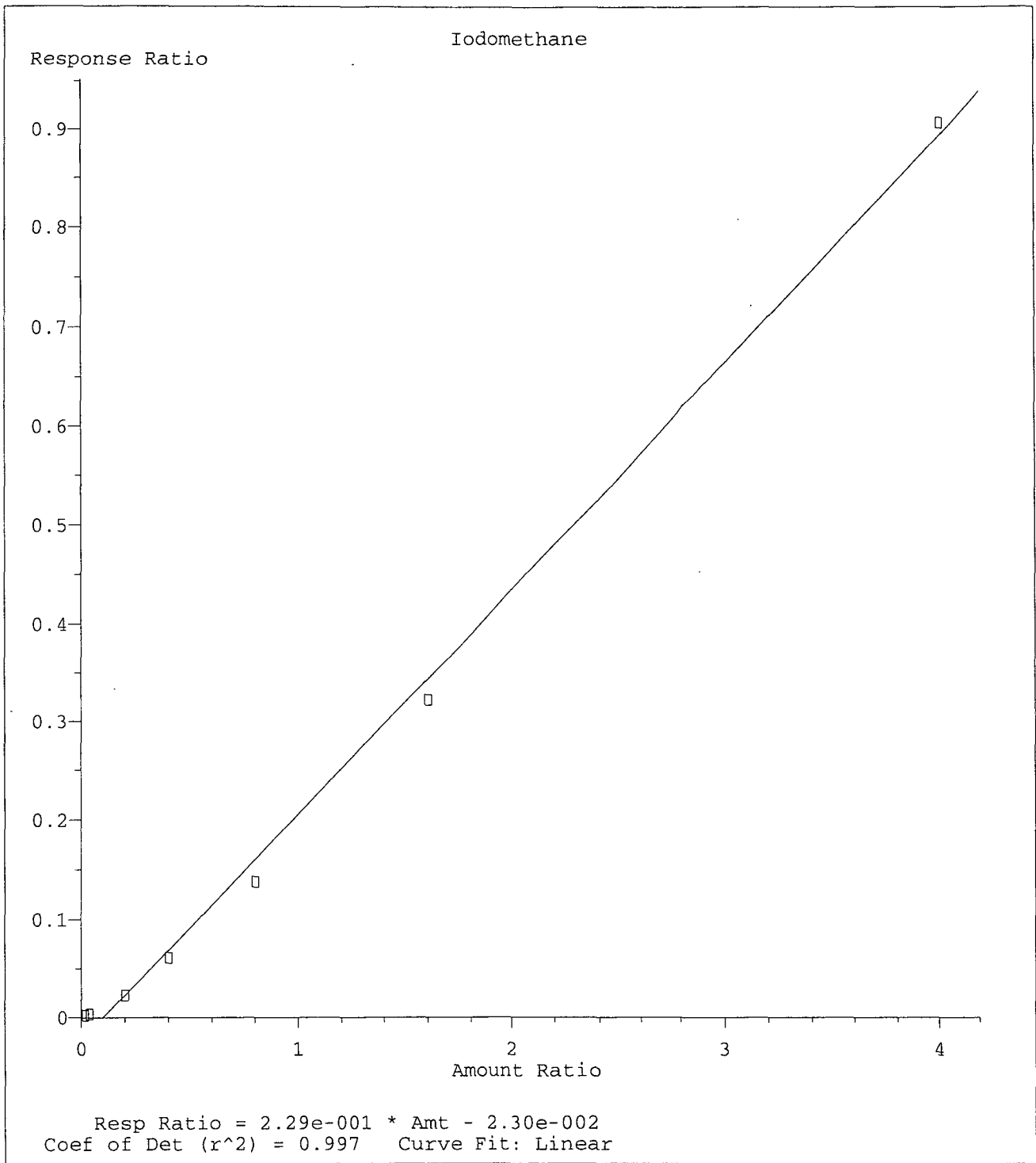
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Calibration Table Last Updated: Wed Mar 31 07:50:51 2021



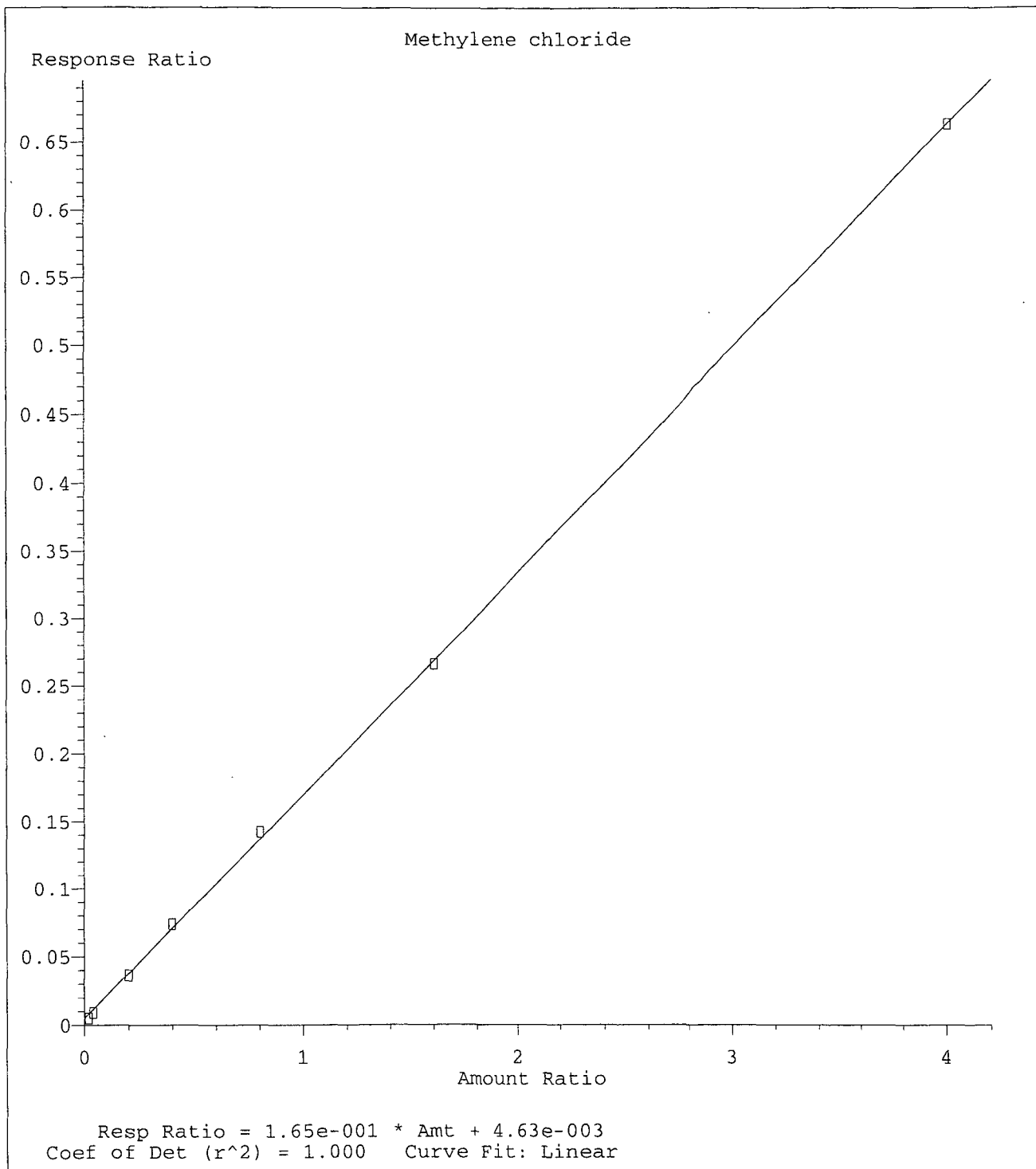
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Calibration Table Last Updated: Wed Mar 31 07:50:51 2021



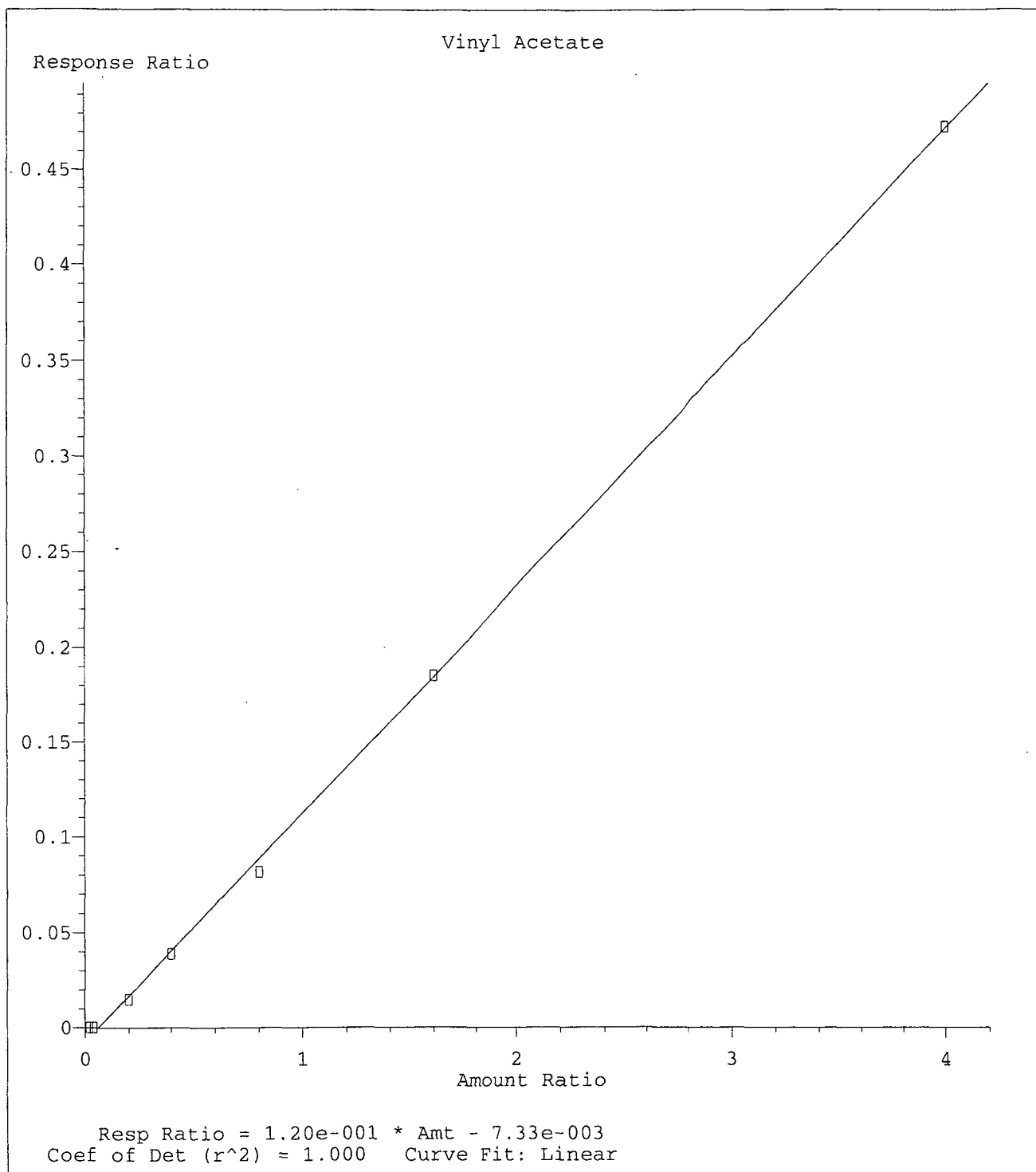
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Calibration Table Last Updated: Wed Mar 31 07:50:51 2021



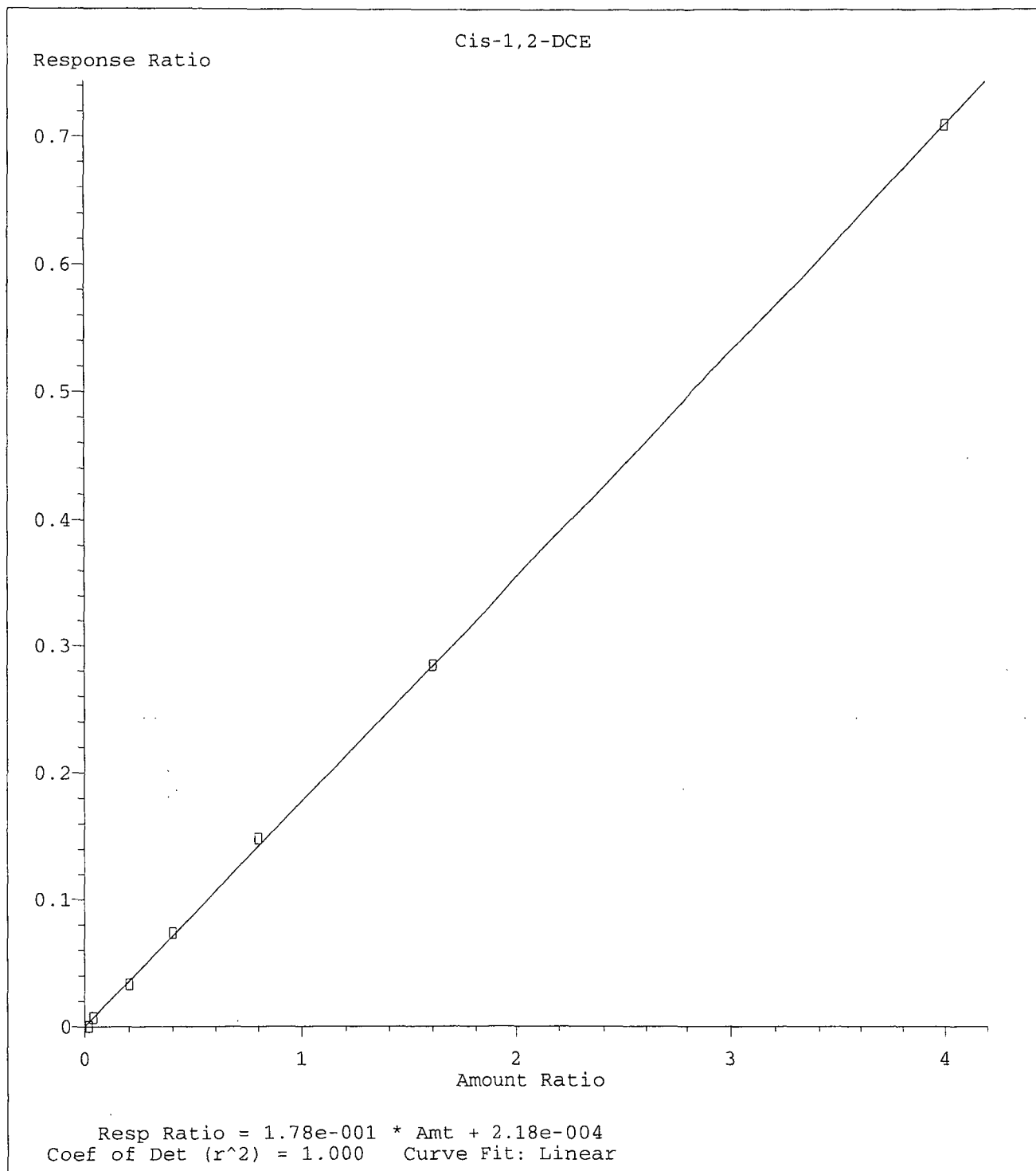
Method Name: M:\MAX\DATA\210329\M0329524.M
Calibration Table Last Updated: Wed Mar 31 07:50:51 2021



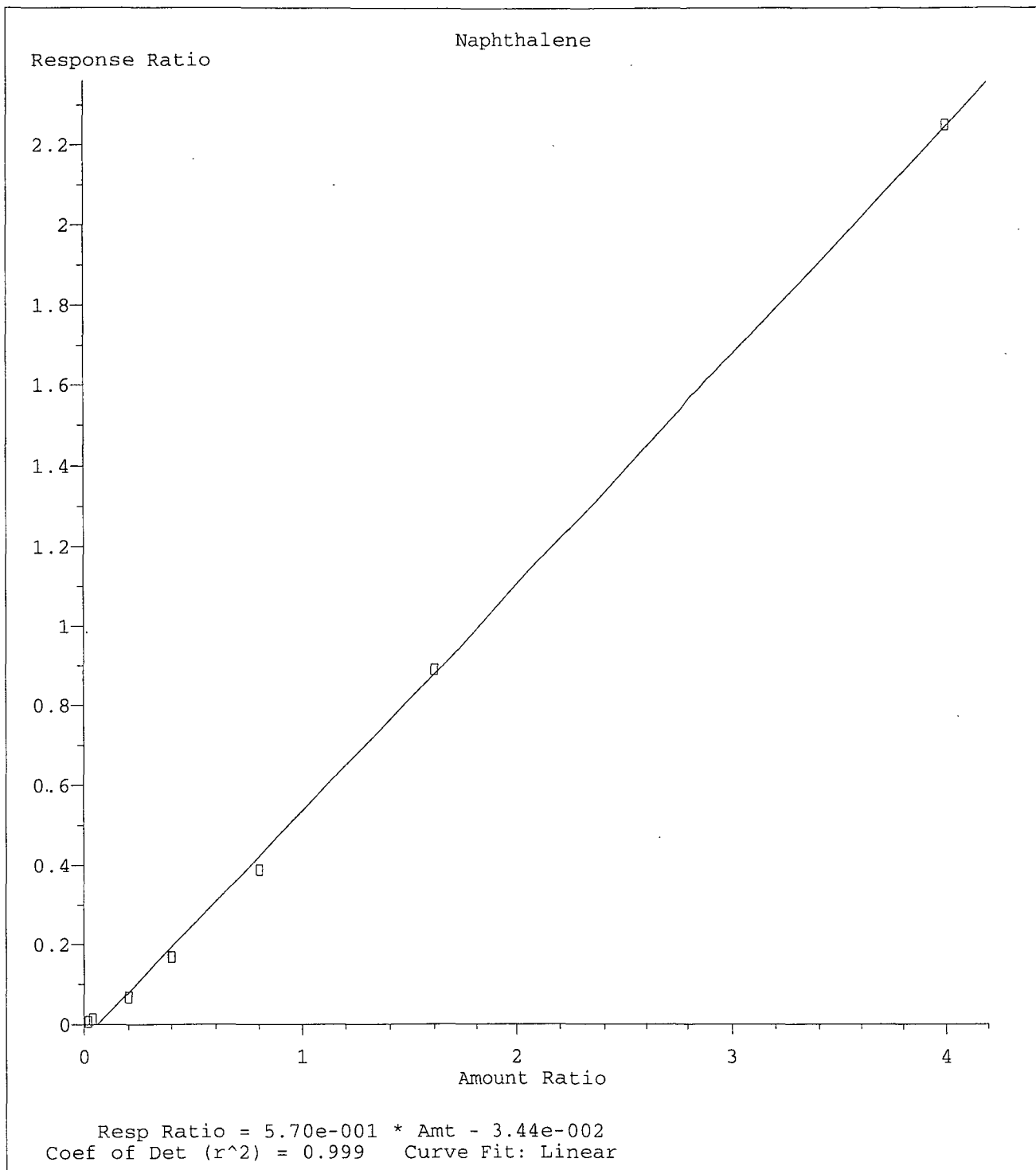
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Calibration Table Last Updated: Wed Mar 31 07:50:51 2021



Method Name: M:\MAX\DATA\210329\M0329524.M
Calibration Table Last Updated: Wed Mar 31 07:50:51 2021



Method Name: M:\MAX\DATA\210329\M0329524.M
Calibration Table Last Updated: Wed Mar 31 07:50:51 2021



Method Name: M:\MAX\DATA\210329\M0329524.M
Calibration Table Last Updated: Wed Mar 31 07:50:51 2021

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No: _____
Matrix: Water

SDG No: _____
Date Analyzed: 03/29/21
Instrument: Max
Initial Cal. Date: 03/29/21
Data File: 0329M16.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TML	Dichlorodifluoromethane	0.1564	0.1620	3.6	TML	6.4
2	TM	Freon 114	0.1258	0.1391	11	TM	
3	TM**	Chloromethane	0.2012	0.2040	1.4	TM**	
4	TM*	Vinyl chloride	0.1779	0.1855	4.3	TM*	
5	TML	Bromomethane	0.1048	0.0981	6.4	TML	9.6
6	TM	Chloroethane	0.0856	0.0813	5.0	TM	
7	TM	Dichlorofluoromethane	0.2802	0.2780	0.78	TM	
8	TM	Trichlorofluoromethane	0.2214	0.2325	5.0	TM	
9	TM	Acrolein	0.0144	0.0153	6.4	TM	
10	TM	Acetone	0.0448	0.0426	5.1	TM	
11	TML	Freon-113	0.0443	0.0468	5.9	TML	17
12	TM	Acetonitrile	0.0211	0.0215	1.9	TM	
13	TM*	1,1-DCE	0.2037	0.2115	3.8	TM*	
14	TM	t-Butanol	0.0145	0.0136	6.0	TM	
15	TM	Methyl Acetate	0.1067	0.0990	7.2	TM	
16	TML	Iodomethane	0.1527	0.1185	22	TML	23 *NT
17	TM	Acrylonitrile	0.0566	0.0540	4.5	TM	
18	TML	Methylene chloride	0.1941	0.1774	8.6	TML	0.60
19	TM	Carbon disulfide	0.2737	0.2728	0.32	TM	
20	TM	Methyl t-butyl ether (MtBE)	0.4212	0.4187	0.60	TM	
21	TM	Trans-1,2-DCE	0.1630	0.1683	3.3	TM	
22	TM	Diisopropyl Ether	0.4642	0.4515	2.7	TM	
23	TM**	1,1-DCA	0.2611	0.2798	7.2	TM**	
24	TML	Vinyl Acetate	0.0742	0.0868	17	TML	12
25	TM	Ethyl tert Butyl Ether	0.4450	0.4315	3.0	TM	
26	TM	MEK (2-Butanone)	0.0568	0.0582	2.3	TM	
27	TML	Cis-1,2-DCE	0.1535	0.1777	16	TML	0.28
28	TM	2,2-Dichloropropane	0.2200	0.2102	4.4	TM	
29	TM*	Chloroform	0.2800	0.2953	5.5	TM*	
30	TM	Bromochloromethane	0.1292	0.1329	2.8	TM	
31	TM	1,1,1-TCA	0.2476	0.2614	5.6	TM	
32	TM	Cyclohexane	0.1099	0.1097	0.21	TM	
33	TM	1,1-Dichloropropene	0.1853	0.1977	6.7	TM	
34	TM	2,2,4-Trimethylpentane	0.3320	0.3631	9.4	TM	
35	TM	Carbon Tetrachloride	0.2213	0.2394	8.2	TM	
36	TM	Tert Amyl Methyl Ether	0.4134	0.3996	3.4	TM	
37	TM	1,2-DCA	0.2104	0.2143	1.9	TM	
38	TM	Benzene	0.6291	0.6597	4.9	TM	
39	TM	TCE	0.1704	0.1741	2.1	TM	
40	TM	2-Pentanone	0.1042	0.1028	1.4	TM	
Average					5.4		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No: _____
Matrix: Water

SDG No: _____
Date Analyzed: 03/29/21
Instrument: Max
Cal. Date: 03/29/21
Data File: 0329M16.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM*	1,2-Dichloropropane	0.0812	0.0866	6.7	TM*
42	TM	Bromodichloromethane	0.2283	0.2343	2.6	TM
43	TM	Methyl Cyclohexane	0.2067	0.2234	8.1	TM
44	TM	Dibromomethane	0.0989	0.1054	6.5	TM
45	TM	MIBK (methyl isobutyl ketone)	0.1315	0.1305	0.78	TM
46	TM	1-Bromo-2-chloroethane	0.0332	0.0335	1.0	TM
47	TM	2-Chloroethyl vinyl ether	0.0000	0.0009	0.00	TM
48	TM	Cis-1,3-Dichloropropene	0.1157	0.1276	10	TM
49	TM*	Toluene	0.7297	0.7729	5.9	TM*
50	TM	Trans-1,3-Dichloropropene	0.2328	0.2433	4.5	TM
51	TM	1,1,2-TCA	0.1231	0.1305	6.0	TM
52	TM	2-Hexanone	0.0891	0.0873	2.0	TM
53	TM	1,2-EDB	0.1510	0.1601	6.0	TM
54	TM	Tetrachloroethene	0.1142	0.1158	1.4	TM
55	TM	1-Chlorohexane	0.1865	0.1782	4.4	TM
56	TM	1,1,1,2-Tetrachloroethane	0.1829	0.1938	6.0	TM
57	TM	m&p-Xylene	0.3188	0.3510	10	TM
58	TM	o-Xylene	0.3251	0.3498	7.6	TM
59	TM	Styrene	0.5274	0.5986	13	TM
60	TM	1,3-Dichloropropane	0.2267	0.2464	8.7	TM
61	TM	Dibromochloromethane	0.1872	0.2022	8.0	TM
62	TM**	Chlorobenzene	0.4830	0.5257	8.8	TM**
63	TM*	Ethylbenzene	0.7474	0.8191	9.6	TM*
64	TM**	Bromoform	0.1610	0.1699	5.6	TM**
65	TM	Isopropylbenzene	1.037	1.125	8.4	TM
66	TM**	1,1,2,2-Tetrachloroethane	0.2558	0.2540	0.72	TM**
67	TM	1,2,3-Trichloropropane	0.0846	0.0875	3.5	TM
68	TM	t-1,4-Dichloro-2-Butene	0.0508	0.0466	8.2	TM
69	TM	Bromobenzene	0.3410	0.3764	10	TM
70	TM	n-Propylbenzene	1.138	1.269	12	TM
71	TM	4-Ethyltoluene	1.025	1.052	2.6	TM
72	TM	2-Chlorotoluene	0.7578	0.7898	4.2	TM
73	TM	1,3,5-Trimethylbenzene	0.8962	0.9623	7.4	TM
74	TM	4-Chlorotoluene	0.8515	0.9237	8.5	TM
75	TM	Tert-Butylbenzene	0.5214	0.5550	6.4	TM
76	TM	1,2,4-Trimethylbenzene	0.9018	0.9621	6.7	TM
77	TM	Sec-Butylbenzene	1.107	1.194	7.9	TM
78	TM	p-Isopropyltoluene	1.011	1.060	4.9	TM
79	TM	Benzyl Chloride	0.3001	0.2632	12	TM
80	TM	1,3-DCB	0.6379	0.6870	7.7	TM

Average

6.4

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No: _____
Matrix: Water

SDG No: _____
Date Analyzed: 03/29/21
Instrument: Max
Cal. Date: 03/29/21
Data File: 0329M16.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	1,4-DCB	0.6563	0.6800	3.6	TM
82	TM	n-Butylbenzene	0.7532	0.8072	7.2	TM
83	TM	1,2-DCB	0.6414	0.6823	6.4	TM
84	TM	Hexachloroethane	0.1665	0.1775	6.6	TM
85	TM	1,2-Dibromo-3-chloropropane	0.0788	0.0749	4.9	TM
86	TM	1,2,4-Trichlorobenzene	0.4537	0.4778	5.3	TM
87	TM	Hexachlorobutadiene	0.2270	0.2393	5.4	TM
88	TML	Naphthalene	0.4338	0.4496	3.6	TML 6.0
89	TM	1,2,3-Trichlorobenzene	0.3911	0.4106	5.0	TM
90						
91						
92						
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95						
96						
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119						
120						
Average					5.3	

Data File : M:\MAX\DATA\210329\0329M16.D
 Acq On : 29 Mar 21 13:56
 Sample : (SS) 10ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 16
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:51 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.56	96	1637682	25.000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.84	117	1764396	25.000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.17	152	1347095	25.000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	4.69	111	475675	25.734	ppb	0.00
Spiked Amount	25.000		Recovery	=	102.936%	
37) 1,2-DCA-D4(S)	5.11	65	381354	24.880	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.520%	
57) Toluene-D8(S)	7.37	98	1474241	25.619	ppb	0.00
Spiked Amount	25.000		Recovery	=	102.476%	
65) 4-Bromofluorobenzene(S)	10.02	95	872774	25.439	ppb	0.00
Spiked Amount	25.000		Recovery	=	101.756%	
Target Compounds						
2) Dichlorodifluoromethane	0.96	85	106127	9.359	ppb	98
3) Freon 114	1.04	85	91146	11.057	ppb	92
4) Chloromethane	1.07	50	133647	10.141	ppb	99
5) Vinyl chloride	1.14	62	121534	10.427	ppb	100
6) Bromomethane	1.34	94	64261	10.962	ppb	99
7) Chloroethane	1.41	64	53256	9.496	ppb	100
8) Dichlorofluoromethane	1.55	67	182128	9.922	ppb	99
9) Trichlorofluoromethane	1.60	101	152282	10.500	ppb	96
10) Acrolein	1.89	56	125008	132.957	ppb	98
11) Acetone	2.02	43	139374	47.472	ppb	96
12) Freon-113	2.01	103	30688	11.680	ppb	92
13) Acetonitrile	2.24	41	175737	127.361	ppb	95
14) 1,1-DCE	1.98	61	138574	10.384	ppb	96
15) t-Butanol	2.57	59	111512	117.526	ppb	95
16) Methyl Acetate	2.34	43	64845	9.276	ppb	96
17) Iodomethane	2.09	142	77630	7.677	ppb	97
18) Acrylonitrile	2.64	53	35395	9.551	ppb	95
19) Methylene chloride	2.40	84	116220	10.060	ppb	98
20) Carbon disulfide	2.14	76	178688	9.968	ppb	100
21) Methyl t-butyl ether (MtBE)	2.72	73	274250	9.940	ppb	95
22) Trans-1,2-DCE	2.69	96	110224	10.326	ppb	97
23) Diisopropyl Ether	3.34	45	295769	9.726	ppb	97
24) 1,1-DCA	3.15	63	183311	10.718	ppb	98
25) Vinyl Acetate	3.29	43	56852	8.775	ppb	97
26) Ethyl tert Butyl Ether	3.86	59	282668	9.697	ppb	99
27) MEK (2-Butanone)	4.03	43	190463	51.169	ppb	98
28) Cis-1,2-DCE	3.96	96	116393	9.972	ppb	94
29) 2,2-Dichloropropane	3.95	77	137721	9.557	ppb	96
30) Chloroform	4.47	83	193418	10.546	ppb	97
31) Bromochloromethane	4.30	130	87029	10.282	ppb	97
33) 1,1,1-TCA	4.70	97	171233	10.558	ppb	93
34) Cyclohexane	4.78	41	71870	9.979	ppb	96
35) 1,1-Dichloropropene	4.94	75	129536	10.670	ppb	90
36) 2,2,4-Trimethylpentane	5.39	57	237831	10.937	ppb	99
38) Carbon Tetrachloride	4.93	117	156845	10.822	ppb	97
39) Tert Amyl Methyl Ether	5.43	73	261753	9.665	ppb	99
40) 1,2-DCA	5.21	62	140394	10.186	ppb	100
41) Benzene	5.19	78	432165	10.486	ppb	97
42) TCE	6.02	95	114021	10.212	ppb	93

