Air Toxics LTD.

Laboratory Services Since 1989

Electronic Comprehensive Validation Package (eCVP)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

ATL Application

INVENTORY SHEET

Work Order #: 0908458A

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Comments:

Completed by:

Kara McKiernan	Kara McKiernan / Document Control	10/16/09
(Signature)	(Print Name & Title)	(Date)

Air Toxics LTD.
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WORK ORDER #: 0908458A

Work Order Summary

CLIENT:	Mr. Taeko Minegishi Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	**BILL TO:**	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
PHONE:	800-825-5343	**P.O. #**	16512
FAX:	781-247-4305	**PROJECT #**	16512
DATE RECEIVED:	08/21/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/01/2009		

FRACTION #	NAME	TEST
01A	99899	ATL Application
01AA	99899 Lab Duplicate	ATL Application
02A	99900	ATL Application
02AA	99900 Lab Duplicate	ATL Application
03A	99901	ATL Application
04A	99902	ATL Application
05A	99903	ATL Application
06A	99904	ATL Application
07A	99997	ATL Application
08A	99998	ATL Application
09A	99999	ATL Application
10A	100000	ATL Application
11A	100001	ATL Application
12A	100528	ATL Application
13A	100529	ATL Application
14A	100530	ATL Application
15A	100531	ATL Application

Continued on next page

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WORK ORDER #: 0908458A

Work Order Summary

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PHONE:	800-825-5343	**P.O. #**	16512
FAX:	781-247-4305	**PROJECT #**	16512
DATE RECEIVED:	08/21/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/01/2009		

FRACTION #	NAME	TEST
16A	100532	ATL Application
17A	100533	ATL Application
18A	100844	ATL Application
19A	100845	ATL Application
20A	100846	ATL Application
21A	Lab Blank	ATL Application
22A	LCS	ATL Application

CERTIFIED BY: Linda L. Freeman

Laboratory Director

DATE: 09/08/09

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Aldehydes by Radiello 165
Environmental Health & Engineering, Inc.
Workorder# 0908458A

Twenty Radiello 165 (Aldehydes) samples were received on August 21, 2009. The procedure involves reaction of aldehydes with 2, 4-DNPH to give 2, 4-dinitrohydrazons. The 2, 4-dinitrohydrazons are then extracted with acetonitrile and analyzed using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. Results are reported in uG and uG/m3.

Receiving Notes

A Temperature Blank was not included with the shipment. Temperature was measured on a representative sample and was not within 4±2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Sample collection date was not provided on the Chain of Custody for all samples. The client was contacted and the dates of 8/18/09 and 8/19/09 were provided.

The Chain of Custody (COC) information for sample 100533 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

Analytical Notes

Results were calculated based on 25 deg C without temperature correction.

The actual exposure time was used to calculate sample concentrations and reporting limits. An exposure time of 21483 minutes was used for the QC samples.

Sampling rates were provided by the manufacturer. See the attached document for the sample results in uG/m3 and the sampling rates for each analyte.

The detection of Acrolein appears to be masked by an interfering peak in samples 99899, 99899 Lab Duplicate, 99900, 99900 Lab Duplicate, 99902, 99903, 99997, 99998, 99999, 100001, 100528, 100529, 100531, 100532, 100844 and 100845. Therefore, Acrolein could not be quantified.

Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.

The exposure time for all samples exceeded the method recommended exposure time of 7 days.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Table 1

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample Holding Time (Days)	Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
99899	0908458A-01A	8/18/2009	8/21/2009	8/25/2009	7	8/28/2009	3	Good
99899 Lab Duplicate	0908458A-01AA	8/18/2009	8/21/2009	8/25/2009	7	8/28/2009	3	Good
99900	0908458A-02A	8/18/2009	8/21/2009	8/25/2009	7	8/28/2009	3	Good
99900 Lab Duplicate	0908458A-02AA	8/18/2009	8/21/2009	8/25/2009	7	8/28/2009	3	Good
99901	0908458A-03A	8/18/2009	8/21/2009	8/25/2009	7	8/27/2009	2	Good
99902	0908458A-04A	8/18/2009	8/21/2009	8/25/2009	7	8/29/2009	4	Good
99903	0908458A-05A	8/18/2009	8/21/2009	8/25/2009	7	8/29/2009	4	Good
99904	0908458A-06A	8/18/2009	8/21/2009	8/25/2009	7	8/27/2009	2	Good
99997	0908458A-07A	8/19/2009	8/21/2009	8/25/2009	6	8/29/2009	4	Good
99998	0908458A-08A	8/19/2009	8/21/2009	8/25/2009	6	8/29/2009	4	Good
99999	0908458A-09A	8/19/2009	8/21/2009	8/25/2009	6	8/29/2009	4	Good
100000	0908458A-10A	8/19/2009	8/21/2009	8/25/2009	6	8/27/2009	2	Good
100001	0908458A-11A	8/19/2009	8/21/2009	8/25/2009	6	8/29/2009	4	Good
100528	0908458A-12A	8/18/2009	8/21/2009	8/25/2009	7	8/29/2009	4	Good
100529	0908458A-13A	8/18/2009	8/21/2009	8/25/2009	7	8/29/2009	4	Good
100530	0908458A-14A	8/18/2009	8/21/2009	8/25/2009	7	8/28/2009	3	Good
100531	0908458A-15A	8/18/2009	8/21/2009	8/25/2009	7	8/29/2009	4	Good
100532	0908458A-16A	8/18/2009	8/21/2009	8/25/2009	7	8/29/2009	4	Good
100533	0908458A-17A	8/18/2009	8/21/2009	8/25/2009	7	8/28/2009	3	Good
100844	0908458A-18A	8/18/2009	8/21/2009	8/25/2009	7	8/29/2009	4	Good
100845	0908458A-19A	8/18/2009	8/21/2009	8/25/2009	7	8/29/2009	4	Good
100846	0908458A-20A	8/18/2009	8/21/2009	8/25/2009	7	8/28/2009	3	Good
Lab Blank	0908458A-21A	NA	NA	8/25/2009	NA	8/25/2009	0	Good
LCS	0908458A-22A	NA	NA	8/25/2009	NA	8/25/2009	0	Good

Sample Results and Raw Data

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Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 99899

Lab ID#: 0908458A-01A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	100
Acetaldehyde	2.0	27
Propanal	1.0	3.4
Methyl Ethyl Ketone/Butyraldehydes	1.0	7.0 M
Benzaldehyde	1.0	3.3
Pentanal	1.0	10
Hexanal	1.0	30

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Client Sample ID: 99899

Lab ID#: 0908458A-01A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0827059**	**Date of Collection: 8/18/09**
Dil. Factor:	**4.00**	**Date of Analysis: 8/28/09 05:12 AM**
		Date of Extraction: 8/25/09

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	100
Acetaldehyde	2.0	27
Propanal	1.0	3.4
Methyl Ethyl Ketone/Butyraldehydes	1.0	7.0 M
Benzaldehyde	1.0	3.3
Pentanal	1.0	10
Isopentanal	1.0	Not Detected
Hexanal	1.0	30
Acrolein	1.0	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/27Aug2009a.b/f0827059.d
Lab Smp Id: 0908458A-01A Client Smp ID: X4
Inj Date : 28-AUG-2009 05:12
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-01A;X4
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 06-Sep-2009 14:29 ssaeed Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 4.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve base volume(mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.015	3.017	-0.002	5448094		
2 FORMALDEHYDE	4.061	4.070	-0.009	7249929	63.8355	102
3 ACETALDEHYDE	4.881	4.910	-0.029	1462968	17.0232	27.2
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.455	6.497	-0.042	133642	2.11718	3.39
9 BUTYRALS/MEK	8.681	8.737	-0.056	238180	4.35298	6.96
10 BENZALDEHYDE	10.208	10.250	-0.042	81776	2.04603	3.27
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.808	11.857	-0.049	300848	6.53213	10.4
16 HEXANAL	14.188	14.237	-0.049	764642	18.6381	29.8

Data File: /chem/hplcf.i/27Aug2009a.b/f0827059.d

Date : 28-AUG-2009 05:12

Client ID: X4

Sample Info: ;0908458A-01A;X4

Purge Volume: 5.0

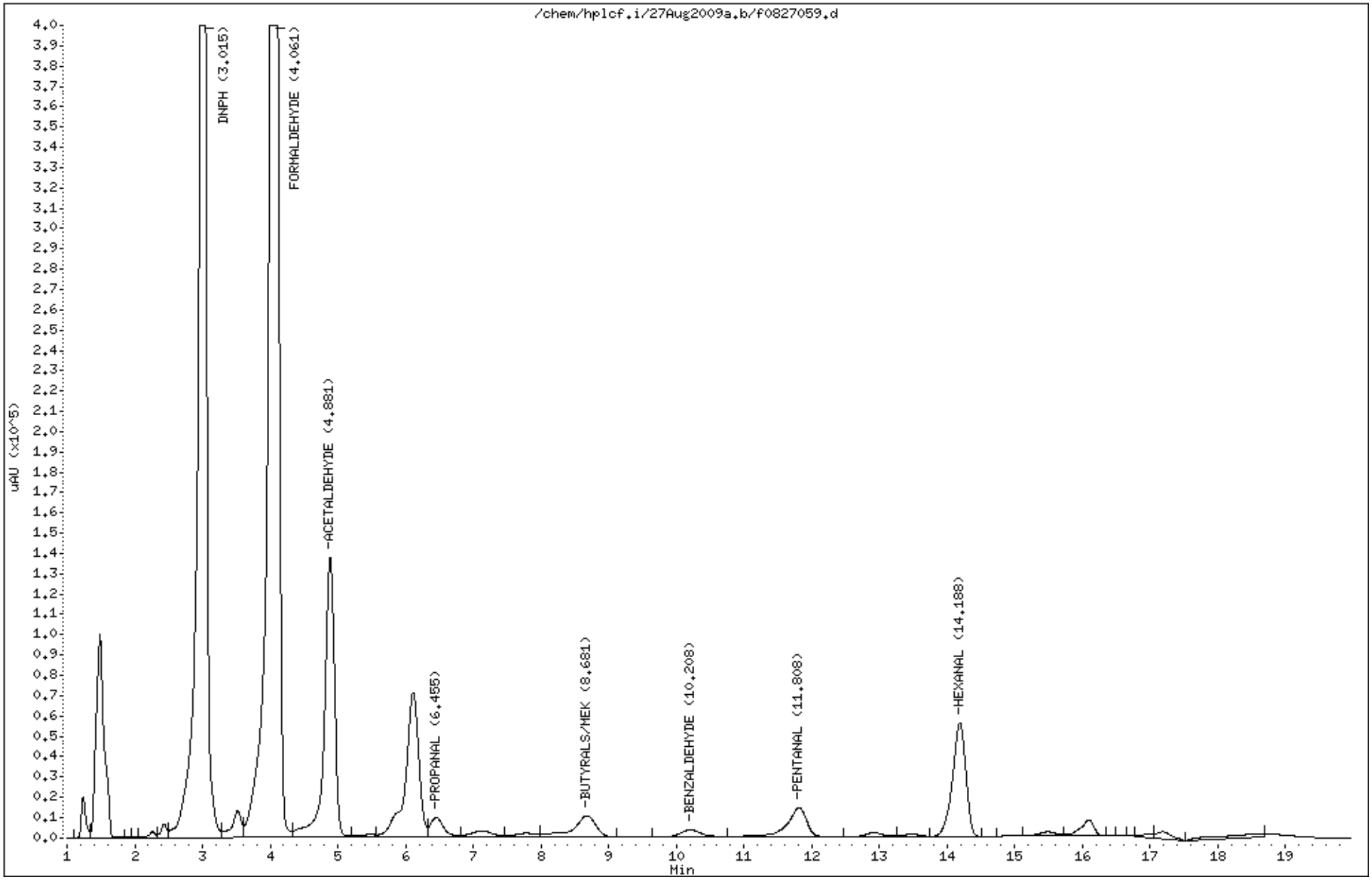
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: CRL

Column diameter: 2.00

0010



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Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 99899 Lab Duplicate

Lab ID#: 0908458A-01AA

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	100
Acetaldehyde	2.0	27
Propanal	1.0	3.2
Methyl Ethyl Ketone/Butyraldehydes	1.0	6.8 M
Benzaldehyde	1.0	3.7
Pentanal	1.0	8.3
Hexanal	1.0	30

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Client Sample ID: 99899 Lab Duplicate

Lab ID#: 0908458A-01AA

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0827060**	**Date of Collection: 8/18/09**	
Dil. Factor:	**4.00**	**Date of Analysis: 8/28/09 05:32 AM**	
		Date of Extraction: 8/25/09	

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	4.0	100
Acetaldehyde	2.0	27
Propanal	1.0	3.2
Methyl Ethyl Ketone/Butyraldehydes	1.0	6.8 M
Benzaldehyde	1.0	3.7
Pentanal	1.0	8.3
Isopentanal	1.0	Not Detected
Hexanal	1.0	30
Acrolein	1.0	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/27Aug2009a.b/f0827060.d
Lab Smp Id: 0908458A-01AA Client Smp ID: X4
Inj Date : 28-AUG-2009 05:32
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-01AA;X4
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 28-Aug-2009 17:48 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 4.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.013	3.017	-0.004	5438385		
2 FORMALDEHYDE	4.053	4.070	-0.017	7255685	63.8861	102
3 ACETALDEHYDE	4.880	4.910	-0.030	1463587	17.0305	27.2
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.460	6.497	-0.037	128052	2.02863	3.24
9 BUTYRALS/MEK	8.680	8.737	-0.057	231975	4.23958	6.78
10 BENZALDEHYDE	10.213	10.250	-0.037	91428	2.28753	3.66
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.806	11.857	-0.051	239349	5.19685	8.31
16 HEXANAL	14.186	14.237	-0.051	765141	18.6503	29.8

Data File: /chem/hplcf.i/27Aug2009a.b/f0827060.d

Date : 28-AUG-2009 05:32

Client ID: X4

Sample Info: ;0908458A-01AA;X4

Purge Volume: 5.0

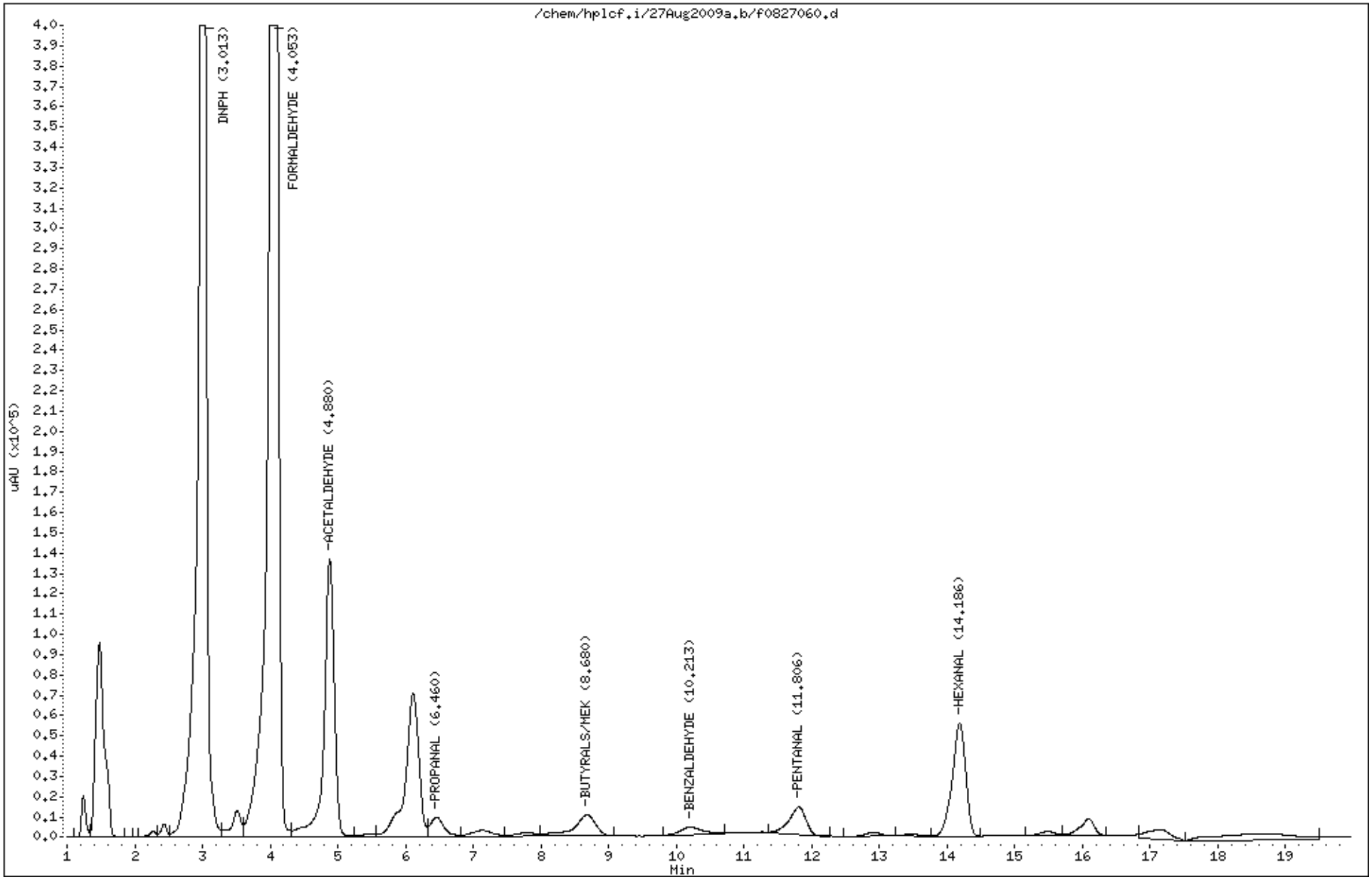
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: CRL

Column diameter: 2.00

0014



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Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 99900

Lab ID#: 0908458A-02A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	100
Acetaldehyde	2.0	26
Propanal	1.0	3.1
Methyl Ethyl Ketone/Butyraldehydes	1.0	6.4 M
Benzaldehyde	1.0	3.4
Pentanal	1.0	7.8
Hexanal	1.0	26

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Client Sample ID: 99900

Lab ID#: 0908458A-02A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0827061**	**Date of Collection: 8/18/09**
Dil. Factor:	**4.00**	**Date of Analysis: 8/28/09 05:53 AM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	4.0	100
Acetaldehyde	2.0	26
Propanal	1.0	3.1
Methyl Ethyl Ketone/Butyraldehydes	1.0	6.4 M
Benzaldehyde	1.0	3.4
Pentanal	1.0	7.8
Isopentanal	1.0	Not Detected
Hexanal	1.0	26
Acrolein	1.0	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/27Aug2009a.b/f0827061.d
Lab Smp Id: 0908458A-02A Client Smp ID: X4
Inj Date : 28-AUG-2009 05:53
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-02A;X4
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 28-Aug-2009 17:48 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 4.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.013	3.017	-0.004	4924169		
2 FORMALDEHYDE	4.059	4.070	-0.011	7426715	65.3921	105
3 ACETALDEHYDE	4.886	4.910	-0.024	1401300	16.3057	26.1
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.459	6.497	-0.038	123387	1.95473	3.13
9 BUTYRALS/MEK	8.679	8.737	-0.058	219921	4.01929	6.43
10 BENZALDEHYDE	10.213	10.250	-0.037	84820	2.12219	3.40
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.799	11.857	-0.058	224221	4.86840	7.79
16 HEXANAL	14.186	14.237	-0.051	665025	16.2099	25.9