(#) = qualifier out of range (m) = manual integration
 0329M16.D M0329524.M Wed Mar 31 08:29:26 2021

Data File : M:\MAX\DATA\210329\0329M16.D
 Acq On : 29 Mar 21 13:56
 Sample : (SS) 10ug/L VOC-HCL STD 3/29/21
 Misc : IS 10/16/20

Vial: 16
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:51 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	6.27	43	841452	123.293	ppb	96
44) 1,2-Dichloropropane	6.24	63	56744	10.673	ppb	96
45) Bromodichloromethane	6.58	83	153479	10.263	ppb	100
46) Methyl Cyclohexane	6.24	83	146366	10.809	ppb	94
47) Dibromomethane	6.37	93	69029	10.651	ppb	90
48) MIBK (methyl isobutyl ket	7.29	43	427490	49.610	ppb	97
49) 1-Bromo-2-chloroethane	6.89	144	21947	10.103	ppb	85
51) Cis-1,3-Dichloropropene	7.09	39	83600	11.028	ppb	95
52) Toluene	7.44	91	506300	10.591	ppb	99
53) Trans-1,3-Dichloropropene	7.69	75	159355	10.451	ppb	98
54) 1,1,2-TCA	7.86	83	85517	10.603	ppb	100
55) 2-Hexanone	8.17	43	285996	48.978	ppb	98
58) 1,2-EDB	8.34	107	113012	10.602	ppb	90
59) Tetrachloroethene	8.01	164	81736	10.138	ppb	95
60) 1-Chlorohexane	8.90	91	125773	9.556	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.96	131	136756	10.596	ppb	98
62) m&p-Xylene	9.13	106	495427	22.022	ppb	97
63) o-Xylene	9.52	106	246878	10.761	ppb	98
64) Styrene	9.53	104	422465	11.350	ppb	96
66) 1,3-Dichloropropane	8.03	76	173907	10.868	ppb	98
67) Dibromochloromethane	8.24	129	142733	10.801	ppb	96
68) Chlorobenzene	8.87	112	371027	10.883	ppb	98
69) Ethylbenzene	9.01	91	578071	10.959	ppb	99
70) Bromoform	9.67	173	119939	10.555	ppb	97
72) Isopropylbenzene	9.90	105	605975	10.840	ppb	96
73) 1,1,2,2-Tetrachloroethane	10.18	83	136842	9.928	ppb	93
74) 1,2,3-Trichloropropane	10.21	110	47170	10.354	ppb	86
75) t-1,4-Dichloro-2-Butene	10.25	53	25108	9.178	ppb	90
76) Bromobenzene	10.15	156	202815	11.037	ppb	99
77) n-Propylbenzene	10.31	91	683845	11.153	ppb	99
78) 4-Ethyltoluene	10.43	105	566645	10.257	ppb	99
79) 2-Chlorotoluene	10.37	91	425581	10.422	ppb	96
80) 1,3,5-Trimethylbenzene	10.50	105	518549	10.738	ppb	100
81) 4-Chlorotoluene	10.48	91	497714	10.848	ppb	94
82) Tert-Butylbenzene	10.81	119	299072	10.645	ppb	96
83) 1,2,4-Trimethylbenzene	10.86	105	518417	10.669	ppb	100
84) Sec-Butylbenzene	11.03	105	643589	10.790	ppb	98
85) p-Isopropyltoluene	11.19	119	571264	10.489	ppb	98
86) Benzyl Chloride	11.33	91	141814	8.770	ppb	99
87) 1,3-DCB	11.10	146	370175	10.769	ppb	98
88) 1,4-DCB	11.19	146	366428	10.361	ppb	98
89) n-Butylbenzene	11.59	91	434945	10.716	ppb	99
90) 1,2-DCB	11.55	146	367632	10.637	ppb	99
91) Hexachloroethane	11.81	117	95657	10.662	ppb	99
92) 1,2-Dibromo-3-chloropropan	12.31	157	40367	9.508	ppb	94
93) 1,2,4-Trichlorobenzene	13.15	180	257468	10.530	ppb	99
94) Hexachlorobutadiene	13.35	225	128954	10.543	ppb	96
95) Naphthalene	13.38	128	242240	9.395	ppb	97
96) 1,2,3-Trichlorobenzene	13.62	180	221238	10.497	ppb	97

Quantitation Report

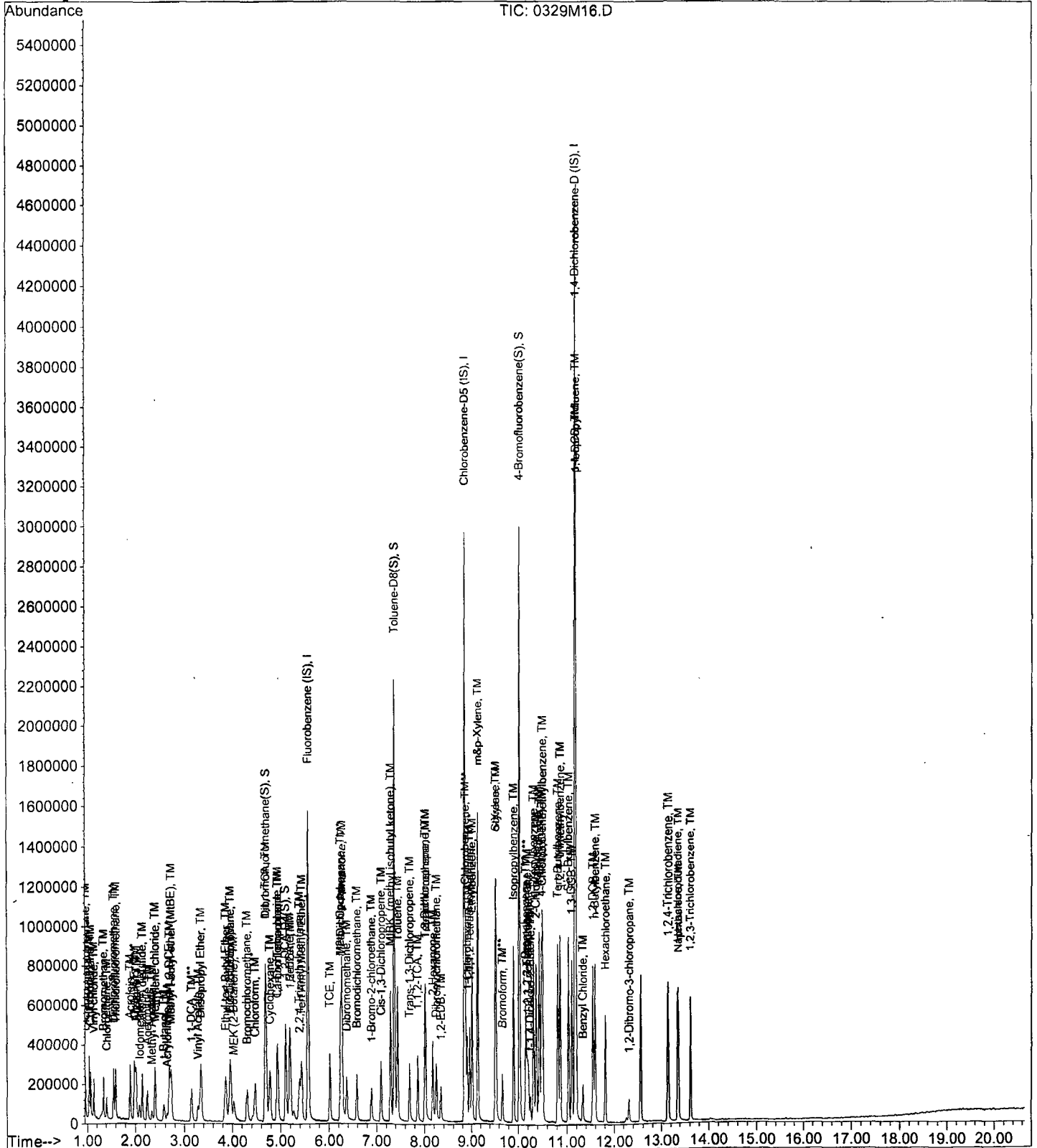
Data File : M:\MAX\DATA\210329\0329M16.D
Acq On : 29 Mar 21 13:56
Sample : (SS) 10ug/L VOC-HCL STD 3/29/21
Misc : IS 10/16/20

Vial: 16
Operator: LP,DG,CH
Inst : Max
Multiplr: 1.00

Quant Time: Mar 31 7:51 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No: _____
Matrix: Water

SDG No: _____
Date Analyzed: 03/30/21
Instrument: Max
Initial Cal. Date: 03/29/21
Data File: 0329M30.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TML	Dichlorodifluoromethane	0.1564	0.1864	19	TML 8.9
3	TM	Freon 114	0.1258	0.1829	45	TM
4	TM**	Chloromethane	0.2012	0.1923	4.4	TM**
5	TM*	Vinyl chloride	0.1779	0.1858	4.4	TM*
6	TML	Bromomethane	0.1048	0.1150	9.8	TML 30
7	TM	Chloroethane	0.0856	0.0877	2.5	TM
8	TM	Dichlorofluoromethane	0.2802	0.3089	10	TM
9	TM	Trichlorofluoromethane	0.2214	0.2574	16	TM
10	TM	Acrolein	0.0144	0.0116	19	TM
11	TM	Acetone	0.0448	0.0309	31	TM
12	TML	Freon-113	0.0443	0.0542	22	TML 35
13	TM	Acetonitrile	0.0211	0.0176	16	TM
14	TM*	1,1-DCE	0.2037	0.2233	9.6	TM*
15	TM	t-Butanol	0.0145	0.0093	36	TM
16	TM	Methyl Acetate	0.1067	0.0855	20	TM
17	TML	Iodomethane	0.1527	0.1562	2.3	TML 6.8
18	TM	Acrylonitrile	0.0566	0.0468	17	TM
19	TML	Methylene chloride	0.1941	0.1884	2.9	TML 7.2
20	TM	Carbon disulfide	0.2737	0.2875	5.1	TM
21	TM	Methyl t-butyl ether (MtBE)	0.4212	0.3865	8.2	TM
22	TM	Trans-1,2-DCE	0.1630	0.1695	4.0	TM
23	TM.	Diisopropyl Ether	0.4642	0.4795	3.3	TM
24	TM**	1,1-DCA	0.2611	0.2800	7.2	TM**
25	TML	Vinyl Acetate	0.0742	0.0831	12	TML 15
26	TM	Ethyl tert Butyl Ether	0.4450	0.4258	4.3	TM
27	TM	MEK (2-Butanone)	0.0568	0.0418	26	TM
28	TML	Cis-1,2-DCE	0.1535	0.1906	24	TML 7.0
29	TM	2,2-Dichloropropane	0.2200	0.2526	15	TM
30	TM*	Chloroform	0.2800	0.3023	8.0	TM*
31	TM	Bromochloromethane	0.1292	0.1318	2.0	TM
32	S	Dibromofluoromethane(S)	0.2822	0.2792	1.1	S
33	TM	1,1,1-TCA	0.2476	0.2681	8.3	TM
34	TM	Cyclohexane	0.1099	0.1311	19	TM
35	TM	1,1-Dichloropropene	0.1853	0.1995	7.6	TM
36	TM	2,2,4-Trimethylpentane	0.3320	0.4735	43	TM
37	S	1,2-DCA-D4(S)	0.2340	0.2225	4.9	S
38	TM	Carbon Tetrachloride	0.2213	0.2438	10	TM
39	TM	Tert Amyl Methyl Ether	0.4134	0.3548	14	TM
40	TM	1,2-DCA	0.2104	0.2020	4.0	TM

Average

13.3

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No: _____
Matrix: Water

SDG No: _____
Date Analyzed: 03/30/21
Instrument: Max
Cal. Date: 03/29/21
Data File: 0329M30.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	Benzene	0.6291	0.6692	6.4	TM
42	TM	TCE	0.1704	0.1695	0.54	TM
43	TM	2-Pentanone	0.1042	0.0744	29	TM
44	TM*	1,2-Dichloropropane	0.0812	0.0849	4.6	TM*
45	TM	Bromodichloromethane	0.2283	0.2227	2.5	TM
46	TM	Methyl Cyclohexane	0.2067	0.2657	29	TM
47	TM	Dibromomethane	0.0989	0.0946	4.3	TM
48	TM	MIBK (methyl isobutyl ketone)	0.1315	0.0906	31	TM
49	TM	1-Bromo-2-chloroethane	0.0332	0.0305	7.9	TM
50	TM	2-Chloroethyl vinyl ether	0.0000	0.0007	0.00	TM
51	TM	Cis-1,3-Dichloropropene	0.1157	0.1251	8.1	TM
52	TM*	Toluene	0.7297	0.7662	5.0	TM*
53	TM	Trans-1,3-Dichloropropene	0.2328	0.2286	1.8	TM
54	TM	1,1,2-TCA	0.1231	0.1152	6.4	TM
55	TM	2-Hexanone	0.0891	0.0567	36	TM
56	I	Chlorobenzene-D5 (IS)	ISTD			I
57	S	Toluene-D8(S)	0.8153	0.8266	1.4	S
58	TM	1,2-EDB	0.1510	0.1405	6.9	TM
59	TM	Tetrachloroethene	0.1142	0.1301	14	TM
60	TM	1-Chlorohexane	0.1865	0.2131	14	TM
61	TM	1,1,1,2-Tetrachloroethane	0.1829	0.1922	5.1	TM
62	TM	m&p-Xylene	0.3188	0.3609	13	TM
63	TM	o-Xylene	0.3251	0.3508	7.9	TM
64	TM	Styrene	0.5274	0.5829	11	TM
65	S	4-Bromofluorobenzene(S)	0.4861	0.4886	0.50	S
66	TM	1,3-Dichloropropane	0.2267	0.2209	2.6	TM
67	TM	Dibromochloromethane	0.1872	0.1894	1.2	TM
68	TM**	Chlorobenzene	0.4830	0.5208	7.8	TM**
69	TM*	Ethylbenzene	0.7474	0.8381	12	TM*
70	TM**	Bromoform	0.1610	0.1443	10	TM**
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
72	TM	Isopropylbenzene	1.037	1.227	18	TM
73	TM**	1,1,2,2-Tetrachloroethane	0.2558	0.2171	15	TM**
74	TM	1,2,3-Trichloropropane	0.0846	0.0764	9.6	TM
75	TM	t-1,4-Dichloro-2-Butene	0.0508	0.0374	26	TM
76	TM	Bromobenzene	0.3410	0.3674	7.7	TM
77	TM	n-Propylbenzene	1.138	1.375	21	TM
78	TM	4-Ethyltoluene	1.025	1.229	20	TM
79	TM	2-Chlorotoluene	0.7578	0.8255	8.9	TM
80	TM	1,3,5-Trimethylbenzene	0.8962	1.046	17	TM

Average

11.1

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No: _____
Matrix: Water

SDG No: _____
Date Analyzed: 03/30/21
Instrument: Max
Cal. Date: 03/29/21
Data File: 0329M30.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	4-Chlorotoluene	0.8515	0.9805	15	TM
82	TM	Tert-Butylbenzene	0.5214	0.5923	14	TM
83	TM	1,2,4-Trimethylbenzene	0.9018	1.039	15	TM
84	TM	Sec-Butylbenzene	1.107	1.290	16	TM
85	TM	p-Isopropyltoluene	1.011	1.162	15	TM
86	TM	Benzyl Chloride	0.3001	0.2551	15	TM
87	TM	1,3-DCB	0.6379	0.7220	13	TM
88	TM	1,4-DCB	0.6563	0.7118	8.5	TM
89	TM	n-Butylbenzene	0.7532	0.8597	14	TM
90	TM	1,2-DCB	0.6414	0.6792	5.9	TM
91	TM	Hexachloroethane	0.1665	0.1865	12	TM
92	TM	1,2-Dibromo-3-chloropropane	0.0788	0.0544	31	TM
93	TM	1,2,4-Trichlorobenzene	0.4537	0.4221	7.0	TM
94	TM	Hexachlorobutadiene	0.2270	0.2412	6.3	TM
95	TML	Naphthalene	0.4338	0.2910	33	TML 34
96	TM	1,2,3-Trichlorobenzene	0.3911	0.3326	15	TM
97						
98						
99						
100						
101						
102						
103						
104						
105						
106						
107						
108						
109						
110						
111						
112						
113						
114						
115						
116						
117						
118						
119						
120						

Average

14.7

Data File : M:\MAX\DATA\210329\0329M30.D
 Acq On : 30 Mar 21 5:54
 Sample : Ending CCV 10ug/L 3/29/21
 Misc : 2ul

Vial: 1
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:52 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.55	96	1716818	25.000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.83	117	1804043	25.000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.16	152	1328576	25.000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	4.67	111	479263	24.733	ppb	-0.01
Spiked Amount	25.000		Recovery	=	98.932%	
37) 1,2-DCA-D4(S)	5.10	65	381963	23.771	ppb	-0.01
Spiked Amount	25.000		Recovery	=	95.084%	
57) Toluene-D8(S)	7.36	98	1491159	25.344	ppb	0.00
Spiked Amount	25.000		Recovery	=	101.376%	
65) 4-Bromofluorobenzene(S)	10.02	95	881381	25.125	ppb	0.00
Spiked Amount	25.000		Recovery	=	100.500%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.96	85	128030	10.888	ppb	99
3) Freon 114	1.04	85	125568	14.530	ppb	95
4) Chloromethane	1.07	50	132092	9.561	ppb	99
5) Vinyl chloride	1.14	62	127583	10.442	ppb	99
6) Bromomethane	1.34	94	79004	12.952	ppb	93
7) Chloroethane	1.41	64	60240	10.246	ppb	96
8) Dichlorofluoromethane	1.55	67	212107	11.023	ppb	96
9) Trichlorofluoromethane	1.60	101	176743	11.624	ppb	100
10) Acrolein	1.89	56	99376	100.823	ppb	96
11) Acetone	2.02	43	105955	34.426	ppb	96
12) Freon-113	2.00	103	37192	13.489	ppb	97
13) Acetonitrile	2.23	41	151235	104.552	ppb	96
14) 1,1-DCE	1.98	61	153366	10.962	ppb	98
15) t-Butanol	2.56	59	80191	80.620	ppb	93
16) Methyl Acetate	2.33	43	58729	8.013	ppb	98
17) Iodomethane	2.08	142	107258	9.321	ppb	93
18) Acrylonitrile	2.63	53	32172	8.281	ppb	# 94
19) Methylene chloride	2.39	84	129348	10.723	ppb	99
20) Carbon disulfide	2.14	76	197440	10.506	ppb	99
21) Methyl t-butyl ether (MtBE)	2.71	73	265417	9.177	ppb	92
22) Trans-1,2-DCE	2.68	96	116396	10.401	ppb	99
23) Diisopropyl Ether	3.33	45	329273	10.328	ppb	97
24) 1,1-DCA	3.14	63	192271	10.724	ppb	96
25) Vinyl Acetate	3.27	43	57088	8.470	ppb	96
26) Ethyl tert Butyl Ether	3.85	59	292407	9.569	ppb	94
27) MEK (2-Butanone)	4.01	43	143408	36.751	ppb	97
28) Cis-1,2-DCE	3.95	96	130907	10.701	ppb	99
29) 2,2-Dichloropropane	3.94	77	173480	11.484	ppb	99
30) Chloroform	4.46	83	207580	10.797	ppb	100
31) Bromochloromethane	4.29	130	90529	10.202	ppb	98
33) 1,1,1-TCA	4.69	97	184091	10.828	ppb	96
34) Cyclohexane	4.77	41	90037	11.925	ppb	98
35) 1,1-Dichloropropene	4.93	75	137005	10.765	ppb	95
36) 2,2,4-Trimethylpentane	5.38	57	325199	14.265	ppb	96
38) Carbon Tetrachloride	4.92	117	167422	11.019	ppb	99
39) Tert Amyl Methyl Ether	5.42	73	243620	8.581	ppb	98
40) 1,2-DCA	5.20	62	138740	9.602	ppb	99
41) Benzene	5.18	78	459545	10.637	ppb	95
42) TCE	6.01	95	116423	9.946	ppb	97

(#) = qualifier out of range (m) = manual integration
 0329M30.D M0329524.M Wed Mar 31 08:29:42 2021

Data File : M:\MAX\DATA\210329\0329M30.D
 Acq On : 30 Mar 21 5:54
 Sample : Ending CCV 10ug/L 3/29/21
 Misc : 2ul

Vial: 1
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:52 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	6.26	43	638422	89.232	ppb	100
44) 1,2-Dichloropropane	6.24	63	58296	10.459	ppb	99
45) Bromodichloromethane	6.58	83	152914	9.754	ppb	97
46) Methyl Cyclohexane	6.23	83	182456	12.853	ppb	95
47) Dibromomethane	6.36	93	64998	9.567	ppb	94
48) MIBK (methyl isobutyl ket	7.28	43	311164	34.446	ppb	96
49) 1-Bromo-2-chloroethane	6.88	144	20966	9.206	ppb	90
51) Cis-1,3-Dichloropropene	7.08	39	85916	10.811	ppb	90
52) Toluene	7.44	91	526184	10.500	ppb	98
53) Trans-1,3-Dichloropropene	7.69	75	156998	9.822	ppb	99
54) 1,1,2-TCA	7.86	83	79144	9.360	ppb	92
55) 2-Hexanone	8.17	43	194751	31.815	ppb	96
58) 1,2-EDB	8.33	107	101417	9.305	ppb	95
59) Tetrachloroethene	8.01	164	93912	11.392	ppb	96
60) 1-Chlorohexane	8.90	91	153776	11.427	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.96	131	138678	10.509	ppb	100
62) m&p-Xylene	9.13	106	520792	22.640	ppb	100
63) o-Xylene	9.52	106	253146	10.792	ppb	97
64) Styrene	9.53	104	420614	11.052	ppb	99
66) 1,3-Dichloropropane	8.02	76	159418	9.744	ppb	100
67) Dibromochloromethane	8.24	129	136706	10.118	ppb	99
68) Chlorobenzene	8.86	112	375798	10.781	ppb	97
69) Ethylbenzene	9.01	91	604815	11.214	ppb	99
70) Bromoform	9.67	173	104149	8.964	ppb	94
72) Isopropylbenzene	9.90	105	652190	11.829	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.18	83	115395	8.489	ppb	99
74) 1,2,3-Trichloropropane	10.20	110	40617	9.040	ppb	98
75) t-1,4-Dichloro-2-Butene	10.24	53	19862	7.362	ppb	90
76) Bromobenzene	10.15	156	195229	10.772	ppb	99
77) n-Propylbenzene	10.31	91	730840	12.085	ppb	100
78) 4-Ethyltoluene	10.43	105	653157	11.988	ppb	99
79) 2-Chlorotoluene	10.37	91	438680	10.893	ppb	96
80) 1,3,5-Trimethylbenzene	10.50	105	555978	11.673	ppb	100
81) 4-Chlorotoluene	10.47	91	521081	11.516	ppb	95
82) Tert-Butylbenzene	10.81	119	314752	11.359	ppb	97
83) 1,2,4-Trimethylbenzene	10.86	105	552000	11.518	ppb	97
84) Sec-Butylbenzene	11.03	105	685315	11.649	ppb	97
85) p-Isopropyltoluene	11.19	119	617353	11.493	ppb	100
86) Benzyl Chloride	11.33	91	135546	8.499	ppb	97
87) 1,3-DCB	11.10	146	383704	11.319	ppb	99
88) 1,4-DCB	11.19	146	378295	10.846	ppb	96
89) n-Butylbenzene	11.59	91	456863	11.413	ppb	98
90) 1,2-DCB	11.55	146	360964	10.590	ppb	97
91) Hexachloroethane	11.81	117	99086	11.198	ppb	98
92) 1,2-Dibromo-3-chloropropan	12.31	157	28912	6.904	ppb	97
93) 1,2,4-Trichlorobenzene	13.15	180	224304	9.302	ppb	99
94) Hexachlorobutadiene	13.35	225	128185	10.627	ppb	94
95) Naphthalene	13.37	128	154629	6.614	ppb	98
96) 1,2,3-Trichlorobenzene	13.61	180	176759	8.503	ppb	100

Quantitation Report

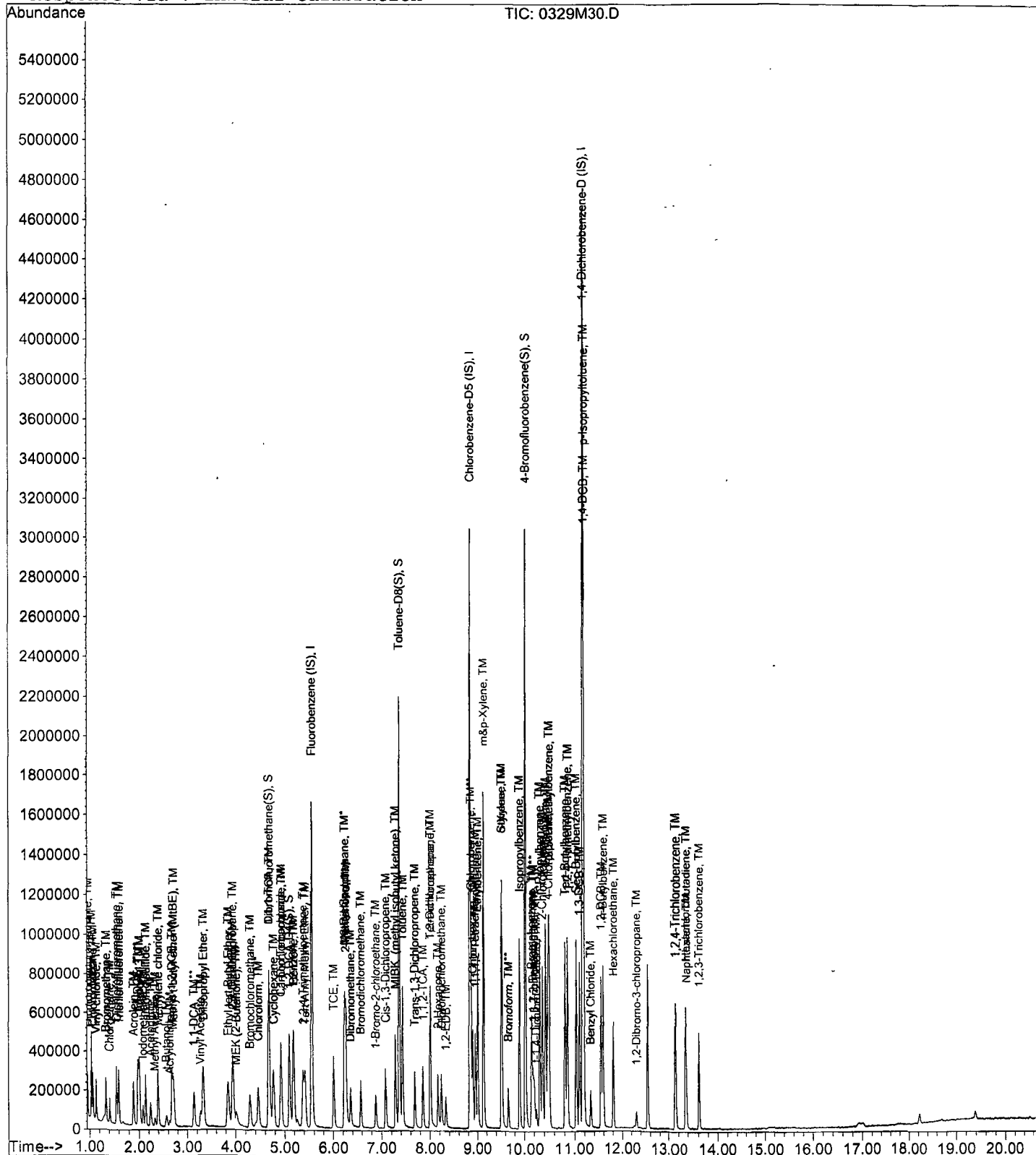
Data File : M:\MAX\DATA\210329\0329M30.D
Acq On : 30 Mar 21 5:54
Sample : Ending CCV 10ug/L 3/29/21
Misc : 2ul

Vial: 1
Operator: LP,DG,CH
Inst : Max
Multiplr: 1.00

Quant Time: Mar 31 7:52 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration



ORGANICS

Raw Data

Data File : M:\MAX\DATA\210329\0329M28.D
 Acq On : 29 Mar 21 19:32
 Sample : BA29551W01
 Misc : IS 10/16/20

Vial: 28
 Operator: LP, DG, CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 8:01 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.57	96	1591415	25.000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.84	117	1752541	25.000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.17	152	1305729	25.000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	4.69	111	464271	25.847	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.388%	
37) 1,2-DCA-D4(S)	5.11	65	379921	25.507	ppb	0.00
Spiked Amount	25.000		Recovery	=	102.028%	
57) Toluene-D8(S)	7.37	98	1408652	24.645	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.580%	
65) 4-Bromofluorobenzene(S)	10.02	95	825055	24.211	ppb	0.00
Spiked Amount	25.000		Recovery	=	96.844%	
Target Compounds						
19) Methylene chloride	2.40	84	38400	2.957	ppb	Qvalue 96

Quantitation Report

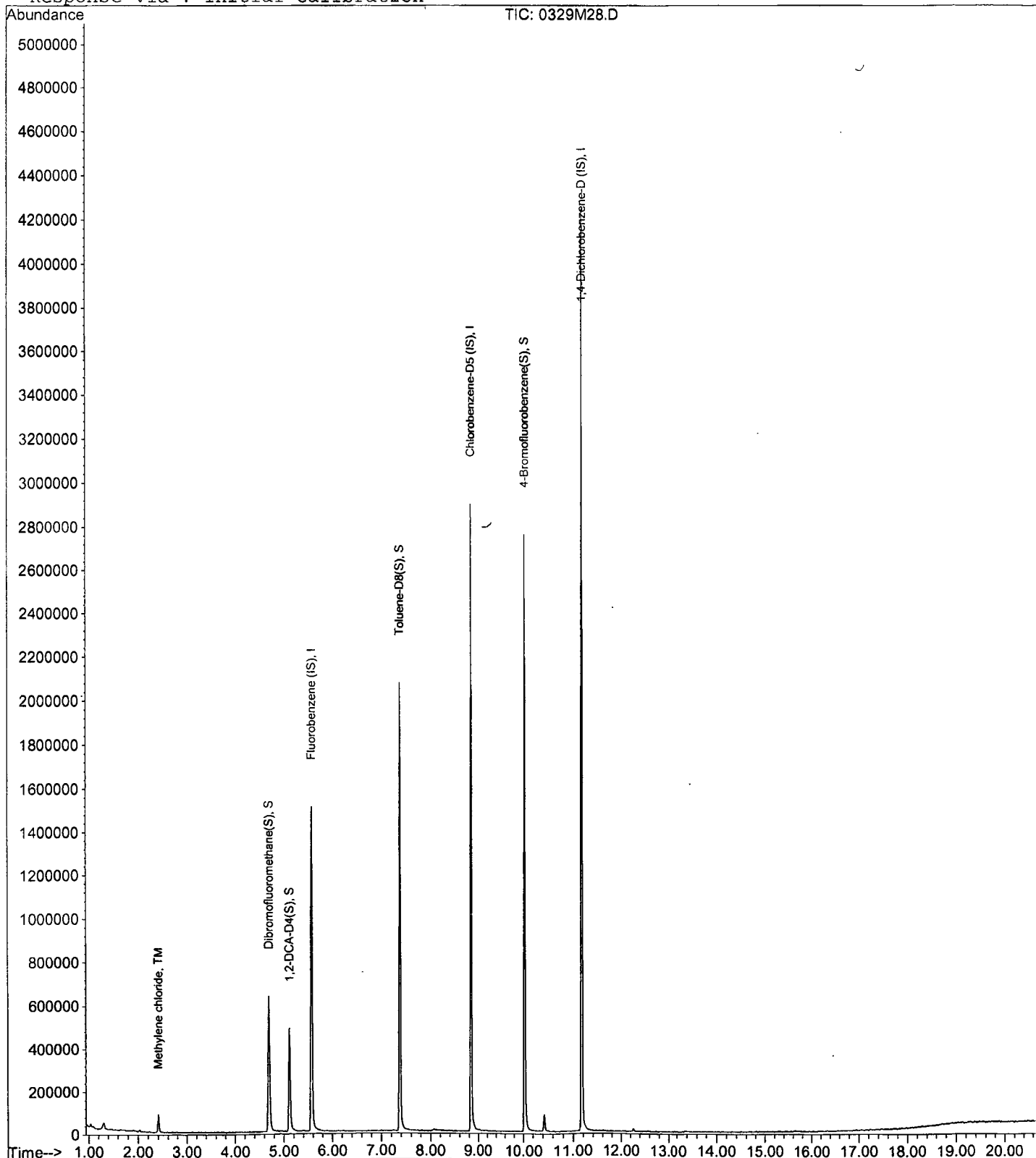
Data File : M:\MAX\DATA\210329\0329M28.D
Acq On : 29 Mar 21 19:32
Sample : BA29551W01
Misc : IS 10/16/20

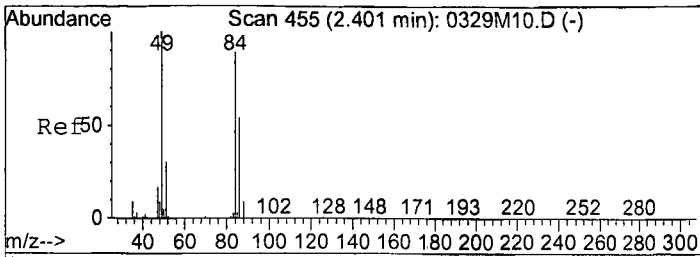
Vial: 28
Operator: LP,DG,CH
Inst : Max
Multiplr: 1.00

Quant Time: Mar 31 8:01 2021

Quant Results File: M0329524.RES

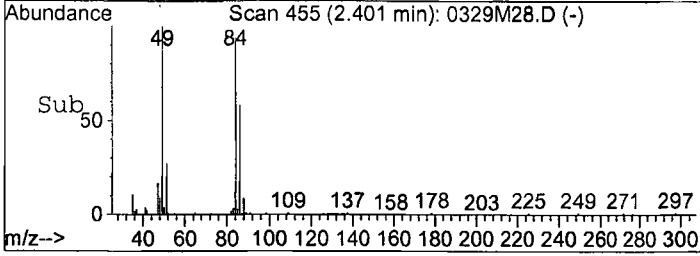
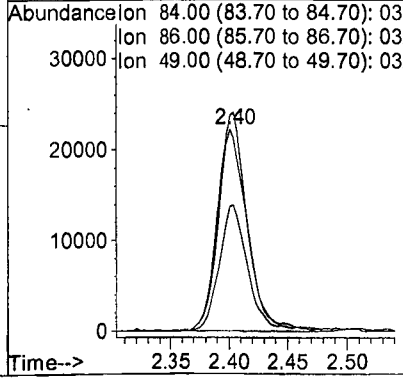
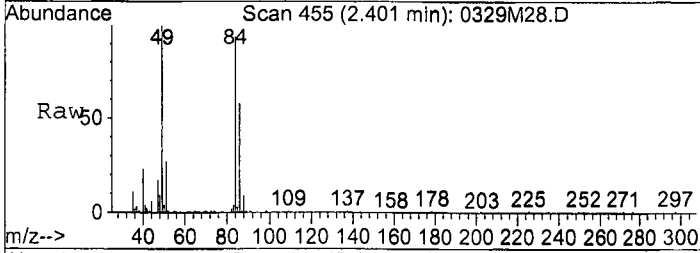
Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration





#19
 Methylene chloride
 Concen: 2.957 ppb
 RT: 2.40 min Scan# 455
 Delta R.T. 0.00 min
 Lab File: 0329M28.D
 Acq: 29 Mar 21 19:32

Tgt Ion	84	Resp:	38400
Ion	Ratio	Lower	Upper
84	100		
86	61.6	43.0	79.8
49	106.6	90.4	135.6



Data File : M:\MAX\DATA\210329\0329M27.D
 Acq On : 29 Mar 21 19:04
 Sample : BA29552W01
 Misc : IS 10/16/20

Vial: 27
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 8:00 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.57	96	1601435	25.000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.84	117	1747748	25.000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.17	152	1289943	25.000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	4.69	111	462965	25.613	ppb	0.00
Spiked Amount	25.000					
					Recovery = 102.452%	
37) 1,2-DCA-D4(S)	5.11	65	377575	25.191	ppb	0.00
Spiked Amount	25.000					
					Recovery = 100.764%	
57) Toluene-D8(S)	7.37	98	1407342	24.690	ppb	0.00
Spiked Amount	25.000					
					Recovery = 98.760%	
65) 4-Bromofluorobenzene(S)	10.03	95	832035	24.482	ppb	0.00
Spiked Amount	25.000					
					Recovery = 97.928%	

Target Compounds

Qvalue

Quantitation Report

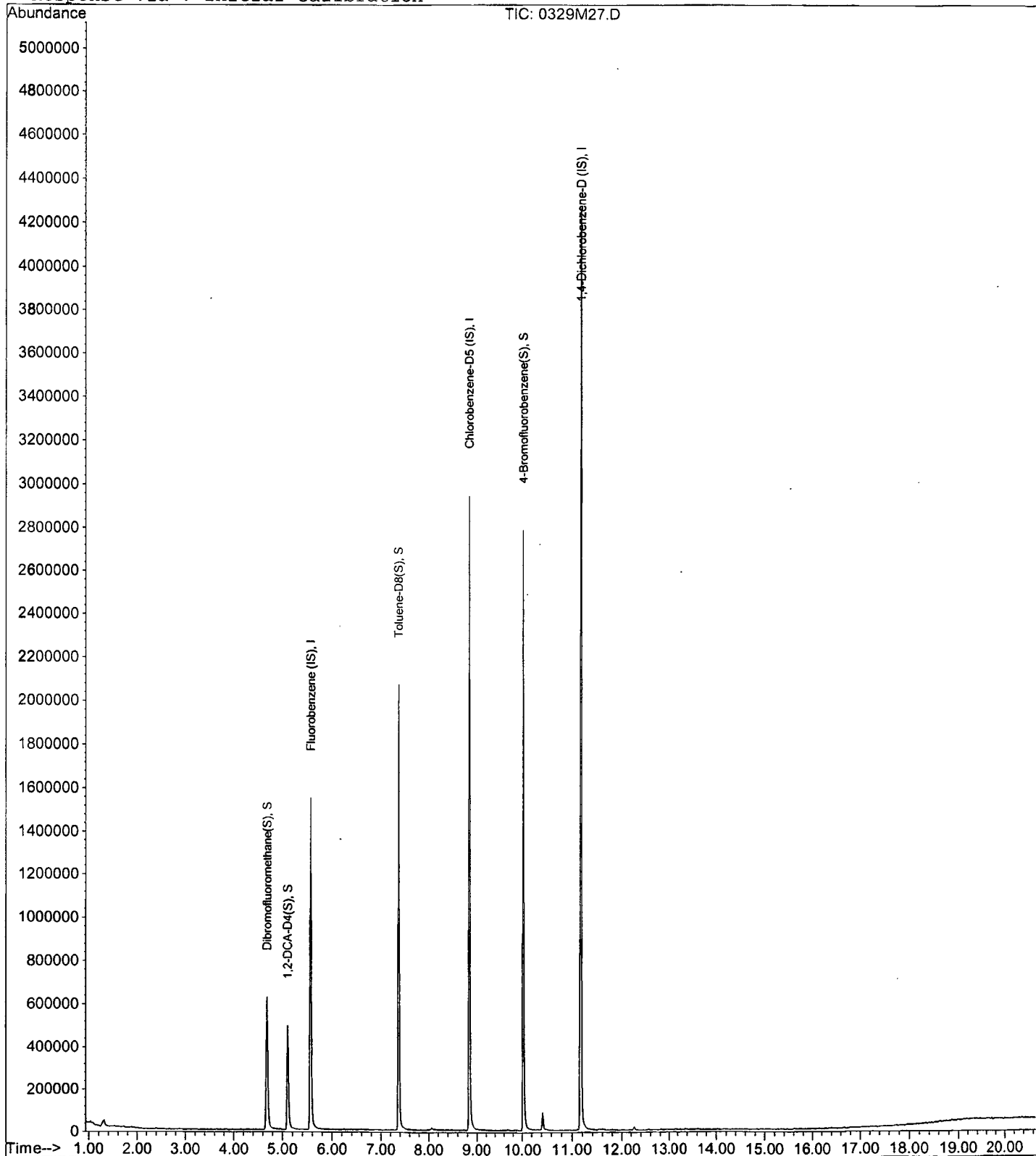
Data File : M:\MAX\DATA\210329\0329M27.D
Acq On : 29 Mar 21 19:04
Sample : BA29552W01
Misc : IS 10/16/20

Vial: 27
Operator: LP,DG,CH
Inst : Max
Multiplr: 1.00

Quant Time: Mar 31 8:00 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration



Data File : M:\MAX\DATA\210329\0329M29.D
 Acq On : 29 Mar 21 20:00
 Sample : BA29553W01
 Misc : IS 10/16/20

Vial: 29
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 8:01 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.57	96	1574741	25.000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.84	117	1728145	25.000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.17	152	1298568	25.000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	4.69	111	456742	25.697	ppb	0.00
Spiked Amount	25.000		Recovery	=	102.788%	
37) 1,2-DCA-D4(S)	5.11	65	370669	25.149	ppb	0.00
Spiked Amount	25.000		Recovery	=	100.596%	
57) Toluene-D8(S)	7.37	98	1404181	24.914	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.656%	
65) 4-Bromofluorobenzene(S)	10.03	95	830411	24.712	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.848%	
Target Compounds						Qvalue

Quantitation Report

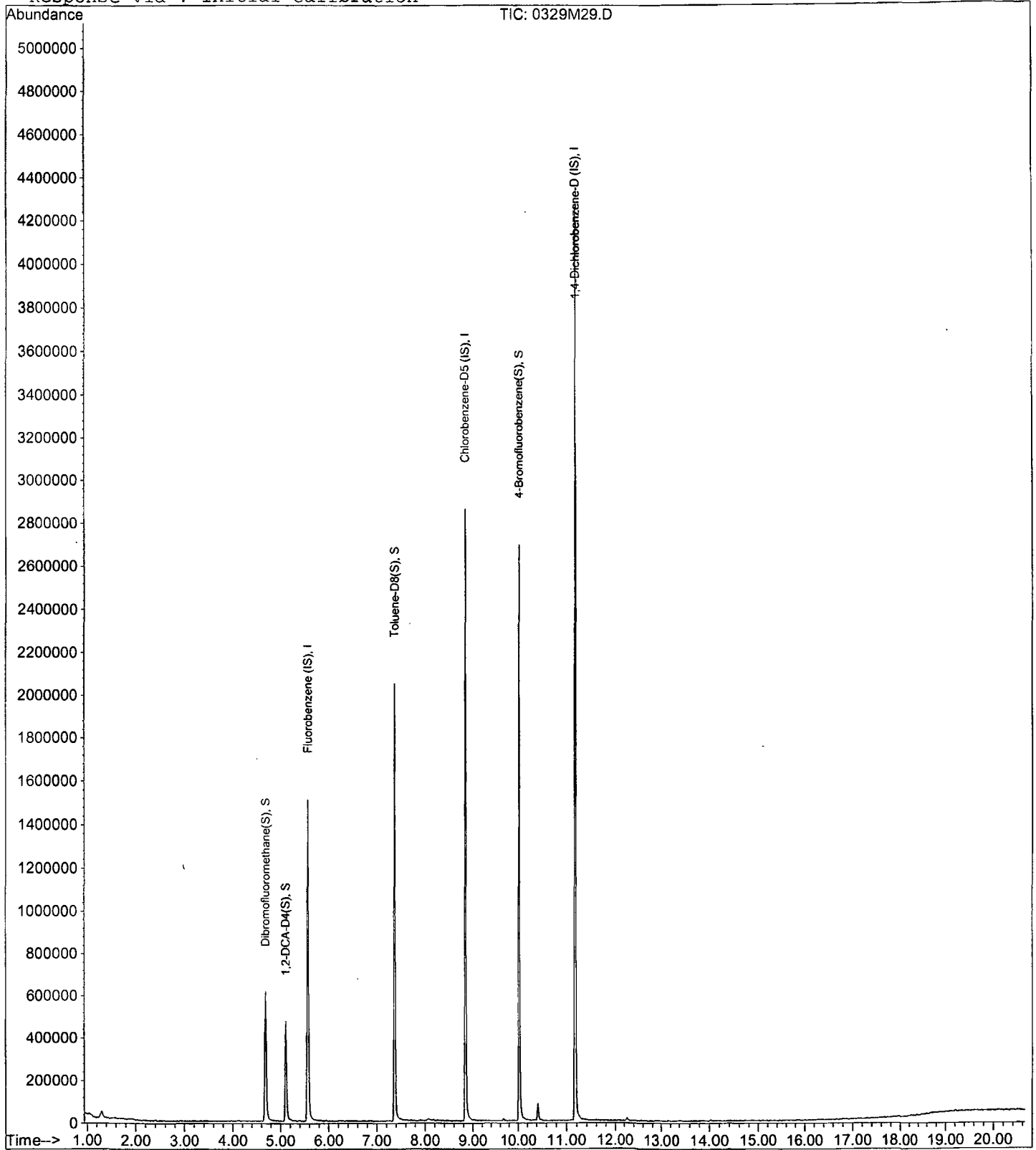
Data File : M:\MAX\DATA\210329\0329M29.D
Acq On : 29 Mar 21 20:00
Sample : BA29553W01
Misc : IS 10/16/20

Vial: 29
Operator: LP,DG,CH
Inst : Max
Multiplr: 1.00

Quant Time: Mar 31 8:01 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration



Data File : M:\MAX\DATA\210329\0329M19.D
 Acq On : 29 Mar 21 15:20
 Sample : 210329A BLK HCL
 Misc : IS 10/16/20

Vial: 19
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:56 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.57	96	1607023	25.000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.84	117	1775898	25.000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.17	152	1321243	25.000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	4.69	111	470729	25.952	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.808%	
37) 1,2-DCA-D4(S)	5.11	65	388868	25.854	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.416%	
57) Toluene-D8(S)	7.37	98	1447507	24.992	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.968%	
65) 4-Bromofluorobenzene(S)	10.02	95	856448	24.801	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.204%	
Target Compounds						Qvalue

Quantitation Report

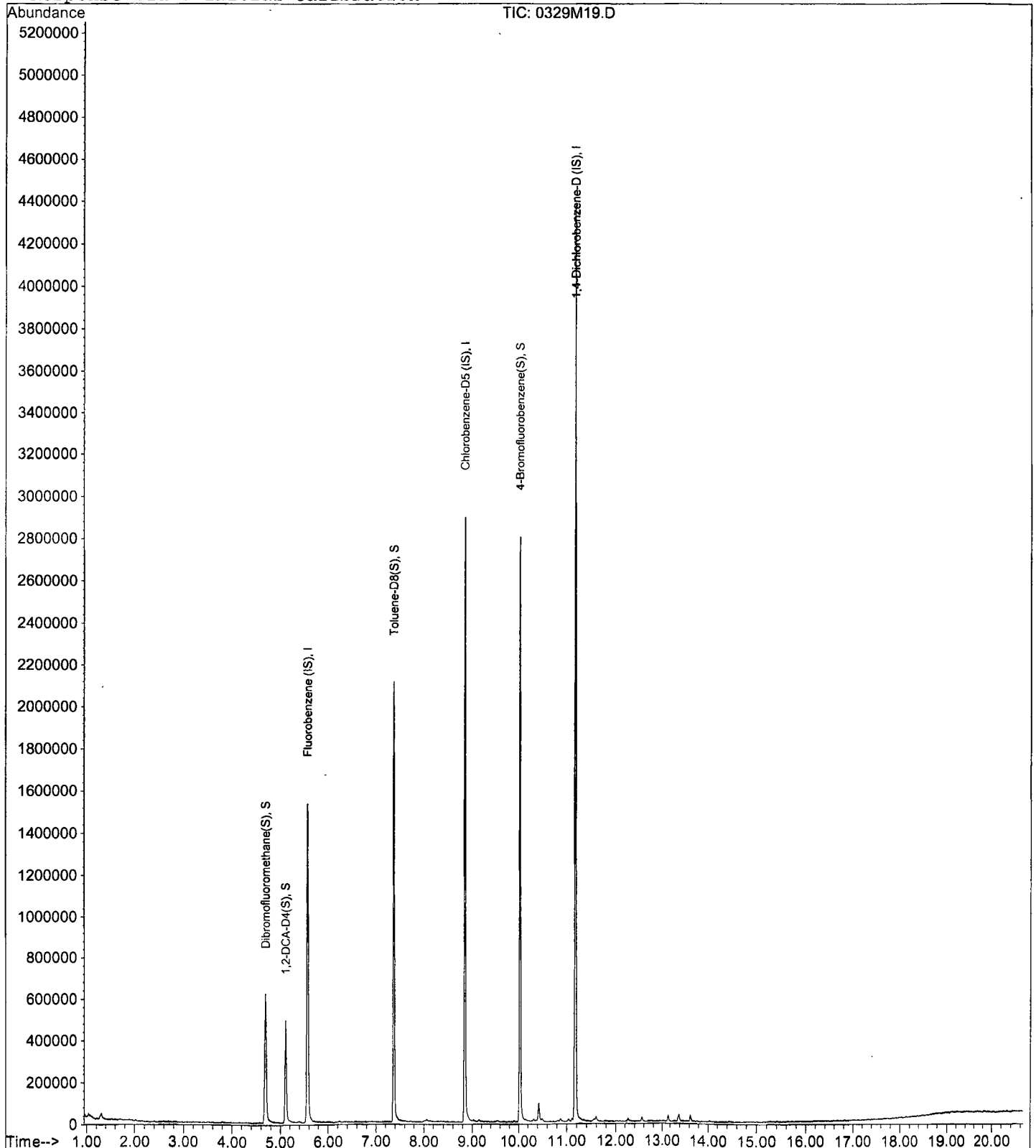
Data File : M:\MAX\DATA\210329\0329M19.D
Acq On : 29 Mar 21 15:20
Sample : 210329A BLK HCL
Misc : IS 10/16/20

Vial: 19
Operator: LP,DG,CH
Inst : Max
Multiplr: 1.00

Quant Time: Mar 31 7:56 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration



Data File : M:\MAX\DATA\210329\0329M17.D
 Acq On : 29 Mar 21 14:25
 Sample : 210329A LCS 10ug/L HCL
 Misc : IS 10/16/20

Vial: 17
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:51 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.57	96	1650785	25.000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.84	117	1772455	25.000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.17	152	1352571	25.000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	4.69	111	468035	25.119	ppb	0.00
Spiked Amount	25.000		Recovery	=	100.476%	
37) 1,2-DCA-D4(S)	5.11	65	381158	24.670	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.680%	
57) Toluene-D8(S)	7.37	98	1456208	25.191	ppb	0.00
Spiked Amount	25.000		Recovery	=	100.764%	
65) 4-Bromofluorobenzene(S)	10.03	95	868314	25.194	ppb	0.00
Spiked Amount	25.000		Recovery	=	100.776%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.96	85	116681	10.279	ppb	94
3) Freon 114	1.04	85	93309	11.229	ppb	98
4) Chloromethane	1.07	50	134812	10.148	ppb	100
5) Vinyl chloride	1.14	62	126853	10.797	ppb	100
6) Bromomethane	1.34	94	69328	11.772	ppb	92
7) Chloroethane	1.41	64	56616	10.015	ppb	94
8) Dichlorofluoromethane	1.55	67	196697	10.631	ppb	100
9) Trichlorofluoromethane	1.60	101	158258	10.825	ppb	98
10) Acrolein	1.89	56	113328	119.577	ppb	100
11) Acetone	2.02	43	131236	44.345	ppb	98
12) Freon-113	2.01	103	30592	11.552	ppb	100
13) Acetonitrile	2.24	41	170431	122.535	ppb	96
14) 1,1-DCE	1.98	61	142259	10.575	ppb	98
15) t-Butanol	2.57	59	116589	121.902	ppb	96
16) Methyl Acetate	2.34	43	62285	8.839	ppb	95
17) Iodomethane	2.09	142	94768	8.768	ppb	97
18) Acrylonitrile	2.64	53	36663	9.815	ppb	97
19) Methylene chloride	2.40	84	120792	10.395	ppb	96
20) Carbon disulfide	2.14	76	181824	10.062	ppb	98
21) Methyl t-butyl ether (MtBE)	2.72	73	283011	10.176	ppb	95
22) Trans-1,2-DCE	2.69	96	111122	10.327	ppb	98
23) Diisopropyl Ether	3.34	45	317387	10.354	ppb	98
24) 1,1-DCA	3.15	63	186491	10.818	ppb	99
25) Vinyl Acetate	3.29	43	58788	8.962	ppb	99
26) Ethyl tert Butyl Ether	3.86	59	295944	10.072	ppb	97
27) MEK (2-Butanone)	4.03	43	181458	48.363	ppb	100
28) Cis-1,2-DCE	3.96	96	121360	10.316	ppb	99
29) 2,2-Dichloropropane	3.95	77	143075	9.850	ppb	92
30) Chloroform	4.47	83	187763	10.157	ppb	92
31) Bromochloromethane	4.31	130	88603	10.384	ppb	91
33) 1,1,1-TCA	4.70	97	173240	10.597	ppb	92
34) Cyclohexane	4.78	41	72915	10.043	ppb	80
35) 1,1-Dichloropropene	4.94	75	130862	10.693	ppb	88
36) 2,2,4-Trimethylpentane	5.39	57	248795	11.350	ppb	96
38) Carbon Tetrachloride	4.93	117	157307	10.767	ppb	100
39) Tert Amyl Methyl Ether	5.43	73	275453	10.090	ppb	99
40) 1,2-DCA	5.21	62	142385	10.248	ppb	93
41) Benzene	5.19	78	438503	10.556	ppb	99
42) TCE	6.02	95	117352	10.427	ppb	95

(#) = qualifier out of range (m) = manual integration
 0329M17.D M0329524.M Wed Mar 31 08:29:30 2021

Data File : M:\MAX\DATA\210329\0329M17.D
 Acq On : 29 Mar 21 14:25
 Sample : 210329A LCS 10ug/L HCL
 Misc : IS 10/16/20

Vial: 17
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:51 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	6.27	43	821596	119.428	ppb	97
44) 1,2-Dichloropropane	6.24	63	54328	10.137	ppb	98
45) Bromodichloromethane	6.58	83	148706	9.865	ppb	96
46) Methyl Cyclohexane	6.24	83	154645	11.329	ppb	95
47) Dibromomethane	6.37	93	67184	10.284	ppb	96
48) MIBK (methyl isobutyl ket	7.29	43	413429	47.598	ppb	99
49) 1-Bromo-2-chloroethane	6.89	144	21418	9.781	ppb	90
51) Cis-1,3-Dichloropropene	7.09	39	84940	11.116	ppb	97
52) Toluene	7.44	91	505042	10.481	ppb	100
53) Trans-1,3-Dichloropropene	7.69	75	159276	10.363	ppb	97
54) 1,1,2-TCA	7.86	83	80060	9.847	ppb	94
55) 2-Hexanone	8.17	43	272027	46.216	ppb	98
58) 1,2-EDB	8.34	107	104736	9.781	ppb	96
59) Tetrachloroethene	8.01	164	86936	10.734	ppb	96
60) 1-Chlorohexane	8.90	91	134998	10.211	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.96	131	135769	10.471	ppb	99
62) m&p-Xylene	9.13	106	490229	21.691	ppb	99
63) o-Xylene	9.52	106	243493	10.566	ppb	99
64) Styrene	9.53	104	402758	10.771	ppb	99
66) 1,3-Dichloropropane	8.03	76	168564	10.487	ppb	100
67) Dibromochloromethane	8.25	129	138828	10.458	ppb	99
68) Chlorobenzene	8.87	112	357487	10.438	ppb	97
69) Ethylbenzene	9.01	91	565298	10.668	ppb	98
70) Bromoform	9.67	173	111205	9.742	ppb	97
72) Isopropylbenzene	9.90	105	611842	10.901	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.18	83	136652	9.874	ppb	97
74) 1,2,3-Trichloropropane	10.21	110	45157	9.872	ppb	# 77
75) t-1,4-Dichloro-2-Butene	10.25	53	22973	8.364	ppb	93
76) Bromobenzene	10.15	156	195614	10.602	ppb	96
77) n-Propylbenzene	10.31	91	683179	11.097	ppb	97
78) 4-Ethyltoluene	10.43	105	616191	11.109	ppb	99
79) 2-Chlorotoluene	10.37	91	420131	10.247	ppb	99
80) 1,3,5-Trimethylbenzene	10.50	105	525085	10.829	ppb	99
81) 4-Chlorotoluene	10.48	91	496052	10.768	ppb	97
82) Tert-Butylbenzene	10.81	119	298240	10.572	ppb	98
83) 1,2,4-Trimethylbenzene	10.86	105	517640	10.610	ppb	100
84) Sec-Butylbenzene	11.03	105	628074	10.487	ppb	100
85) p-Isopropyltoluene	11.19	119	580369	10.613	ppb	98
86) Benzyl Chloride	11.33	91	127761	7.869	ppb	98
87) 1,3-DCB	11.10	146	363726	10.539	ppb	99
88) 1,4-DCB	11.19	146	366326	10.316	ppb	97
89) n-Butylbenzene	11.59	91	428980	10.527	ppb	99
90) 1,2-DCB	11.55	146	362149	10.436	ppb	97
91) Hexachloroethane	11.81	117	91712	10.181	ppb	97
92) 1,2-Dibromo-3-chloropropan	12.31	157	38546	9.042	ppb	99
93) 1,2,4-Trichlorobenzene	13.15	180	244010	9.940	ppb	100
94) Hexachlorobutadiene	13.36	225	124573	10.144	ppb	95
95) Naphthalene	13.38	128	221120	8.679	ppb	98
96) 1,2,3-Trichlorobenzene	13.62	180	211046	9.973	ppb	98

Quantitation Report

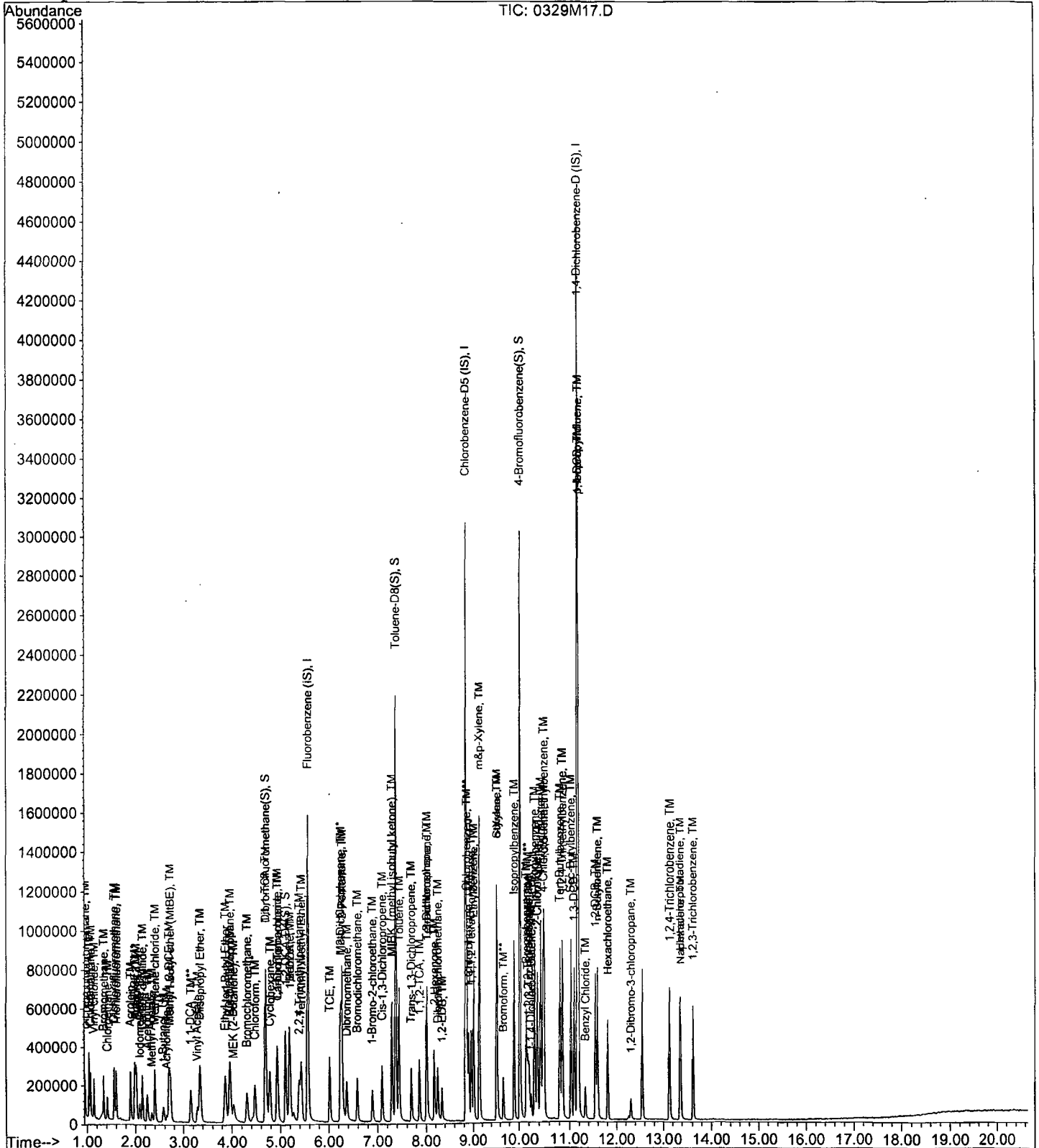
Data File : M:\MAX\DATA\210329\0329M17.D
 Acq On : 29 Mar 21 14:25
 Sample : 210329A LCS 10ug/L HCL
 Misc : IS 10/16/20