Data File: /chem/hplcf.i/27Aug2009a.b/f0827061.d

Date : 28-AUG-2009 05:53

Client ID: X4

Sample Info: ;0908458A-02A;X4

Purge Volume: 5.0

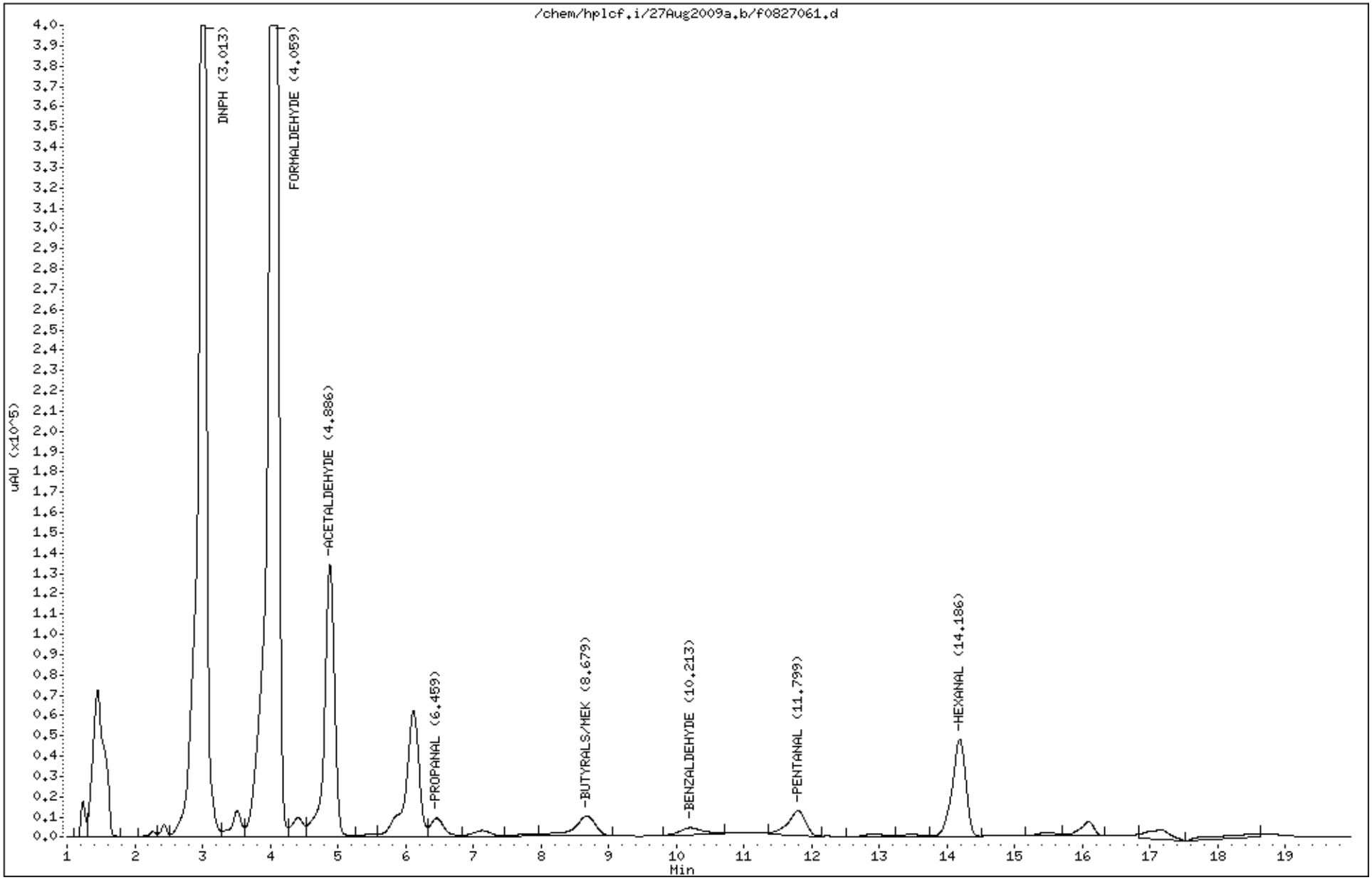
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: CRL

Column diameter: 2.00

0018



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Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 99900 Lab Duplicate

Lab ID#: 0908458A-02AA

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	100
Acetaldehyde	2.0	26
Propanal	1.0	3.1
Methyl Ethyl Ketone/Butyraldehydes	1.0	6.4 M
Benzaldehyde	1.0	3.4
Pentanal	1.0	7.8
Hexanal	1.0	26

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Client Sample ID: 99900 Lab Duplicate

Lab ID#: 0908458A-02AA

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0827062**	**Date of Collection: 8/18/09**
Dil. Factor:	**4.00**	**Date of Analysis: 8/28/09 06:14 AM**
		Date of Extraction: 8/25/09

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	100
Acetaldehyde	2.0	26
Propanal	1.0	3.1
Methyl Ethyl Ketone/Butyraldehydes	1.0	6.4 M
Benzaldehyde	1.0	3.4
Pentanal	1.0	7.8
Isopentanal	1.0	Not Detected
Hexanal	1.0	26
Acrolein	1.0	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/27Aug2009a.b/f0827062.d
Lab Smp Id: 0908458A-02AA Client Smp ID: X4
Inj Date : 28-AUG-2009 06:14
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-02AA;X4
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 28-Aug-2009 17:48 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 4.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.013	3.017	-0.004	4912032		
2 FORMALDEHYDE	4.060	4.070	-0.010	7424638	65.3738	104
3 ACETALDEHYDE	4.880	4.910	-0.030	1399183	16.2810	26.0
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.453	6.497	-0.044	123434	1.95546	3.13
9 BUTYRALS/MEK	8.673	8.737	-0.064	219661	4.01453	6.42
10 BENZALDEHYDE	10.207	10.250	-0.043	84910	2.12444	3.40
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.800	11.857	-0.057	224237	4.86873	7.79
16 HEXANAL	14.187	14.237	-0.050	664138	16.1883	25.9

Data File: /chem/hplcf.i/27Aug2009a.b/f0827062.d

Date : 28-AUG-2009 06:14

Client ID: X4

Sample Info: ;0908458A-02AA;X4

Purge Volume: 5.0

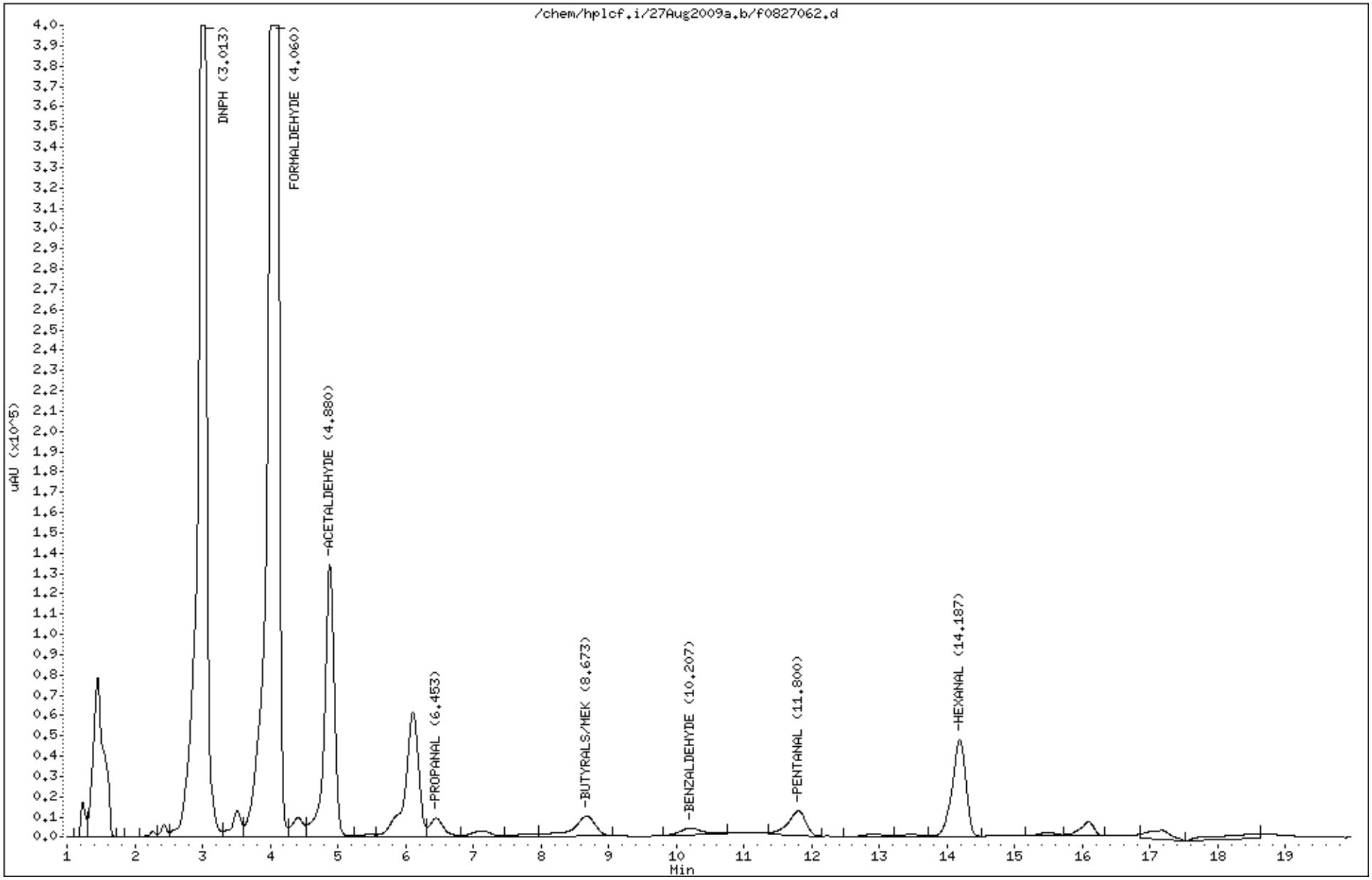
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: CRL

Column diameter: 2.00

0022



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 99901

Lab ID#: 0908458A-03A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	1.0	5.4
Acetaldehyde	0.50	2.0
Propanal	0.25	0.40
Methyl Ethyl Ketone/Butyraldehydes	0.25	0.48
Pentanal	0.25	0.34
Hexanal	0.25	0.60

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 99901

Lab ID#: 0908458A-03A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0827042**	**Date of Collection: 8/18/09**
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/09 11:17 PM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	1.0	5.4
Acetaldehyde	0.50	2.0
Propanal	0.25	0.40
Methyl Ethyl Ketone/Butyraldehydes	0.25	0.48
Benzaldehyde	0.25	Not Detected
Pentanal	0.25	0.34
Isopentanal	0.25	Not Detected
Hexanal	0.25	0.60
Acrolein	0.25	Not Detected

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/27Aug2009a.b/f0827042.d
Lab Smp Id: 0908458A-03A
Inj Date : 27-AUG-2009 23:17
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-03A;
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 28-Aug-2009 17:48 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

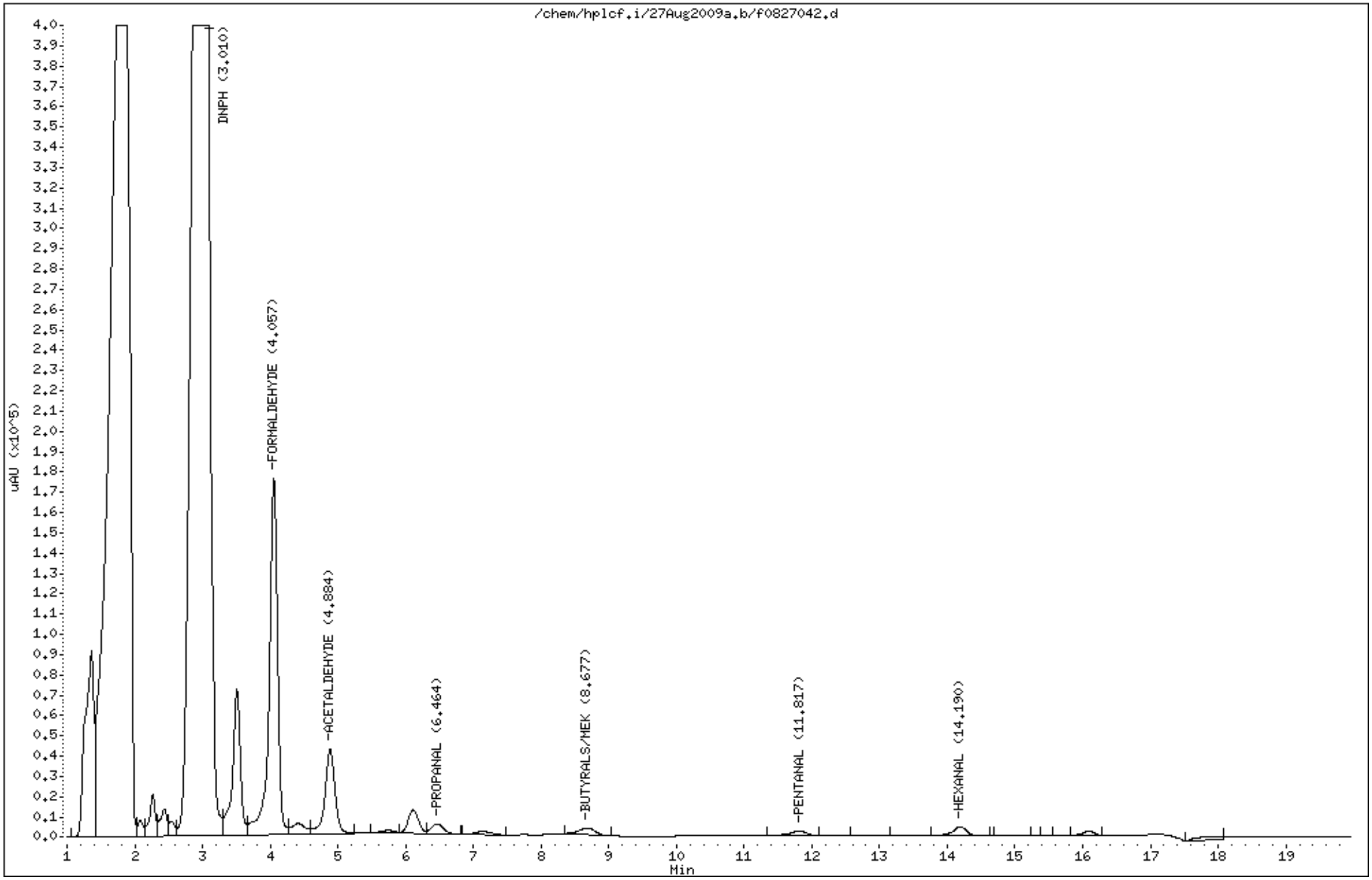
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.010	3.017	-0.007	28093277		
2 FORMALDEHYDE	4.057	4.070	-0.013	1528292	13.4566	5.38
3 ACETALDEHYDE	4.884	4.910	-0.026	428091	4.98132	1.99
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.464	6.497	-0.033	63440	1.00503	0.402
9 BUTYRALS/MEK	8.677	8.737	-0.060	65974	1.20575	0.482
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.817	11.857	-0.040	39725	0.86253	0.345
16 HEXANAL	14.190	14.237	-0.047	61767	1.50558	0.602

0026

Data File: /chem/hplcf.i/27Aug2009a.b/f0827042.d
Date : 27-AUG-2009 23:17
Client ID:
Sample Info: ;0908458A-03A;
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: CRL
Column diameter: 2.00



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 99902

Lab ID#: 0908458A-04A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	5.0	100
Acetaldehyde	2.5	21
Propanal	1.2	2.6
Methyl Ethyl Ketone/Butyraldehydes	1.2	5.6
Benzaldehyde	1.2	3.5
Pentanal	1.2	7.4
Hexanal	1.2	26

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 99902

Lab ID#: 0908458A-04A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828064**	**Date of Collection: 8/18/09**
Dil. Factor:	**5.00**	**Date of Analysis: 8/29/09 09:52 AM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	5.0	100
Acetaldehyde	2.5	21
Propanal	1.2	2.6
Methyl Ethyl Ketone/Butyraldehydes	1.2	5.6
Benzaldehyde	1.2	3.5
Pentanal	1.2	7.4
Isopentanal	1.2	Not Detected
Hexanal	1.2	26
Acrolein	1.2	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/28Aug2009.b/f0828064.d
Lab Smp Id: 0908458A-04A Client Smp ID: X5
Inj Date : 29-AUG-2009 09:52
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-04A;X5
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.004	3.014	-0.010	3281294		
2 FORMALDEHYDE	4.051	4.074	-0.023	5696036	50.1535	100
3 ACETALDEHYDE	4.878	4.907	-0.029	902291	10.4992	21.0
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.438	6.481	-0.043	82213	1.30244	2.60
9 BUTYRALS/MEK	8.638	8.721	-0.083	154142	2.81711	5.63
10 BENZALDEHYDE	10.151	10.241	-0.090	69058	1.72784	3.46
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.751	11.841	-0.090	169215	3.67407	7.35
16 HEXANAL	14.144	14.221	-0.077	535472	13.0521	26.1

Data File: /chem/hplcf.i/28Aug2009.b/f0828064.d

Date : 29-AUG-2009 09:52

Client ID: X5

Instrument: hplcf.i

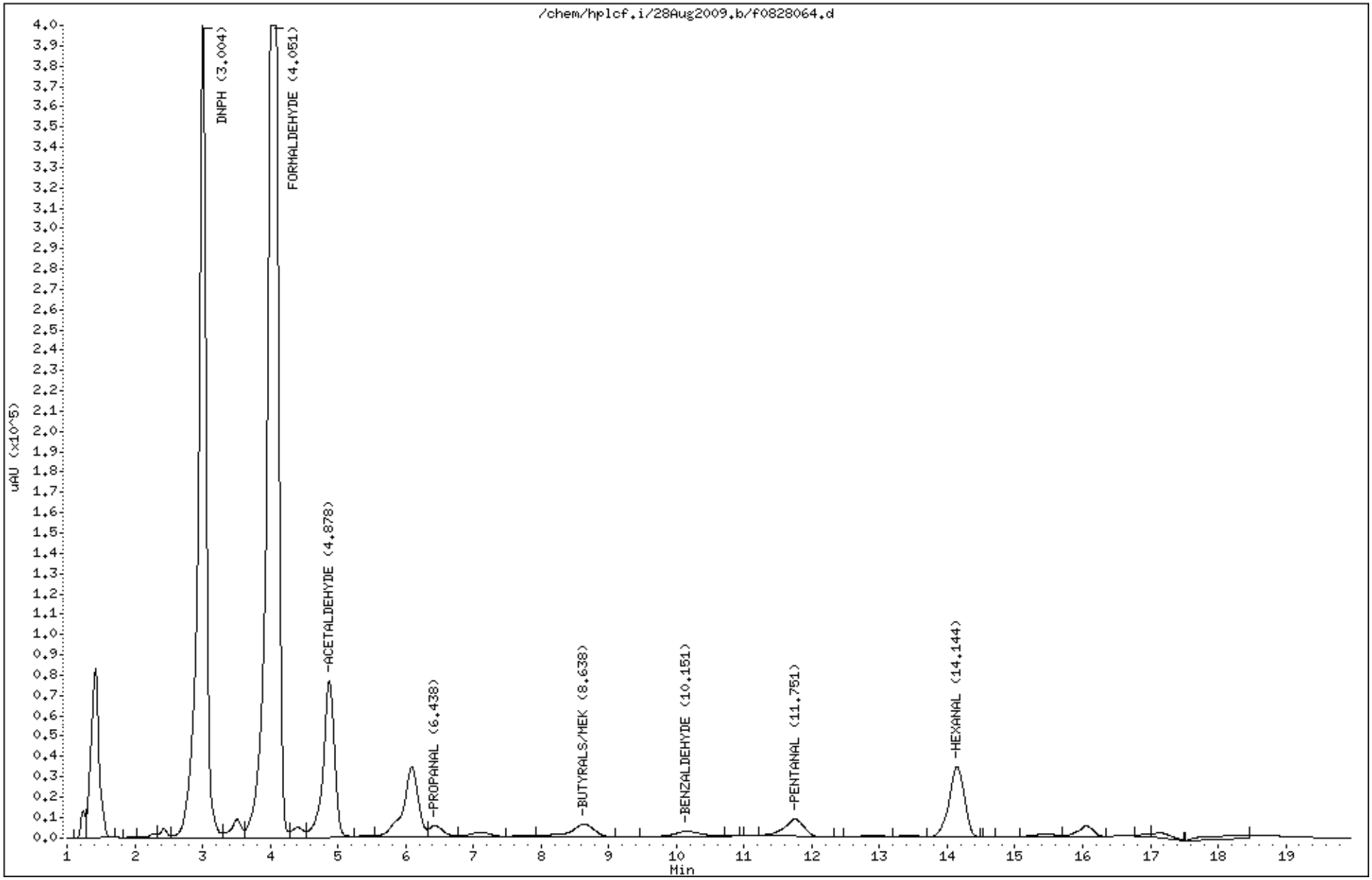
Sample Info: ;0908458A-04A;X5

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



0030

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 99903

Lab ID#: 0908458A-05A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	5.0	100
Acetaldehyde	2.5	21
Propanal	1.2	2.2
Methyl Ethyl Ketone/Butyraldehydes	1.2	4.5
Benzaldehyde	1.2	2.9
Pentanal	1.2	7.2
Hexanal	1.2	25