Vial: 17
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:51 2021

Quant Results File: M0329524.RES

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration



Data File : M:\MAX\DATA\210329\0329M18.D
 Acq On : 29 Mar 21 14:53
 Sample : 210329A LCSD 10ug/L HCL
 Misc : IS 10/16/20

Vial: 18
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:51 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.56	96	1645008	25.000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.84	117	1784511	25.000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.17	152	1358465	25.000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	4.69	111	466691	25.135	ppb	0.00
Spiked Amount	25.000		Recovery	=	100.540%	
37) 1,2-DCA-D4(S)	5.11	65	390836	25.385	ppb	0.00
Spiked Amount	25.000		Recovery	=	101.540%	
57) Toluene-D8(S)	7.37	98	1471444	25.283	ppb	0.00
Spiked Amount	25.000		Recovery	=	101.132%	
65) 4-Bromofluorobenzene(S)	10.03	95	881220	25.396	ppb	0.00
Spiked Amount	25.000		Recovery	=	101.584%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.96	85	122134	10.836	ppb	96
3) Freon 114	1.04	85	95861	11.577	ppb	99
4) Chloromethane	1.07	50	139843	10.564	ppb	95
5) Vinyl chloride	1.14	62	126969	10.845	ppb	99
6) Bromomethane	1.34	94	68091	11.594	ppb	98
7) Chloroethane	1.41	64	61616	10.938	ppb	100
8) Dichlorofluoromethane	1.55	67	203240	11.023	ppb	96
9) Trichlorofluoromethane	1.60	101	159507	10.949	ppb	99
10) Acrolein	1.89	56	116176	123.013	ppb	92
11) Acetone	2.03	43	135134	45.823	ppb	95
12) Freon-113	2.01	103	31512	11.938	ppb	98
13) Acetonitrile	2.24	41	165989	119.761	ppb	93
14) 1,1-DCE	1.98	61	146489	10.928	ppb	98
15) t-Butanol	2.57	59	119364	125.242	ppb	99
16) Methyl Acetate	2.34	43	62211	8.859	ppb	93
17) Iodomethane	2.09	142	101701	9.250	ppb	98
18) Acrylonitrile	2.64	53	36451	9.792	ppb	# 95
19) Methylene chloride	2.40	84	120655	10.421	ppb	94
20) Carbon disulfide	2.14	76	189632	10.531	ppb	100
21) Methyl t-butyl ether (MtBE)	2.72	73	287785	10.384	ppb	97
22) Trans-1,2-DCE	2.69	96	111957	10.441	ppb	96
23) Diisopropyl Ether	3.35	45	321352	10.520	ppb	98
24) 1,1-DCA	3.15	63	189381	11.024	ppb	98
25) Vinyl Acetate	3.29	43	57312	8.801	ppb	99
26) Ethyl tert Butyl Ether	3.86	59	302052	10.316	ppb	94
27) MEK (2-Butanone)	4.03	43	187082	50.037	ppb	97
28) Cis-1,2-DCE	3.96	96	124592	10.629	ppb	98
29) 2,2-Dichloropropane	3.95	77	141937	9.806	ppb	98
30) Chloroform	4.47	83	194478	10.557	ppb	96
31) Bromochloromethane	4.31	130	87048	10.238	ppb	97
33) 1,1,1-TCA	4.70	97	177011	10.866	ppb	96
34) Cyclohexane	4.78	41	77228	10.675	ppb	93
35) 1,1-Dichloropropene	4.94	75	132230	10.843	ppb	96
36) 2,2,4-Trimethylpentane	5.39	57	244791	11.207	ppb	98
38) Carbon Tetrachloride	4.93	117	162834	11.185	ppb	100
39) Tert Amyl Methyl Ether	5.43	73	276491	10.164	ppb	97
40) 1,2-DCA	5.21	62	135935	9.818	ppb	95
41) Benzene	5.19	78	448979	10.846	ppb	96
42) TCE	6.02	95	116769	10.411	ppb	93

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\210329\0329M18.D
 Acq On : 29 Mar 21 14:53
 Sample : 210329A LCSD 10ug/L HCL
 Misc : IS 10/16/20

Vial: 18
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Quant Time: Mar 31 7:51 2021

Quant Results File: M0329524.RES

Quant Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Wed Mar 31 07:50:51 2021
 Response via : Initial Calibration
 DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	6.27	43	832153	121.387	ppb	97
44) 1,2-Dichloropropane	6.24	63	56640	10.606	ppb	99
45) Bromodichloromethane	6.58	83	153118	10.194	ppb	98
46) Methyl Cyclohexane	6.24	83	155443	11.428	ppb	99
47) Dibromomethane	6.37	93	65772	10.104	ppb	97
48) MIBK (methyl isobutyl ket	7.29	43	424593	49.055	ppb	98
49) 1-Bromo-2-chloroethane	6.89	144	23165	10.616	ppb	94
51) Cis-1,3-Dichloropropene	7.09	39	77569	10.187	ppb	94
52) Toluene	7.44	91	510096	10.623	ppb	98
53) Trans-1,3-Dichloropropene	7.69	75	152612	9.965	ppb	94
54) 1,1,2-TCA	7.86	83	83383	10.292	ppb	96
55) 2-Hexanone	8.17	43	281512	47.995	ppb	99
58) 1,2-EDB	8.34	107	105578	9.793	ppb	96
59) Tetrachloroethene	8.01	164	89744	11.006	ppb	94
60) 1-Chlorohexane	8.91	91	135519	10.181	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.96	131	135613	10.389	ppb	98
62) m&p-Xylene	9.14	106	493336	21.681	ppb	97
63) o-Xylene	9.52	106	242104	10.434	ppb	99
64) Styrene	9.53	104	408194	10.843	ppb	99
66) 1,3-Dichloropropane	8.02	76	169430	10.469	ppb	97
67) Dibromochloromethane	8.25	129	133054	9.955	ppb	95
68) Chlorobenzene	8.87	112	358631	10.401	ppb	98
69) Ethylbenzene	9.01	91	572780	10.737	ppb	99
70) Bromoform	9.67	173	109757	9.550	ppb	99
72) Isopropylbenzene	9.90	105	619207	10.984	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.18	83	137269	9.876	ppb	97
74) 1,2,3-Trichloropropane	10.21	110	46590	10.141	ppb	95
75) t-1,4-Dichloro-2-Butene	10.25	53	22785	8.259	ppb	97
76) Bromobenzene	10.15	156	193016	10.416	ppb	96
77) n-Propylbenzene	10.31	91	680680	11.008	ppb	98
78) 4-Ethyltoluene	10.43	105	616588	11.068	ppb	99
79) 2-Chlorotoluene	10.37	91	428722	10.411	ppb	97
80) 1,3,5-Trimethylbenzene	10.50	105	531435	10.912	ppb	99
81) 4-Chlorotoluene	10.48	91	488742	10.563	ppb	96
82) Tert-Butylbenzene	10.81	119	304960	10.763	ppb	95
83) 1,2,4-Trimethylbenzene	10.86	105	522897	10.671	ppb	98
84) Sec-Butylbenzene	11.03	105	654116	10.874	ppb	99
85) p-Isopropyltoluene	11.19	119	577177	10.509	ppb	99
86) Benzyl Chloride	11.33	91	129128	7.919	ppb	98
87) 1,3-DCB	11.10	146	355839	10.266	ppb	98
88) 1,4-DCB	11.19	146	360282	10.102	ppb	96
89) n-Butylbenzene	11.59	91	441207	10.780	ppb	98
90) 1,2-DCB	11.55	146	363582	10.432	ppb	99
91) Hexachloroethane	11.81	117	91457	10.108	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.31	157	38798	9.062	ppb	97
93) 1,2,4-Trichlorobenzene	13.15	180	253317	10.274	ppb	99
94) Hexachlorobutadiene	13.35	225	125233	10.154	ppb	92
95) Naphthalene	13.37	128	234240	9.071	ppb	99
96) 1,2,3-Trichlorobenzene	13.62	180	222516	10.469	ppb	97

(#) = qualifier out of range (m) = manual integration
 0329M18.D M0329524.M Wed Mar 31 08:29:25 2021

Quantitation Report

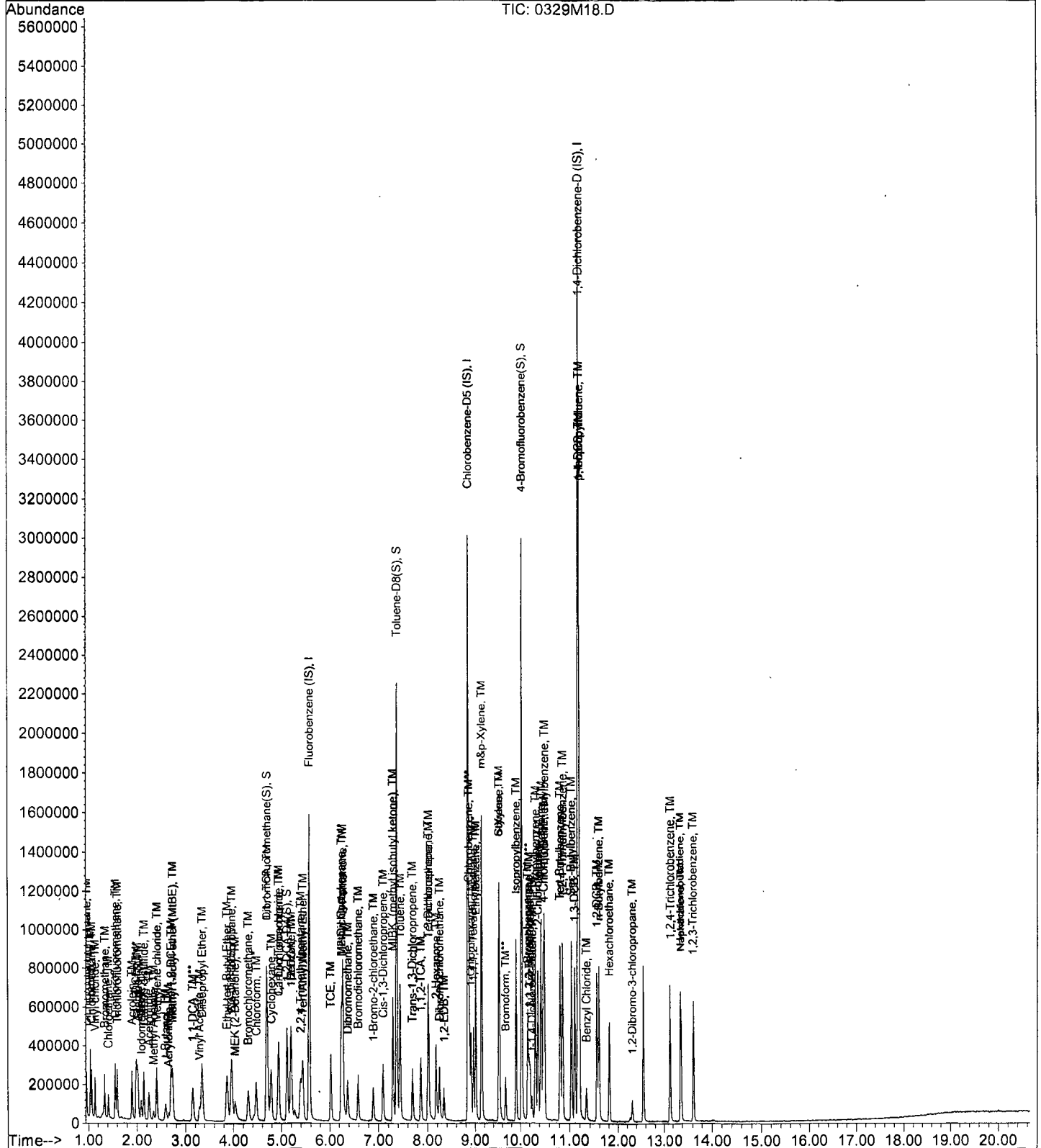
Data File : M:\MAX\DATA\210329\0329M18.D
Acq On : 29 Mar 21 14:53
Sample : 210329A LCSD 10ug/L HCL
Misc : IS 10/16/20

Vial: 18
Operator: LP,DG,CH
Inst : Max
Multiplr: 1.00

Quant Time: Mar 31 7:51 2021

Quant Results File: M0329524.RES

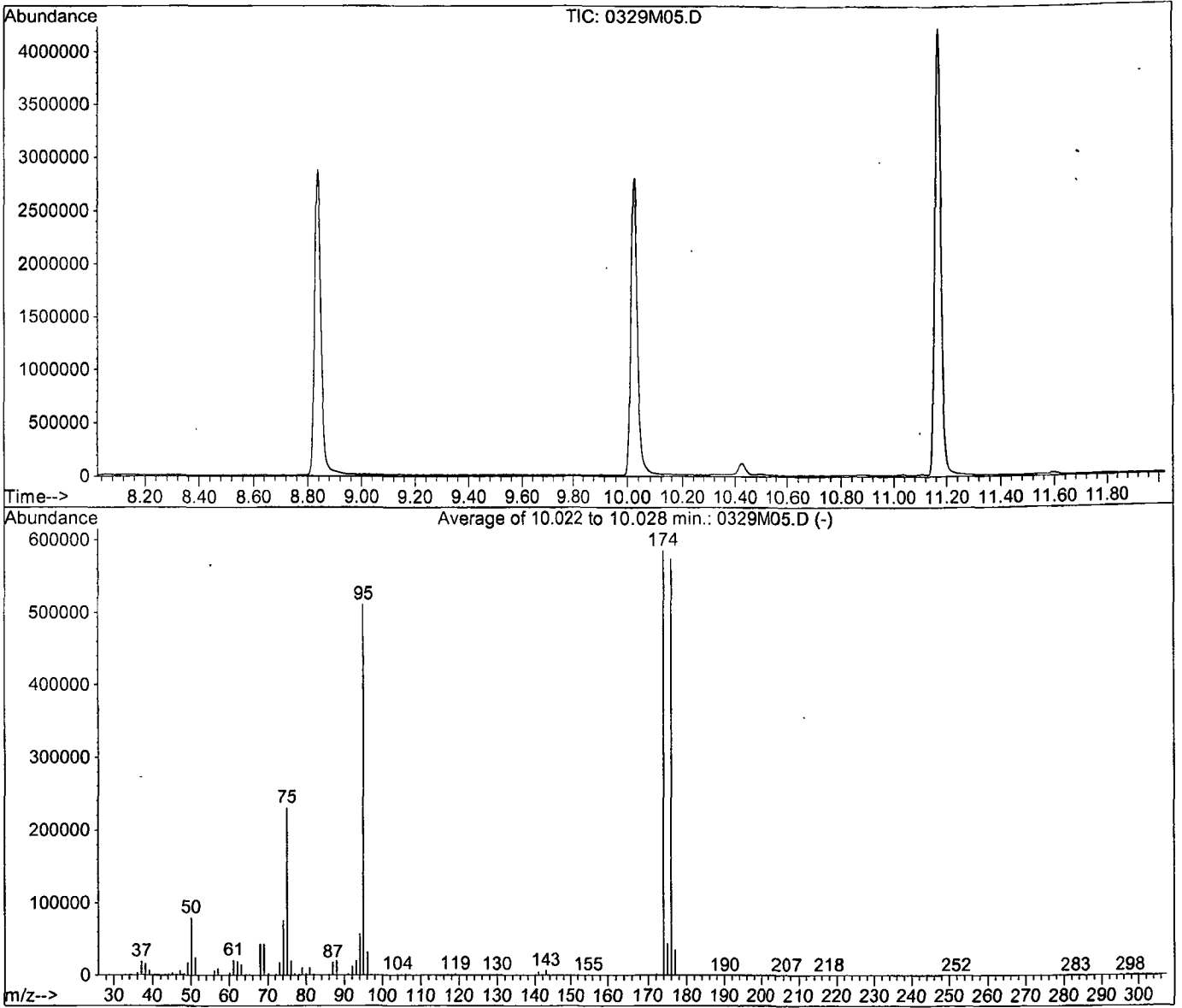
Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Mar 31 07:50:51 2021
Response via : Initial Calibration



Data File : M:\MAX\DATA\210329\0329M05.D
 Acq On : 29 Mar 21 8:49
 Sample : 25ug/L BFB STD 01/28/21
 Misc : IS 10/16/20

Vial: 5
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B



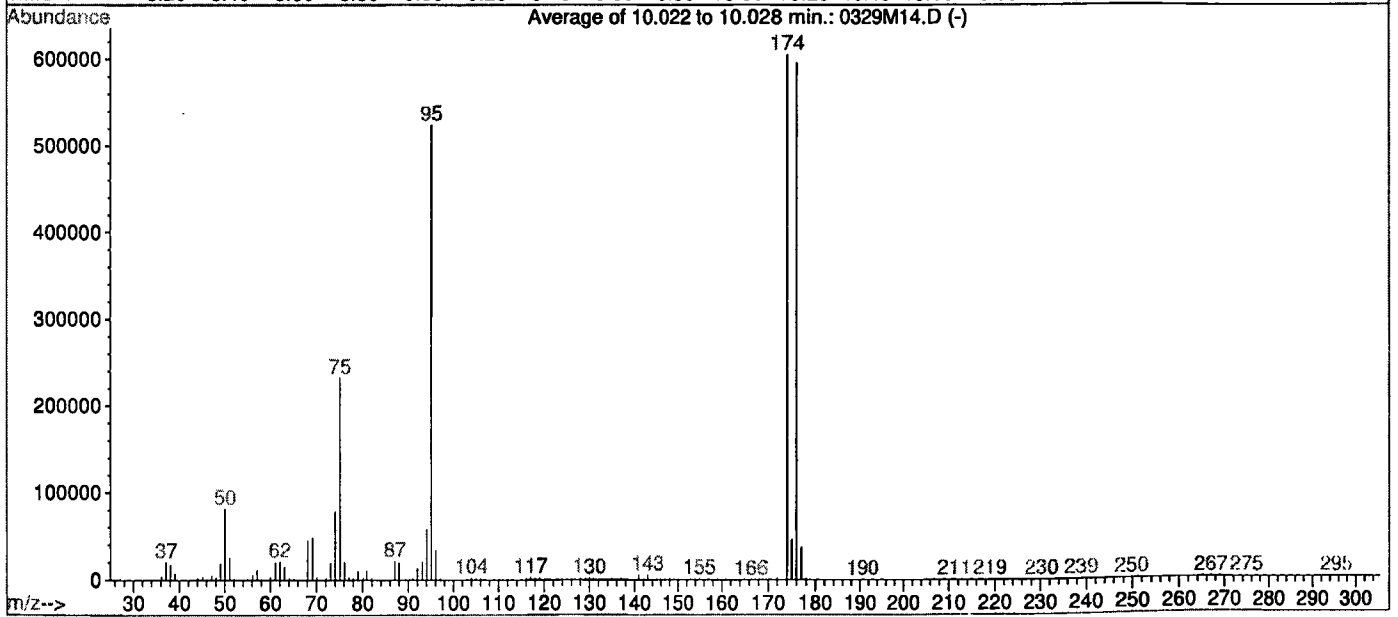
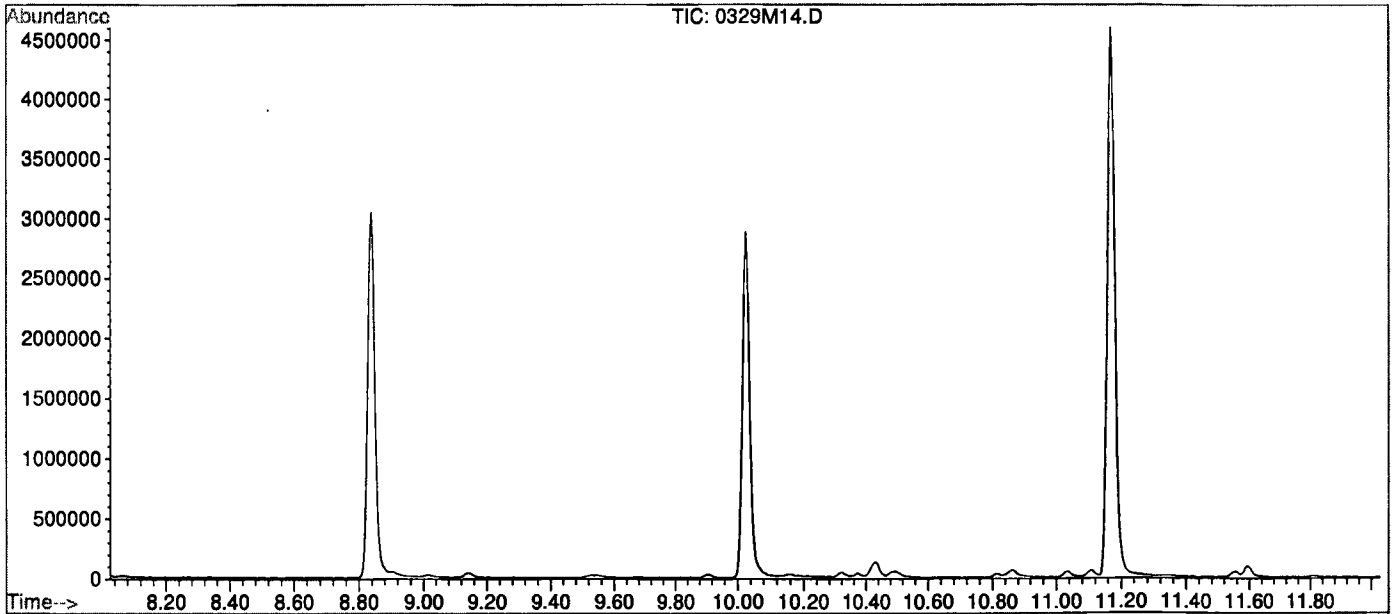
AutoFind: Scans 2830, 2831, 2832; Background Corrected with Scan 2816

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.7	80629	PASS
75	95	30	60	45.2	231467	PASS
95	95	100	200	100.0	512495	PASS
96	95	5	9	6.3	32541	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	114.4	586283	PASS
175	174	5	9	7.6	44589	PASS
176	174	95	101	98.1	575168	PASS
177	176	5	9	6.1	35333	PASS

Data File : M:\MAX\DATA\210329\0329M14.D
 Acq On : 29 Mar 21 13:01
 Sample : 25ug/L BFB STD 01/28/21
 Misc : IS 10/16/20

Vial: 14
 Operator: LP,DG,CH
 Inst : Max
 Multiplr: 1.00

Method : M:\MAX\DATA\210329\M0329524.M (RTE Integrator)
 Title : METHOD 8260B



Spectrum Information: Average of 10.022 to 10.028 min.

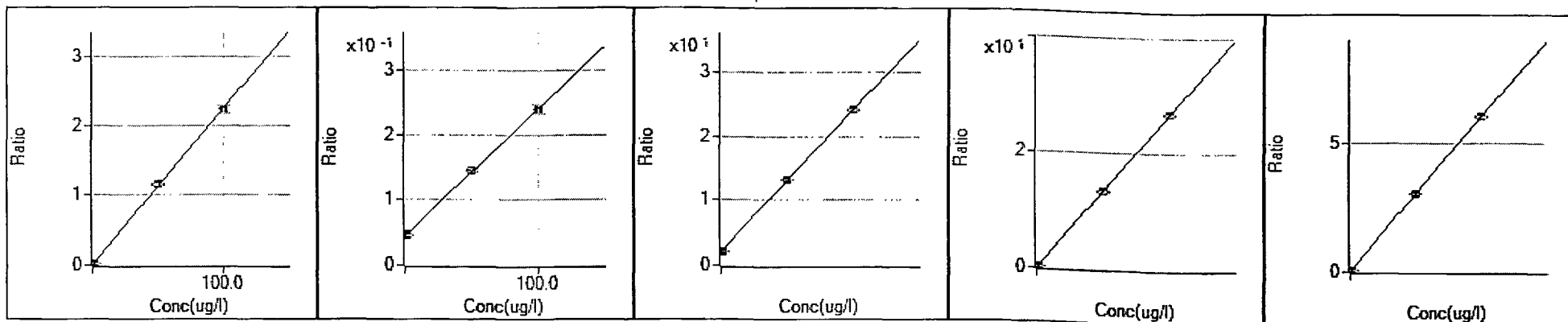
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	81635	PASS
75	95	30	60	44.3	232222	PASS
95	95	100	200	100.0	524612	PASS
96	95	5	9	6.4	33811	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	115.4	605227	PASS
175	174	5	9	7.6	45947	PASS
176	174	95	101	98.5	596300	PASS
177	176	5	9	6.3	37696	PASS

Injection Log

Directory: M:\MAX\DATA\210329\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	5	0329M05.D	1	25ug/L BFB STD 01/28/21	IS 10/16/20	29 Mar 21 8:49
2	6	0329M06.D	1	0.2ug/L VOC-HCL STD 3/29/21	IS 10/16/20	29 Mar 21 9:17
3	7	0329M07.D	1	0.5ug/L VOC-HCL STD 3/29/21	IS 10/16/20	29 Mar 21 9:45
4	8	0329M08.D	1	1ug/L VOC-HCL STD 3/29/21	IS 10/16/20	29 Mar 21 10:13
5	9	0329M09.D	1	5ug/L VOC-HCL STD 3/29/21	IS 10/16/20	29 Mar 21 10:41
6	10	0329M10.D	1	10ug/L VOC-HCL STD 3/29/21	IS 10/16/20	29 Mar 21 11:09
7	11	0329M11.D	1	20ug/L VOC-HCL STD 3/29/21	IS 10/16/20	29 Mar 21 11:37
8	12	0329M12.D	1	40ug/L VOC-HCL STD 3/29/21	IS 10/16/20	29 Mar 21 12:05
9	13	0329M13.D	1	100ug/L VOC-HCL STD 3/29/21	IS 10/16/20	29 Mar 21 12:32
10	14	0329M14.D	1	25ug/L BFB STD 01/28/21	IS 10/16/20	29 Mar 21 13:01
11	16	0329M16.D	1	(SS) 10ug/L VOC-HCL STD 3/29/21	IS 10/16/20	29 Mar 21 13:56
12	17	0329M17.D	1	210329A LCS 10ug/L HCL	IS 10/16/20	29 Mar 21 14:25
13	18	0329M18.D	1	210329A LCSD 10ug/L HCL	IS 10/16/20	29 Mar 21 14:53
14	19	0329M19.D	1	210329A BLK HCL	IS 10/16/20	29 Mar 21 15:20
15	27	0329M27.D	1	BA29552W01	IS 10/16/20	29 Mar 21 19:04
16	28	0329M28.D	1	BA29551W01	IS 10/16/20	29 Mar 21 19:32
17	29	0329M29.D	1	BA29553W01	IS 10/16/20	29 Mar 21 20:00
18	1	0329M30.D	1	Ending CCV 10ug/L 3/29/21	2ul	30 Mar 21 5:54

**METALS
Calibration Data**



9 Be [NoGas]

ISTD: 6 Li

$$y = 2.256E-2 x + 2.614E-4$$

R 0.9999

DL 0.02715

BEC 0.01159

11 B [NoGas]

ISTD: 45 Sc

$$y = 1.961E-3 x + 4.415E-2$$

R 0.9998

DL 1.687

BEC 22.52

23 Na [He]

ISTD: 45 Sc

$$y = 8.829E-3 x + 2.091E0$$

R 1.0000

DL 4.791

BEC 236.8

24 Mg [He]

ISTD: 45 Sc

$$y = 5.322E-3 x + 5.399E-3$$

R 1.0000

DL 0.1839

BEC 1.014

27 Al [He]

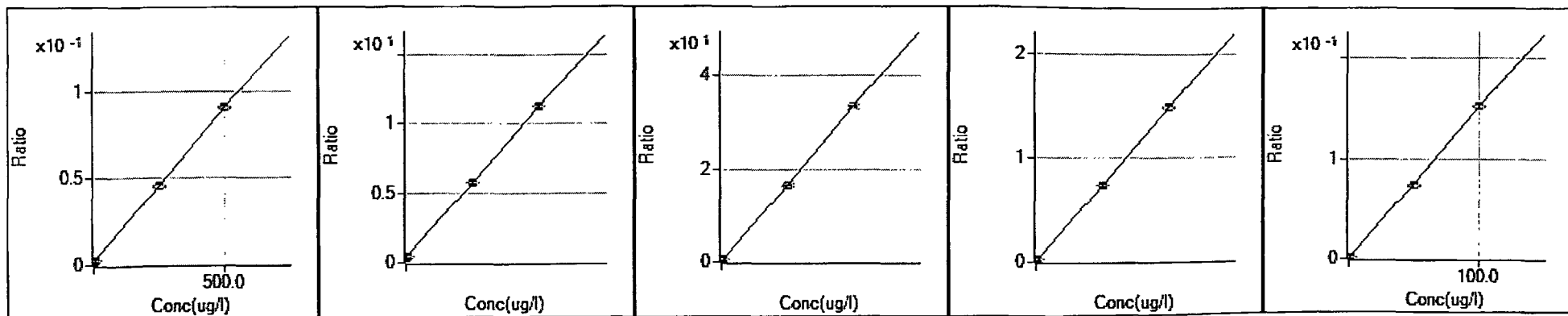
ISTD: 45 Sc

$$y = 3.033E-3 x + 1.642E-3$$

R 1.0000

DL 0.09969

BEC 0.5412



31 P [He]

ISTD: 45 Sc

$$y = 1.762E-4 x + 2.046E-3$$

R 1.0000

DL 4.512

BEC 11.61

39 K [He]

ISTD: 45 Sc

$$y = 5.411E-3 x + 3.900E-1$$

R 1.0000

DL 2.862

BEC 72.07

40 Ca [H2]

ISTD: 45 Sc

$$y = 6.661E-3 x + 1.745E-2$$

R 1.0000

DL 0.6054

BEC 2.62

44 Ca [He]

ISTD: 45 Sc

$$y = 2.955E-4 x + 1.654E-3$$

R 0.9999

DL 2.061

BEC 5.599

47 Ti [He]

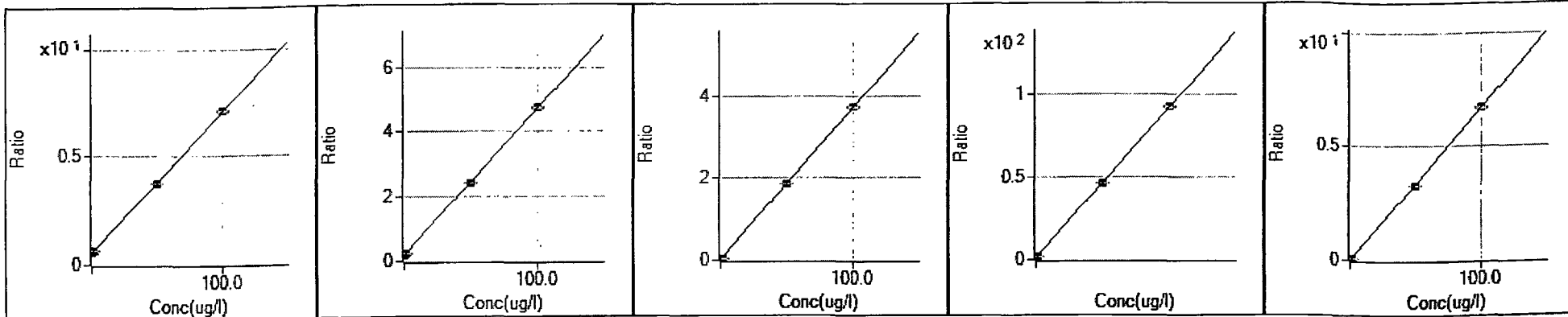
ISTD: 45 Sc

$$y = 1.507E-3 x + 4.918E-5$$

R 0.9999

DL 0.09369

BEC 0.03263



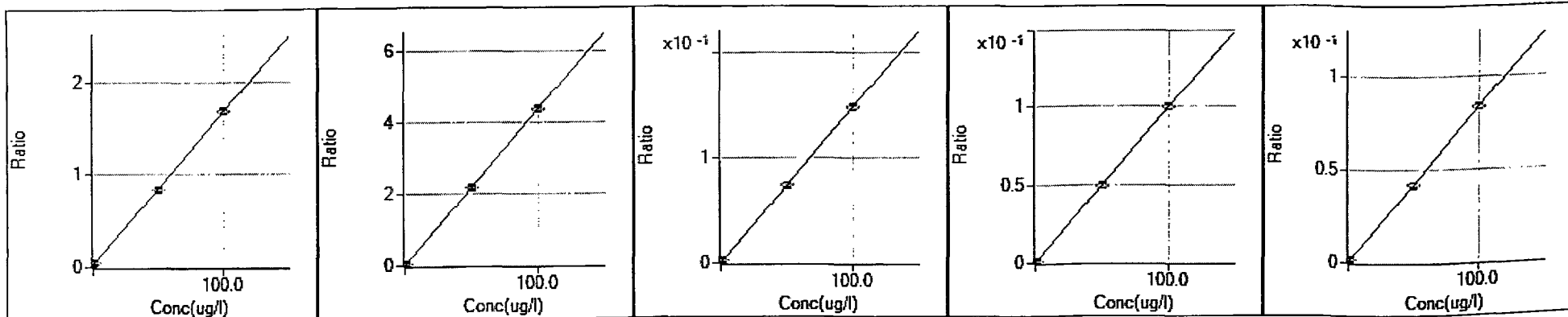
51 V [He]
 ISTD: 72 Ge
 $y = 6.553E-2 x + 5.308E-1$
 R 0.9999
 DL 0.131
 BEC 8.1

52 Cr [He]
 ISTD: 45 Sc
 $y = 4.566E-2 x + 1.742E-1$
 R 1.0000
 DL 0.1977
 BEC 3.814

55 Mn [He]
 ISTD: 45 Sc
 $y = 3.688E-2 x + 1.803E-2$
 R 1.0000
 DL 0.02612
 BEC 0.4889

56 Fe [He]
 ISTD: 45 Sc
 $y = 4.573E-2 x + 7.437E-1$
 R 1.0000
 DL 0.9499
 BEC 16.26

59 Co [He]
 ISTD: 45 Sc
 $y = 6.713E-2 x + 1.802E-3$
 R 1.0000
 DL 0.01168
 BEC 0.02685



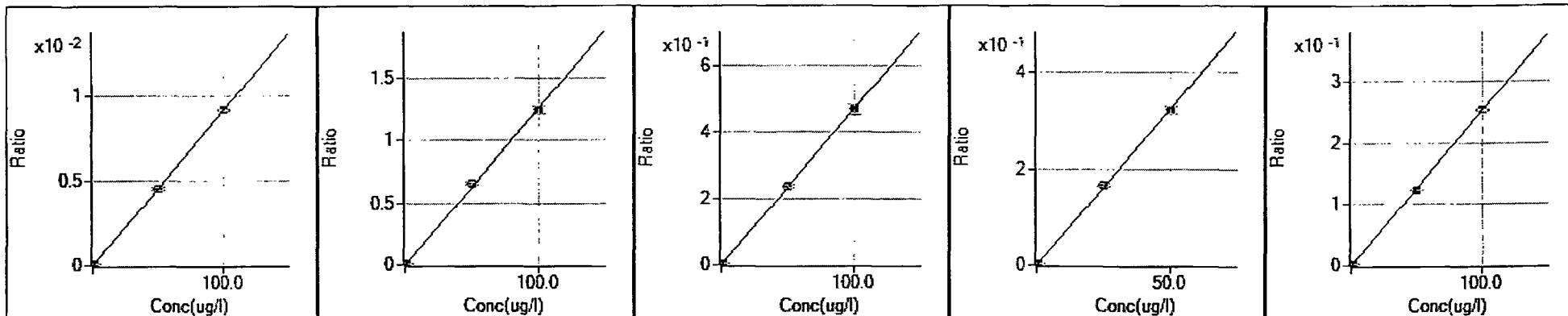
60 Ni [He]
 ISTD: 45 Sc
 $y = 1.651E-2 x + 3.068E-2$
 R 1.0000
 DL 0.0905
 BEC 1.858

63 Cu [He]
 ISTD: 45 Sc
 $y = 4.352E-2 x + 8.427E-3$
 R 1.0000
 DL 0.009944
 BEC 0.1936

66 Zn [He]
 ISTD: 115 In
 $y = 1.482E-3 x + 3.110E-4$
 R 1.0000
 DL 0.022
 BEC 0.2099

75 As [He]
 ISTD: 115 In
 $y = 9.926E-4 x + 4.558E-4$
 R 1.0000
 DL 0.06942
 BEC 0.4592

78 Se [He]
 ISTD: 45 Sc
 $y = 8.329E-4 x + 6.997E-4$
 R 1.0000
 DL 0.1344
 BEC 0.84



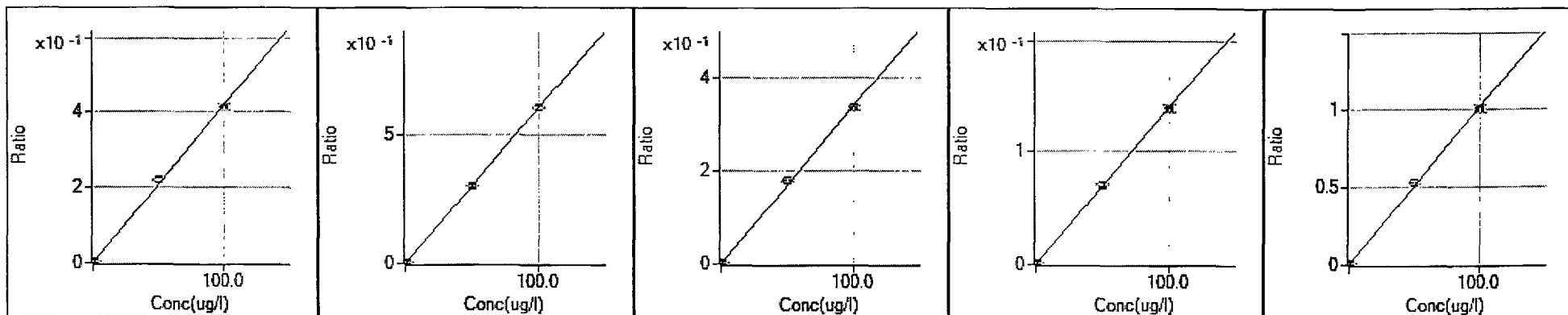
78 Se [H2]
 ISTD: 115 In
 $y = 9.137E-5 x + 6.676E-6$
 R 1.0000
 DL 0.219
 BEC 0.07306

88 Sr [NoGas]
 ISTD: 115 In
 $y = 1.256E-2 x + 7.866E-5$
 R 0.9997
 DL 0.00425
 BEC 0.006261

95 Mo [NoGas]
 ISTD: 45 Sc
 $y = 4.702E-3 x + 4.764E-4$
 R 1.0000
 DL 0.02263
 BEC 0.1013

107 Ag [NoGas]
 ISTD: 115 In
 $y = 6.483E-3 x + 3.276E-5$
 R 0.9999
 DL 0.005425
 BEC 0.005053

111 Cd [He]
 ISTD: 115 In
 $y = 2.523E-3 x$
 R 0.9999
 DL 0
 BEC 0



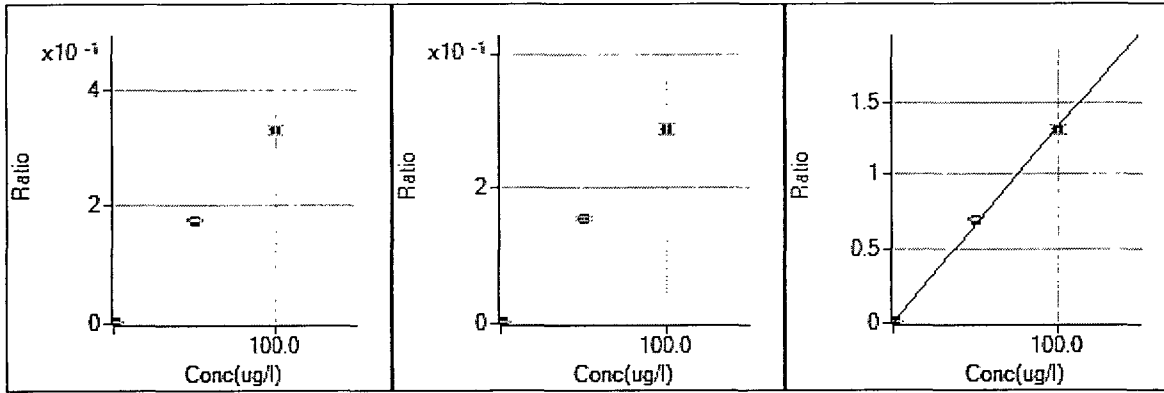
118 Sn [NoGas]
 ISTD: 115 In
 $y = 4.177E-3 x + 8.049E-5$
 R 0.9995
 DL 0.00348
 BEC 0.01927

118 Sn [He]
 ISTD: 115 In
 $y = 6.019E-3 x + 1.082E-4$
 R 1.0000
 DL 0.004071
 BEC 0.01797

121 Sb [NoGas]
 ISTD: 165 Ho
 $y = 3.393E-3 x + 4.751E-4$
 R 0.9995
 DL 0.06957
 BEC 0.14

137 Ba [NoGas]
 ISTD: 165 Ho
 $y = 1.392E-3 x + 2.074E-5$
 R 0.9999
 DL 0.01524
 BEC 0.0149

205 Tl [NoGas]
 ISTD: 165 Ho
 $y = 1.012E-2 x + 6.261E-5$
 R 0.9997
 DL 0.004346
 BEC 0.006184



206 [Pb] [NoGas]

ISTD: 165 Ho

Excluded

R

207 [Pb] [NoGas]

ISTD: 165 Ho

Excluded

R

208 Pb [NoGas]

ISTD: 165 Ho

$y = 1.328E-2 x + 1.193E-4$

R 0.9996

DL 0.003814

BEC 0.008981

A.P.P.L. INC.
2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 95603 SDG: 95603

Analysis Date: 04/06/21 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 11:28	%R(1)	True CCV1	Found 21:24	%R(1)	True CCV1	Found 22:09	%R(1)	
Lead (Pb)	50	51.6113	103	50	54.4760	109	50	52.0509	104	P

A.P.P.L. INC.

3

BLANKS

Lab Name: A.P.P.L. INC.

Contract: AECOM

ARF No.: 95603

SDG: 95603

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 04/06/21

Analyte	Initial Calibration Blank (ug/L) C	Continuing Calibration Blank (ug/L)						Preparation Blank C	M
		1 C	2 C	3 C	4 C	5 C	6 C		
	11:43	21:30	22:16				21:37		
Lead (Pb)	.20 U	.20 U	.20 U				.20 U	P	

Low Level ICV

Sample Name	Acq Date Time	Run Sequence	Analyte	Actual Conc (ug/L)	Spiked Conc (ug/L)	Control Limits	% Recovery	QC Flag
0.5ppb LLICV	04/06/21 11:50	210330A.b	Beryllium	0.478	0.5	80-120%	96	
20ppb LLICV	04/06/21 12:16	210330A.b	Sodium	465.541	500	80-120%	93	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Magnesium	25.764	25	80-120%	103	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Aluminum	10.136	10	80-120%	101	
1.0ppb LLICV	04/06/21 11:57	210330A.b	Potassium	21.642	20	80-120%	108	
2.0ppb LLICV	04/06/21 12:03	210330A.b	Calcium (He)	98.946	100	80-120%	99	
2.0ppb LLICV	04/06/21 12:03	210330A.b	Vanadium	1.808	2	80-120%	90	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Chromium	0.488	0.5	80-120%	98	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Manganese	0.420	0.5	80-120%	84	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Iron	9.232	10	80-120%	92	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Cobalt	0.497	0.5	80-120%	99	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Nickel	0.458	0.5	80-120%	92	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Copper	0.473	0.5	80-120%	95	
2.0ppb LLICV	04/06/21 12:03	210330A.b	Zinc	2.128	2	80-120%	106	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Arsenic	0.470	0.5	80-120%	94	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Selenium (He)	0.458	0.5	80-120%	92	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Strontium	0.498	0.5	80-120%	100	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Molybdenum	0.471	0.5	80-120%	94	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Silver	0.246	0.25	80-120%	98	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Cadmium	0.501	0.5	80-120%	100	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Tin (He)	0.482	0.5	80-120%	96	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Antimony	0.567	0.5	80-120%	113	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Barium	0.500	0.5	80-120%	100	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Thallium	0.445	0.5	80-120%	89	
0.5ppb LLICV	04/06/21 11:50	210330A.b	Lead	0.466	0.5	80-120%	93	

Analyte	0.5ppb LLICV	1.0ppb LLICV	2.0ppb LLICV	4.0ppb LLICV	20ppb LLICV	Standard 2
Beryllium	0.5	1	2	4	20	1
Sodium	12.5	25	50	100	500	25
Magnesium	25	50	100	200	1000	50
Aluminum	10	20	40	80	400	20
Potassium	10	20	40	80	400	20
Calcium	25	50	100	200	1000	50
Vanadium	0.5	1	2	4	20	1
Chromium	0.5	1	2	4	20	1
Manganese	0.5	1	2	4	20	1
Iron	10	20	40	80	400	20
Cobalt	0.5	1	2	4	20	1
Nickel	0.5	1	2	4	20	1
Copper	0.5	1	2	4	20	1
Zinc	0.5	1	2	4	20	1
Arsenic	0.5	1	2	4	20	1
Selenium	0.5	1	2	4	20	1
Strontium	0.5	1	2	4	20	1
Molybdenum	0.5	1	2	4	20	1
Silver	0.25	0.5	1	2	10	0.5
Cadmium	0.5	1	2	4	20	1
Tin	0.5	1	2	4	20	1
Antimony	0.5	1	2	4	20	1
Barium	0.5	1	2	4	20	1
Thallium	0.5	1	2	4	20	1
Lead	0.5	1	2	4	20	1

Sample Report

Sample Name 0.5 ppb LLICV 04/05/2021
File Name 014SMPL.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 11:50:51 AM
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator Chemist_
 Metals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	6	NoGas	0.478	ug/l	6.0	2266.91	10000	
B	11	45	NoGas	-2.815	ug/l	N/A	68871.99	10000	
Na	23	45	He	-45.270	ug/l	N/A	248101.37	1000000	
Mg	24	45	He	25.764	ug/l	1.2	20908.97	1000000	
Al	27	45	He	10.136	ug/l	6.3	4751.97	1000000	
P	31	45	He	3.069	ug/l	73.4	379.34	500000	
K	39	45	He	12.711	ug/l	6.1	67307.31	500000	
Ca	40	45	H2	46.836	ug/l	2.1	3185.63	500000	
Ca	44	45	He	47.428	ug/l	6.7	2298.83	500000	
Ti	47	45	He	0.495	ug/l	13.6	116.67	10000	
V	51	72	He	0.106	ug/l	53.3	43944.24	10000	
Cr	52	45	He	0.488	ug/l	7.8	28820.56	10000	
Mn	55	45	He	0.420	ug/l	8.4	4918.70	50000	
Fe	56	45	He	9.232	ug/l	1.2	171047.10	1000000	
Co	59	45	He	0.497	ug/l	1.9	5155.43	10000	
Ni	60	45	He	0.458	ug/l	0.9	5611.56	10000	
Cu	63	45	He	0.473	ug/l	1.4	4257.19	10000	
Zn	66	115	He	0.954	ug/l	2.0	1662.76	50000	
As	75	72	He	0.470	ug/l	4.0	879.36	2000	
Se	78	45	He	0.458	ug/l	12.2	158.67	10000	
Se	78	115	H2	0.479	ug/l	20.8	6.00	10000	
Sr	88	115	NoGas	0.498	ug/l	8.3	22344.95	50000	
Mo	95	45	NoGas	0.471	ug/l	11.8	4800.84	10000	
Ag	107	115	NoGas	0.246	ug/l	12.0	5734.51	5000	
Cd	111	115	He	0.501	ug/l	4.8	1218.05	10000	
Sn	118	115	He	0.510	ug/l	1.3	3062.96	10000	
Sb	121	165	NoGas	0.567	ug/l	5.7	12965.37	10000	
Ba	137	165	NoGas	0.500	ug/l	10.8	3877.28	50000	
Tl	205	165	NoGas	0.445	ug/l	6.1	24686.24	5000	
Pb	208	165	NoGas	0.466	ug/l	6.5	34088.81	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	205341.24	1.6	204107.68	100.6	70	120	
Sc	45	NoGas	1782836.90	2.0	1820044.09	97.96	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	He	146717.76	0.5	148659.65	98.69	70	120	
Sc	45	H2	9668.58	0.8	9783.29	98.83	70	120	
Ge	72	NoGas	413807.70	1.9	418429.88	98.9	70	120	
Ge	72	He	81720.78	0.4	84362.81	96.87	70	120	
Ge	72	H2	622.68	7.3	607.35	102.52	70	120	
In	115	NoGas	3525924.84	2.2	3561936.2	98.99	70	120	
In	115	He	964439.74	0.5	992362.27	97.19	70	120	
In	115	H2	119072.44	1.3	119554.41	99.6	70	120	
Tb	159	NoGas	5541432.63	1.3	5618496.17	98.63	70	120	
Tb	159	He	2379702.08	1.1	2415244.25	98.53	70	120	
Tb	159	H2	910903.94	0.6	927406.29	98.22	70	120	
Ho	165	NoGas	5406109.71	0.6	5476215.54	98.72	70	120	
Ho	165	He	2463778.08	1.1	2490093.42	98.94	70	120	
Ho	165	H2	990220.36	0.3	1010782.54	97.97	70	120	

Sample Report

Sample Name 1.0 ppb LLICV 04/05/2021
File Name 015SMPL.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 11:57:22 AM
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fial Pass
ISTD QC Pass/Fail Pass
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	6	NoGas	0.997	ug/l	9.6	4594.06	10000	
B	11	45	NoGas	-3.057	ug/l	N/A	67942.26	10000	
Na	23	45	He	-34.099	ug/l	N/A	259456.54	1000000	
Mg	24	45	He	51.504	ug/l	2.3	40520.02	1000000	
Al	27	45	He	20.598	ug/l	2.5	9294.34	1000000	
P	31	45	He	4.164	ug/l	29.7	403.34	500000	
K	39	45	He	21.642	ug/l	8.1	73515.39	500000	
Ca	40	45	H2	87.578	ug/l	4.0	5592.88	500000	
Ca	44	45	He	83.881	ug/l	6.9	3831.09	500000	
Ti	47	45	He	1.043	ug/l	6.3	235.33	10000	
V	51	72	He	0.829	ug/l	9.2	47936.09	10000	
Cr	52	45	He	0.988	ug/l	9.0	31801.42	10000	
Mn	55	45	He	0.924	ug/l	3.9	7552.27	50000	
Fe	56	45	He	19.036	ug/l	3.3	234006.15	1000000	
Co	59	45	He	0.992	ug/l	2.3	9916.06	10000	
Ni	60	45	He	0.976	ug/l	9.3	6783.31	10000	
Cu	63	45	He	0.947	ug/l	3.6	7198.13	10000	
Zn	66	115	He	1.531	ug/l	2.7	2469.52	50000	
As	75	72	He	1.022	ug/l	8.4	1400.39	2000	
Se	78	45	He	0.858	ug/l	15.6	205.00	10000	
Se	78	115	H2	1.258	ug/l	12.4	14.27	10000	
Sr	88	115	NoGas	0.998	ug/l	6.0	44807.28	50000	
Mo	95	45	NoGas	0.973	ug/l	7.5	8999.30	10000	
Ag	107	115	NoGas	0.482	ug/l	8.0	11204.12	5000	
Cd	111	115	He	1.010	ug/l	2.0	2438.86	10000	
Sn	118	115	He	1.031	ug/l	2.6	6041.76	10000	
Sb	121	165	NoGas	1.082	ug/l	6.4	22739.10	10000	
Ba	137	165	NoGas	0.976	ug/l	6.6	7565.35	50000	
Tl	205	165	NoGas	0.888	ug/l	4.8	49620.96	5000	
Pb	208	165	NoGas	0.970	ug/l	4.5	71323.60	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	201648.77	1.4	204107.68	98.8	70	120	
Sc	45	NoGas	1780604.30	1.2	1820044.09	97.83	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	He	145002.25	1.6	148659.65	97.54	70	120	
Sc	45	H2	9314.39	3.2	9783.29	95.21	70	120	
Ge	72	NoGas	411443.39	1.6	418429.88	98.33	70	120	
Ge	72	He	81932.66	0.8	84362.81	97.12	70	120	
Ge	72	H2	616.68	2.3	607.35	101.54	70	120	
In	115	NoGas	3551690.98	1.6	3561936.2	99.71	70	120	
In	115	He	957332.10	0.8	992362.27	96.47	70	120	
In	115	H2	117277.51	0.2	119554.41	98.1	70	120	
Tb	159	NoGas	5591485.96	1.3	5618496.17	99.52	70	120	
Tb	159	He	2400619.58	0.9	2415244.25	99.39	70	120	
Tb	159	H2	895030.60	0.1	927406.29	96.51	70	120	
Ho	165	NoGas	5482733.04	0.8	5476215.54	100.12	70	120	
Ho	165	He	2459817.58	0.7	2490093.42	98.78	70	120	
Ho	165	H2	975029.27	0.5	1010782.54	96.46	70	120	

Sample Report

Sample Name 2.0 ppb LLICV 04/05/2021
File Name 016SMPL.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 12:03:50 PM
Sample Type Sample
Total Dilution 1.0000
Comment —
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fial Pass
ISTD QC Pass/Fail Pass
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	6	NoGas	1.742	ug/l	6.5	8315.45	10000	
B	11	45	NoGas	-4.205	ug/l	N/A	67022.25	10000	
Na	23	45	He	-10.251	ug/l	N/A	304745.11	1000000	
Mg	24	45	He	102.554	ug/l	1.7	83979.77	1000000	
Al	27	45	He	40.765	ug/l	0.9	19087.05	1000000	
P	31	45	He	7.885	ug/l	11.1	523.34	500000	
K	39	45	He	39.848	ug/l	1.3	92267.56	500000	
Ca	40	45	H2	101.878	ug/l	1.9	7003.35	500000	
Ca	44	45	He	98.946	ug/l	3.1	4705.96	500000	
Ti	47	45	He	2.026	ug/l	6.4	472.68	10000	
V	51	72	He	1.808	ug/l	6.3	55866.23	10000	
Cr	52	45	He	1.923	ug/l	3.6	39913.14	10000	
Mn	55	45	He	1.956	ug/l	1.9	13735.19	50000	
Fe	56	45	He	38.706	ug/l	1.4	382955.37	1000000	
Co	59	45	He	2.001	ug/l	2.4	20737.80	10000	
Ni	60	45	He	2.003	ug/l	1.6	9711.31	10000	
Cu	63	45	He	1.973	ug/l	2.4	14364.38	10000	
Zn	66	115	He	2.128	ug/l	1.9	3495.69	50000	
As	75	72	He	2.001	ug/l	3.2	2438.50	2000	
Se	78	45	He	2.136	ug/l	13.6	377.68	10000	
Se	78	115	H2	1.806	ug/l	16.7	21.47	10000	
Sr	88	115	NoGas	1.886	ug/l	4.2	89181.12	50000	
Mo	95	45	NoGas	1.812	ug/l	7.4	16791.98	10000	
Ag	107	115	NoGas	1.427	ug/l	1.2	34818.90	5000	
Cd	111	115	He	1.960	ug/l	3.2	4989.42	10000	
Sn	118	115	He	1.997	ug/l	1.7	12237.69	10000	
Sb	121	165	NoGas	1.942	ug/l	6.5	41143.44	10000	
Ba	137	165	NoGas	1.859	ug/l	3.5	15194.01	50000	
Tl	205	165	NoGas	1.773	ug/l	4.3	104903.07	5000	
Pb	208	165	NoGas	1.912	ug/l	5.2	148657.95	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	210188.90	1.6	204107.68	102.98	70	120	
Sc	45	NoGas	1866765.23	0.3	1820044.09	102.57	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	He	152354.84	0.3	148659.65	102.49	70	120	
Sc	45	H2	10062.12	1.5	9783.29	102.85	70	120	
Ge	72	NoGas	435343.51	1.6	418429.88	104.04	70	120	
Ge	72	He	86043.20	0.6	84362.81	101.99	70	120	
Ge	72	H2	612.68	7.7	607.35	100.88	70	120	
In	115	NoGas	3749075.23	1.8	3561936.2	105.25	70	120	
In	115	He	1008884.30	0.6	992362.27	101.66	70	120	
In	115	H2	125043.69	0.2	119554.41	104.59	70	120	
Tb	159	NoGas	5921374.29	0.6	5618496.17	105.39	70	120	
Tb	159	He	2565854.75	0.3	2415244.25	106.24	70	120	
Tb	159	H2	958776.19	0.1	927406.29	103.38	70	120	
Ho	165	NoGas	5820593.66	1.9	5476215.54	106.29	70	120	
Ho	165	He	2592032.50	0.9	2490093.42	104.09	70	120	
Ho	165	H2	1045032.21	0.3	1010782.54	103.39	70	120	



Sample Report

Sample Name 4.0 ppb LLICV 04/05/2021
File Name 017SMPL.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 12:10:19 PM
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	6	NoGas	3.717	ug/l	2.5	17325.25	10000	
B	11	45	NoGas	-8.269	ug/l	N/A	51420.75	10000	
Na	23	45	He	38.818	ug/l	4.0	364098.31	1000000	
Mg	24	45	He	208.331	ug/l	0.7	166697.24	1000000	
Al	27	45	He	80.753	ug/l	0.9	36894.12	1000000	
P	31	45	He	19.788	ug/l	10.5	828.03	500000	
K	39	45	He	82.265	ug/l	2.0	124954.11	500000	
Ca	40	45	H2	209.243	ug/l	0.7	14083.39	500000	
Ca	44	45	He	203.018	ug/l	2.9	9222.34	500000	
Ti	47	45	He	4.023	ug/l	9.5	914.70	10000	
V	51	72	He	3.915	ug/l	3.4	66384.00	10000	
Cr	52	45	He	4.014	ug/l	2.1	53482.44	10000	
Mn	55	45	He	4.003	ug/l	1.3	24786.08	50000	
Fe	56	45	He	79.180	ug/l	0.8	653036.77	1000000	
Co	59	45	He	4.063	ug/l	0.3	41083.24	10000	
Ni	60	45	He	4.006	ug/l	1.6	14485.80	10000	
Cu	63	45	He	4.055	ug/l	0.6	27662.95	10000	
Zn	66	115	He	4.215	ug/l	1.7	6503.19	50000	
As	75	72	He	4.056	ug/l	0.6	4379.88	2000	
Se	78	45	He	3.989	ug/l	10.3	601.68	10000	
Se	78	115	H2	3.688	ug/l	15.9	42.80	10000	
Sr	88	115	NoGas	3.858	ug/l	5.4	180669.67	50000	
Mo	95	45	NoGas	3.778	ug/l	5.2	33579.46	10000	
Ag	107	115	NoGas	2.127	ug/l	5.9	51460.27	5000	
Cd	111	115	He	4.029	ug/l	2.8	10080.29	10000	
Sn	118	115	He	3.999	ug/l	1.4	23973.85	10000	
Sb	121	165	NoGas	3.879	ug/l	8.0	78128.01	10000	
Ba	137	165	NoGas	3.764	ug/l	6.3	30130.94	50000	
Tl	205	165	NoGas	3.631	ug/l	6.5	210937.31	5000	
Pb	208	165	NoGas	3.887	ug/l	5.6	296497.55	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	206036.24	1.4	204107.68	100.94	70	120	
Sc	45	NoGas	1840375.29	0.6	1820044.09	101.12	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	He	149626.45	1.2	148659.65	100.65	70	120	
Sc	45	H2	9978.72	0.6	9783.29	102	70	120	
Ge	72	NoGas	427498.56	0.4	418429.88	102.17	70	120	
Ge	72	He	84324.01	1.2	84362.81	99.95	70	120	
Ge	72	H2	648.69	8.0	607.35	106.81	70	120	
In	115	NoGas	3720894.25	1.2	3561936.2	104.46	70	120	
In	115	He	991694.54	0.5	992362.27	99.93	70	120	
In	115	H2	124638.37	0.7	119554.41	104.25	70	120	
Tb	159	NoGas	5842130.75	0.7	5618496.17	103.98	70	120	
Tb	159	He	2476896.58	0.6	2415244.25	102.55	70	120	
Tb	159	H2	953552.62	1.1	927406.29	102.82	70	120	
Ho	165	NoGas	5724720.54	1.6	5476215.54	104.54	70	120	
Ho	165	He	2547201.00	0.4	2490093.42	102.29	70	120	
Ho	165	H2	1037865.60	0.6	1010782.54	102.68	70	120	