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 99903

Lab ID#: 0908458A-05A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828065**	**Date of Collection: 8/18/09**
Dil. Factor:	**5.00**	**Date of Analysis: 8/29/09 10:13 AM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	5.0	100
Acetaldehyde	2.5	21
Propanal	1.2	2.2
Methyl Ethyl Ketone/Butyraldehydes	1.2	4.5
Benzaldehyde	1.2	2.9
Pentanal	1.2	7.2
Isopentanal	1.2	Not Detected
Hexanal	1.2	25
Acrolein	1.2	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/28Aug2009.b/f0828065.d
Lab Smp Id: 0908458A-05A Client Smp ID: X5
Inj Date : 29-AUG-2009 10:13
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-05A;X5
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.005	3.014	-0.009	3415129		
2 FORMALDEHYDE	4.045	4.074	-0.029	5970152	52.5671	105
3 ACETALDEHYDE	4.872	4.907	-0.035	891901	10.3783	20.8
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.431	6.481	-0.050	68229	1.08090	2.16
9 BUTYRALS/MEK	8.625	8.721	-0.096	122588	2.24043	4.48
10 BENZALDEHYDE	10.152	10.241	-0.089	58048	1.45236	2.90
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.752	11.841	-0.089	165246	3.58790	7.18
16 HEXANAL	14.138	14.221	-0.083	512920	12.5024	25.0

Data File: /chem/hplcf.i/28Aug2009.b/f0828065.d

Date : 29-AUG-2009 10:13

Client ID: X5

Sample Info: ;0908458A-05A;X5

Purge Volume: 5.0

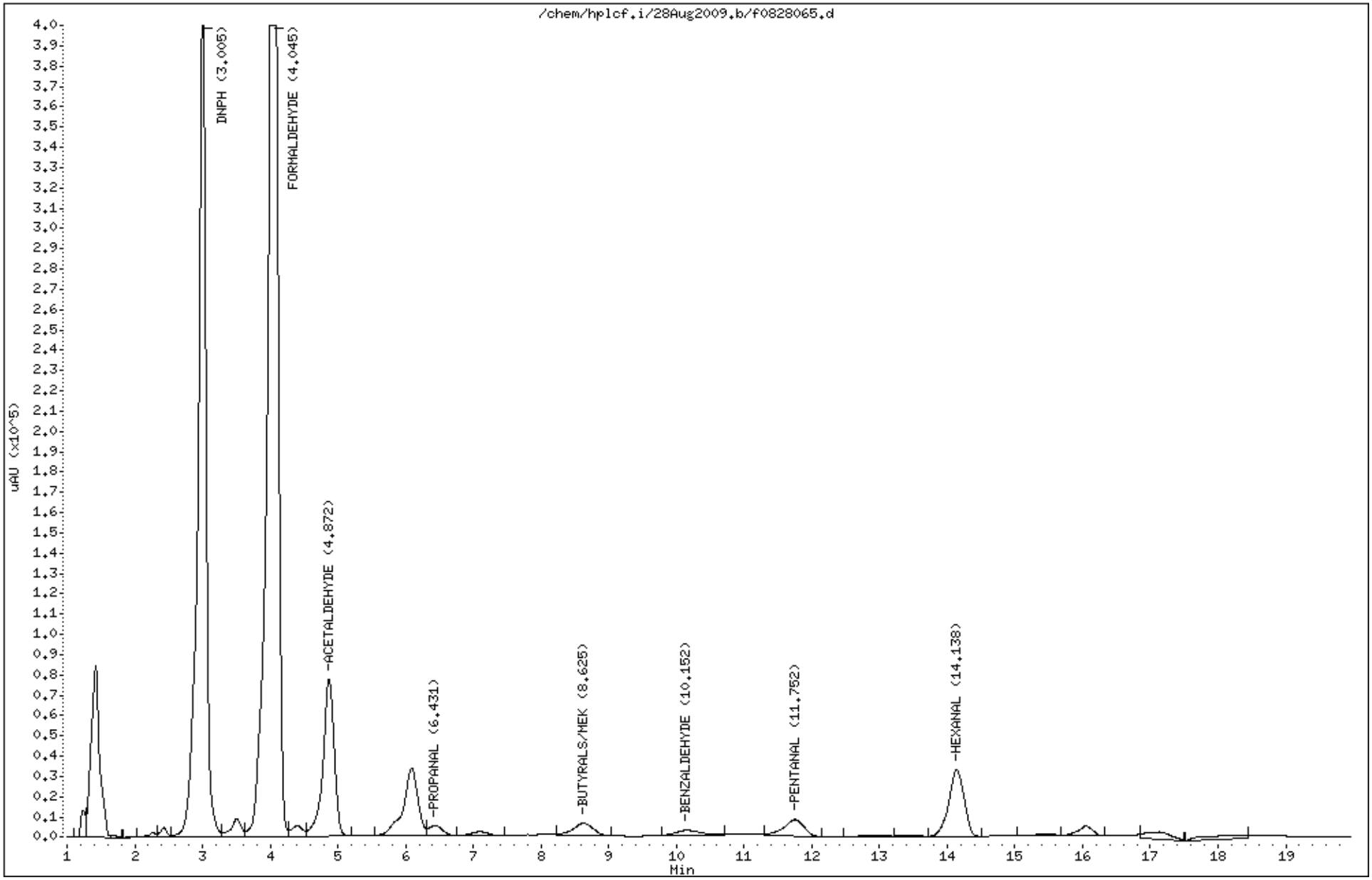
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: LZ

Column diameter: 2.00

0034



Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 99904

Lab ID#: 0908458A-06A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 99904

Lab ID#: 0908458A-06A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0827043**	**Date of Collection:**	**8/18/09**
Dil. Factor:	**1.00**	**Date of Analysis:**	**8/27/09 11:37 PM**
		Date of Extraction:	**8/25/09**

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	1.0	Not Detected
Acetaldehyde	0.50	Not Detected
Propanal	0.25	Not Detected
Methyl Ethyl Ketone/Butyraldehydes	0.25	Not Detected
Benzaldehyde	0.25	Not Detected
Pentanal	0.25	Not Detected
Isopentanal	0.25	Not Detected
Hexanal	0.25	Not Detected
Acrolein	0.25	Not Detected

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/27Aug2009a.b/f0827043.d
Lab Smp Id: 0908458A-06A
Inj Date : 27-AUG-2009 23:37
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-06A;
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 28-Aug-2009 17:48 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

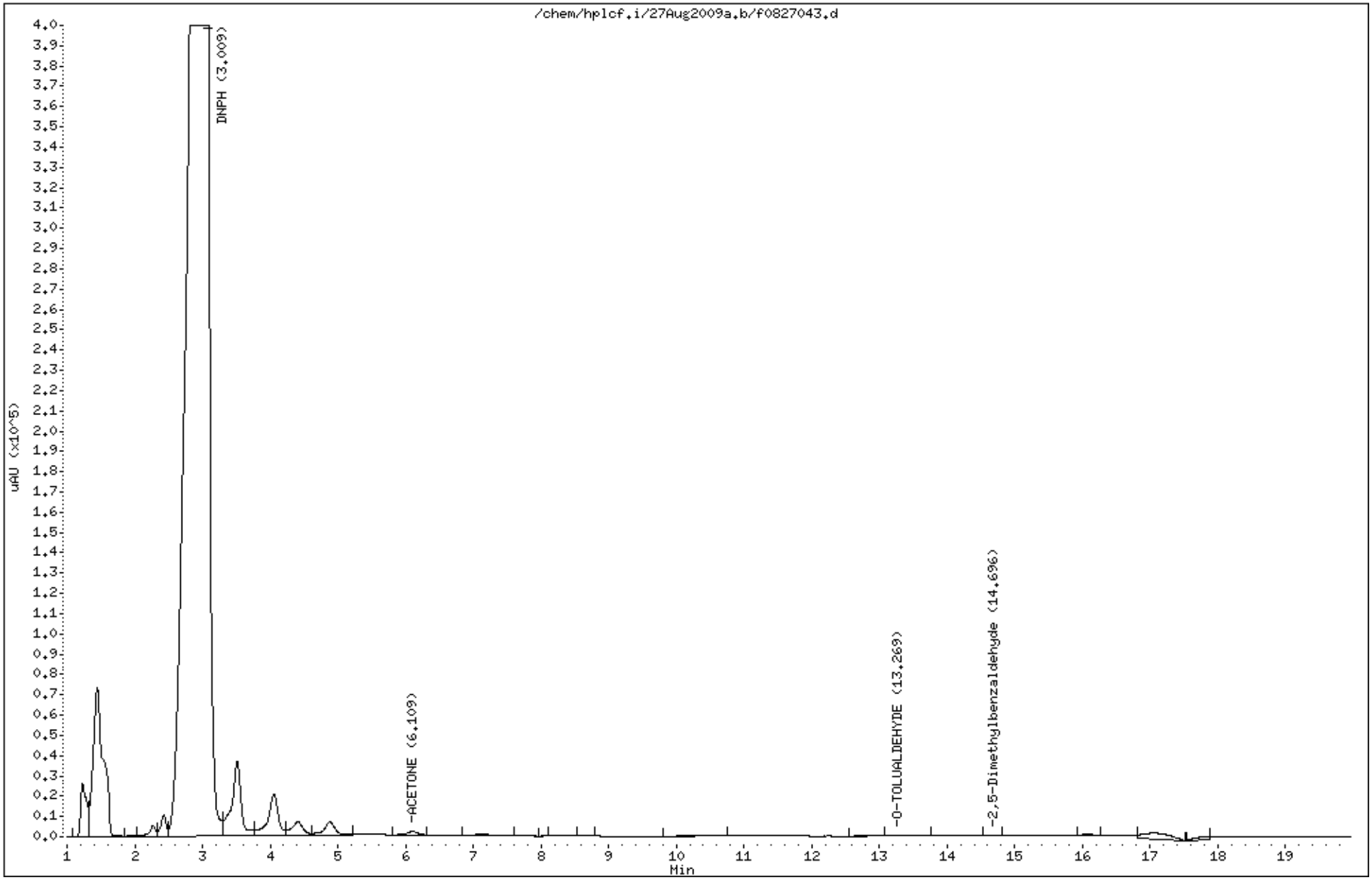
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.009	3.017	-0.008	35392147		
2 FORMALDEHYDE	Compound Not Detected.					
3 ACETALDEHYDE	Compound Not Detected.					
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	Compound Not Detected.					
9 BUTYRALS/MEK	Compound Not Detected.					
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	Compound Not Detected.					
16 HEXANAL	Compound Not Detected.					

0038

Data File: /chem/hplcf.i/27Aug2009a.b/f0827043.d
Date : 27-AUG-2009 23:37
Client ID:
Sample Info: ;0908458A-06A;
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: CRL
Column diameter: 2.00



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 99997

Lab ID#: 0908458A-07A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	5.0	110
Acetaldehyde	2.5	20
Propanal	1.2	3.3
Methyl Ethyl Ketone/Butyraldehydes	1.2	7.8
Benzaldehyde	1.2	4.0
Pentanal	1.2	17
Hexanal	1.2	56

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 99997

Lab ID#: 0908458A-07A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828070**	**Date of Collection: 8/19/09**
Dil. Factor:	**5.00**	**Date of Analysis: 8/29/09 11:57 AM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	5.0	110
Acetaldehyde	2.5	20
Propanal	1.2	3.3
Methyl Ethyl Ketone/Butyraldehydes	1.2	7.8
Benzaldehyde	1.2	4.0
Pentanal	1.2	17
Isopentanal	1.2	Not Detected
Hexanal	1.2	56
Acrolein	1.2	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/28Aug2009.b/f0828070.d
Lab Smp Id: 0908458A-07A Client Smp ID: X5
Inj Date : 29-AUG-2009 11:57
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-07A;X5
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.010	3.014	-0.004	6465990		
2 FORMALDEHYDE	4.050	4.074	-0.024	6419393	56.5226	113
3 ACETALDEHYDE	4.876	4.907	-0.031	837668	9.74719	19.5
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.436	6.481	-0.045	103017	1.63201	3.26
9 BUTYRALS/MEK	8.643	8.721	-0.078	213222	3.89685	7.79
10 BENZALDEHYDE	10.170	10.241	-0.071	79616	1.99199	3.98
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.770	11.841	-0.071	400089	8.68690	17.4
16 HEXANAL	14.150	14.221	-0.071	1153508	28.1167	56.2

Data File: /chem/hplcf.i/28Aug2009.b/f0828070.d

Date : 29-AUG-2009 11:57

Client ID: X5

Sample Info: ;0908458A-07A;X5

Purge Volume: 5.0

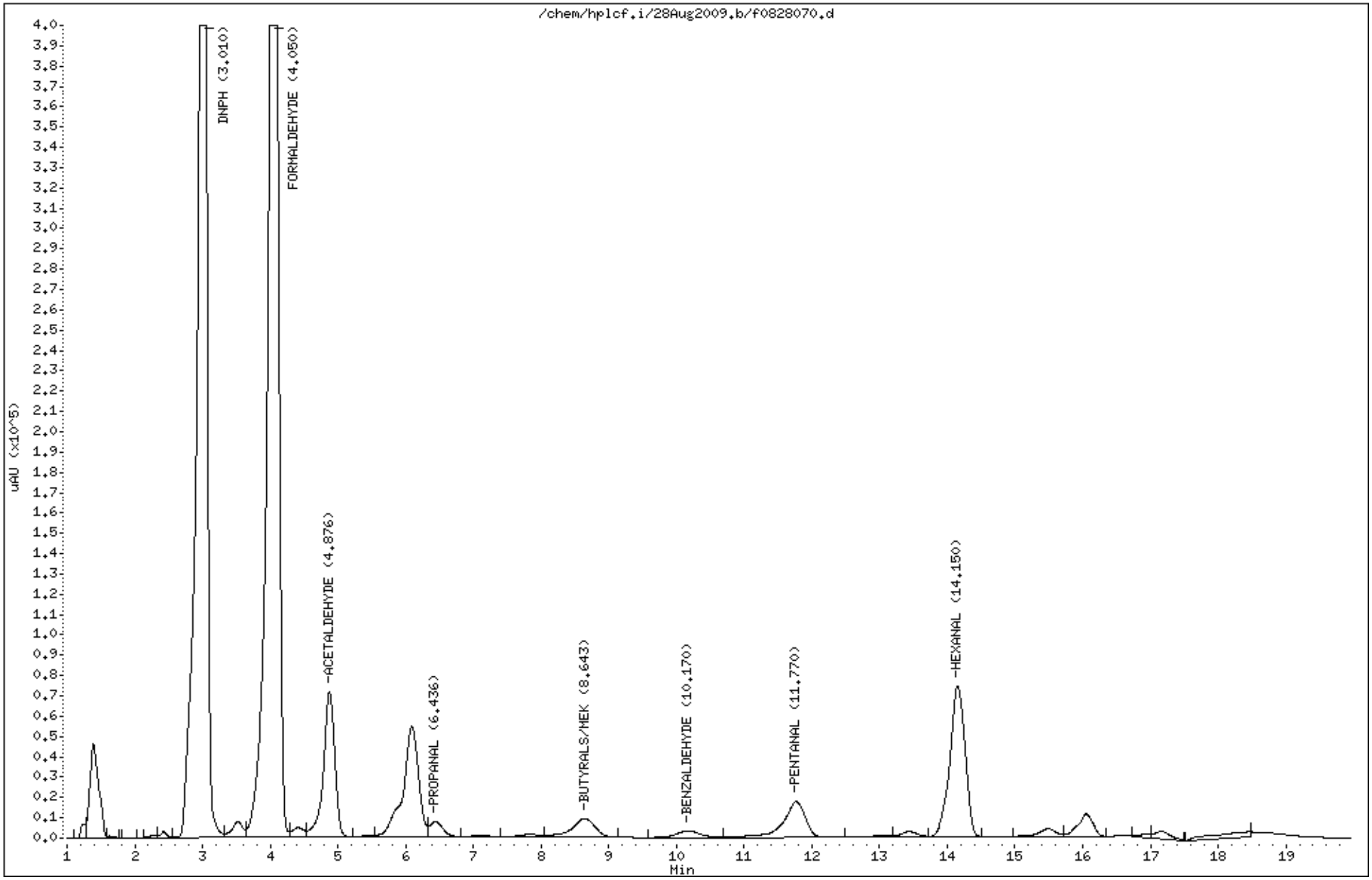
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: LZ

Column diameter: 2.00

0042



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 99998

Lab ID#: 0908458A-08A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	5.0	120
Acetaldehyde	2.5	20
Propanal	1.2	3.1
Methyl Ethyl Ketone/Butyraldehydes	1.2	7.7
Benzaldehyde	1.2	4.4
Pentanal	1.2	16
Hexanal	1.2	56

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 99998

Lab ID#: 0908458A-08A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828071**	**Date of Collection: 8/19/09**
Dil. Factor:	**5.00**	**Date of Analysis: 8/29/09 12:18 PM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	5.0	120
Acetaldehyde	2.5	20
Propanal	1.2	3.1
Methyl Ethyl Ketone/Butyraldehydes	1.2	7.7
Benzaldehyde	1.2	4.4
Pentanal	1.2	16
Isopentanal	1.2	Not Detected
Hexanal	1.2	56
Acrolein	1.2	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/28Aug2009.b/f0828071.d
Lab Smp Id: 0908458A-08A Client Smp ID: X5
Inj Date : 29-AUG-2009 12:18
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-08A;X5
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.007	3.014	-0.007	5250246		
2 FORMALDEHYDE	4.054	4.074	-0.020	6566885	57.8213	116
3 ACETALDEHYDE	4.874	4.907	-0.033	875689	10.1896	20.4
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.434	6.481	-0.047	96740	1.53258	3.06
9 BUTYRALS/MEK	8.640	8.721	-0.081	210142	3.84057	7.68
10 BENZALDEHYDE	10.174	10.241	-0.067	88141	2.20529	4.41
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.767	11.841	-0.074	359164	7.79832	15.6
16 HEXANAL	14.154	14.221	-0.067	1159743	28.2687	56.5

Data File: /chem/hplcf.i/28Aug2009.b/f0828071.d

Date : 29-AUG-2009 12:18

Client ID: X5

Sample Info: ;0908458A-08A;X5

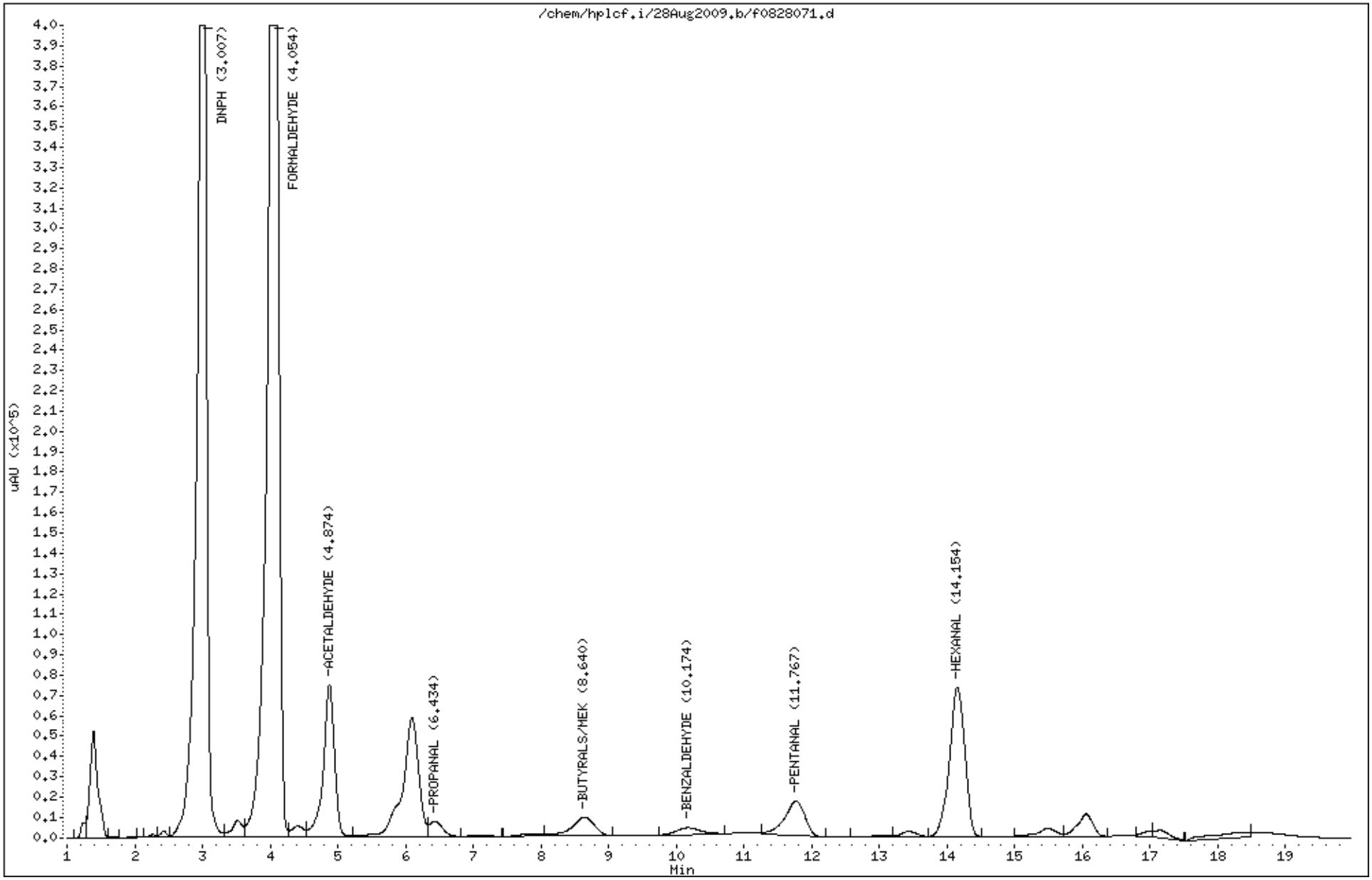
Purge Volume: 5.0

Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: LZ

Column diameter: 2.00



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 99999

Lab ID#: 0908458A-09A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	5.0	120
Acetaldehyde	2.5	21
Propanal	1.2	3.3
Methyl Ethyl Ketone/Butyraldehydes	1.2	8.3
Benzaldehyde	1.2	4.9
Pentanal	1.2	16
Hexanal	1.2	59

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 99999

Lab ID#: 0908458A-09A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828072**	**Date of Collection: 8/19/09**
Dil. Factor:	**5.00**	**Date of Analysis: 8/29/09 12:39 PM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	5.0	120
Acetaldehyde	2.5	21
Propanal	1.2	3.3
Methyl Ethyl Ketone/Butyraldehydes	1.2	8.3
Benzaldehyde	1.2	4.9
Pentanal	1.2	16
Isopentanal	1.2	Not Detected
Hexanal	1.2	59
Acrolein	1.2	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/28Aug2009.b/f0828072.d
Lab Smp Id: 0908458A-09A Client Smp ID: X5
Inj Date : 29-AUG-2009 12:39
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-09A;X5
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.003	3.014	-0.011	6332512		
2 FORMALDEHYDE	4.050	4.074	-0.024	6668854	58.7191	117
3 ACETALDEHYDE	4.870	4.907	-0.037	909140	10.5788	21.2
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.437	6.481	-0.044	105577	1.67258	3.34
9 BUTYRALS/MEK	8.650	8.721	-0.071	227225	4.15278	8.30
10 BENZALDEHYDE	10.183	10.241	-0.058	97121	2.42998	4.86
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.770	11.841	-0.071	357283	7.75748	15.5
16 HEXANAL	14.157	14.221	-0.064	1214590	29.6056	59.2

Data File: /chem/hplcf.i/28Aug2009.b/f0828072.d

Page 1

Date : 29-AUG-2009 12:39

Client ID: X5

Instrument: hplcf.i

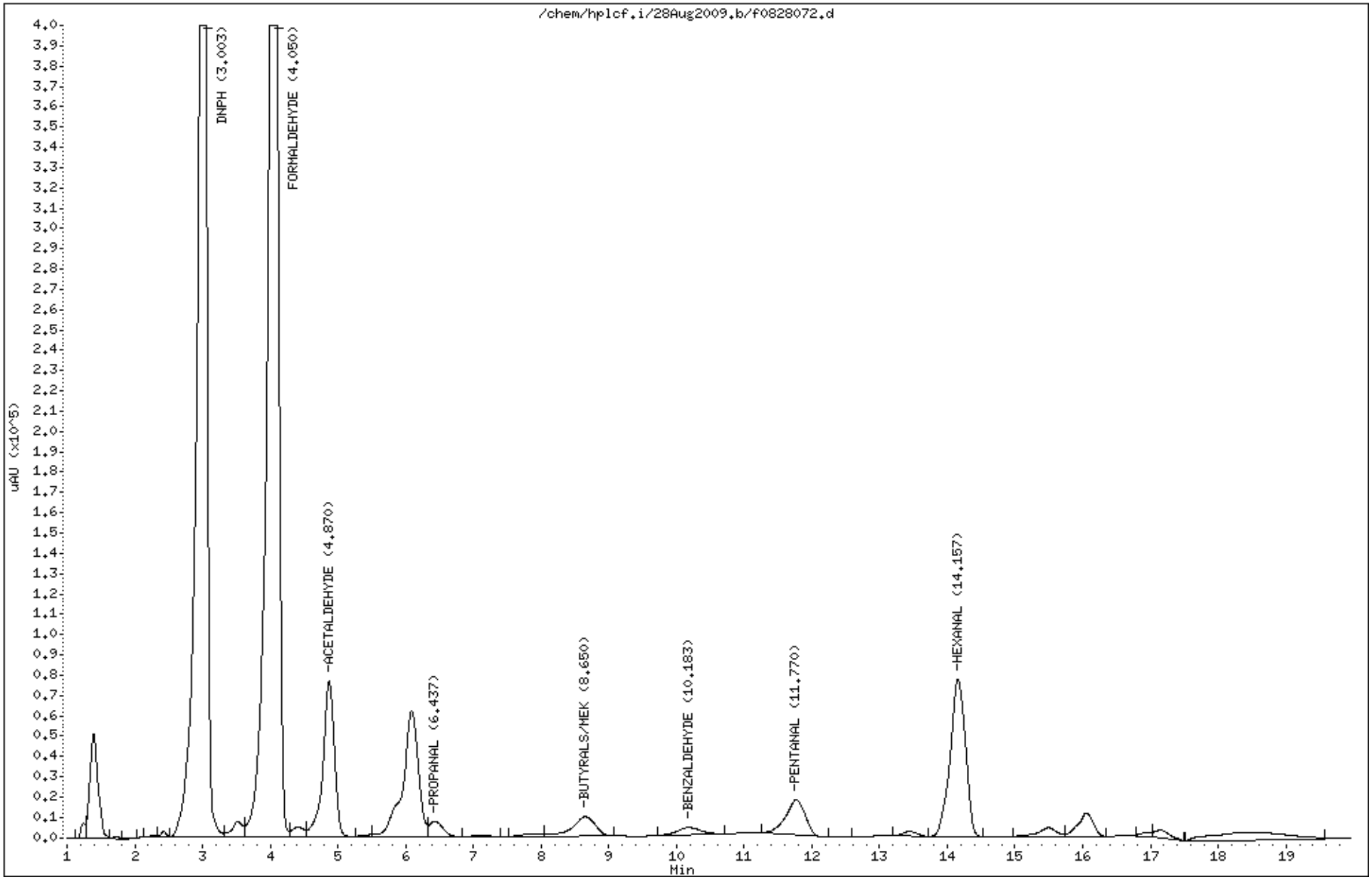
Sample Info: ;0908458A-09A;X5

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



0050

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 100000

Lab ID#: 0908458A-10A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	1.0	5.7
Acetaldehyde	0.50	1.4
Propanal	0.25	0.25
Methyl Ethyl Ketone/Butyraldehydes	0.25	0.36
Pentanal	0.25	0.31
Hexanal	0.25	0.74

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 100000

Lab ID#: 0908458A-10A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0827044**	**Date of Collection: 8/19/09**
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/09 11:58 PM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	1.0	5.7
Acetaldehyde	0.50	1.4
Propanal	0.25	0.25
Methyl Ethyl Ketone/Butyraldehydes	0.25	0.36
Benzaldehyde	0.25	Not Detected
Pentanal	0.25	0.31
Isopentanal	0.25	Not Detected
Hexanal	0.25	0.74
Acrolein	0.25	Not Detected

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/27Aug2009a.b/f0827044.d
Lab Smp Id: 0908458A-10A
Inj Date : 27-AUG-2009 23:58
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-10A;
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 28-Aug-2009 17:48 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.007	3.017	-0.010	30862713		
2 FORMALDEHYDE	4.054	4.070	-0.016	1623040	14.2908	5.72
3 ACETALDEHYDE	4.887	4.910	-0.023	300917	3.50150	1.40
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.460	6.497	-0.037	39826	0.63093	0.252
9 BUTYRALS/MEK	8.681	8.737	-0.056	49967	0.91320	0.365
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.807	11.857	-0.050	35704	0.77522	0.310
16 HEXANAL	14.187	14.237	-0.050	75733	1.84599	0.738

Data File: /chem/hplcf.i/27Aug2009a.b/f0827044.d

Date : 27-AUG-2009 23:58

Client ID:

Sample Info: ;0908458A-10A;

Purge Volume: 5.0

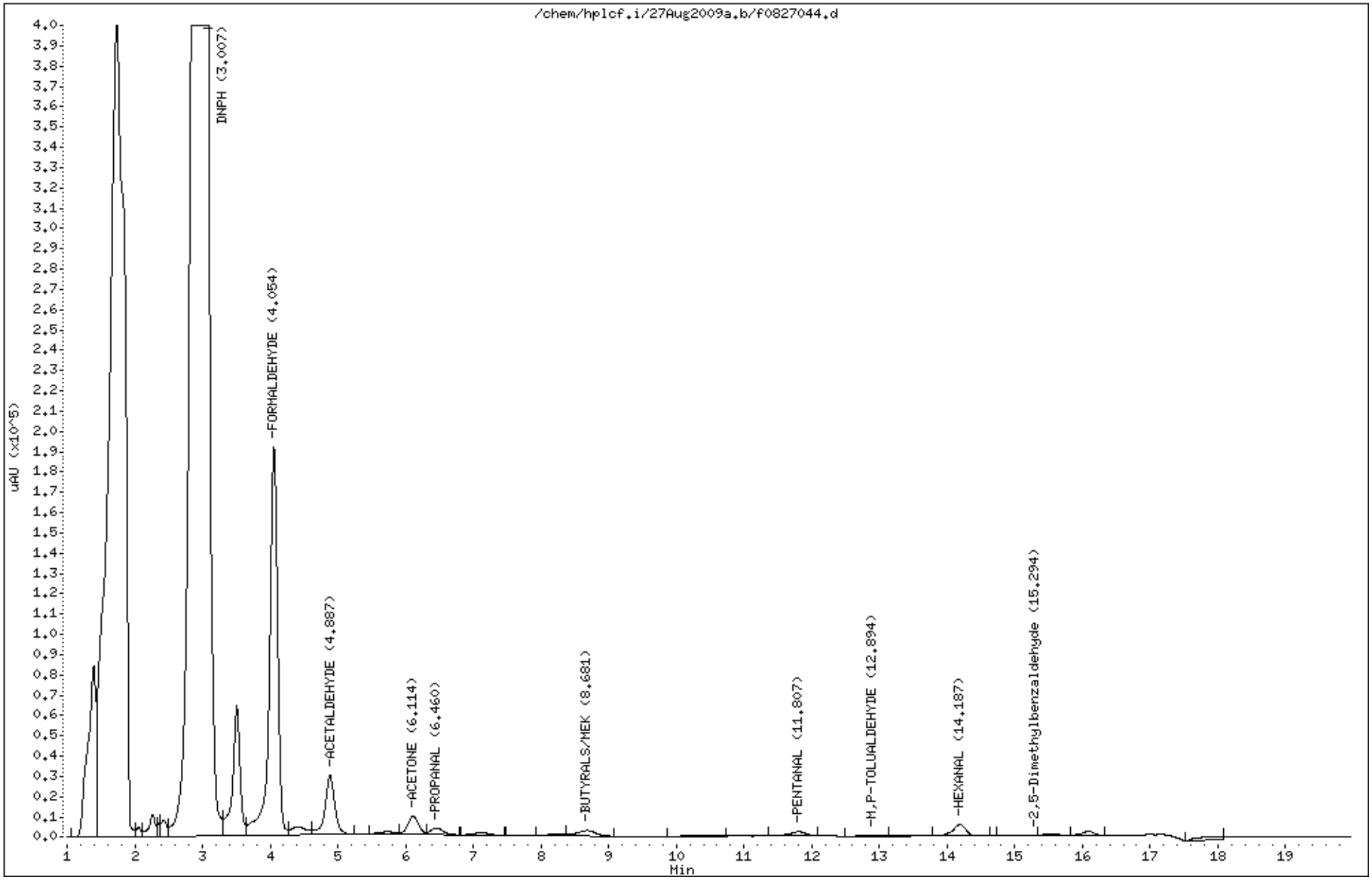
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: CRL

Column diameter: 2.00

0054



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 100001

Lab ID#: 0908458A-11A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	5.0	110
Acetaldehyde	2.5	16
Propanal	1.2	2.6
Methyl Ethyl Ketone/Butyraldehydes	1.2	6.3
Benzaldehyde	1.2	4.2
Pentanal	1.2	14
Hexanal	1.2	51

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 100001

Lab ID#: 0908458A-11A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828073**	**Date of Collection: 8/19/09**
Dil. Factor:	**5.00**	**Date of Analysis: 8/29/09 01:00 PM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	5.0	110
Acetaldehyde	2.5	16
Propanal	1.2	2.6
Methyl Ethyl Ketone/Butyraldehydes	1.2	6.3
Benzaldehyde	1.2	4.2
Pentanal	1.2	14
Isopentanal	1.2	Not Detected
Hexanal	1.2	51
Acrolein	1.2	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/28Aug2009.b/f0828073.d
Lab Smp Id: 0908458A-11A Client Smp ID: X5
Inj Date : 29-AUG-2009 13:00
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-11A;X5
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.006	3.014	-0.008	5097998		
2 FORMALDEHYDE	4.052	4.074	-0.022	6216265	54.7341	109
3 ACETALDEHYDE	4.879	4.907	-0.028	676468	7.87146	15.7
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.446	6.481	-0.035	81079	1.28448	2.57
9 BUTYRALS/MEK	8.652	8.721	-0.069	172104	3.14539	6.29
10 BENZALDEHYDE	10.186	10.241	-0.055	84742	2.12025	4.24
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.772	11.841	-0.069	315293	6.84578	13.7
16 HEXANAL	14.159	14.221	-0.062	1050261	25.6001	51.2

Data File: /chem/hplcf.i/28Aug2009.b/f0828073.d

Date : 29-AUG-2009 13:00

Client ID: X5

Instrument: hplcf.i

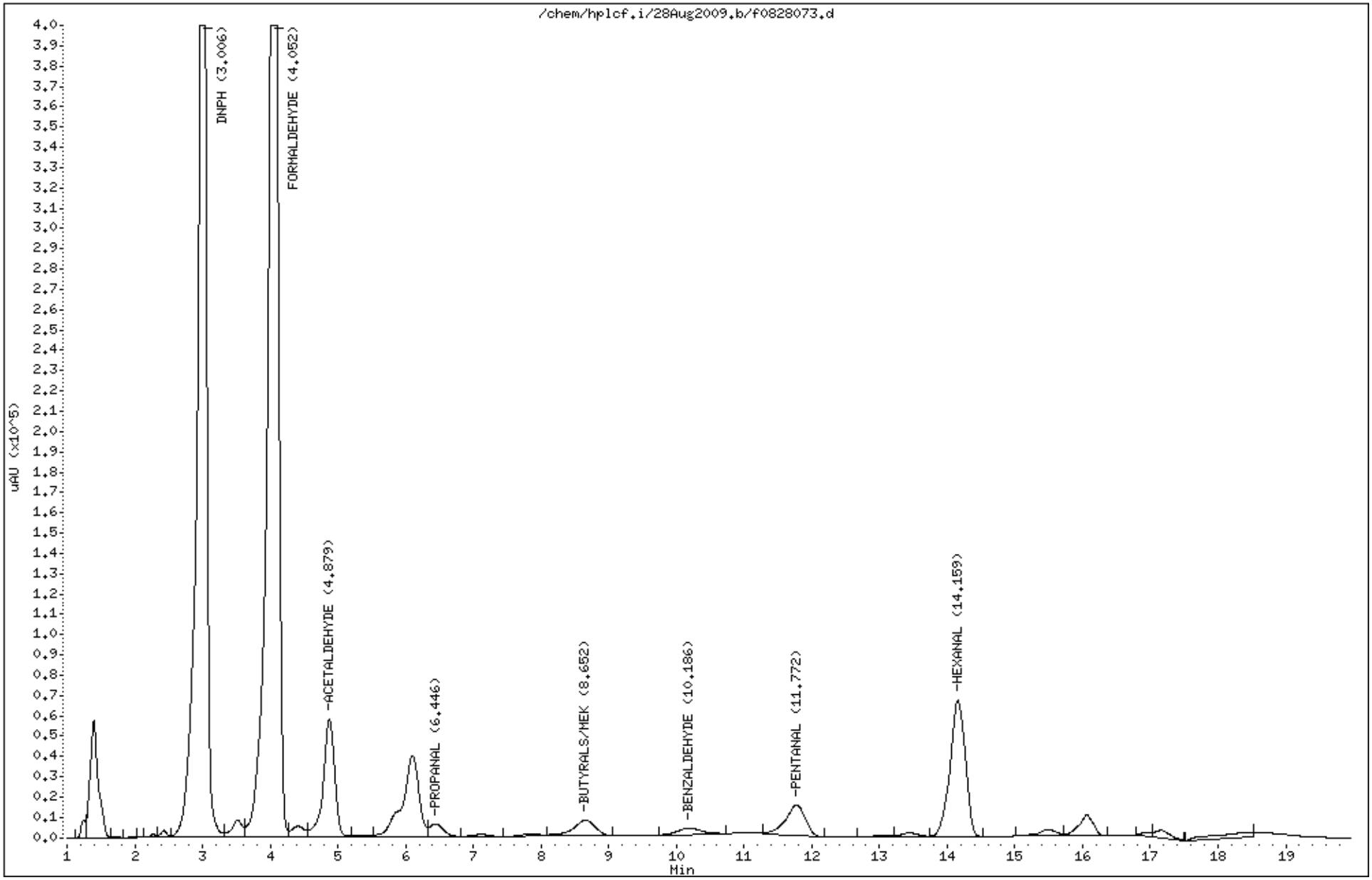
Sample Info: ;0908458A-11A;X5

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



0058

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 100528

Lab ID#: 0908458A-12A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	79
Acetaldehyde	2.0	26
Propanal	1.0	4.2
Methyl Ethyl Ketone/Butyraldehydes	1.0	4.8
Benzaldehyde	1.0	2.6
Pentanal	1.0	5.8
Hexanal	1.0	21