Sample Report

Sample Name 20 ppb LLICV 04/05/2021
File Name 018SMPL.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 12:16:49 PM
Sample Type Sample
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fial Pass
ISTD QC Pass/Fail Pass
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	6	NoGas	19.647	ug/l	7.7	88409.21	10000	
B	11	45	NoGas	12.581	ug/l	15.1	119501.17	10000	
Na	23	45	He	465.541	ug/l	0.5	887532.42	1000000	
Mg	24	45	He	1031.127	ug/l	1.1	786171.52	1000000	
Al	27	45	He	406.943	ug/l	1.0	176880.28	1000000	
P	31	45	He	101.947	ug/l	1.9	2864.24	500000	
K	39	45	He	411.962	ug/l	0.4	374877.68	500000	
Ca	40	45	H2	998.655	ug/l	2.3	64174.39	500000	
Ca	44	45	He	1014.335	ug/l	1.5	43131.24	500000	
Ti	47	45	He	20.372	ug/l	1.3	4401.88	10000	
V	51	72	He	20.459	ug/l	0.8	153309.54	10000	
Cr	52	45	He	20.193	ug/l	2.0	156899.07	10000	
Mn	55	45	He	20.337	ug/l	1.4	109916.48	50000	
Fe	56	45	He	408.749	ug/l	1.3	2781453.92	1000000	
Co	59	45	He	20.203	ug/l	1.5	194357.69	10000	
Ni	60	45	He	20.274	ug/l	1.0	52295.68	10000	
Cu	63	45	He	20.397	ug/l	1.7	128248.28	10000	
Zn	66	115	He	20.430	ug/l	1.3	29167.40	50000	
As	75	72	He	20.257	ug/l	1.2	19493.80	2000	
Se	78	45	He	19.864	ug/l	3.1	2468.18	10000	
Se	78	115	H2	20.069	ug/l	10.8	216.13	10000	
Sr	88	115	NoGas	20.199	ug/l	9.2	895470.51	50000	
Mo	95	45	NoGas	19.736	ug/l	8.8	161896.87	10000	
Ag	107	115	NoGas	9.962	ug/l	9.4	227974.37	5000	
Cd	111	115	He	20.083	ug/l	1.1	48307.52	10000	
Sn	118	115	He	20.269	ug/l	1.4	116438.28	10000	
Sb	121	165	NoGas	20.220	ug/l	9.6	377485.92	10000	
Ba	137	165	NoGas	19.939	ug/l	8.6	151810.43	50000	
Tl	205	165	NoGas	19.799	ug/l	9.3	1095769.62	5000	
Pb	208	165	NoGas	20.390	ug/l	10.0	1480662.84	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	199469.76	1.1	204107.68	97.73	70	120	
Sc	45	NoGas	1737701.69	2.0	1820044.09	95.48	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	He	143122.69	0.4	148659.65	96.28	70	120	
Sc	45	H2	9623.87	1.7	9783.29	98.37	70	120	
Ge	72	NoGas	412333.86	3.0	418429.88	98.54	70	120	
Ge	72	He	81922.21	0.9	84362.81	97.11	70	120	
Ge	72	H2	595.35	1.0	607.35	98.02	70	120	
In	115	NoGas	3533256.57	2.7	3561936.2	99.19	70	120	
In	115	He	953596.95	0.4	992362.27	96.09	70	120	
In	115	H2	117507.05	1.0	119554.41	98.29	70	120	
Tb	159	NoGas	5569810.54	4.3	5618496.17	99.13	70	120	
Tb	159	He	2403224.17	0.8	2415244.25	99.5	70	120	
Tb	159	H2	907716.35	0.4	927406.29	97.88	70	120	
Ho	165	NoGas	5475340.54	3.5	5476215.54	99.98	70	120	
Ho	165	He	2456950.33	1.6	2490093.42	98.67	70	120	
Ho	165	H2	991870.27	0.6	1010782.54	98.13	70	120	

ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC.

Contract: AECOM

ARF No.: 95603

SDG: 95603

ICP ID Number: Megatron

ICS Source: Environmental Express

Analysis Date: 04/06/21

Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 13:26	Sol AB 13:15	%R(1)
Lead (Pb)		100	0.02518	88.807121	88.8

(1) Control Limits: Metals 80-120

Interference Check Solution AB (ICS-AB) Report

Sample Name ICSAB 04/06/2021 (2)
File Name 022ICSB.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 1:15:33 PM
Sample Type ICSB
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Pass
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	STD	Tune	Conc.	Units	RSD	CPS	ExpVal	%Low	%High	QC Flag
Be	9	6	NoGas	46.706	ug/l	6.5	177438.26	50	80	120	
B	11	45	NoGas	-7.418	ug/l	N/A	47718.06	-8	80	120	>+- 20%
Na	23	45	He	48632.275	ug/l	0.8	54334158.67	50000	80	120	
Mg	24	45	He	46603.182	ug/l	0.9	31232354.00	50000	80	120	
Al	27	45	He	45637.228	ug/l	1.7	17429727.33	50000	80	120	
P	31	45	He	47486.438	ug/l	1.0	1054069.37	50000	80	120	
K	39	45	He	46240.490	ug/l	0.7	31558044.00	50000	80	120	
Ca	40	45	H2	38951.780	ug/l	1.7	2299211.00	50000	80	120	>+- 20%
Ca	44	45	He	46373.261	ug/l	1.1	1725529.50	50000	80	120	
Ti	47	45	He	986.847	ug/l	1.7	187311.09	1000	80	120	
V	51	72	He	45.273	ug/l	1.4	258525.50	50	80	120	
Cr	52	45	He	49.191	ug/l	1.6	304786.54	50	80	120	
Mn	55	45	He	48.033	ug/l	1.8	225312.53	50	80	120	
Fe	56	45	He	47563.950	ug/l	1.5	273965696.00	50000	80	120	
Co	59	45	He	47.931	ug/l	1.4	405382.13	50	80	120	
Ni	60	45	He	94.780	ug/l	1.8	200901.03	100	80	120	
Cu	63	45	He	46.233	ug/l	1.3	254408.35	50	80	120	
Zn	66	115	He	93.243	ug/l	1.9	115406.63	100	80	120	
As	75	72	He	49.858	ug/l	0.3	42713.44	50	80	120	
Se	78	45	He	48.948	ug/l	2.4	5222.11	50	80	120	
Se	78	115	H2	51.152	ug/l	2.2	514.54	50	80	120	
Sr	88	115	NoGas	0.452	ug/l	4.9	18283.42	-5	80	120	
Mo	95	45	NoGas	944.120	ug/l	5.8	7157809.27	1050	80	120	
Ag	107	115	NoGas	88.108	ug/l	6.3	1814166.22	100	80	120	
Cd	111	115	He	96.885	ug/l	1.1	203659.07	100	80	120	
Sn	118	115	He	0.015	ug/l	6.7	167.33	-0.5	100	100	
Sb	121	165	NoGas	43.915	ug/l	5.1	790815.28	50	80	120	
Ba	137	165	NoGas	44.650	ug/l	5.1	328941.02	50	80	120	
Tl	205	165	NoGas	46.190	ug/l	5.8	2474869.96	50	80	120	
Pb	208	165	NoGas	88.807	ug/l	5.3	6242398.29	100	80	120	

QC ISTD Table

Interference Check Solution AB (ICS-AB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	168433.48	0.8	204107.68	82.52	70	120	
Sc	45	NoGas	1611773.62	0.7	1820044.09	88.56	70	120	
Sc	45	He	125920.18	0.4	148659.65	84.7	70	120	
Sc	45	H2	8862.16	1.8	9783.29	90.58	70	120	
Ge	72	NoGas	392899.88	1.5	418429.88	93.9	70	120	
Ge	72	He	73915.64	1.0	84362.81	87.62	70	120	
Ge	72	H2	622.68	1.0	607.35	102.52	70	120	
In	115	NoGas	3175358.66	0.4	3561936.2	89.15	70	120	
In	115	He	833294.03	0.6	992362.27	83.97	70	120	
In	115	H2	109944.08	0.5	119554.41	91.96	70	120	
Tb	159	NoGas	5325910.96	1.0	5618496.17	94.79	70	120	
Tb	159	He	2223434.75	1.5	2415244.25	92.06	70	120	
Tb	159	H2	884085.58	1.2	927406.29	95.33	70	120	
Ho	165	NoGas	5288308.26	1.6	5476215.54	96.57	70	120	
Ho	165	He	2319237.92	0.4	2490093.42	93.14	70	120	
Ho	165	H2	964984.48	1.1	1010782.54	95.47	70	120	

Interference Check Solution A (ICS-A) Report

Sample Name ICSA 04/06/2021 (2)
File Name 023ICSA.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 1:26:04 PM
Sample Type ICSA
Total Dilution 1.0000
Comment —
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Pass
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	STD	Tune	Conc.	Units	RSD	CPS	ExpVal	%Low	%High	QC Flag
Be	9	6	NoGas	0.011	ug/l	82.4	86.67	-0.1	100	100	
B	11	45	NoGas	-8.927	ug/l	N/A	42475.08	-8	100	100	>RL
Na	23	45	He	46496.293	ug/l	1.0	51663341.33	50000	80	120	
Mg	24	45	He	44880.859	ug/l	1.3	29906926.67	50000	80	120	
Al	27	45	He	44472.809	ug/l	0.9	16888006.00	50000	80	120	
P	31	45	He	45759.609	ug/l	0.8	1009960.06	50000	80	120	
K	39	45	He	44669.710	ug/l	0.4	30315029.33	50000	80	120	
Ca	40	45	H2	37216.000	ug/l	1.9	2208130.75	50000	80	120	>RL
Ca	44	45	He	44627.479	ug/l	0.4	1651170.96	50000	80	120	
Ti	47	45	He	950.817	ug/l	1.6	179434.01	1000	80	120	
V	51	72	He	-4.379	ug/l	N/A	17882.78	-0.2	100	100	>RL
Cr	52	45	He	0.449	ug/l	6.5	24378.81	-2	80	120	
Mn	55	45	He	0.040	ug/l	33.2	2444.18	-8	100	120	
Fe	56	45	He	45850.707	ug/l	1.6	262581808.00	50000	80	120	
Co	59	45	He	0.096	ug/l	9.1	1030.70	-1	100	100	
Ni	60	45	He	-0.060	ug/l	N/A	3716.40	-1	100	100	
Cu	63	45	He	0.163	ug/l	13.1	1942.12	-1	100	100	
Zn	66	115	He	0.335	ug/l	5.6	670.02	-20	100	100	
As	75	72	He	-0.039	ug/l	N/A	361.01	-0.4	100	100	
Se	78	45	He	0.062	ug/l	232.2	94.00	-0.4	100	100	
Se	78	115	H2	0.031	ug/l	319.1	1.07	-0.4	100	100	
Sr	88	115	NoGas	0.445	ug/l	7.7	18140.07	-0.5	100	100	
Mo	95	45	NoGas	939.588	ug/l	5.0	7045010.52	1000	80	120	
Ag	107	115	NoGas	0.082	ug/l	9.5	1796.83	-0.5	100	100	
Cd	111	115	He	0.467	ug/l	2.1	976.04	-0.5	100	100	
Sn	118	115	He	0.006	ug/l	44.0	118.67	-0.5	100	100	
Sb	121	165	NoGas	0.117	ug/l	26.7	4584.12	-0.5	100	100	
Ba	137	165	NoGas	0.017	ug/l	0.5	230.01	-1.5	100	100	
Tl	205	165	NoGas	0.010	ug/l	21.8	846.73	-0.2	100	100	
Pb	208	165	NoGas	0.025	ug/l	15.2	2386.84	-1	100	100	

QC ISTD Table

Interference Check Solution A (ICS-A) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	169185.21	0.8	204107.68	82.89	70	120	
Sc	45	NoGas	1594254.77	1.0	1820044.09	87.59	70	120	
Sc	45	He	125212.53	1.2	148659.65	84.23	70	120	
Sc	45	H2	8907.51	1.3	9783.29	91.05	70	120	
Ge	72	NoGas	389410.09	1.1	418429.88	93.06	70	120	
Ge	72	He	73345.96	0.6	84362.81	86.94	70	120	
Ge	72	H2	619.35	3.6	607.35	101.98	70	120	
In	115	NoGas	3201816.87	0.9	3561936.2	89.89	70	120	
In	115	He	829012.23	0.1	992362.27	83.54	70	120	
In	115	H2	112275.13	0.5	119554.41	93.91	70	120	
Tb	159	NoGas	5333232.21	0.9	5618496.17	94.92	70	120	
Tb	159	He	2229847.83	0.9	2415244.25	92.32	70	120	
Tb	159	H2	894565.87	0.4	927406.29	96.46	70	120	
Ho	165	NoGas	5259168.46	0.2	5476215.54	96.04	70	120	
Ho	165	He	2298857.08	0.1	2490093.42	92.32	70	120	
Ho	165	H2	978544.77	0.6	1010782.54	96.81	70	120	

Calibration Blank Report

Sample Name Calibration Blank 04/06/21
File Name 007CALB.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 10:53:51 AM
Sample Type CalBlk
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator Chemist_
Metals

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Be	9	6	NoGas	53.34	78.1
B	11	45	NoGas	80341.43	1.5
Na	23	45	He	310802.97	0.4
Mg	24	45	He	802.69	6.3
Al	27	45	He	244.00	5.9
P	31	45	He	304.01	12.6
K	39	45	He	57972.22	0.9
Ca	40	45	H2	170.67	7.1
Ca	44	45	He	246.00	12.7
Ti	47	45	He	7.33	95.8
V	51	72	He	44776.30	0.3
Cr	52	45	He	25890.94	1.3
Mn	55	45	He	2680.21	2.2
Fe	56	45	He	110548.32	1.5
Co	59	45	He	268.00	14.9
Ni	60	45	He	4561.27	2.1
Cu	63	45	He	1252.72	1.9
Zn	66	115	He	308.67	3.6
As	75	72	He	452.34	4.9
Se	78	45	He	104.00	5.0
Se	78	115	H2	0.80	100.0
Sr	88	115	NoGas	280.02	22.3
Mo	95	45	NoGas	866.73	6.7
Ag	107	115	NoGas	116.67	35.7
Cd	111	115	He	0.00	N/A
Sn	118	115	He	107.33	7.5
Sb	121	165	NoGas	2600.31	16.2
Ba	137	165	NoGas	113.34	33.4
Tl	205	165	NoGas	343.35	24.3
[Pb]	206	165	NoGas	133.34	28.4
[Pb]	207	165	NoGas	186.68	34.4
Pb	208	165	NoGas	653.37	14.2

QC ISTD Table



Calibration Blank Report

Name	Mass	Tune Mode	CPS	CPS RSD
Li	6	NoGas	204107.68	0.1
Sc	45	NoGas	1820044.09	1.0
Sc	45	He	148659.65	0.5
Sc	45	H2	9783.29	0.9
Ge	72	NoGas	418429.88	0.7
Ge	72	He	84362.81	0.9
Ge	72	H2	607.35	10.1
In	115	NoGas	3561936.20	0.5
In	115	He	992362.27	0.2
In	115	H2	119554.41	0.4
Tb	159	NoGas	5618496.17	0.8
Tb	159	He	2415244.25	0.9
Tb	159	H2	927406.29	0.4
Ho	165	NoGas	5476215.54	1.0
Ho	165	He	2490093.42	0.3
Ho	165	H2	1010782.54	0.7

Calibration Standard Report

Sample Name Standard 1 04/05/2021
File Name 008CAL.S.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 11:00:24 AM
Sample Type CalStd
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator Chemist_
Metals

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Be	9	6	NoGas	500.03	9.2
B	11	45	NoGas	83058.66	1.3
Na	23	45	He	310925.75	0.1
Mg	24	45	He	5381.48	3.5
Al	27	45	He	1228.72	6.2
P	31	45	He	280.00	6.3
K	39	45	He	59099.27	0.7
Ca	40	45	H2	2808.90	3.8
Ca	44	45	He	2058.13	6.1
Ti	47	45	He	36.67	19.2
V	51	72	He	47465.00	0.8
Cr	52	45	He	27134.01	1.4
Mn	55	45	He	2960.92	4.8
Fe	56	45	He	123166.41	0.4
Co	59	45	He	1284.06	5.3
Ni	60	45	He	4794.00	3.2
Cu	63	45	He	1803.44	0.9
Zn	66	115	He	1170.05	6.2
As	75	72	He	591.01	3.0
Se	78	45	He	123.33	9.8
Se	78	115	H2	1.33	75.5
Sr	88	115	NoGas	5871.19	4.1
Mo	95	45	NoGas	1680.15	15.9
Ag	107	115	NoGas	1376.78	10.2
Cd	111	115	He	264.00	13.2
Sn	118	115	He	812.03	15.4
Sb	121	165	NoGas	4554.11	6.7
Ba	137	165	NoGas	903.39	14.4
Tl	205	165	NoGas	5664.56	7.2
[Pb]	206	165	NoGas	1933.53	8.5
[Pb]	207	165	NoGas	1783.51	5.9
Pb	208	165	NoGas	8151.16	5.4

QC ISTD Table

Calibration Standard Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	203616.22	1.4	204107.68	99.76	70	120	
Sc	45	NoGas	1775857.21	0.5	1820044.09	97.57	70	120	
Sc	45	He	149621.03	1.0	148659.65	100.65	70	120	
Sc	45	H2	9674.57	3.2	9783.29	98.89	70	120	
Ge	72	NoGas	424216.09	1.2	418429.88	101.38	70	120	
Ge	72	He	83931.48	0.2	84362.81	99.49	70	120	
Ge	72	H2	561.35	6.1	607.35	92.43	70	120	
In	115	NoGas	3688421.06	1.3	3561936.2	103.55	70	120	
In	115	He	986410.24	0.3	992362.27	99.4	70	120	
In	115	H2	119428.83	0.6	119554.41	99.89	70	120	
Tb	159	NoGas	5655857.00	1.0	5618496.17	100.66	70	120	
Tb	159	He	2461091.08	1.0	2415244.25	101.9	70	120	
Tb	159	H2	925061.79	0.3	927406.29	99.75	70	120	
Ho	165	NoGas	5562760.96	0.4	5476215.54	101.58	70	120	
Ho	165	He	2515379.08	1.3	2490093.42	101.02	70	120	
Ho	165	H2	1008277.19	0.1	1010782.54	99.75	70	120	

Calibration Standard Report

Sample Name Standard 2 04/05/2021
File Name 009CAL5.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 11:09:10 AM
Sample Type CalStd
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator Chemist_
Metals

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Be	9	6	NoGas	5027.55	5.4
B	11	45	NoGas	85257.94	0.9
Na	23	45	He	319269.21	0.1
Mg	24	45	He	42053.32	1.0
Al	27	45	He	9638.52	1.5
P	31	45	He	436.01	5.2
K	39	45	He	75568.15	0.9
Ca	40	45	H2	5686.91	2.4
Ca	44	45	He	4027.13	2.5
Tl	47	45	He	227.33	12.7
V	51	72	He	52953.62	1.2
Cr	52	45	He	33394.88	1.5
Mn	55	45	He	8063.16	1.5
Fe	56	45	He	244801.01	0.5
Co	59	45	He	10469.73	2.8
Ni	60	45	He	7082.07	2.2
Cu	63	45	He	7856.39	1.7
Zn	66	115	He	2408.18	4.9
As	75	72	He	1433.73	2.5
Se	78	45	He	250.67	3.6
Se	78	115	H2	12.00	24.0
Sr	88	115	NoGas	47982.59	5.6
Mo	95	45	NoGas	9549.65	5.3
Ag	107	115	NoGas	12121.34	8.9
Cd	111	115	He	2469.53	4.5
Sn	118	115	He	6185.80	1.8
Sb	121	165	NoGas	22128.21	6.3
Ba	137	165	NoGas	8072.24	7.5
Tl	205	165	NoGas	52944.31	5.1
[Pb]	206	165	NoGas	19759.50	6.4
[Pb]	207	165	NoGas	17296.70	7.1
Pb	208	165	NoGas	78550.39	4.5

QC ISTD Table

Calibration Standard Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	211393.84	0.4	204107.68	103.57	70	120	
Sc	45	NoGas	1852447.26	1.4	1820044.09	101.78	70	120	
Sc	45	He	151367.29	0.7	148659.65	101.82	70	120	
Sc	45	H2	9753.94	2.2	9783.29	99.7	70	120	
Ge	72	NoGas	430057.15	0.6	418429.88	102.78	70	120	
Ge	72	He	84428.52	0.2	84362.81	100.08	70	120	
Ge	72	H2	630.02	1.5	607.35	103.73	70	120	
In	115	NoGas	3649494.92	1.5	3561936.2	102.46	70	120	
In	115	He	999493.73	0.4	992362.27	100.72	70	120	
In	115	H2	120993.77	0.9	119554.41	101.2	70	120	
Tb	159	NoGas	5724671.79	0.5	5618496.17	101.89	70	120	
Tb	159	He	2461777.42	0.8	2415244.25	101.93	70	120	
Tb	159	H2	923528.23	0.4	927406.29	99.58	70	120	
Ho	165	NoGas	5566589.50	0.7	5476215.54	101.65	70	120	
Ho	165	He	2526306.50	1.4	2490093.42	101.45	70	120	
Ho	165	H2	1009068.44	0.5	1010782.54	99.83	70	120	

Calibration Standard Report

Sample Name Standard 3 04/05/2021
File Name 010CAL.S.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 11:15:42 AM
Sample Type CalStd
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CAL.B.d
Sample QC Pass/Fial Pass
ISTD QC Pass/Fail Pass
Operator Chemist_
 Metals

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Be	9	6	NoGas	231486.76	3.2
B	11	45	NoGas	255904.09	2.1
Na	23	45	He	1908788.79	0.8
Mg	24	45	He	1908665.62	0.2
Al	27	45	He	435777.07	1.0
P	31	45	He	6619.21	0.7
K	39	45	He	841149.21	0.8
Ca	40	45	H2	156210.62	0.8
Ca	44	45	He	106588.68	0.8
Ti	47	45	He	10679.81	3.4
V	51	72	He	313843.86	0.8
Cr	52	45	He	352794.50	0.8
Mn	55	45	He	266590.25	0.7
Fe	56	45	He	6662042.17	0.8
Co	59	45	He	480690.58	0.7
Ni	60	45	He	122853.94	1.1
Cu	63	45	He	316656.47	0.6
Zn	66	115	He	72161.18	1.0
As	75	72	He	47813.40	0.4
Se	78	45	He	6094.71	2.0
Se	78	115	H2	529.08	4.2
Sr	88	115	NoGas	2298594.39	3.5
Mo	95	45	NoGas	422553.33	3.6
Ag	107	115	NoGas	584671.53	3.5
Cd	111	115	He	120128.38	0.3
Sn	118	115	He	289572.87	0.8
Sb	121	165	NoGas	973258.53	3.8
Ba	137	165	NoGas	385871.61	2.8
Tl	205	165	NoGas	2866845.37	3.7
[Pb]	206	165	NoGas	956675.24	2.8
[Pb]	207	165	NoGas	832517.44	3.6
Pb	208	165	NoGas	3787874.11	2.9

QC ISTD Table

Calibration Standard Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	201190.24	1.5	204107.68	98.57	70	120	
Sc	45	NoGas	1769514.51	0.7	1820044.09	97.22	70	120	
Sc	45	He	145346.84	1.0	148659.65	97.77	70	120	
Sc	45	H2	9403.76	3.3	9783.29	96.12	70	120	
Ge	72	NoGas	420848.01	0.2	418429.88	100.58	70	120	
Ge	72	He	84006.37	0.2	84362.81	99.58	70	120	
Ge	72	H2	591.35	9.8	607.35	97.37	70	120	
In	115	NoGas	3526399.91	0.7	3561936.2	99	70	120	
In	115	He	970200.45	0.4	992362.27	97.77	70	120	
In	115	H2	116399.95	0.4	119554.41	97.36	70	120	
Tb	159	NoGas	5588163.46	0.5	5618496.17	99.46	70	120	
Tb	159	He	2419444.58	1.5	2415244.25	100.17	70	120	
Tb	159	H2	910618.31	1.1	927406.29	98.19	70	120	
Ho	165	NoGas	5452049.71	0.5	5476215.54	99.56	70	120	
Ho	165	He	2498192.08	0.9	2490093.42	100.33	70	120	
Ho	165	H2	994244.52	0.6	1010782.54	98.36	70	120	



Calibration Standard Report

Sample Name Standard 4 04/05/2021
File Name 011CAL.S.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 11:22:29 AM
Sample Type CalStd
Total Dilution 1.0000
Comment —
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Pass
Operator Chemist_
 Metals

QC Analyte Table

Name	Mass	ISTD	Tune	CPS	RSD
Be	9	6	NoGas	447747.36	5.3
B	11	45	NoGas	424882.35	3.9
Na	23	45	He	3454257.17	0.3
Mg	24	45	He	3817585.83	1.2
Al	27	45	He	869954.06	0.6
P	31	45	He	12928.51	0.6
K	39	45	He	1603913.04	0.5
Ca	40	45	H2	311564.02	0.5
Ca	44	45	He	211900.37	0.7
Ti	47	45	He	21692.10	0.4
V	51	72	He	587474.96	0.5
Cr	52	45	He	679833.08	1.0
Mn	55	45	He	531703.73	0.9
Fe	56	45	He	13225045.67	1.0
Co	59	45	He	963498.85	0.7
Ni	60	45	He	241263.55	0.6
Cu	63	45	He	623687.52	0.6
Zn	66	115	He	141851.92	1.2
As	75	72	He	95632.55	1.0
Se	78	45	He	12037.03	1.9
Se	78	115	H2	1047.23	1.8
Sr	88	115	NoGas	4460199.83	4.5
Mo	95	45	NoGas	833724.52	4.5
Ag	107	115	NoGas	1155218.13	4.7
Cd	111	115	He	242043.08	0.6
Sn	118	115	He	576229.15	1.1
Sb	121	165	NoGas	1881937.31	3.3
Ba	137	165	NoGas	777570.59	4.9
Tl	205	165	NoGas	5623885.96	4.3
[Pb]	206	165	NoGas	1857761.17	4.8
[Pb]	207	165	NoGas	1601763.88	5.4
Pb	208	165	NoGas	7365540.20	5.0

QC ISTD Table

Calibration Standard Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	199477.88	0.5	204107.68	97.73	70	120	
Sc	45	NoGas	1779253.57	2.3	1820044.09	97.76	70	120	
Sc	45	He	142954.27	0.6	148659.65	96.16	70	120	
Sc	45	H2	9347.74	2.5	9783.29	95.55	70	120	
Ge	72	NoGas	423037.61	0.9	418429.88	101.1	70	120	
Ge	72	He	82528.54	0.7	84362.81	97.83	70	120	
Ge	72	H2	629.35	4.5	607.35	103.62	70	120	
In	115	NoGas	3583782.65	0.3	3561936.2	100.61	70	120	
In	115	He	955161.70	0.5	992362.27	96.25	70	120	
In	115	H2	114345.17	0.2	119554.41	95.64	70	120	
Tb	159	NoGas	5726569.08	1.9	5618496.17	101.92	70	120	
Tb	159	He	2447536.75	0.3	2415244.25	101.34	70	120	
Tb	159	H2	903653.04	0.3	927406.29	97.44	70	120	
Ho	165	NoGas	5608509.92	1.2	5476215.54	102.42	70	120	
Ho	165	He	2459369.75	0.3	2490093.42	98.77	70	120	
Ho	165	H2	989478.96	0.1	1010782.54	97.89	70	120	

Initial Calibration Verification (ICV) Report

Sample Name ICV 04/05/2021
File Name 012_ICV.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 11:28:50 AM
Sample Type ICV
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fial Pass
ISTD QC Pass/Fail Pass
Operator Chemist_
 Metals

QC Analyte Table

Name	Mass	STD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Be	9	6	NoGas	49.580	ug/l	3.1	219388.83	50	99.16	89.6	110.4	
B	11	45	NoGas	47.119	ug/l	8.1	236861.56	50	94.24	89.6	110.4	
Na	23	45	He	1258.237	ug/l	1.3	1871945.33	1250	100.66	89.6	110.4	
Mg	24	45	He	1276.563	ug/l	0.6	964216.04	1250	102.13	89.6	110.4	
Al	27	45	He	1256.193	ug/l	0.9	540516.40	1250	100.5	89.6	110.4	
P	31	45	He	246.621	ug/l	2.6	6453.82	250	98.65	89.6	110.4	
K	39	45	He	1265.564	ug/l	0.8	1026491.54	1250	101.25	89.6	110.4	
Ca	40	45	H2	1281.929	ug/l	2.5	79401.98	1250	102.55	89.6	110.4	
Ca	44	45	He	1307.216	ug/l	0.8	55006.40	1250	104.58	89.6	110.4	
Ti	47	45	He	51.684	ug/l	2.5	11054.03	50	103.37	89.6	110.4	
V	51	72	He	49.283	ug/l	0.9	307114.75	50	98.57	89.6	110.4	
Cr	52	45	He	50.589	ug/l	1.3	352296.35	50	101.18	89.6	110.4	
Mn	55	45	He	50.091	ug/l	1.0	264504.54	50	100.18	89.6	110.4	
Fe	56	45	He	1244.662	ug/l	1.1	8176378.83	1250	99.57	89.6	110.4	
Co	59	45	He	50.639	ug/l	1.4	482303.76	50	101.28	89.6	110.4	
Ni	60	45	He	50.804	ug/l	0.8	123291.29	50	101.61	89.6	110.4	
Cu	63	45	He	51.291	ug/l	1.3	317721.28	50	102.58	89.6	110.4	
Zn	66	115	He	51.286	ug/l	1.1	72132.50	50	102.57	89.6	110.4	
As	75	72	He	52.183	ug/l	0.8	49376.88	50	104.37	89.6	110.4	
Se	78	45	He	50.328	ug/l	1.0	6044.03	50	100.66	89.6	110.4	
Se	78	115	H2	51.130	ug/l	6.2	534.54	50	102.26	89.6	110.4	
Sr	88	115	NoGas	50.869	ug/l	6.6	2228988.25	50	101.74	89.6	110.4	
Mo	95	45	NoGas	48.879	ug/l	6.3	399488.64	50	97.76	89.6	110.4	
Ag	107	115	NoGas	24.985	ug/l	7.2	565013.99	25	99.94	89.6	110.4	
Cd	111	115	He	50.965	ug/l	0.9	121521.79	50	101.93	89.6	110.4	
Sn	118	115	He	25.455	ug/l	0.7	144927.40	25	101.82	89.6	110.4	
Sb	121	165	NoGas	51.718	ug/l	7.0	948092.15	50	103.44	89.6	110.4	
Ba	137	165	NoGas	50.647	ug/l	4.7	379968.71	50	101.29	89.6	110.4	
Tl	205	165	NoGas	50.782	ug/l	5.7	2770709.70	50	101.56	89.6	110.4	
Pb	208	165	NoGas	51.611	ug/l	6.7	3694993.93	50	103.22	89.6	110.4	