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 100528

Lab ID#: 0908458A-12A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828074**	**Date of Collection: 8/18/09**
Dil. Factor:	**4.00**	**Date of Analysis: 8/29/09 01:21 PM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	4.0	79
Acetaldehyde	2.0	26
Propanal	1.0	4.2
Methyl Ethyl Ketone/Butyraldehydes	1.0	4.8
Benzaldehyde	1.0	2.6
Pentanal	1.0	5.8
Isopentanal	1.0	Not Detected
Hexanal	1.0	21
Acrolein	1.0	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/28Aug2009.b/f0828074.d
Lab Smp Id: 0908458A-12A Client Smp ID: X4
Inj Date : 29-AUG-2009 13:21
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-12A;X4
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 4.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.011	3.014	-0.003	6892507		
2 FORMALDEHYDE	4.058	4.074	-0.016	5612957	49.4220	79.1
3 ACETALDEHYDE	4.885	4.907	-0.022	1411505	16.4244	26.3
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.445	6.481	-0.036	166826	2.64290	4.23
9 BUTYRALS/MEK	8.658	8.721	-0.063	164563	3.00756	4.81
10 BENZALDEHYDE	10.198	10.241	-0.043	63845	1.59740	2.56
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.765	11.841	-0.076	166343	3.61171	5.78
16 HEXANAL	14.158	14.221	-0.063	534140	13.0196	20.8

Data File: /chem/hplcf.i/28Aug2009.b/f0828074.d

Page 1

Date : 29-AUG-2009 13:21

Client ID: X4

Instrument: hplcf.i

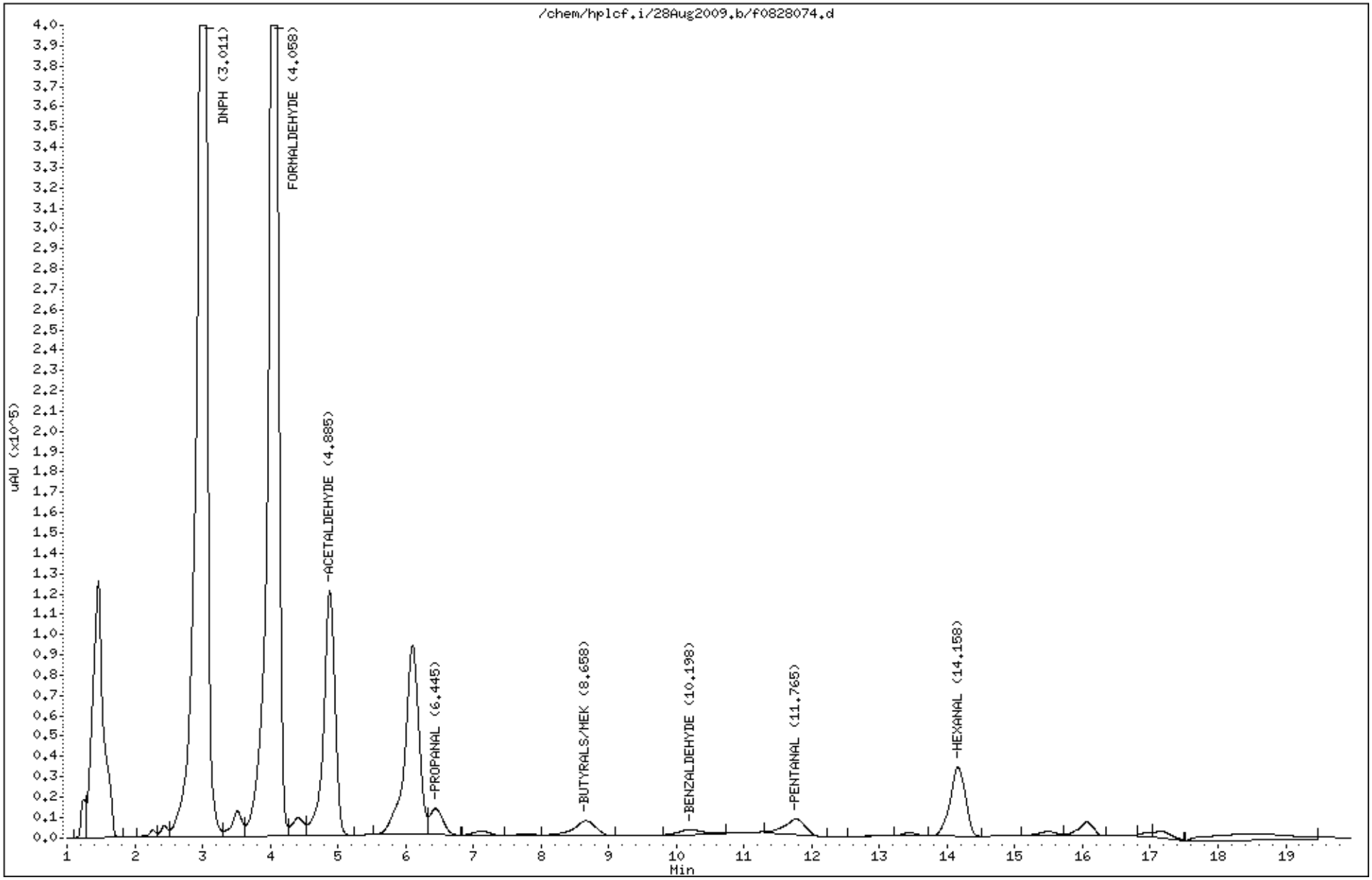
Sample Info: ;0908458A-12A;X4

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



0062

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 100529

Lab ID#: 0908458A-13A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	78
Acetaldehyde	2.0	26
Propanal	1.0	4.2
Methyl Ethyl Ketone/Butyraldehydes	1.0	4.8
Benzaldehyde	1.0	2.9
Pentanal	1.0	6.2
Hexanal	1.0	21

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 100529

Lab ID#: 0908458A-13A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828075**	**Date of Collection: 8/18/09**
Dil. Factor:	**4.00**	**Date of Analysis: 8/29/09 01:42 PM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	4.0	78
Acetaldehyde	2.0	26
Propanal	1.0	4.2
Methyl Ethyl Ketone/Butyraldehydes	1.0	4.8
Benzaldehyde	1.0	2.9
Pentanal	1.0	6.2
Isopentanal	1.0	Not Detected
Hexanal	1.0	21
Acrolein	1.0	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/28Aug2009.b/f0828075.d
Lab Smp Id: 0908458A-13A Client Smp ID: X4
Inj Date : 29-AUG-2009 13:42
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-13A;X4
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 4.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

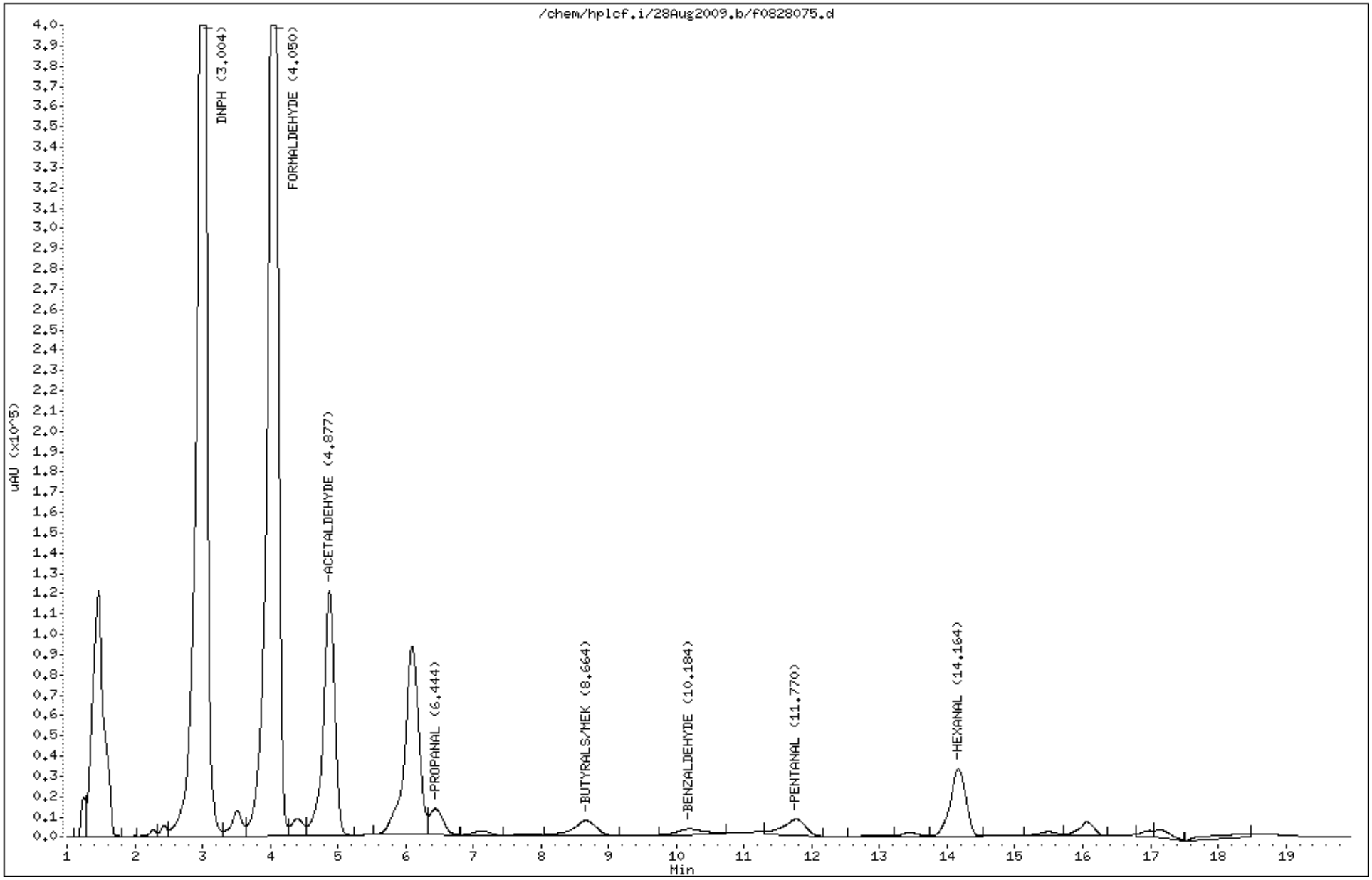
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.004	3.014	-0.010	6487177		
2 FORMALDEHYDE	4.050	4.074	-0.024	5566574	49.0136	78.4
3 ACETALDEHYDE	4.877	4.907	-0.030	1413014	16.4420	26.3
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.444	6.481	-0.037	166673	2.64048	4.22
9 BUTYRALS/MEK	8.664	8.721	-0.057	163223	2.98308	4.77
10 BENZALDEHYDE	10.184	10.241	-0.057	72478	1.81341	2.90
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.770	11.841	-0.071	179852	3.90503	6.25
16 HEXANAL	14.164	14.221	-0.057	528578	12.8841	20.6

0900

Data File: /chem/hplcf.i/28Aug2009.b/f0828075.d
Date : 29-AUG-2009 13:42
Client ID: X4
Sample Info: ;0908458A-13A;X4
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 100530

Lab ID#: 0908458A-14A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	1.0	5.6
Acetaldehyde	0.50	2.3
Propanal	0.25	0.43
Methyl Ethyl Ketone/Butyraldehydes	0.25	0.44
Pentanal	0.25	0.33
Hexanal	0.25	0.71

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 100530

Lab ID#: 0908458A-14A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0827045**	**Date of Collection:**	**8/18/09**
Dil. Factor:	**1.00**	**Date of Analysis:**	**8/28/09 12:19 AM**
		Date of Extraction:	**8/25/09**

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	1.0	5.6
Acetaldehyde	0.50	2.3
Propanal	0.25	0.43
Methyl Ethyl Ketone/Butyraldehydes	0.25	0.44
Benzaldehyde	0.25	Not Detected
Pentanal	0.25	0.33
Isopentanal	0.25	Not Detected
Hexanal	0.25	0.71
Acrolein	0.25	Not Detected

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/27Aug2009a.b/f0827045.d
Lab Smp Id: 0908458A-14A
Inj Date : 28-AUG-2009 00:19
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-14A;
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 28-Aug-2009 17:48 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.010	3.017	-0.007	30011267		
2 FORMALDEHYDE	4.057	4.070	-0.013	1592236	14.0196	5.61
3 ACETALDEHYDE	4.884	4.910	-0.026	485326	5.64731	2.26
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.464	6.497	-0.033	67337	1.06677	0.427
9 BUTYRALS/MEK	8.677	8.737	-0.060	59472	1.08693	0.435
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.804	11.857	-0.053	37594	0.81626	0.326
16 HEXANAL	14.190	14.237	-0.047	72548	1.76836	0.707

Data File: /chem/hplcf.i/27Aug2009a.b/f0827045.d

Date : 28-AUG-2009 00:19

Client ID:

Sample Info: ;0908458A-14A;

Purge Volume: 5.0

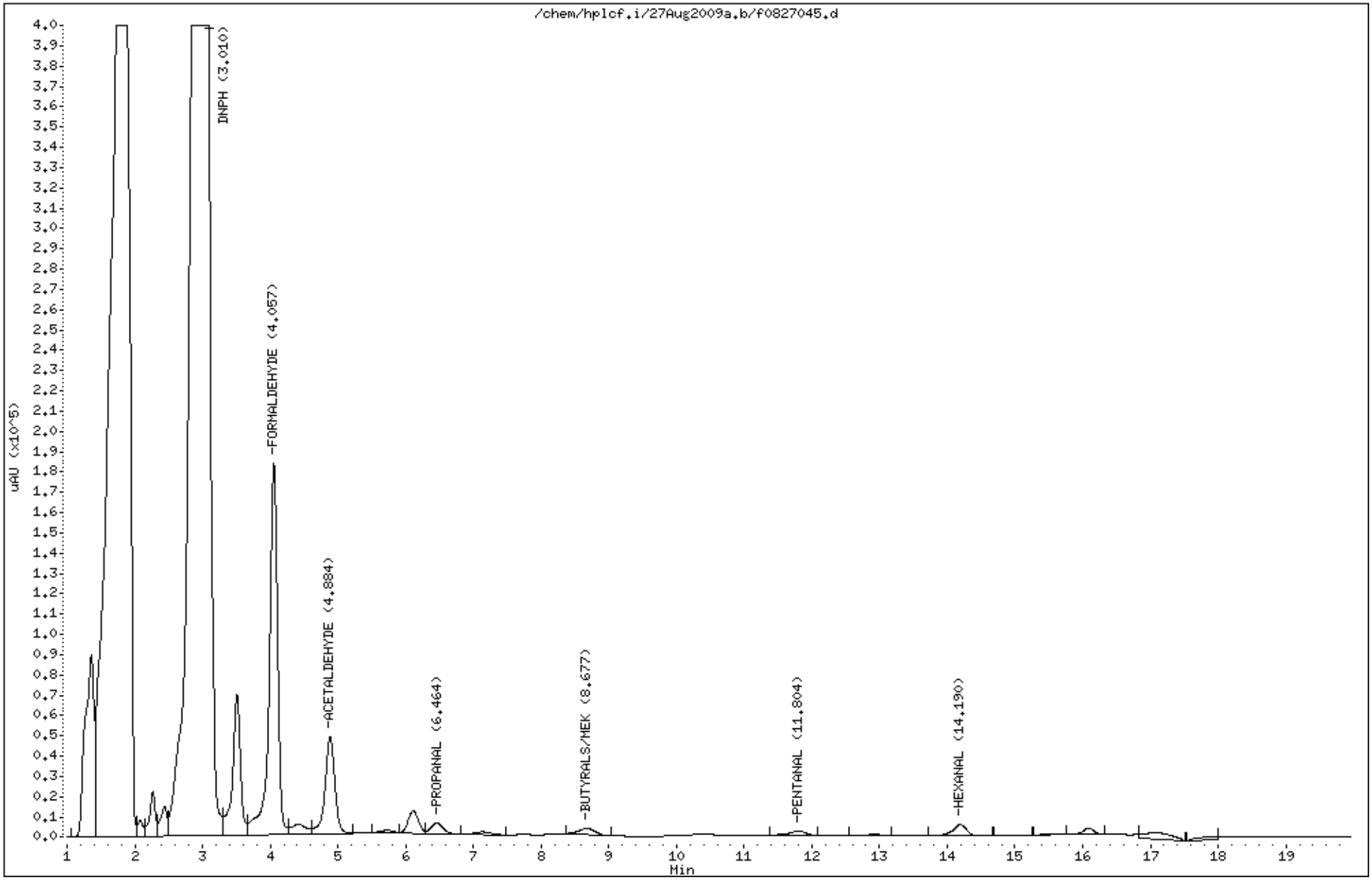
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: CRL

Column diameter: 2.00

0070



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 100531

Lab ID#: 0908458A-15A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	78
Acetaldehyde	2.0	26
Propanal	1.0	4.1
Methyl Ethyl Ketone/Butyraldehydes	1.0	4.7
Benzaldehyde	1.0	2.6
Pentanal	1.0	6.1
Hexanal	1.0	20

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 100531

Lab ID#: 0908458A-15A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828076**	**Date of Collection: 8/18/09**
Dil. Factor:	**4.00**	**Date of Analysis: 8/29/09 02:03 PM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	4.0	78
Acetaldehyde	2.0	26
Propanal	1.0	4.1
Methyl Ethyl Ketone/Butyraldehydes	1.0	4.7
Benzaldehyde	1.0	2.6
Pentanal	1.0	6.1
Isopentanal	1.0	Not Detected
Hexanal	1.0	20
Acrolein	1.0	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/28Aug2009.b/f0828076.d
Lab Smp Id: 0908458A-15A Client Smp ID: X4
Inj Date : 29-AUG-2009 14:03
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-15A;X4
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 4.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.009	3.014	-0.005	8502275		
2 FORMALDEHYDE	4.056	4.074	-0.018	5521903	48.6202	77.8
3 ACETALDEHYDE	4.882	4.907	-0.025	1401287	16.3055	26.1
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.449	6.481	-0.032	163222	2.58581	4.14
9 BUTYRALS/MEK	8.669	8.721	-0.052	161911	2.95909	4.73
10 BENZALDEHYDE	10.209	10.241	-0.032	64221	1.60680	2.57
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.782	11.841	-0.059	175576	3.81219	6.10
16 HEXANAL	14.169	14.221	-0.052	502807	12.2559	19.6

Data File: /chem/hplcf.i/28Aug2009.b/f0828076.d

Date : 29-AUG-2009 14:03

Client ID: X4

Instrument: hplcf.i

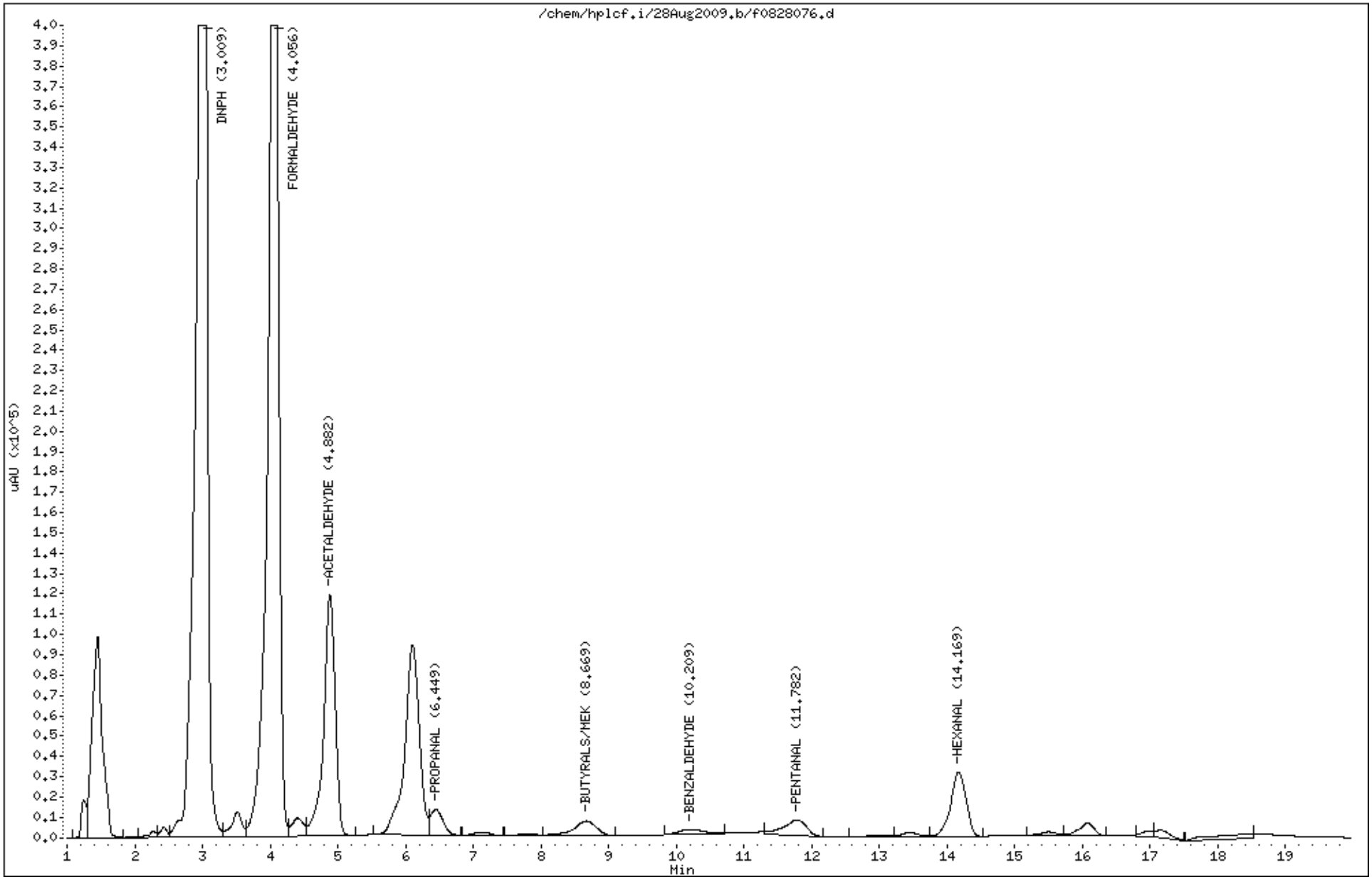
Sample Info: ;0908458A-15A;X4

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



0074

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 100532

Lab ID#: 0908458A-16A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	73
Acetaldehyde	2.0	26
Propanal	1.0	4.2
Methyl Ethyl Ketone/Butyraldehydes	1.0	5.0
Benzaldehyde	1.0	2.8
Pentanal	1.0	6.4
Hexanal	1.0	21

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 100532

Lab ID#: 0908458A-16A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828077**	**Date of Collection: 8/18/09**
Dil. Factor:	**4.00**	**Date of Analysis: 8/29/09 02:24 PM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	4.0	73
Acetaldehyde	2.0	26
Propanal	1.0	4.2
Methyl Ethyl Ketone/Butyraldehydes	1.0	5.0
Benzaldehyde	1.0	2.8
Pentanal	1.0	6.4
Isopentanal	1.0	Not Detected
Hexanal	1.0	21
Acrolein	1.0	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/28Aug2009.b/f0828077.d
Lab Smp Id: 0908458A-16A Client Smp ID: X4
Inj Date : 29-AUG-2009 14:24
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-16A;X4
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 4.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.008	3.014	-0.006	6308976		
2 FORMALDEHYDE	4.055	4.074	-0.019	5173934	45.5564	72.9
3 ACETALDEHYDE	4.881	4.907	-0.026	1407536	16.3782	26.2
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.448	6.481	-0.033	167545	2.65428	4.25
9 BUTYRALS/MEK	8.661	8.721	-0.060	169619	3.09996	4.96
10 BENZALDEHYDE	10.201	10.241	-0.040	69986	1.75104	2.80
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.781	11.841	-0.060	183414	3.98236	6.37
16 HEXANAL	14.168	14.221	-0.053	534083	13.0182	20.8

Data File: /chem/hplcf.i/28Aug2009.b/f0828077.d

Page 1

Date : 29-AUG-2009 14:24

Client ID: X4

Instrument: hplcf.i

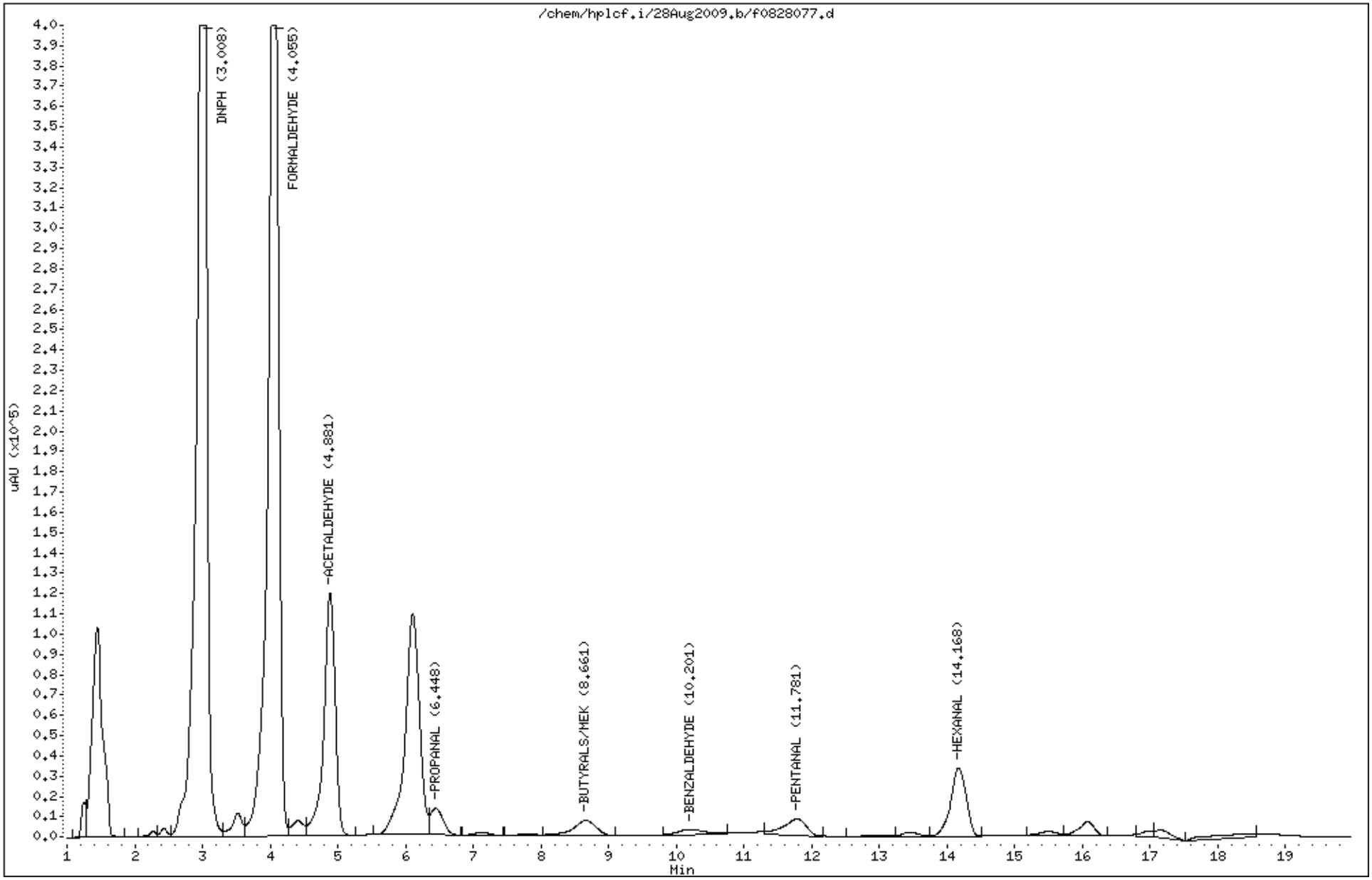
Sample Info: ;0908458A-16A;X4

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



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Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 100533

Lab ID#: 0908458A-17A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 100533

Lab ID#: 0908458A-17A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0827046**	**Date of Collection: 8/18/09**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/28/09 12:40 AM**	
		Date of Extraction: 8/25/09	

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	1.0	Not Detected
Acetaldehyde	0.50	Not Detected
Propanal	0.25	Not Detected
Methyl Ethyl Ketone/Butyraldehydes	0.25	Not Detected
Benzaldehyde	0.25	Not Detected
Pentanal	0.25	Not Detected
Isopentanal	0.25	Not Detected
Hexanal	0.25	Not Detected
Acrolein	0.25	Not Detected

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/27Aug2009a.b/f0827046.d
Lab Smp Id: 0908458A-17A
Inj Date : 28-AUG-2009 00:40
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-17A;
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 28-Aug-2009 17:48 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.014	3.017	-0.003	36357957		
2 FORMALDEHYDE	Compound Not Detected.					
3 ACETALDEHYDE	Compound Not Detected.					
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	Compound Not Detected.					
9 BUTYRALS/MEK	Compound Not Detected.					
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	Compound Not Detected.					
16 HEXANAL	Compound Not Detected.					

Data File: /chem/hplcf.i/27Aug2009a.b/f0827046.d

Date : 28-AUG-2009 00:40

Client ID:

Sample Info: ;0908458A-17A;

Purge Volume: 5.0

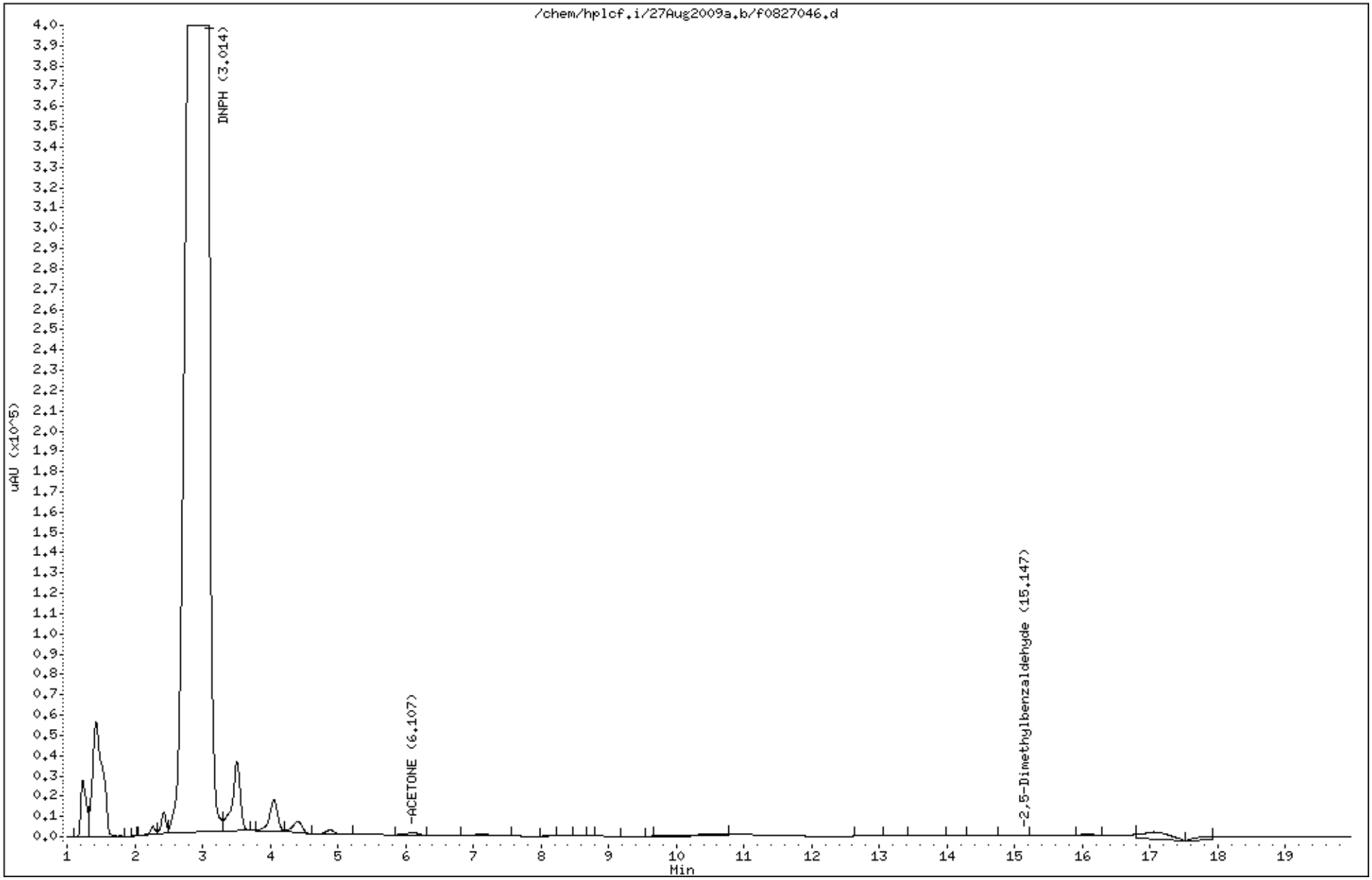
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: CRL

Column diameter: 2.00

0082



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 100844

Lab ID#: 0908458A-18A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	77
Acetaldehyde	2.0	28
Propanal	1.0	4.1
Methyl Ethyl Ketone/Butyraldehydes	1.0	9.9 M
Benzaldehyde	1.0	4.2
Pentanal	1.0	10
Hexanal	1.0	26

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 100844

Lab ID#: 0908458A-18A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828078**	**Date of Collection: 8/18/09**
Dil. Factor:	**4.00**	**Date of Analysis: 8/29/09 02:45 PM**
		Date of Extraction: 8/25/09

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	77
Acetaldehyde	2.0	28
Propanal	1.0	4.1
Methyl Ethyl Ketone/Butyraldehydes	1.0	9.9 M
Benzaldehyde	1.0	4.2
Pentanal	1.0	10
Isopentanal	1.0	Not Detected
Hexanal	1.0	26
Acrolein	1.0	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/28Aug2009.b/f0828078.d
Lab Smp Id: 0908458A-18A Client Smp ID: X4
Inj Date : 29-AUG-2009 14:45
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-18A;X4
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 4.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.007	3.014	-0.007	9062477		
2 FORMALDEHYDE	4.054	4.074	-0.020	5445340	47.9461	76.7
3 ACETALDEHYDE	4.881	4.907	-0.026	1482170	17.2467	27.6
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.447	6.481	-0.034	161819	2.56357	4.10
9 BUTYRALS/MEK	8.667	8.721	-0.054	339588	6.20634	9.93
10 BENZALDEHYDE	10.194	10.241	-0.047	105378	2.63656	4.22
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.787	11.841	-0.054	286992	6.23130	9.97
16 HEXANAL	14.174	14.221	-0.047	670550	16.3446	26.2

Data File: /chem/hplcf.i/28Aug2009.b/f0828078.d

Date : 29-AUG-2009 14:45

Client ID: X4

Instrument: hplcf.i

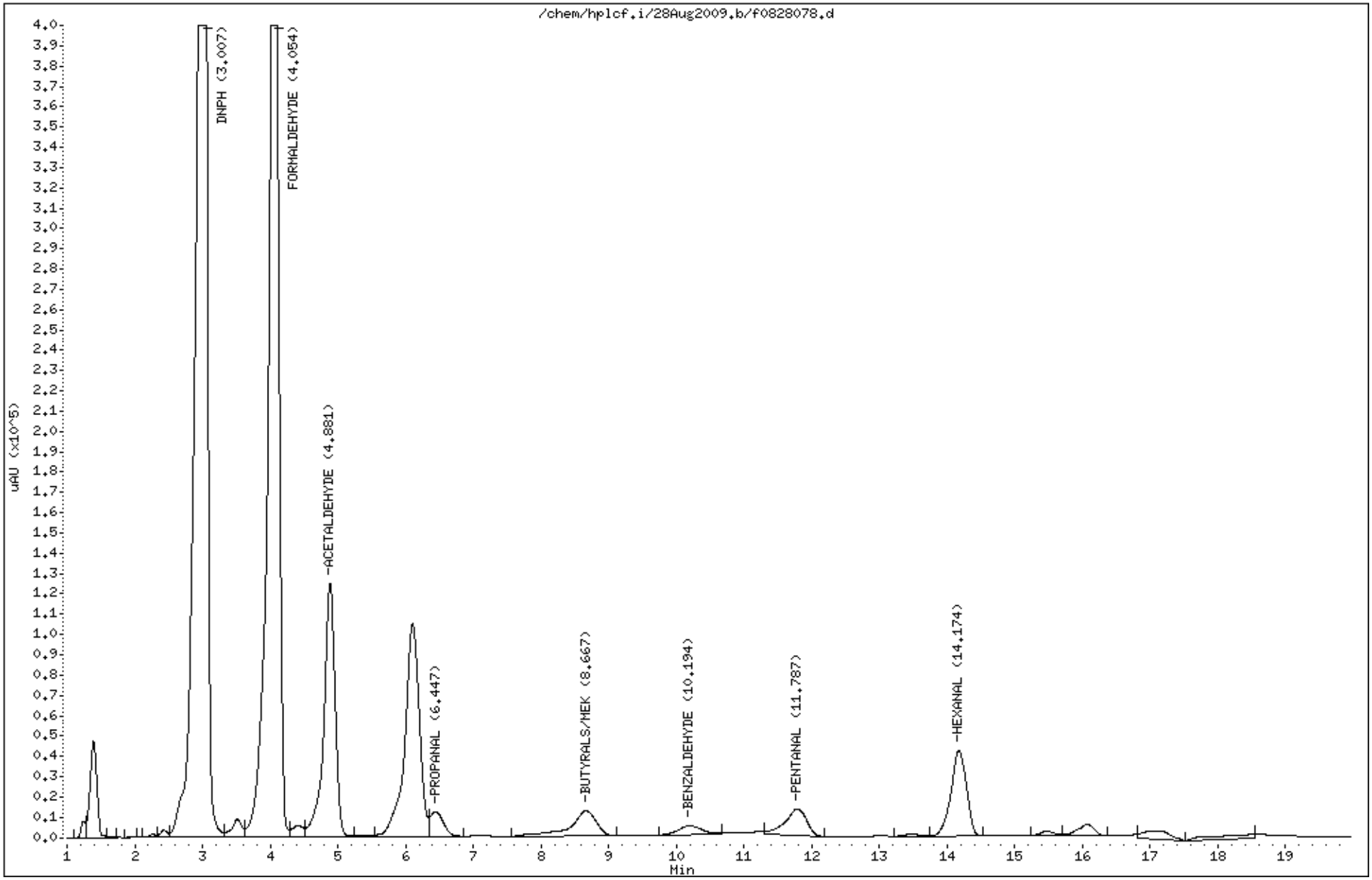
Sample Info: ;0908458A-18A;X4

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 100845

Lab ID#: 0908458A-19A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	4.0	79
Acetaldehyde	2.0	28
Propanal	1.0	4.2
Methyl Ethyl Ketone/Butyraldehydes	1.0	10 M
Benzaldehyde	1.0	3.9
Pentanal	1.0	10
Hexanal	1.0	27

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 100845

Lab ID#: 0908458A-19A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0828079**	**Date of Collection: 8/18/09**
Dil. Factor:	**4.00**	**Date of Analysis: 8/29/09 03:05 PM**
		Date of Extraction: 8/25/09

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	4.0	79
Acetaldehyde	2.0	28
Propanal	1.0	4.2
Methyl Ethyl Ketone/Butyraldehydes	1.0	10 M
Benzaldehyde	1.0	3.9
Pentanal	1.0	10
Isopentanal	1.0	Not Detected
Hexanal	1.0	27
Acrolein	1.0	Not Detected M

M = Reported value may be biased due to apparent matrix interferences.