QC ISTD Table

Initial Calibration Verification (ICV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	196041.61	2.0	204107.68	96.05	70	120	
Sc	45	NoGas	1734455.34	1.7	1820044.09	95.3	70	120	
Sc	45	He	141811.81	0.2	148659.65	95.39	70	120	
Sc	45	H2	9283.72	2.9	9783.29	94.89	70	120	
Ge	72	NoGas	408864.58	0.5	418429.88	97.71	70	120	
Ge	72	He	81676.05	0.3	84362.81	96.82	70	120	
Ge	72	H2	621.35	8.7	607.35	102.31	70	120	
In	115	NoGas	3488113.84	0.5	3561936.2	97.93	70	120	
In	115	He	945318.60	1.2	992362.27	95.26	70	120	
In	115	H2	114494.81	5.2	119554.41	95.77	70	120	
Tb	159	NoGas	5532282.21	0.4	5618496.17	98.47	70	120	
Tb	159	He	2383755.42	0.5	2415244.25	98.7	70	120	
Tb	159	H2	885445.96	4.1	927406.29	95.48	70	120	
Ho	165	NoGas	5387734.71	0.8	5476215.54	98.38	70	120	
Ho	165	He	2452550.50	1.1	2490093.42	98.49	70	120	
Ho	165	H2	967790.50	4.5	1010782.54	95.75	70	120	

Initial Calibration Blank (ICB) Report

Sample Name ICB 04/06/2021
File Name 013_ICB.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 11:43:17 AM
Sample Type ICB
Total Dilution 1.0000
Comment --
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fial Pass
ISTD QC Pass/Fail Pass
Operator Chemlst_
Metals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Be	9	6	NoGas	0.014	ug/l	36.3	120.00	0.1	
B	11	45	NoGas	-1.218	ug/l	N/A	73663.78	8	
Na	23	45	He	-61.260	ug/l	N/A	230810.00	50	
Mg	24	45	He	0.064	ug/l	141.4	855.36	20	
Al	27	45	He	0.019	ug/l	664.6	252.67	10	
P	31	45	He	-1.598	ug/l	N/A	262.67	10	
K	39	45	He	0.326	ug/l	183.5	58340.75	40	
Ca	40	45	H2	0.137	ug/l	257.7	178.67	150	
Ca	44	45	He	-1.023	ug/l	N/A	201.33	150	
Ti	47	45	He	0.033	ug/l	83.9	14.67	0.5	
V	51	72	He	-0.957	ug/l	N/A	38757.98	0.4	
Cr	52	45	He	-0.045	ug/l	N/A	25631.24	0.2	
Mn	55	45	He	-0.026	ug/l	N/A	2542.86	0.3	
Fe	56	45	He	-0.524	ug/l	N/A	107187.46	30	
Co	59	45	He	0.000	ug/l	1416.3	269.34	0.4	
Ni	60	45	He	-0.082	ug/l	N/A	4367.22	0.4	
Cu	63	45	He	-0.038	ug/l	N/A	1006.70	0.4	
Zn	66	115	He	0.140	ug/l	33.8	506.68	15	
As	75	72	He	-0.014	ug/l	N/A	430.68	0.2	
Se	78	45	He	0.125	ug/l	114.3	119.67	0.4	
Se	78	115	H2	0.037	ug/l	169.9	1.20	0.4	
Sr	88	115	NoGas	0.002	ug/l	62.9	383.36	0.1	
Mo	95	45	NoGas	0.046	ug/l	38.0	1220.10	0.3	
Ag	107	115	NoGas	0.012	ug/l	28.7	386.69	0.1	
Cd	111	115	He	0.001	ug/l	100.2	2.00	0.1	
Sn	118	115	He	0.007	ug/l	49.7	148.00	0.1	
Sb	121	165	NoGas	0.134	ug/l	16.7	5050.95	0.5	
Ba	137	165	NoGas	-0.010	ug/l	N/A	33.33	0.4	
Tl	205	165	NoGas	0.025	ug/l	15.1	1716.83	0.2	
Pb	208	165	NoGas	-0.004	ug/l	N/A	346.68	0.4	

QC ISTD Table

Initial Calibration Blank (ICB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	204003.90	2.7	204107.68	99.95	70	120	
Sc	45	NoGas	1766361.74	4.6	1820044.09	97.05	70	120	
Sc	45	He	148930.55	0.6	148659.65	100.18	70	120	
Sc	45	H2	9733.94	0.8	9783.29	99.5	70	120	
Ge	72	NoGas	411934.20	3.9	418429.88	98.45	70	120	
Ge	72	He	82813.07	0.5	84362.81	98.16	70	120	
Ge	72	H2	596.68	5.2	607.35	98.24	70	120	
In	115	NoGas	3524594.67	4.6	3561936.2	98.95	70	120	
In	115	He	977050.65	0.4	992362.27	98.46	70	120	
In	115	H2	118802.96	0.5	119554.41	99.37	70	120	
Tb	159	NoGas	5554712.52	5.3	5618496.17	98.86	70	120	
Tb	159	He	2458522.67	1.2	2415244.25	101.79	70	120	
Tb	159	H2	908831.56	0.1	927406.29	98	70	120	
Ho	165	NoGas	5417781.69	4.7	5476215.54	98.93	70	120	
Ho	165	He	2501404.17	0.6	2490093.42	100.45	70	120	
Ho	165	H2	993543.52	0.2	1010782.54	98.29	70	120	

Continuing Calibration Verification (CCV) Report

Sample Name CCV 210402
File Name 091_CC.V.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 9:24:21 PM
Sample Type CCV
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Fail
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Be	9	6	NoGas	54.174	ug/l	2.8	126166.49	50	108.35	89.6	110.4	
B	11	45	NoGas	23.630	ug/l	3.3	101400.25	50	47.26	89.6	110.4	>+/- 10%
Na	23	45	He	956.423	ug/l	1.1	1022081.75	1250	76.51	89.6	110.4	>+/- 10%
Mg	24	45	He	2270.984	ug/l	1.4	1173029.92	2500	90.84	89.6	110.4	
Al	27	45	He	928.373	ug/l	1.7	273307.57	1000	92.84	89.6	110.4	
P	31	45	He	226.142	ug/l	2.9	4064.47	250	90.46	89.6	110.4	
K	39	45	He	968.147	ug/l	1.4	546079.48	1000	96.81	89.6	110.4	
Ca	40	45	H2	2394.836	ug/l	3.2	123519.17	2500	95.79	89.6	110.4	
Ca	44	45	He	2451.280	ug/l	1.1	70422.01	2500	98.05	89.6	110.4	
Ti	47	45	He	48.852	ug/l	4.5	7147.43	50	97.7	89.6	110.4	
V	51	72	He	40.423	ug/l	0.3	188855.37	50	80.85	89.6	110.4	>+/- 10%
Cr	52	45	He	48.147	ug/l	1.8	230180.13	50	96.29	89.6	110.4	
Mn	55	45	He	49.997	ug/l	1.0	180611.16	50	99.99	89.6	110.4	
Fe	56	45	He	993.477	ug/l	2.4	4478936.50	1000	99.35	89.6	110.4	
Co	59	45	He	48.919	ug/l	2.5	318728.63	50	97.84	89.6	110.4	
Ni	60	45	He	48.838	ug/l	2.3	81191.28	50	97.68	89.6	110.4	
Cu	63	45	He	49.185	ug/l	1.8	208454.27	50	98.37	89.6	110.4	
Zn	66	115	He	44.407	ug/l	1.4	48861.92	50	88.81	89.6	110.4	>+/- 10%
As	75	72	He	48.036	ug/l	0.3	33079.76	50	96.07	89.6	110.4	
Se	78	45	He	51.281	ug/l	0.1	4211.84	50	102.56	89.6	110.4	
Se	78	115	H2	45.451	ug/l	2.9	472.94	50	90.9	89.6	110.4	
Sr	88	115	NoGas	51.414	ug/l	2.3	1691135.71	50	102.83	89.6	110.4	
Mo	95	45	NoGas	58.367	ug/l	2.0	308093.78	50	116.73	89.6	110.4	>+/- 10%
Ag	107	115	NoGas	25.127	ug/l	1.7	426657.47	25	100.51	89.6	110.4	
Cd	111	115	He	47.016	ug/l	1.1	87642.99	50	94.03	89.6	110.4	
Sn	118	115	He	48.325	ug/l	1.0	215022.34	50	96.65	89.6	110.4	
Sb	121	165	NoGas	51.932	ug/l	1.1	729070.48	50	103.86	89.6	110.4	
Ba	137	165	NoGas	52.411	ug/l	1.7	301097.33	50	104.82	89.6	110.4	
Tl	205	165	NoGas	52.113	ug/l	0.9	2177684.86	50	104.23	89.6	110.4	
Pb	208	165	NoGas	54.476	ug/l	1.7	2986335.77	50	108.95	89.6	110.4	

QC ISTD Table

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	103271.52	2.8	204107.68	50.6	70	120	ISTD Failed
Sc	45	NoGas	1120954.88	3.1	1820044.09	61.59	70	120	ISTD Failed
Sc	45	He	97016.45	0.7	148659.65	65.26	70	120	ISTD Failed
Sc	45	H2	7739.67	3.4	9783.29	79.11	70	120	
Ge	72	NoGas	290550.86	3.5	418429.88	69.44	70	120	ISTD Failed
Ge	72	He	59396.81	0.9	84362.81	70.41	70	120	
Ge	72	H2	636.68	11.0	607.35	104.83	70	120	
In	115	NoGas	2618783.13	3.1	3561936.2	73.52	70	120	
In	115	He	738958.00	0.8	992362.27	74.46	70	120	
In	115	H2	113729.08	1.3	119554.41	95.13	70	120	
Tb	159	NoGas	4189543.90	3.7	5618496.17	74.57	70	120	
Tb	159	He	1908937.29	1.0	2415244.25	79.04	70	120	
Tb	159	H2	863101.10	0.9	927406.29	93.07	70	120	
Ho	165	NoGas	4127260.04	3.2	5476215.54	75.37	70	120	
Ho	165	He	1961867.33	1.2	2490093.42	78.79	70	120	
Ho	165	H2	936285.67	1.0	1010782.54	92.63	70	120	

Continuing Calibration Blank (CCB) Report

Sample Name CCB 210406
File Name 092_CCB.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 9:30:48 PM
Sample Type CCB
Total Dilution 1.0000
Comment --
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fial Fail
ISTD QC Pass/Fail Fail
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	STD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Be	9	6	NoGas	0.015	ug/l	43.4	63.33	0.1	
B	11	45	NoGas	-18.840	ug/l	N/A	8348.85	8	
Na	23	45	He	-198.028	ug/l	N/A	33695.22	50	
Mg	24	45	He	2.252	ug/l	3.7	1711.43	20	
Al	27	45	He	2.112	ug/l	4.2	792.02	10	
P	31	45	He	-0.544	ug/l	N/A	192.00	10	
K	39	45	He	-1.579	ug/l	N/A	37552.44	40	
Ca	40	45	H2	1.380	ug/l	29.1	214.00	150	
Ca	44	45	He	0.839	ug/l	49.4	187.33	150	
Ti	47	45	He	0.524	ug/l	12.1	82.67	0.5	>LOD
V	51	72	He	-5.233	ug/l	N/A	11006.02	0.4	
Cr	52	45	He	-0.035	ug/l	N/A	16989.88	0.2	
Mn	55	45	He	0.100	ug/l	15.1	2137.47	0.3	
Fe	56	45	He	3.772	ug/l	4.4	90198.54	30	
Co	59	45	He	0.001	ug/l	141.8	184.00	0.4	
Ni	60	45	He	0.011	ug/l	309.1	3038.95	0.4	
Cu	63	45	He	0.025	ug/l	76.2	937.36	0.4	
Zn	66	115	He	0.189	ug/l	19.2	440.68	15	
As	75	72	He	-0.202	ug/l	N/A	178.33	0.2	
Se	78	45	He	0.181	ug/l	137.4	83.67	0.4	
Se	78	115	H2	0.052	ug/l	150.2	1.33	0.4	
Sr	88	115	NoGas	0.042	ug/l	8.0	1646.80	0.1	
Mo	95	45	NoGas	0.112	ug/l	23.9	1163.42	0.3	
Ag	107	115	NoGas	0.003	ug/l	102.0	140.01	0.1	
Cd	111	115	He	0.001	ug/l	42.8	2.67	0.1	
Sn	118	115	He	0.026	ug/l	34.1	197.33	0.1	
Sb	121	165	NoGas	0.212	ug/l	12.8	5104.32	0.5	
Ba	137	165	NoGas	0.028	ug/l	44.4	256.68	0.4	
Tl	205	165	NoGas	0.153	ug/l	7.6	6911.73	0.2	
Pb	208	165	NoGas	0.026	ug/l	3.4	1963.47	0.4	

QC ISTD Table

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	106153.73	1.4	204107.68	52.01	70	120	ISTD Failed
Sc	45	NoGas	1158053.01	1.1	1820044.09	63.63	70	120	ISTD Failed
Sc	45	He	98455.09	0.9	148659.65	66.23	70	120	ISTD Failed
Sc	45	H2	8027.13	1.7	9783.29	82.05	70	120	
Ge	72	NoGas	290119.16	0.7	418429.88	69.34	70	120	ISTD Failed
Ge	72	He	58584.18	0.7	84362.81	69.44	70	120	ISTD Failed
Ge	72	H2	607.35	12.4	607.35	100	70	120	
In	115	NoGas	2714760.74	1.0	3561936.2	76.22	70	120	
In	115	He	745774.92	0.7	992362.27	75.15	70	120	
In	115	H2	116825.99	0.4	119554.41	97.72	70	120	
Tb	159	NoGas	4363533.48	0.6	5618496.17	77.66	70	120	
Tb	159	He	1898352.38	1.3	2415244.25	78.6	70	120	
Tb	159	H2	878939.11	0.5	927406.29	94.77	70	120	
Ho	165	NoGas	4281880.04	1.1	5476215.54	78.19	70	120	
Ho	165	He	1960076.25	0.8	2490093.42	78.71	70	120	
Ho	165	H2	952551.64	0.9	1010782.54	94.24	70	120	

Continuing Calibration Verification (CCV) Report

Sample Name CCV 210402
File Name 098_CC.V.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 10:09:36 PM
Sample Type CCV
Total Dilution 1.0000
Comment ---
ISTD Ref File Name 007CALB.d
Sample QC Pass/Fail Fail
ISTD QC Pass/Fail Fail
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpVal	% Rec	%Low	%High	QC Flag
Be	9	6	NoGas	51.080	ug/l	5.2	144042.42	50	102.16	89.6	110.4	
B	11	45	NoGas	24.022	ug/l	12.6	120938.32	50	48.04	89.6	110.4	>+/- 10%
Na	23	45	He	964.428	ug/l	3.4	1149812.62	1250	77.15	89.6	110.4	>+/- 10%
Mg	24	45	He	2282.622	ug/l	1.7	1317685.58	2500	91.3	89.6	110.4	
Al	27	45	He	929.808	ug/l	0.6	305922.48	1000	92.98	89.6	110.4	
P	31	45	He	235.237	ug/l	4.1	4716.63	250	94.09	89.6	110.4	
K	39	45	He	965.834	ug/l	0.3	608944.17	1000	96.58	89.6	110.4	
Ca	40	45	H2	2344.229	ug/l	0.2	135430.13	2500	93.77	89.6	110.4	
Ca	44	45	He	2437.485	ug/l	0.1	78262.32	2500	97.5	89.6	110.4	
Ti	47	45	He	47.829	ug/l	0.8	7821.70	50	95.66	89.6	110.4	
V	51	72	He	46.138	ug/l	1.1	233801.49	50	92.28	89.6	110.4	
Cr	52	45	He	47.684	ug/l	0.6	254960.27	50	95.37	89.6	110.4	
Mn	55	45	He	49.119	ug/l	0.5	198336.25	50	98.24	89.6	110.4	
Fe	56	45	He	976.243	ug/l	0.6	4920435.67	1000	97.62	89.6	110.4	
Co	59	45	He	48.084	ug/l	0.7	350148.75	50	96.17	89.6	110.4	
Ni	60	45	He	48.350	ug/l	0.4	89870.14	50	96.7	89.6	110.4	
Cu	63	45	He	48.489	ug/l	0.8	229690.69	50	96.98	89.6	110.4	
Zn	66	115	He	45.604	ug/l	1.1	54072.44	50	91.21	89.6	110.4	
As	75	72	He	47.086	ug/l	0.7	35920.47	50	94.17	89.6	110.4	
Se	78	45	He	50.000	ug/l	0.4	4591.26	50	100	89.6	110.4	
Se	78	115	H2	44.665	ug/l	1.9	497.21	50	89.33	89.6	110.4	>+/- 10%
Sr	88	115	NoGas	49.325	ug/l	6.4	1821277.57	50	98.65	89.6	110.4	
Mo	95	45	NoGas	53.210	ug/l	6.2	332242.91	50	106.42	89.6	110.4	
Ag	107	115	NoGas	24.267	ug/l	5.9	462443.56	25	97.07	89.6	110.4	
Cd	111	115	He	46.953	ug/l	0.4	94339.67	50	93.91	89.6	110.4	
Sn	118	115	He	48.267	ug/l	1.0	231468.45	50	96.53	89.6	110.4	
Sb	121	165	NoGas	49.657	ug/l	5.1	770828.48	50	99.31	89.6	110.4	
Ba	137	165	NoGas	50.099	ug/l	4.8	318255.05	50	100.2	89.6	110.4	
Tl	205	165	NoGas	50.827	ug/l	4.6	2347998.61	50	101.65	89.6	110.4	
Pb	208	165	NoGas	52.051	ug/l	4.7	3155168.57	50	104.1	89.6	110.4	

QC ISTD Table

Continuing Calibration Verification (CCV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	124959.78	1.5	204107.68	61.22	70	120	ISTD Failed
Sc	45	NoGas	1325927.77	1.3	1820044.09	72.85	70	120	
Sc	45	He	108421.81	0.6	148659.65	72.93	70	120	
Sc	45	H2	8662.74	1.2	9783.29	88.55	70	120	
Ge	72	NoGas	326886.99	0.8	418429.88	78.12	70	120	
Ge	72	He	65786.51	0.5	84362.81	77.98	70	120	
Ge	72	H2	678.68	10.7	607.35	111.75	70	120	
In	115	NoGas	2940312.71	2.1	3561936.2	82.55	70	120	
In	115	He	796503.52	0.9	992362.27	80.26	70	120	
In	115	H2	121644.53	0.6	119554.41	101.75	70	120	
Tb	159	NoGas	4684255.76	0.9	5618496.17	83.37	70	120	
Tb	159	He	2058310.21	0.8	2415244.25	85.22	70	120	
Tb	159	H2	913464.07	0.1	927406.29	98.5	70	120	
Ho	165	NoGas	4561624.93	0.4	5476215.54	83.3	70	120	
Ho	165	He	2094000.08	0.7	2490093.42	84.09	70	120	
Ho	165	H2	990448.42	0.3	1010782.54	97.99	70	120	

Continuing Calibration Blank (CCB) Report

Sample Name CCB 210406
File Name 099_CCB.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 10:16:02 PM
Sample Type CCB
Total Dilution 1.0000
Comment ---
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fial Fail
ISTD QC Pass/Fail Fail
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	Limit	QC Flag
Be	9	6	NoGas	0.011	ug/l	127.1	63.33	0.1	
B	11	45	NoGas	-18.672	ug/l	N/A	9739.50	8	
Na	23	45	He	-198.924	ug/l	N/A	36503.79	50	
Mg	24	45	He	0.786	ug/l	1.6	1046.04	20	
Al	27	45	He	0.317	ug/l	29.8	284.00	10	
P	31	45	He	-2.179	ug/l	N/A	181.33	10	
K	39	45	He	-3.921	ug/l	N/A	40264.75	40	
Ca	40	45	H2	0.407	ug/l	190.9	175.33	150	
Ca	44	45	He	-1.089	ug/l	N/A	145.33	150	
Ti	47	45	He	0.117	ug/l	14.8	24.67	0.5	
V	51	72	He	1.126	ug/l	3.1	39014.01	0.4	>LOD
Cr	52	45	He	0.006	ug/l	1612.0	19043.26	0.2	
Mn	55	45	He	0.023	ug/l	82.8	2062.13	0.3	
Fe	56	45	He	0.405	ug/l	40.9	83220.65	30	
Co	59	45	He	0.008	ug/l	54.3	252.00	0.4	
Ni	60	45	He	-0.074	ug/l	N/A	3216.31	0.4	
Cu	63	45	He	-0.020	ug/l	N/A	826.69	0.4	
Zn	66	115	He	0.161	ug/l	24.5	442.68	15	
As	75	72	He	-0.036	ug/l	N/A	319.67	0.2	
Se	78	45	He	0.120	ug/l	73.8	87.33	0.4	
Se	78	115	H2	0.070	ug/l	52.2	1.60	0.4	
Sr	88	115	NoGas	0.006	ug/l	44.9	446.69	0.1	
Mo	95	45	NoGas	0.121	ug/l	19.9	1353.45	0.3	
Ag	107	115	NoGas	0.004	ug/l	61.6	176.68	0.1	
Cd	111	115	He	0.004	ug/l	109.9	7.33	0.1	
Sn	118	115	He	0.032	ug/l	24.7	241.33	0.1	
Sb	121	165	NoGas	0.237	ug/l	13.9	5811.22	0.5	
Ba	137	165	NoGas	0.006	ug/l	83.7	133.34	0.4	
Tl	205	165	NoGas	0.112	ug/l	9.5	5424.50	0.2	
Pb	208	165	NoGas	0.011	ug/l	0.9	1190.07	0.4	

QC ISTD Table

Continuing Calibration Blank (CCB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	121526.28	1.0	204107.68	59.54	70	120	ISTD Failed
Sc	45	NoGas	1293212.40	1.6	1820044.09	71.05	70	120	
Sc	45	He	109191.06	0.8	148659.65	73.45	70	120	
Sc	45	H2	8658.07	3.5	9783.29	88.5	70	120	
Ge	72	NoGas	316148.39	1.0	418429.88	75.56	70	120	
Ge	72	He	64537.55	1.3	84362.81	76.5	70	120	
Ge	72	H2	678.02	7.4	607.35	111.64	70	120	
In	115	NoGas	2910016.07	0.8	3561936.2	81.7	70	120	
In	115	He	804082.44	0.5	992362.27	81.03	70	120	
In	115	H2	122168.96	0.9	119554.41	102.19	70	120	
Tb	159	NoGas	4641219.83	1.4	5618496.17	82.61	70	120	
Tb	159	He	2038530.42	1.0	2415244.25	84.4	70	120	
Tb	159	H2	911069.46	0.5	927406.29	98.24	70	120	
Ho	165	NoGas	4535932.02	0.6	5476215.54	82.83	70	120	
Ho	165	He	2099267.00	1.8	2490093.42	84.3	70	120	
Ho	165	H2	992413.25	0.7	1010782.54	98.18	70	120	

**METALS
Raw Data**

Sample Report

Sample Name BA29552W07_DF2
File Name 096SMPL.d
Data Path Name Metals-icprms\data\210406A.b
Acq Time 04/06/21 9:56:42 PM
Sample Type Sample
Total Dilution 1.0000
Comment Red Hill Fuel
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fial Pass
ISTD QC Pass/Fail Fail
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	6	NoGas	0.007	ug/l	64.6	46.67	10000	
B	11	45	NoGas	24.786	ug/l	10.0	122979.52	10000	
Na	23	45	He	44745.417	ug/l	1.2	41540776.00	1000000	
Mg	24	45	He	18456.392	ug/l	2.1	10274287.87	1000000	
Al	27	45	He	5.136	ug/l	2.3	1800.77	1000000	
P	31	45	He	55.962	ug/l	3.9	1245.38	500000	
K	39	45	He	2811.572	ug/l	0.6	1632097.63	500000	
Ca	40	45	H2	20349.120	ug/l	0.8	1149785.33	500000	
Ca	44	45	He	20908.211	ug/l	1.3	646295.27	500000	
Ti	47	45	He	0.407	ug/l	27.3	69.33	10000	
V	51	72	He	11.898	ug/l	3.1	82343.20	10000	
Cr	52	45	He	2.179	ug/l	4.5	28622.29	10000	
Mn	55	45	He	0.172	ug/l	4.5	2548.20	50000	
Fe	56	45	He	2.305	ug/l	8.8	88814.68	1000000	
Co	59	45	He	0.014	ug/l	30.0	284.01	10000	
Ni	60	45	He	0.070	ug/l	46.1	3330.33	10000	
Cu	63	45	He	0.238	ug/l	5.9	1962.13	10000	
Zn	66	115	He	0.574	ug/l	6.8	878.03	50000	
As	75	72	He	-0.008	ug/l	N/A	331.33	2000	
Se	78	45	He	0.571	ug/l	44.6	123.00	10000	
Se	78	115	H2	0.251	ug/l	69.5	3.47	10000	
Sr	88	115	NoGas	159.308	ug/l	4.9	5474114.81	50000	
Mo	95	45	NoGas	0.502	ug/l	9.9	3753.90	10000	
Ag	107	115	NoGas	0.016	ug/l	18.0	370.02	5000	
Cd	111	115	He	0.004	ug/l	91.7	6.67	10000	
Sn	118	115	He	0.070	ug/l	5.3	398.68	10000	
Sb	121	165	NoGas	0.047	ug/l	23.9	2837.01	10000	
Ba	137	165	NoGas	7.833	ug/l	6.8	48767.50	50000	
Tl	205	165	NoGas	0.250	ug/l	6.2	11571.28	5000	
Pb	208	165	NoGas	0.074	ug/l	4.6	4927.17	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	111879.01	1.4	204107.68	54.81	70	120	ISTD Failed
Sc	45	NoGas	1325412.84	2.4	1820044.09	72.82	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	He	104592.73	0.9	148659.65	70.36	70	120	
Sc	45	H2	8481.32	0.8	9783.29	86.69	70	120	
Ge	72	NoGas	311964.38	0.9	418429.88	74.56	70	120	
Ge	72	He	62830.01	1.0	84362.81	74.48	70	120	
Ge	72	H2	672.02	2.9	607.35	110.65	70	120	
In	115	NoGas	2733874.56	1.3	3561936.2	76.75	70	120	
In	115	He	756261.14	0.8	992362.27	76.21	70	120	
In	115	H2	116674.12	0.7	119554.41	97.59	70	120	
Tb	159	NoGas	4527188.47	0.6	5618496.17	80.58	70	120	
Tb	159	He	1998586.29	0.3	2415244.25	82.75	70	120	
Tb	159	H2	904652.81	0.3	927406.29	97.55	70	120	
Ho	165	NoGas	4461620.77	1.3	5476215.54	81.47	70	120	
Ho	165	He	2054333.83	1.2	2490093.42	82.5	70	120	
Ho	165	H2	983652.64	0.5	1010782.54	97.32	70	120	

Sample Report

Sample Name BA29553W07 DF2
File Name 097SMPL.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 10:03:09 PM
Sample Type Sample
Total Dilution 1.0000
Comment Red Hill Fuel
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fial Pass
ISTD QC Pass/Fail Fail
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	6	NoGas	0.000	ug/l	N/A	30.00	10000	
B	11	45	NoGas	24.861	ug/l	12.6	126416.11	10000	
Na	23	45	He	46530.329	ug/l	1.0	43722420.00	1000000	
Mg	24	45	He	18909.976	ug/l	0.3	10656651.67	1000000	
Al	27	45	He	5.156	ug/l	2.9	1829.44	1000000	
P	31	45	He	58.342	ug/l	7.3	1305.39	500000	
K	39	45	He	2779.633	ug/l	1.5	1633984.33	500000	
Ca	40	45	H2	20940.216	ug/l	0.7	1179740.66	500000	
Ca	44	45	He	21110.089	ug/l	1.6	660601.94	500000	
Ti	47	45	He	0.314	ug/l	28.1	55.33	10000	
V	51	72	He	14.190	ug/l	1.9	92020.38	10000	
Cr	52	45	He	2.014	ug/l	2.1	28182.25	10000	
Mn	55	45	He	0.076	ug/l	28.7	2207.48	50000	
Fe	56	45	He	3.346	ug/l	4.6	94944.77	1000000	
Co	59	45	He	0.007	ug/l	12.0	240.67	10000	
Ni	60	45	He	0.011	ug/l	404.5	3268.32	10000	
Cu	63	45	He	1.198	ug/l	4.0	6413.83	10000	
Zn	66	115	He	1.004	ug/l	3.3	1364.73	50000	
As	75	72	He	0.043	ug/l	206.5	368.67	2000	
Se	78	45	He	0.426	ug/l	20.3	111.67	10000	
Se	78	115	H2	0.365	ug/l	43.2	4.67	10000	
Sr	88	115	NoGas	158.201	ug/l	8.0	5519174.81	50000	
Mo	95	45	NoGas	0.362	ug/l	7.8	2963.72	10000	
Ag	107	115	NoGas	0.001	ug/l	163.8	106.67	5000	
Cd	111	115	He	0.004	ug/l	14.9	7.33	10000	
Sn	118	115	He	0.087	ug/l	7.6	481.34	10000	
Sb	121	165	NoGas	0.003	ug/l	246.1	2193.56	10000	
Ba	137	165	NoGas	8.124	ug/l	7.8	51315.15	50000	
Tl	205	165	NoGas	0.066	ug/l	0.5	3297.15	5000	
Pb	208	165	NoGas	0.146	ug/l	12.7	9314.83	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	115596.75	1.1	204107.68	56.64	70	120	ISTD Failed
Sc	45	NoGas	1361144.88	0.7	1820044.09	74.79	70	120	