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/28Aug2009.b/f0828079.d
Lab Smp Id: 0908458A-19A Client Smp ID: X4
Inj Date : 29-AUG-2009 15:05
Operator : LZ Inst ID: hplcf.i
Smp Info : ;0908458A-19A;X4
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 4.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.012	3.014	-0.002	8648840		
2 FORMALDEHYDE	4.058	4.074	-0.016	5590440	49.2237	78.8
3 ACETALDEHYDE	4.885	4.907	-0.022	1519974	17.6866	28.3
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.458	6.481	-0.023	165005	2.61404	4.18
9 BUTYRALS/MEK	8.678	8.721	-0.043	350094	6.39832	10.2
10 BENZALDEHYDE	10.198	10.241	-0.043	96507	2.41460	3.86
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.792	11.841	-0.049	294981	6.40475	10.2
16 HEXANAL	14.172	14.221	-0.049	689162	16.7983	26.9

Data File: /chem/hplcf.i/28Aug2009.b/f0828079.d

Page 1

Date : 29-AUG-2009 15:05

Client ID: X4

Instrument: hplcf.i

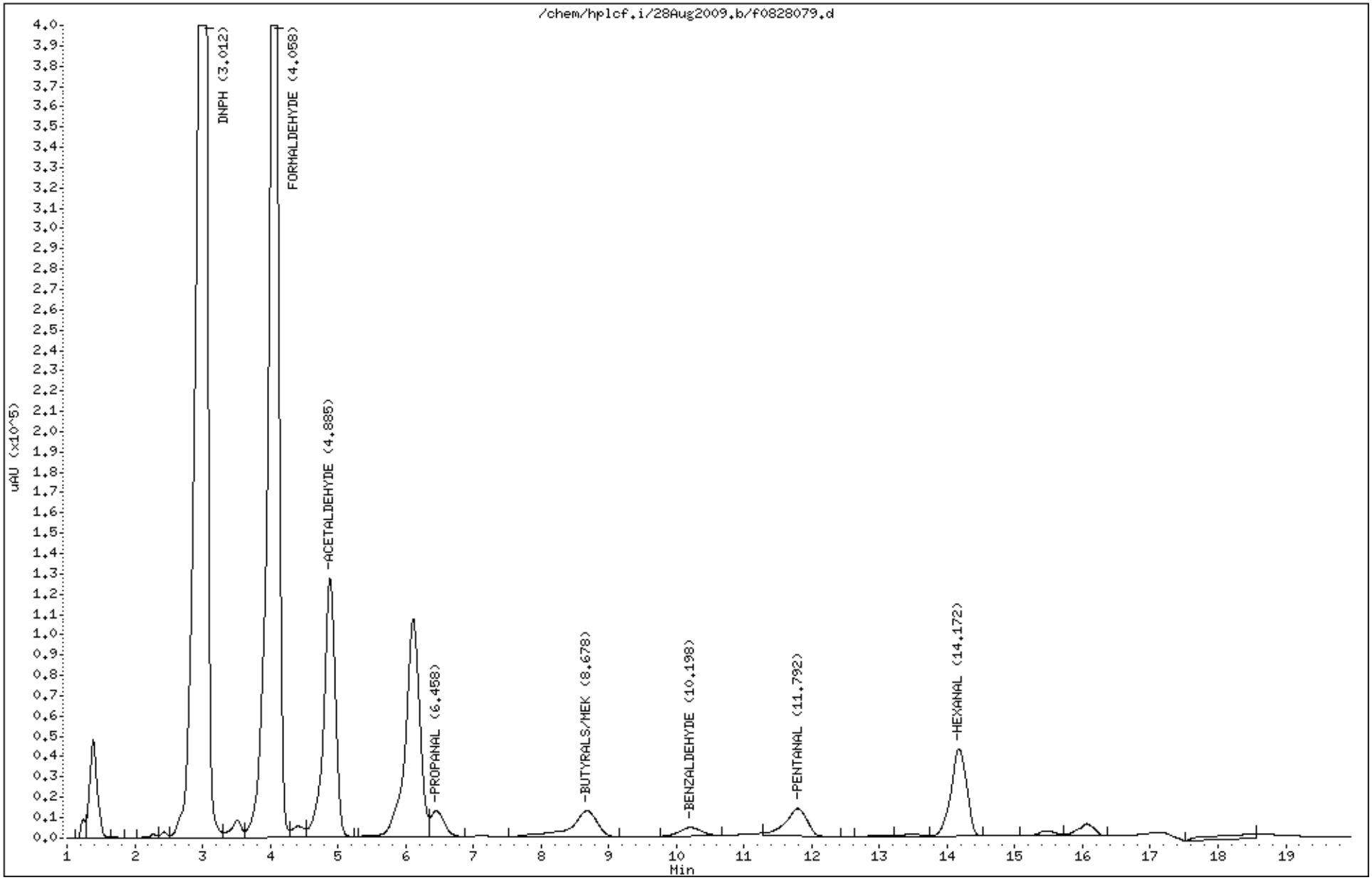
Sample Info: ;0908458A-19A;X4

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



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Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
RADIELLO ANALYSIS BY HPLC/UV

Client Sample ID: 100846

Lab ID#: 0908458A-20A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	1.0	4.0
Acetaldehyde	0.50	1.3
Propanal	0.25	0.28
Methyl Ethyl Ketone/Butyraldehydes	0.25	0.39
Pentanal	0.25	0.25
Hexanal	0.25	0.34

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: 100846

Lab ID#: 0908458A-20A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0827047**	**Date of Collection: 8/18/09**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/28/09 01:01 AM**	
		Date of Extraction: 8/25/09	

Compound	**Rpt. Limit (ug)**	**Amount (ug)**
Formaldehyde	1.0	4.0
Acetaldehyde	0.50	1.3
Propanal	0.25	0.28
Methyl Ethyl Ketone/Butyraldehydes	0.25	0.39
Benzaldehyde	0.25	Not Detected
Pentanal	0.25	0.25
Isopentanal	0.25	Not Detected
Hexanal	0.25	0.34
Acrolein	0.25	Not Detected

Container Type: Radiello 165 (Aldehydes)

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/27Aug2009a.b/f0827047.d
Lab Smp Id: 0908458A-20A
Inj Date : 28-AUG-2009 01:01
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-20A;
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 28-Aug-2009 17:48 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.008	3.017	-0.009	30726571		
2 FORMALDEHYDE	4.055	4.070	-0.015	1138498	10.0244	4.01
3 ACETALDEHYDE	4.881	4.910	-0.029	288066	3.35197	1.34
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	6.455	6.497	-0.042	44713	0.70835	0.283
9 BUTYRALS/MEK	8.681	8.737	-0.056	53155	0.97146	0.388
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	11.808	11.857	-0.049	29259	0.63528	0.254
16 HEXANAL	14.195	14.237	-0.042	34341	0.83706	0.335

Data File: /chem/hplcf.i/27Aug2009a.b/f0827047.d

Date : 28-AUG-2009 01:01

Client ID:

Instrument: hplcf.i

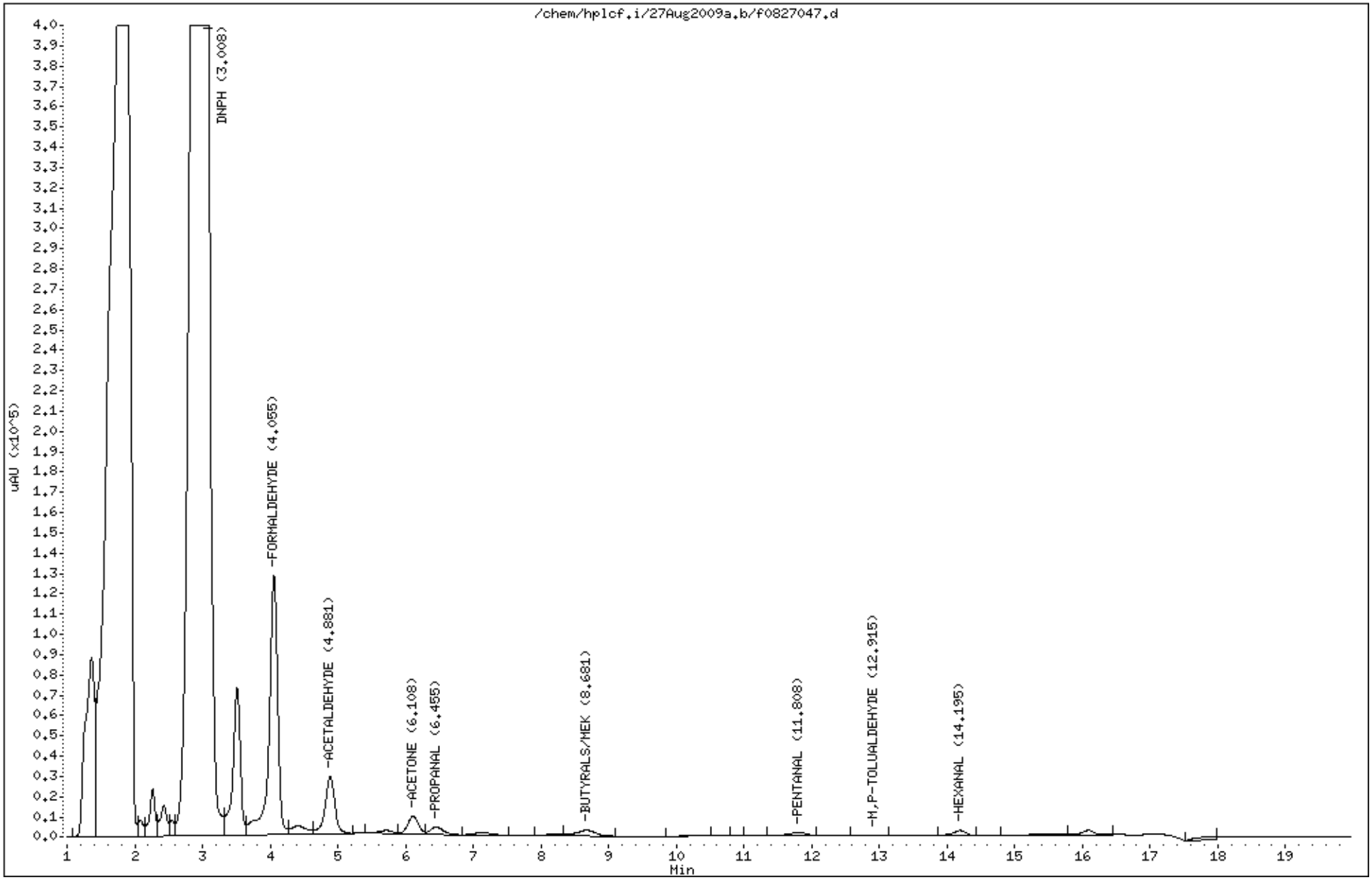
Sample Info: ;0908458A-20A;

Purge Volume: 5.0

Operator: CRL

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



0094

QC Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0908458A-21A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0825022**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/09 02:08 PM**
		Date of Extraction: 8/25/09

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	1.0	Not Detected
Acetaldehyde	0.50	Not Detected
Propanal	0.25	Not Detected
Methyl Ethyl Ketone/Butyraldehydes	0.25	Not Detected
Benzaldehyde	0.25	Not Detected
Pentanal	0.25	Not Detected
Isopentanal	0.25	Not Detected
Hexanal	0.25	Not Detected
Acrolein	0.25	Not Detected

Container Type: NA - Not Applicable

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/25Aug2009a.b/f0825022.d
Lab Smp Id: 0908458A-BLK Client Smp ID: LAB BLANK
Inj Date : 25-AUG-2009 14:08
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-BLK;
Misc Info :
Comment :
Method : /chem/hplcf.i/25Aug2009a.b/F09D0819.m
Meth Date : 26-Aug-2009 16:15 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

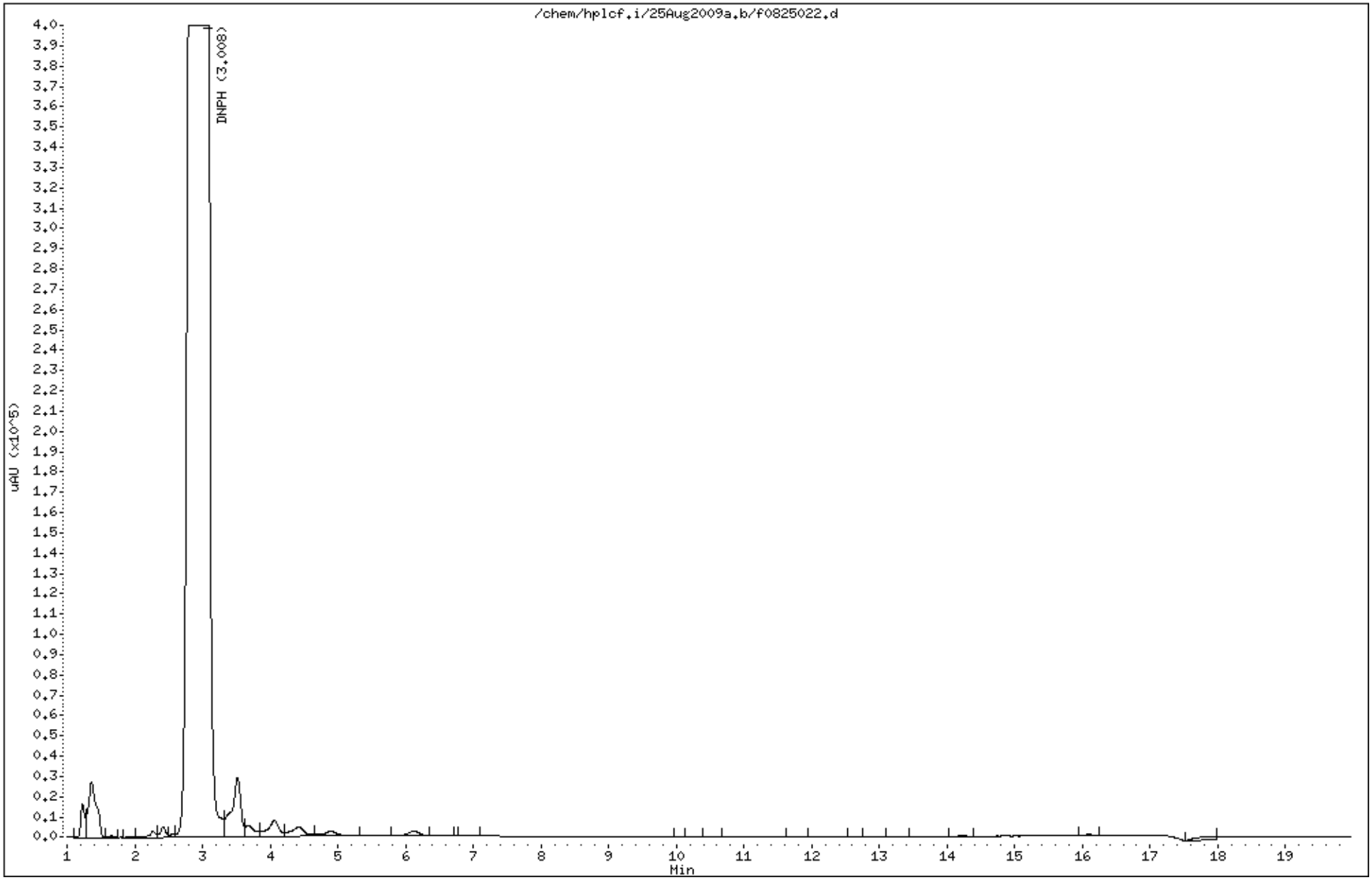
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.008	3.007	0.001	40132652		
2 FORMALDEHYDE	Compound Not Detected.					
3 ACETALDEHYDE	Compound Not Detected.					
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	Compound Not Detected.					
9 BUTYRALS/MEK	Compound Not Detected.					
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	Compound Not Detected.					
16 HEXANAL	Compound Not Detected.					