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	He	105883.74	0.2	148659.65	71.23	70	120	
Sc	45	H2	8456.64	1.0	9783.29	86.44	70	120	
Ge	72	NoGas	312493.92	1.1	418429.88	74.68	70	120	
Ge	72	He	63005.63	1.0	84362.81	74.68	70	120	
Ge	72	H2	682.69	4.7	607.35	112.4	70	120	
In	115	NoGas	2778644.61	1.3	3561936.2	78.01	70	120	
In	115	He	758766.22	1.1	992362.27	76.46	70	120	
In	115	H2	116753.04	0.6	119554.41	97.66	70	120	
Tb	159	NoGas	4566587.64	0.9	5618496.17	81.28	70	120	
Tb	159	He	2016137.37	0.4	2415244.25	83.48	70	120	
Tb	159	H2	904527.25	0.9	927406.29	97.53	70	120	
Ho	165	NoGas	4531742.43	1.5	5476215.54	82.75	70	120	
Ho	165	He	2075774.58	1.0	2490093.42	83.36	70	120	
Ho	165	H2	982190.38	0.9	1010782.54	97.17	70	120	

Sample Report

Sample Name 210402A BLK DF2
File Name 093SMPL.d
Data Path Name Metals-icprms\data\210406A.b
Acq Time 04/06/21 9:37:18 PM
Sample Type Sample
Total Dilution 1.0000
Comment Red Hill Fuel
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Fail
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	6	NoGas	-0.001	ug/l	N/A	26.67	10000	
B	11	45	NoGas	-19.243	ug/l	N/A	7635.15	10000	
Na	23	45	He	-185.292	ug/l	N/A	45484.45	1000000	
Mg	24	45	He	8.838	ug/l	1.2	5245.43	1000000	
Al	27	45	He	18.482	ug/l	3.1	5771.60	1000000	
P	31	45	He	-1.212	ug/l	N/A	183.33	500000	
K	39	45	He	-1.082	ug/l	N/A	38425.60	500000	
Ca	40	45	H2	3.288	ug/l	2.2	320.01	500000	
Ca	44	45	He	2.721	ug/l	40.0	246.00	500000	
Ti	47	45	He	0.427	ug/l	14.8	69.33	10000	
V	51	72	He	-5.159	ug/l	N/A	11615.72	10000	
Cr	52	45	He	0.011	ug/l	648.1	17475.01	10000	
Mn	55	45	He	0.086	ug/l	12.7	2120.80	50000	
Fe	56	45	He	3.805	ug/l	4.9	91804.09	1000000	
Co	59	45	He	0.000	ug/l	1180.8	183.33	10000	
Ni	60	45	He	-0.064	ug/l	N/A	2964.93	10000	
Cu	63	45	He	0.131	ug/l	9.1	1411.40	10000	
Zn	66	115	He	1.352	ug/l	4.8	1763.43	50000	
As	75	72	He	-0.271	ug/l	N/A	135.67	2000	
Se	78	45	He	0.144	ug/l	29.6	82.00	10000	
Se	78	115	H2	-0.024	ug/l	N/A	0.53	10000	
Sr	88	115	NoGas	0.033	ug/l	3.6	1380.11	50000	
Mo	95	45	NoGas	0.023	ug/l	40.8	693.38	10000	
Ag	107	115	NoGas	-0.001	ug/l	N/A	70.00	5000	
Cd	111	115	He	0.001	ug/l	99.5	2.00	10000	
Sn	118	115	He	0.042	ug/l	6.9	275.34	10000	
Sb	121	165	NoGas	0.032	ug/l	57.4	2530.29	10000	
Ba	137	165	NoGas	0.030	ug/l	24.4	270.01	50000	
Tl	205	165	NoGas	0.068	ug/l	3.8	3240.48	5000	
Pb	208	165	NoGas	0.023	ug/l	5.5	1840.12	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	109194.78	1.0	204107.68	53.5	70	120	ISTD Failed
Sc	45	NoGas	1189758.45	1.0	1820044.09	65.37	70	120	ISTD Failed

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	He	100044.82	0.9	148659.65	67.3	70	120	ISTD Failed
Sc	45	H2	8130.50	2.2	9783.29	83.11	70	120	
Ge	72	NoGas	297426.08	0.8	418429.88	71.08	70	120	
Ge	72	He	60273.69	0.9	84362.81	71.45	70	120	
Ge	72	H2	670.69	5.0	607.35	110.43	70	120	
In	115	NoGas	2777025.90	0.2	3561936.2	77.96	70	120	
In	115	He	761923.61	0.7	992362.27	76.78	70	120	
In	115	H2	118167.01	0.2	119554.41	98.84	70	120	
Tb	159	NoGas	4378442.95	0.9	5618496.17	77.93	70	120	
Tb	159	He	1954237.50	0.9	2415244.25	80.91	70	120	
Tb	159	H2	894047.79	0.5	927406.29	96.4	70	120	
Ho	165	NoGas	4332842.12	0.4	5476215.54	79.12	70	120	
Ho	165	He	2022491.92	0.2	2490093.42	81.22	70	120	
Ho	165	H2	966629.50	0.4	1010782.54	95.63	70	120	

Sample Report

Sample Name 210402A LCS DF2
File Name 094SMPL.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 9:43:50 PM
Sample Type Sample
Total Dilution 1.0000
Comment Red Hill Fuel
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fial Pass
ISTD QC Pass/Fail Fail
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	6	NoGas	19.736	ug/l	5.5	47787.58	10000	
B	11	45	NoGas	58.942	ug/l	10.2	189406.23	10000	
Na	23	45	He	8978.094	ug/l	1.6	8229101.83	1000000	
Mg	24	45	He	8974.728	ug/l	0.8	4831213.17	1000000	
Al	27	45	He	757.227	ug/l	1.1	232443.21	1000000	
P	31	45	He	758.423	ug/l	1.1	13725.73	500000	
K	39	45	He	1977.650	ug/l	0.6	1121810.67	500000	
Ca	40	45	H2	9593.316	ug/l	1.8	522592.02	500000	
Ca	44	45	He	9786.055	ug/l	0.6	292599.81	500000	
Ti	47	45	He	98.082	ug/l	0.2	14956.78	10000	
V	51	72	He	89.815	ug/l	2.0	397626.97	10000	
Cr	52	45	He	98.276	ug/l	1.2	471493.38	10000	
Mn	55	45	He	100.709	ug/l	1.2	377421.25	50000	
Fe	56	45	He	490.339	ug/l	1.1	2342929.75	1000000	
Co	59	45	He	98.328	ug/l	1.2	667760.94	10000	
Ni	60	45	He	98.226	ug/l	1.4	167114.03	10000	
Cu	63	45	He	98.488	ug/l	1.2	434330.05	10000	
Zn	66	115	He	177.758	ug/l	1.4	199340.52	50000	
As	75	72	He	98.388	ug/l	1.3	70347.34	2000	
Se	78	45	He	101.868	ug/l	0.3	8652.43	10000	
Se	78	115	H2	91.946	ug/l	1.4	998.43	10000	
Sr	88	115	NoGas	92.586	ug/l	6.6	3158270.26	50000	
Mo	95	45	NoGas	103.505	ug/l	5.7	577699.73	10000	
Ag	107	115	NoGas	37.240	ug/l	7.9	655591.58	5000	
Cd	111	115	He	19.218	ug/l	0.7	36640.81	10000	
Sn	118	115	He	97.719	ug/l	1.7	444638.10	10000	
Sb	121	165	NoGas	90.832	ug/l	4.0	1345353.13	10000	
Ba	137	165	NoGas	94.445	ug/l	5.3	573157.62	50000	
Tl	205	165	NoGas	94.062	ug/l	6.6	4151957.75	5000	
Pb	208	165	NoGas	96.979	ug/l	5.2	5616227.44	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	107264.13	0.6	204107.68	52.55	70	120	ISTD Failed
Sc	45	NoGas	1185893.18	0.3	1820044.09	65.16	70	120	ISTD Failed

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	He	101138.80	0.7	148659.65	68.03	70	120	ISTD Failed
Sc	45	H2	8177.18	1.9	9783.29	83.58	70	120	
Ge	72	NoGas	295984.18	1.0	418429.88	70.74	70	120	
Ge	72	He	61972.61	0.5	84362.81	73.46	70	120	
Ge	72	H2	676.02	1.4	607.35	111.31	70	120	
In	115	NoGas	2715530.28	0.5	3561936.2	76.24	70	120	
In	115	He	755836.98	0.7	992362.27	76.17	70	120	
In	115	H2	118751.71	0.2	119554.41	99.33	70	120	
Tb	159	NoGas	4417129.52	1.2	5618496.17	78.62	70	120	
Tb	159	He	1966713.50	0.9	2415244.25	81.43	70	120	
Tb	159	H2	906190.39	0.4	927406.29	97.71	70	120	
Ho	165	NoGas	4357623.06	0.9	5476215.54	79.57	70	120	
Ho	165	He	2035315.71	1.2	2490093.42	81.74	70	120	
Ho	165	H2	986740.96	0.3	1010782.54	97.62	70	120	

Sample Report

Sample Name 210402A LCSD DF2
File Name 095SMPL.d
Data Path Name Metals-icpms\data\210406A.b
Acq Time 04/06/21 9:50:16 PM
Sample Type Sample
Total Dilution 1.0000
Comment Red Hill Fuel
ISTD Ref FileName 007CALB.d
Sample QC Pass/Fail Pass
ISTD QC Pass/Fail Fail
Operator chemist_m
 etals

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Be	9	6	NoGas	20.466	ug/l	6.5	53249.04	10000	
B	11	45	NoGas	60.785	ug/l	7.8	207829.46	10000	
Na	23	45	He	8938.694	ug/l	0.8	8706060.00	1000000	
Mg	24	45	He	8892.283	ug/l	0.8	5086078.83	1000000	
Al	27	45	He	749.898	ug/l	1.0	244588.52	1000000	
P	31	45	He	766.560	ug/l	1.7	14735.84	500000	
K	39	45	He	1966.117	ug/l	0.5	1185214.13	500000	
Ca	40	45	H2	9452.893	ug/l	1.0	555300.42	500000	
Ca	44	45	He	9678.734	ug/l	0.6	307484.46	500000	
Ti	47	45	He	100.616	ug/l	0.7	16301.94	10000	
V	51	72	He	91.129	ug/l	1.1	422888.14	10000	
Cr	52	45	He	96.894	ug/l	1.7	494210.71	10000	
Mn	55	45	He	98.825	ug/l	1.2	393566.21	50000	
Fe	56	45	He	402.162	ug/l	0.9	2056067.08	1000000	
Co	59	45	He	97.267	ug/l	0.8	701855.41	10000	
Ni	60	45	He	97.188	ug/l	1.3	175723.71	10000	
Cu	63	45	He	97.196	ug/l	1.0	455442.81	10000	
Zn	66	115	He	175.945	ug/l	1.2	205879.01	50000	
As	75	72	He	98.158	ug/l	1.1	73650.98	2000	
Se	78	45	He	99.589	ug/l	1.7	8989.59	10000	
Se	78	115	H2	93.106	ug/l	1.1	1056.70	10000	
Sr	88	115	NoGas	95.664	ug/l	3.3	3408057.97	50000	
Mo	95	45	NoGas	105.444	ug/l	5.4	631434.81	10000	
Ag	107	115	NoGas	37.917	ug/l	4.9	697153.85	5000	
Cd	111	115	He	19.187	ug/l	1.9	38172.73	10000	
Sn	118	115	He	97.356	ug/l	0.1	462207.65	10000	
Sb	121	165	NoGas	93.378	ug/l	5.0	1421348.78	10000	
Ba	137	165	NoGas	96.807	ug/l	5.8	603739.52	50000	
Tl	205	165	NoGas	94.215	ug/l	6.9	4272957.23	5000	
Pb	208	165	NoGas	97.199	ug/l	5.0	5784787.47	50000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	NoGas	115406.95	2.6	204107.68	56.54	70	120	ISTD Failed
Sc	45	NoGas	1272732.46	1.5	1820044.09	69.93	70	120	ISTD Failed

Sample Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc	45	He	107459.32	0.7	148659.65	72.29	70	120	
Sc	45	H2	8816.80	1.3	9783.29	90.12	70	120	
Ge	72	NoGas	315930.34	1.7	418429.88	75.5	70	120	
Ge	72	He	65043.41	1.9	84362.81	77.1	70	120	
Ge	72	H2	696.69	5.7	607.35	114.71	70	120	
In	115	NoGas	2835419.93	0.2	3561936.2	79.6	70	120	
In	115	He	788664.09	0.9	992362.27	79.47	70	120	
In	115	H2	124119.41	0.7	119554.41	103.82	70	120	
Tb	159	NoGas	4573594.20	0.6	5618496.17	81.4	70	120	
Tb	159	He	2042265.38	0.5	2415244.25	84.56	70	120	
Tb	159	H2	935834.19	0.3	927406.29	100.91	70	120	
Ho	165	NoGas	4480828.27	1.2	5476215.54	81.82	70	120	
Ho	165	He	2099464.04	1.0	2490093.42	84.31	70	120	
Ho	165	H2	1021262.23	0.1	1010782.54	101.04	70	120	

US EPA Tune Check Report

Operator Name Chemist_Metals
Acq/Data Batch C:\Agilent\ICPMH\1\DATA\210406A.b
Acq. Date-Time 04/06/21 10:01:56 AM
Report Comment C:\Agilent\ICPMH\Report Templates\en\Letter\Tune Report\New and Improved
Instrument Name 200_8TuneCheckSampleReport.xlsx
 G3281A JP12101628

[NoGas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		46314	463140.57			0.307	5.000
24		147739	1477388.10			0.536	5.000
25		20589	205887.56			0.519	5.000
26		24338	243377.72			0.679	5.000
59		231627	2316271.35			0.695	5.000
115		465538	4655380.25			1.121	5.000
206		123339	1233391.35			1.703	5.000
207		104092	1040916.19			1.912	5.000
208		255589	2555892.94			1.233	5.000

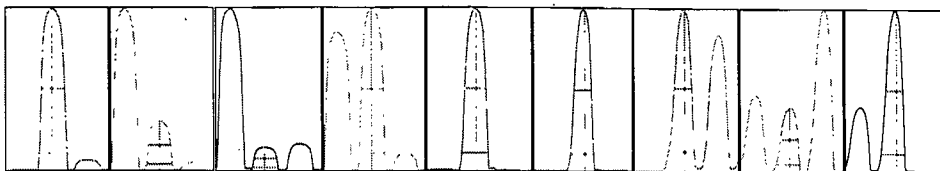
Mass	RSD% (Flag)
9	
24	
25	
26	
59	
115	
206	
207	
208	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	46241	46457	46480	46205	46188
24	147187	148332	148496	148033	146647
25	20546	20711	20645	20612	20430
26	24347	24457	24513	24281	24091
59	230470	232746	233917	230519	230484
115	456409	468452	469285	466547	466998
206	120205	123332	123920	123168	126071
207	100961	103679	104366	105251	106200
208	251363	254020	256209	256499	259855

Integration Time [sec] 0.1

Resolution/Axis

US EPA Tune Check Report



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	71594.91	8.90	8.90 - 9.10	
24	238741.39	23.95	23.90 - 24.10	
25	33193.44	24.90	24.90 - 25.10	
26	38934.38	25.90	25.90 - 26.10	
59	396133.64	59.00	58.90 - 59.10	
115	880121.45	115.05	114.90 - 115.10	
206	243910.97	206.00	205.90 - 206.10	
207	205242.64	206.95	206.90 - 207.10	
208	516945.64	208.00	207.90 - 208.10	

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
9	0.67	0.804	0.900	
24	0.64	0.763	0.900	
25	0.64	0.730	0.900	
26	0.65	0.764	0.900	
59	0.60	0.765	0.900	
115	0.54	0.721	0.900	
206	0.50	0.738	0.900	
207	0.50	0.678	0.900	
208	0.50	0.687	0.900	

Integration Time [sec] 0.1
 Acquisition Time [sec] 235
 Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.91 L/min	Dilution Gas	0.20 L/min
RF Power	1550 W	Option Gas	0.0 %	Auxiliary Gas	---
RF Matching	1.10 V	Nebulizer Pump	0.10 rps	Plasma Gas	---
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.4 V	Deflect	14.6 V
Extract 2	-140.0 V	Cell Entrance	-30 V	Plate Bias	-40 V
Omega Bias	-70 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
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US EPA Tune Check Report

He Flow	0.0 mL/min	OctP Bias	-8.0 V
H2 Flow	0.0 mL/min	OctP RF	200 V

QP Parameters

Mass Gain	121	Axis Gain	0.9990	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.02		

Hardware Settings

Torch

Torch H	-0.3 mm	Torch V	0.0 mm
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EM

Discriminator	4.8 mV	Analog HV	1810 V	Pulse HV	1466 V
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ICP-MS Calibration Standard Prep									
Prepared: 04/05/21					Prepared By (Initials): WD JG				
Expires: 04/11/21									
1% HNO3 / 1% HCl Prep: 04/02/21					*The high point of the ICAL is used as a P/A Tune				
Calibration Standard 4*									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
Solution A	Texas Scientific	HP1810-250	200 - 5000	m2meb662248-38392	04/11/21	50uL	100mL	1% HNO3 / 1% HCl	100 - 2500
Solution B	Texas Scientific	HP1810-250	4000 - 10,000	m2meb662249-38390	04/11/21	50uL			2000 - 5000
Solution C	Texas Scientific	HP1810-250	100 - 200	m2meb662250-38393	04/11/21	50uL			50 - 100
Calibration Standards 1,2,3									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference to APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
ICP-MS Calib Standard 4	Texas Scientific	Standard 1	0.05 - 5.0	Prepared 04/05/21	04/11/21	50uL	50mL	1% HNO3 / 1% HCl	0.05 - 5.0
ICP-MS Calib Standard 4	Texas Scientific	Standard 2	0.05 - 5.0			500uL			0.5 - 50
ICP-MS Calib Standard 4	Texas Scientific	Standard 3	0.05 - 5.0			25mL			25 - 2500
ICP-MS Low Levels (LLICV)									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/L)	Reference to APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
LLICV 0.5ppb	Texas Scientific	Standard 2	0.5 - 50	Prepared 04/05/21	04/11/21	5mL	10mL	1% HNO3 / 1% HCl	0.25 - 25
LLICV 1.0ppb	Texas Scientific	Standard 2	0.5 - 50	Prepared 04/05/21	04/11/21	10mL	10mL	1% HNO3 / 1% HCl	0.5 - 50
LLICV 2.0ppb	Texas Scientific	Standard 3	25 - 2500	Prepared 04/05/21	04/11/21	400uL	10mL	1% HNO3 / 1% HCl	1 - 100
LLICV 4.0ppb	Texas Scientific	Standard 4	50 - 5000	Prepared 04/05/21	04/11/21	400uL	10mL	1% HNO3 / 1% HCl	2 - 200
ICP-MS ICV (SS)									
Prepared: 04/05/21					Prepared By (Initials): WD JG				
Expires: 04/11/21									
1% HNO3 / 1% HCl Prep: 04/02/21									
ICP-MS ICV									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/L)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
QCS ICV Soln A	CPI	4400-070615RH01	50 - 500	10062445-11-49481	05/14/21	25uL	50mL	1% HNO3 / 1% HCl	25 - 1125
QCS ICV Soln B	CPI	4400-070615RH01	2500	10062445-12-49482	05/14/21	25uL			1125
ICP-MS Interference Check Solution A									
Prepared: 04/05/21					Prepared By (Initials): WD JG				
Expires: 04/12/21									
1% HNO3 / 1% HCl Prep: 04/02/21									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
ICSA	Inorganic Ventures	6020ICS-0A-125mL	20 - 1000	P2-MEB676415-41221	02/16/23	1mL (DF2)	10mL	1% HNO3 / 1% HCl	2 - 100
ICP-MS Interference Check Solution AB									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
ICSA	Inorganic Ventures	6020ICS-0A-125mL	20 - 1000	P2-MEB676415-41221	02/16/23	1mL (DF2)	10mL	1% HNO3 / 1% HCl	2-100
Special Mix (Interference)	O2SI	160495-01-01	100	10081266-1-49725	07/13/22	100uL			1

ICP-MS Internal Standards									
Prepared: 04/05/21					Prepared By (Initials): WD				
Expires: 07/04/21									
1% HNO3 / 1% HCl Prep: 04/02/21									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Scandium	Inorganic Ventures	35-APPLTSP-ISMIX	100	220125110-51634	07/05/22	2.5mL	250mL	1% HNO3 / 1% HCl	1
Germanium			100						1
Indium			100						1
Terbium			100						1
Holmium			100						1
Trilon X-100	VWR	VW3929-2	N/A	46223630	N/A	250uL			0.1% v/v

ICP-MS Agilent Tune									
Prepared: 04/02/21					Prepared By (Initials): JP				
Expires: 05/06/21									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/L)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
Tuning Solution, 5-25	o2si	160637-01-03	10	10070823-3-40879	05/06/21	20mL	200mL	DI Water	1

ICP-MS EPA Tune									
Prepared: 04/02/21					Prepared By (Initials): WD				
Expires: 04/02/22									
1% HNO3 / 1% HCl Prep: 04/02/21									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
Beryllium	Inorganic Ventures	35-APPLTSP-TUNE	10	N2-MEB6700091-39416	07/25/22	500uL	50mL	1% HNO3 / 1% HCl	100
Magnesium									
Cobalt									
Indium									
Lead									

Metals Digestion Worksheet

Method Name 200.8 11.2 Digestion

Prep Method M2008

Set 210402A

Units mL

Spikes	
Spiked ID 1	LCSW LOT# 10064561-17-51633 Pipette AP-21
Spiked ID 2	LCSW LOT# 10064561-18-51630
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 04/02/21 8:50:00 AM
Witnessed By	NA Date: 04/02/21 8:50:00 AM

Starting Temp:	SLOT 33 THERM:Excalibur 83C
Ending Temp:	SLOT 33 86C
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	04/02/21 12:00

Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1210402A Blk				50mL	25mL	04/02/21 8:50	equip: Modblock1
2210402A LCS		200uL	1+2	50mL	25mL	04/02/21 8:50	equip: Modblock1
3210402A LCS		200uL	1+2	50mL	25mL	04/02/21 8:50	equip: Modblock1
4BA29027	BA29027W05			50mL	25mL	04/02/21 8:50	equip: Modblock1 95509
5BA29028	BA29028W06			50mL	25mL	04/02/21 8:50	equip: Modblock1 95509
6BA29029	BA29029W15			50mL	25mL	04/02/21 8:50	equip: Modblock1 95509
7BA29029 MS	BA29029W15	500uL	1+2	50mL	25mL	04/02/21 8:50	equip: Modblock1
8BA29029 MSD	BA29029W15	500uL	1+2	50mL	25mL	04/02/21 8:50	equip: Modblock1
9BA29030	BA29030W09			50mL	25mL	04/02/21 8:50	equip: Modblock1 95509
10BA29031	BA29031W08			50mL	25mL	04/02/21 8:50	equip: Modblock1 95509
11BA29552	BA29552W07			50mL	25mL	04/02/21 8:50	equip: Modblock1 95603
12BA29553	BA29553W07			50mL	25mL	04/02/21 8:50	equip: Modblock1 95603
13BA29591	BA29591W01			50mL	25mL	04/02/21 8:50	equip: Modblock1 95607
14BA29592	BA29592W01			50mL	25mL	04/02/21 8:50	equip: Modblock1 95607
15BA29593	BA29593W01			50mL	25mL	04/02/21 8:50	equip: Modblock1 95607
16BA29594	BA29594W01			50mL	25mL	04/02/21 8:50	equip: Modblock1 95607
17BA29595	BA29595W01			50mL	25mL	04/02/21 8:50	equip: Modblock1 95607
18BA29596	BA29596W01			50mL	25mL	04/02/21 8:50	equip: Modblock1 95607
19BA29597	BA29597W01			50mL	25mL	04/02/21 8:50	equip: Modblock1 95607
20BA29773	BA29773W01			50mL	25mL	04/02/21 8:50	equip: Modblock1 95680

Solvent and Lot#
1:1 HNO3 2-16-21
1:1 HCL 2-16-21
100mL vessel 0300000063

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	
Date	
Time	
Moved to	

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	04/02/21 8:39:04 AM

Reviewed By:

Date:

200.8 Injection Log

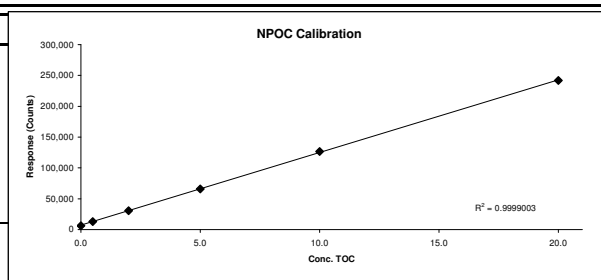
Directory: K:\ICP-MS Megatron\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	06 Apr 2021	10:53	Calibration Blank 04/06/21		210406A Red	1.
2	06 Apr 2021	11:00	Standard 1 04/05/2021		210406A Red	1.
3	06 Apr 2021	11:09	Standard 2 04/05/2021		210406A Red	1.
4	06 Apr 2021	11:15	Standard 3 04/05/2021		210406A Red	1.
5	06 Apr 2021	11:22	Standard 4 04/05/2021		210406A Red	1.
6	06 Apr 2021	11:28	ICV 04/05/2021		210406A Red	1.
7	06 Apr 2021	11:43	ICB 04/06/2021		210406A Red	1.
8	06 Apr 2021	11:50	0.5 ppb LLICV 04/05/2021		210406A Red	1.
9	06 Apr 2021	11:57	1.0 ppb LLICV 04/05/2021		210406A Red	1.
10	06 Apr 2021	12:03	2.0 ppb LLICV 04/05/2021		210406A Red	1.
11	06 Apr 2021	12:10	4.0 ppb LLICV 04/05/2021		210406A Red	1.
12	06 Apr 2021	12:16	20 ppb LLICV 04/05/2021		210406A Red	1.
13	06 Apr 2021	13:15	ICSAB 04/06/2021 (2)		210406A Red	1.
14	06 Apr 2021	13:26	ICSA 04/06/2021 (2)		210406A Red	1.
15	06 Apr 2021	21:24	CCV 210402		210406A Red	1.
16	06 Apr 2021	21:30	CCB 210406		210406A Red	1.
17	06 Apr 2021	21:37	210402A BLK DF2		210406A Red	2.
18	06 Apr 2021	21:43	210402A LCS DF2		210406A Red	2.
19	06 Apr 2021	21:50	210402A LCSD DF2		210406A Red	2.
20	06 Apr 2021	21:56	BA29552W07 DF2		210406A Red	2.
21	06 Apr 2021	22:03	BA29553W07 DF2		210406A Red	2.
22	06 Apr 2021	22:09	CCV 210402		210406A Red	1.
23	06 Apr 2021	22:16	CCB 210406		210406A Red	1.

INORGANIC ANALYSIS
Calibration and Raw Data

Method: WetChem	TOTAL ORGANIC CARBON	Instrument: Tic Toc
Analyte: DOC	Units mg/L	
Analyst: AAR	QCG: 210325A	
	Final Volume: 40mL	

Date	Time	Appl ID	[TOC]	Raw	% Recovery
06/11/20	0:01	QC blank	0.00	6172	
06/11/20	0:41	Ical 1	0.50	13120	
06/11/20	1:19	Ical 2	2.00	30622	
06/11/20	1:58	Ical 3	5.00	66151	
06/11/20	2:37	Ical 4	10.00	126505	
06/11/20	3:16	Ical 5	20.00	241922	
06/11/20	18:06	ICB	0.00	6336	
06/11/20	18:46	ICV	4.99	65817	99.8%



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2021-03-25	09:19 PM	CCV	1	60370	40mL	0.000	4.914	4.91	0.86	5.00	98.3%
2021-03-25	09:59 PM	CCB	1	2342	40mL	0.000	0.017	0.02	0.07		
2021-03-25	10:37 PM	210325A BLK	1	4111	40mL	0.139	0.139	0.00	0.03		
2021-03-25	11:16 PM	210325A LCS	1	58707	40mL	0.139	4.774	4.64	0.11	5.00	92.7%
2021-03-25	11:56 PM	210325A LCSD	1	59318	40mL	0.139	4.825	4.69	0.22	5.00	93.7%
2021-03-26	12:36 AM	BA29552W06	1	6097	40mL	0.000	0.374	0.37	0.00		
2021-03-26	01:12 AM	BA29553W04	1	13255	40mL	0.000	0.981	0.98	0.22		
2021-03-26	01:51 AM	BA29553W04 DUP	1	12900	40mL	0.000	0.952	0.95	0.00		
2021-03-26	02:29 AM	CCV	1	56198	40mL	0.000	4.56	4.56	0.08	5.00	91.2%
2021-03-26	03:09 AM	CCB	1	5201	40mL	0.000	0.261	0.26	1.04		

Name of Final Standard **TOC Calibration Curve**
 Prep Date 06/11/20
 Exp Date 06/11/21

Prep'd By (Initials) AR

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	20 uL	40 mL	DI Water	0.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	250 uL	40 mL	DI Water	5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	500 uL	40 mL	DI Water	10 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	1000 uL	40 mL	DI Water	20 ppm

Name of Final Standard **ICV (TOC)**
 Prep Date 06/11/20
 Exp Date 06/11/21

Prep'd By (Initials) AR

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1000 PPM ICV TOC Intermediate	APPL Inc.	Prep: 2/11/19	1000 mg/L	6465171-49409	06/30/21	500 uL	40mL	DI Water	10 ppm

Name of Final Standard **CCV (TOC)**
 Prep Date See Data
 Exp Date 1 year

Prep'd By (Initials) AR

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	6465171-49409	06/30/21	200 uL	40 mL	DI Water	5 ppm

Name of Final Standard **TOC LCS/LCSD**
 Prep Date See Data
 Exp Date 1 year

Prep'd By (Initials) AR

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	6465171-49409	06/30/21	200 uL	40 mL	DI Water	5 ppm

Name of Final Standard **TOC MS/MSD**
 Prep Date See Data
 Exp Date 1 year

Prep'd By (Initials) AR

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	6465171-49409	06/30/21	200 uL	40 mL	sample	5 ppm