0098

Data File: /chem/hplcf.i/25Aug2009a.b/f0825022.d
Date : 25-AUG-2009 14:08
Client ID: LAB BLANK
Sample Info: ;0908458A-BLK;
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: CRL
Column diameter: 2.00



SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: f0827060.d & f0827059.d

Lab Sample ID: 01A & 01AA

Dilution: 4.00 & 4.00

Client Sample ID: X4 & X4

Date Analyzed: 8/28/09 & 8/28/09

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-07-0	Acetaldehyde	27.2		27.2		0	
107-02-8	Acrolein	ND	U	ND	U	0	
100-52-7	Benzaldehyde	3.27		3.66		11	Y
50-00-0	Formaldehyde	102		102		0	
66-25-1	Hexanal	29.8		29.8		0	
590-86-3	Isopentanal	ND	U	ND	U	0	
9999-9999-007	Methyl Ethyl Ketone/Butyraldehydes	6.96		6.78		2.6	
110-62-3	Pentanal	10.4		8.31		22	
123-38-6	Propanal	3.39		3.24		4.5	Y

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: f0827062.d & f0827061.d

Lab Sample ID: 02A & 02AA

Dilution: 4.00 & 4.00

Client Sample ID: X4 & X4

Date Analyzed: 8/28/09 & 8/28/09

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-07-0	Acetaldehyde	26.1		26		0.38	
107-02-8	Acrolein	ND	U	ND	U	0	
100-52-7	Benzaldehyde	3.4		3.4		0	Y
50-00-0	Formaldehyde	105		104		0.96	
66-25-1	Hexanal	25.9		25.9		0	
590-86-3	Isopentanal	ND	U	ND	U	0	
9999-9999-007	Methyl Ethyl Ketone/Butyraldehydes	6.43		6.42		0.16	
110-62-3	Pentanal	7.79		7.79		0	
123-38-6	Propanal	3.13		3.13		0	Y

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 19-AUG-2009 10:43
End Cal Date : 19-AUG-2009 20:49
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Cal Date : 24-Aug-2009 18:14 lzhang
Curve Type : Average

Calibration File Names:
Level 1: /chem/hplcf.i/19Aug2009.b/f0819006.d
Level 2: /chem/hplcf.i/19Aug2009.b/f0819009.d
Level 3: /chem/hplcf.i/19Aug2009.b/f0819012.d
Level 4: /chem/hplcf.i/19Aug2009.b/f0819015.d
Level 5: /chem/hplcf.i/19Aug2009.b/f0819018.d
Level 6: /chem/hplcf.i/19Aug2009.b/f0819021.d
Level 7: /chem/hplcf.i/19Aug2009.b/f0819024.d
Level 8: /chem/hplcf.i/19Aug2009.b/f0819027.d
Level 9: /chem/hplcf.i/19Aug2009.b/f0819030.d
Level 10: /chem/hplcf.i/19Aug2009.b/f0819033.d

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	0.50000 Level 4	1.000 Level 5	4.000 Level 6	___ RRF	% RSD
	10.000 Level 7	20.000 Level 8	50.000 Level 9	75.000 Level 10				
1 DNPH	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
2 FORMALDEHYDE	102160	106773	111828	116173	116296	116192		
	116157	116344	117113	116686			113572	4.538
3 ACETALDEHYDE	+++++	83033	83152	87655	87285	86402		
	86139	86290	86824	86674			85939	1.965
4 ACROLEIN	+++++	+++++	73696	76906	80738	82606		
	82881	82875	83748	83303			80844	4.438
5 ACETONE	+++++	+++++	59779	60379	62489	62609		
	62774	62924	63197	63264			62177	2.203
6 PROPANAL	+++++	+++++	61779	62397	63054	63610		
	63137	63478	63775	63751			63123	1.351

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 19-AUG-2009 10:43
End Cal Date : 19-AUG-2009 20:49
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Cal Date : 24-Aug-2009 18:14 lzhang
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	0.50000 Level 4	1.000 Level 5	4.000 Level 6	___ RRF	% RSD
	10.000 Level 7	20.000 Level 8	50.000 Level 9	75.000 Level 10				
7 CROTONAL	+++++	+++++	56861	58567	57584	56976		
	56916	57177	57701	57622			57426	1.504
8 METHACROLEIN	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
9 BUTYRALS/MEK	+++++	+++++	54221	56339	55033	54143		
	54071	54370	54827	54727			54717	2.188
10 BENZALDEHYDE	+++++	+++++	42929	41214	40976	38788		
	38849	38895	39088	39005			39968	3.855
11 ISO-PENTANAL	+++++	+++++	45864	47911	48453	46404		
	46492	46500	46759	46708			46886	2.315
12 PENTANAL	+++++	+++++	47079	47402	46667	45454		
	45234	45458	45616	45544			46057	2.200
13 MIBK	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
14 O-TOLUALDEHYDE	+++++	+++++	36931	36216	35899	34670		
	34826	34926	35294	35246			35501	2.483
15 M,P-TOLUALDEHYDE	+++++	37153	34847	33345	32600	32316		
	31994	32126	32219	32175			33197	5.312
16 HEXANAL	+++++	+++++	43807	42279	41199	40143		
	40002	40117	40371	40289			41026	3.256

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 19-AUG-2009 10:43
End Cal Date : 19-AUG-2009 20:49
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Cal Date : 24-Aug-2009 18:14 lzhang
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	0.50000 Level 4	1.000 Level 5	4.000 Level 6	___ RRF	% RSD
	10.000 Level 7	20.000 Level 8	50.000 Level 9	75.000 Level 10				
17 2,5-Dimethylbenzaldehyde	+++++	+++++	33648	31287	29998	29192		
	28892	28949	29131	29080			30022	5.429
18 HEPTALDEHYDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Calibration History

Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Start Cal Date: 19-AUG-2009 10:43
End Cal Date : 19-AUG-2009 20:49

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.05000		
19-AUG-2009 11:25	form	/chem/hplcf.i/19Aug2009.b/f0819006.d
19-AUG-2009 11:04	form	/chem/hplcf.i/19Aug2009.b/f0819005.d
19-AUG-2009 10:43	form	/chem/hplcf.i/19Aug2009.b/f0819004.d

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 0.10000		
19-AUG-2009 12:27	foracetmp	/chem/hplcf.i/19Aug2009.b/f0819009.d
19-AUG-2009 12:06	foracetmp	/chem/hplcf.i/19Aug2009.b/f0819008.d
19-AUG-2009 11:45	foracetmp	/chem/hplcf.i/19Aug2009.b/f0819007.d

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 0.25000		
19-AUG-2009 13:30	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819012.d
19-AUG-2009 13:09	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819011.d
19-AUG-2009 12:48	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819010.d

Injection Date	Sublist	Calibration File
Cal Level: 4 , Cal Amount: 0.50000		
19-AUG-2009 14:33	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819015.d
19-AUG-2009 14:12	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819014.d
19-AUG-2009 13:51	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819013.d

Injection Date	Sublist	Calibration File
Cal Level: 5 , Cal Amount: 1.00000		
19-AUG-2009 15:35	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819018.d
19-AUG-2009 15:14	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819017.d
19-AUG-2009 14:53	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819016.d

Injection Date	Sublist	Calibration File
Cal Level: 6 , Cal Amount: 4.00000		
19-AUG-2009 16:38	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819021.d
19-AUG-2009 16:17	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819020.d
19-AUG-2009 15:56	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819019.d

Cal Level: 7 , Cal Amount: 10.00000		
19-AUG-2009 17:41	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819024.d
19-AUG-2009 17:20	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819023.d
19-AUG-2009 16:59	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819022.d

Cal Level: 8 , Cal Amount: 20.00000		
19-AUG-2009 18:43	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819027.d
19-AUG-2009 18:23	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819026.d
19-AUG-2009 18:02	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819025.d

Cal Level: 9 , Cal Amount: 50.00000		
19-AUG-2009 19:46	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819030.d
19-AUG-2009 19:25	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819029.d
19-AUG-2009 19:04	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819028.d

Cal Level: 10, Cal Amount: 75.00000		
19-AUG-2009 20:49	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819033.d
19-AUG-2009 20:28	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819032.d
19-AUG-2009 20:07	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819031.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 4.00		
19-AUG-2009 16:38	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819021.d

Ccal Level: 6 , Ccal Amount: 4.00		
19-AUG-2009 16:17	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819020.d

Ccal Level: 6 , Ccal Amount: 4.00		
19-AUG-2009 15:56	TO-11+Acr+17	/chem/hplcf.i/19Aug2009.b/f0819019.d

HPLC-F Run Logbook **@Air Toxics Ltd.** **Logbook Book #: 1709**

Method (Circle all that apply): TO-5 CARB 430 TO-11A Method 0011 Pressure: 99 bar

Use	File #	Sample Name/Client	DF	Loaded by Init.	Date	Time	Reviewed by Init.	Comments
✓	f 0819 001	CCB	1.00	W	8/19/09	0918	W	
✓	2					0939		
✓	3					1000		
✓	4	1331-138-0.05				1043		
✓	5					1104		
✓	6					1125		
✓	7	1331-138-0.10				1145		
✓	8					1206		
✓	9					1227		
✓	10	1331-138-0.25				1248		
✓	11					1309		
✓	12					1330		
✓	13	1331-138-0.50				1351		
✓	14					1412		
✓	15					1433		
✓	16	1331-138-1.0				1453		
✓	17					1514		
✓	18					1535		
✓	19	1331-138-4.0				1556		
✓	20					1617		
✓	21					1638		
✓	22	1331-138-10.0				1659		
✓	23					1720		
✓	24					1741		
✓	25	1331-138-20.0				1802		
✓	26					1823		
✓	27					1843		
✓	28	1331-138-50.0				1904		

Calculation Check:

File ID: _____ Compound: _____ Initials: _____

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × DF = ( ) × ( ) = [redacted]

Reported Result: [redacted] 1.8/20/09

Signed _____ Date 8/20/09

0106

Revised 07/08

HPLC-F Run Logbook **@Air Toxics Ltd.** **Logbook Book #: 1709**

Method (Circle all that apply): TO-5 CARB 430 TO-11A Method 0011 Pressure: 99 bar

Use	File #	Sample Name/Client	DF	Loaded by Init.	Date	Time	Reviewed by Init.	Comments
✓	f0819029	1331-138-50.0	1.00	W	8/19/09	1925	W	
✓	30	↓				1946		
✓	31	1331-138-75				2007		1476-846/847
✓	32					2028		
✓	33	↓				2049		
✓	34	CCB				2110		
✓	35	1331-129-4. LCS				2131	↓	
					W 8/20/09			

Calculation Check:

File ID: f0819 35 Compound: Formaldehyde Initials: W

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × DF = (~~466315~~ 464100) × (1) = ~~3.95~~ ~~4.08~~ 4.09

(~~48653~~ ~~113736~~ 113572) W 8/24/09 W 8/24/09

Reported Result: ~~3.95~~ ~~4.08~~ 4.09

Signed Date 8/20/09

Validation of the Target software for HPLC curve DNPDEC14f. Formaldehyde

0.05	RF	0.1	RF	0.25	RF	0.5	RF	1	RF	4	RF	10	RF	20	RF	50	RF	75	RF			
5162	103240	10857	108570	27289	109156	58493	116986	116616	116616	464648	116162	1162679	116267.9	2326198	116309.9	5855197	117103.9	8746467	116619.6			
5250	105000	10754	107540	27774	111096	58510	117020	116575	116575	464653	116163.3	1161251	116125.1	2327435	116371.8	5855194	117103.9	8747741	116636.5			
4912	98240	10421	104210	28808	115232	57256	114512	115697	115697	464998	116249.5	1160792	116079.2	2327000	116350	5856519	117130.4	8760098	116801.3	Ave	STD Dev	%RSD
Ave. RF	102160		106773.3		111828		116172.7		116296		116191.6		116157.4		116343.9		117112.7		116685.8	**113572.1**	5154.176	**4.538%**

0108

G 812409

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 19-AUG-2009 10:43
End Cal Date : 19-AUG-2009 20:49
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Cal Date : 24-Aug-2009 18:13 lzhang
Curve Type : Average

Calibration File Names:
Level 1: /chem/hplcf.i/19Aug2009.b/f0819006.d
Level 2: /chem/hplcf.i/19Aug2009.b/f0819009.d
Level 3: /chem/hplcf.i/19Aug2009.b/f0819012.d
Level 4: /chem/hplcf.i/19Aug2009.b/f0819015.d
Level 5: /chem/hplcf.i/19Aug2009.b/f0819018.d
Level 6: /chem/hplcf.i/19Aug2009.b/f0819021.d
Level 7: /chem/hplcf.i/19Aug2009.b/f0819024.d
Level 8: /chem/hplcf.i/19Aug2009.b/f0819027.d
Level 9: /chem/hplcf.i/19Aug2009.b/f0819030.d
Level 10: /chem/hplcf.i/19Aug2009.b/f0819033.d

See History

2nd source : f0819035.d

8/25/09

Based on 20 µL sample loop injection.

Compound µg/5mL	0.05000 Level 1 / 10.000 Level 7	0.10000 Level 2 / 20.000 Level 8	0.25000 Level 3 / 50.000 Level 9	0.50000 Level 4 / 75.000 Level 10	1.000 Level 5	4.000 Level 6	RRF	% RSD
1 DNPH	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
2 FORMALDEHYDE	102160	106773	111828	116173	116296	116192		
	116157	116344	117113	116686			113572	4.538
3 ACETALDEHYDE	+++++	83033	83152	87655	87285	86402		
	86139	86290	86824	86674			85939	1.965
4 ACROLEIN	+++++	+++++	73696	76906	80738	82606		
	82881	82875	83748	83303			80844	4.438
5 ACETONE	+++++	+++++	59779	60379	62489	62609		
	62774	62924	63197	63264			62177	2.203
6 PROPANAL	+++++	+++++	61779	62397	63054	63610		
	63137	63478	63775	63751			63123	1.351

8/24/09

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819035.d
Lab Smp Id: 1331-129-4 Client Smp ID: LCS
Inj Date : 19-AUG-2009 21:31
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-129-4;LCS
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:14 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	Compound Not Detected.					
2 FORMALDEHYDE	4.081	4.086	-0.005	464100	4.08639	4.09
3 ACETALDEHYDE	4.928	4.932	-0.004	351853	4.09420	4.09
4 ACROLEIN	5.921	5.926	-0.005	328705	4.06591	4.06
5 ACETONE	6.175	6.179	-0.004	256348	4.12288	4.12
6 PROPANAL	6.528	6.532	-0.004	253734	4.01970	4.02
7 CROTONAL	7.881	7.886	-0.005	233368	4.06383	4.06
9 BUTYRALS/MEK	8.808	8.819	-0.011	214014	3.91132	3.91
10 BENZALDEHYDE	10.348	10.359	-0.011	157869	3.94987	3.95
11 ISO-PENTANAL	11.395	11.412	-0.017	184625	3.93771	3.94
12 PENTANAL	11.928	11.946	-0.018	176760	3.83789	3.84
14 O-TOLUALDEHYDE	12.808	12.812	-0.004	137893	3.88420	3.88
15 M,P-TOLUALDEHYDE	13.048	13.059	-0.011	263923	7.95016	7.95
16 HEXANAL	14.295	14.299	-0.004	158165	3.85526	3.86
17 2,5-Dimethylbenzaldehyde	14.835	14.839	-0.004	117161	3.90248	3.90

Report Date: 24-Aug-2009 18:28

Air Toxics Ltd.

RECOVERY REPORT

Client Name:
Client SDG: 19Aug2009
Sample Matrix: LIQUID
Fraction: OTHER
Lab Smp Id: 1331-129-4
Client Smp ID: LCS
Level: HIGH
Operator: LZ
Data Type: LC DATA
SampleType: METHSPIKE
SpikeList File: 4ug2nd.spk
Quant Type: ESTD
Sublist File: TO-11+Acr+17.sub
Method File: /chem/hplcf.i/19Aug2009.b/F09D0819.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
2 FORMALDEHYDE	4.00	4.09	102.16	85-115
3 ACETALDEHYDE	4.00	4.09	102.35	85-115
4 ACROLEIN	4.00	4.06	101.65	85-115
5 ACETONE	4.00	4.12	103.07	85-115
6 PROPANAL	4.00	4.02	100.49	85-115
7 CROTONAL	4.00	4.06	101.60	85-115
9 BUTYRALS/MEK	4.00	3.91	97.78	85-115
10 BENZALDEHYDE	4.00	3.95	98.75	85-115
11 ISO-PENTANAL	4.00	3.94	98.44	85-115
12 PENTANAL	4.00	3.84	95.95	85-115
14 O-TOLUALDEHYDE	4.00	3.88	97.10	85-115
15 M,P-TOLUALDEHYDE	8.00	7.95	99.38	85-115
16 HEXANAL	4.00	3.86	96.38	85-115
17 2,5-Dimethylbenzal	4.00	3.90	97.56	85-115

Data File: /chem/hplcf.i/19Aug2009.b/f0819035.d

0112

Date : 19-AUG-2009 21:31

Client ID: LCS

Instrument: hplcf.i

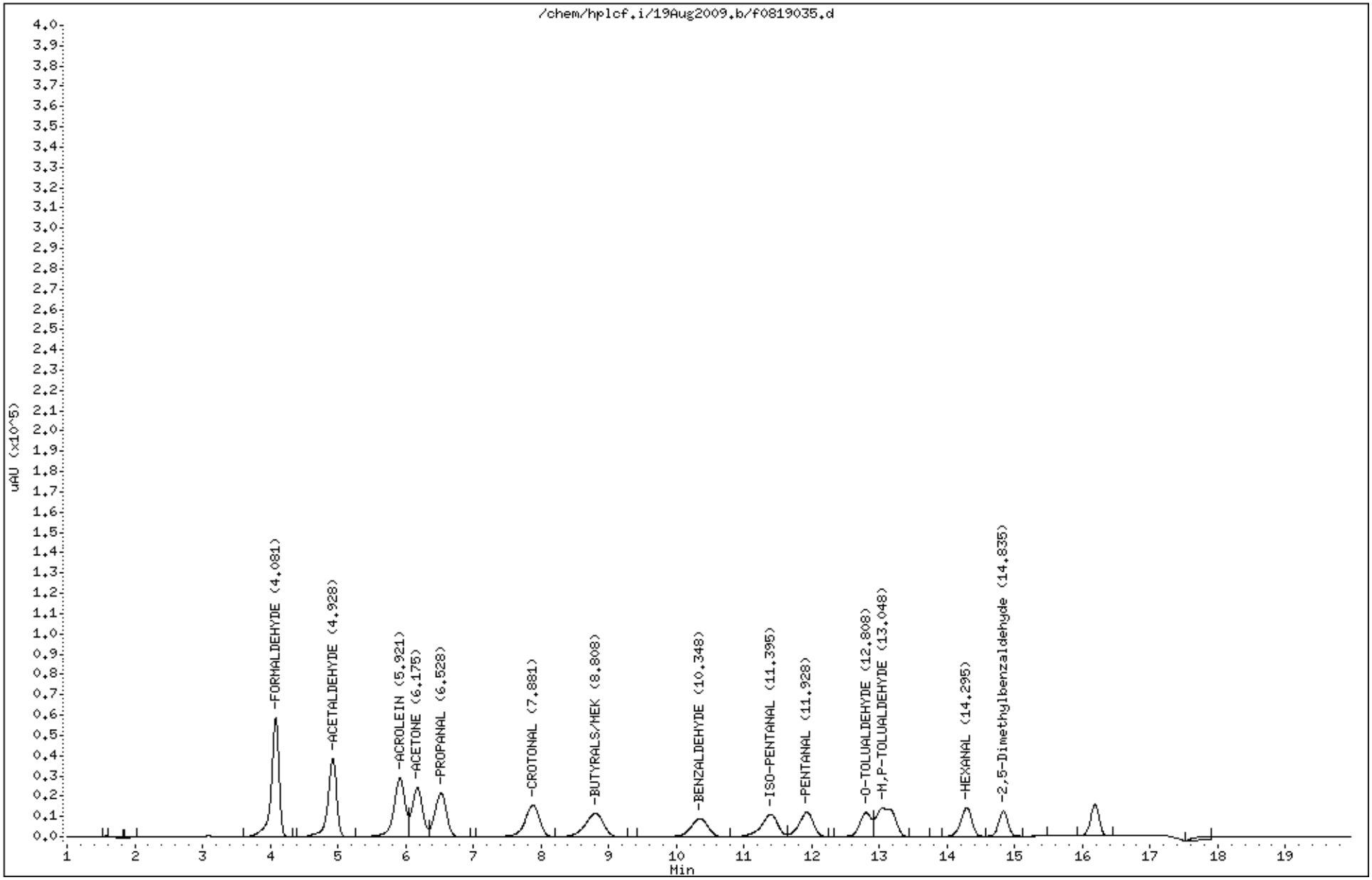
Sample Info: ;1331-129-4;LCS

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819006.d
Lab Smp Id: 1331-138-0.05 Client Smp ID: 1
Inj Date : 19-AUG-2009 11:25
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.05;1
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 11:25 Cal File: f0819006.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: form.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable

Vs	2.00000	Sample Final Volume (mL)
Vo	5.00000	Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	Compound Not Detected.					
2 FORMALDEHYDE	4.074	4.074	0.000	4912	0.05000	0.0481

Data File: /chem/hplcf.i/19Aug2009.b/f0819006.d

Date : 19-AUG-2009 11:25

Client ID: 1

Instrument: hplcf.i

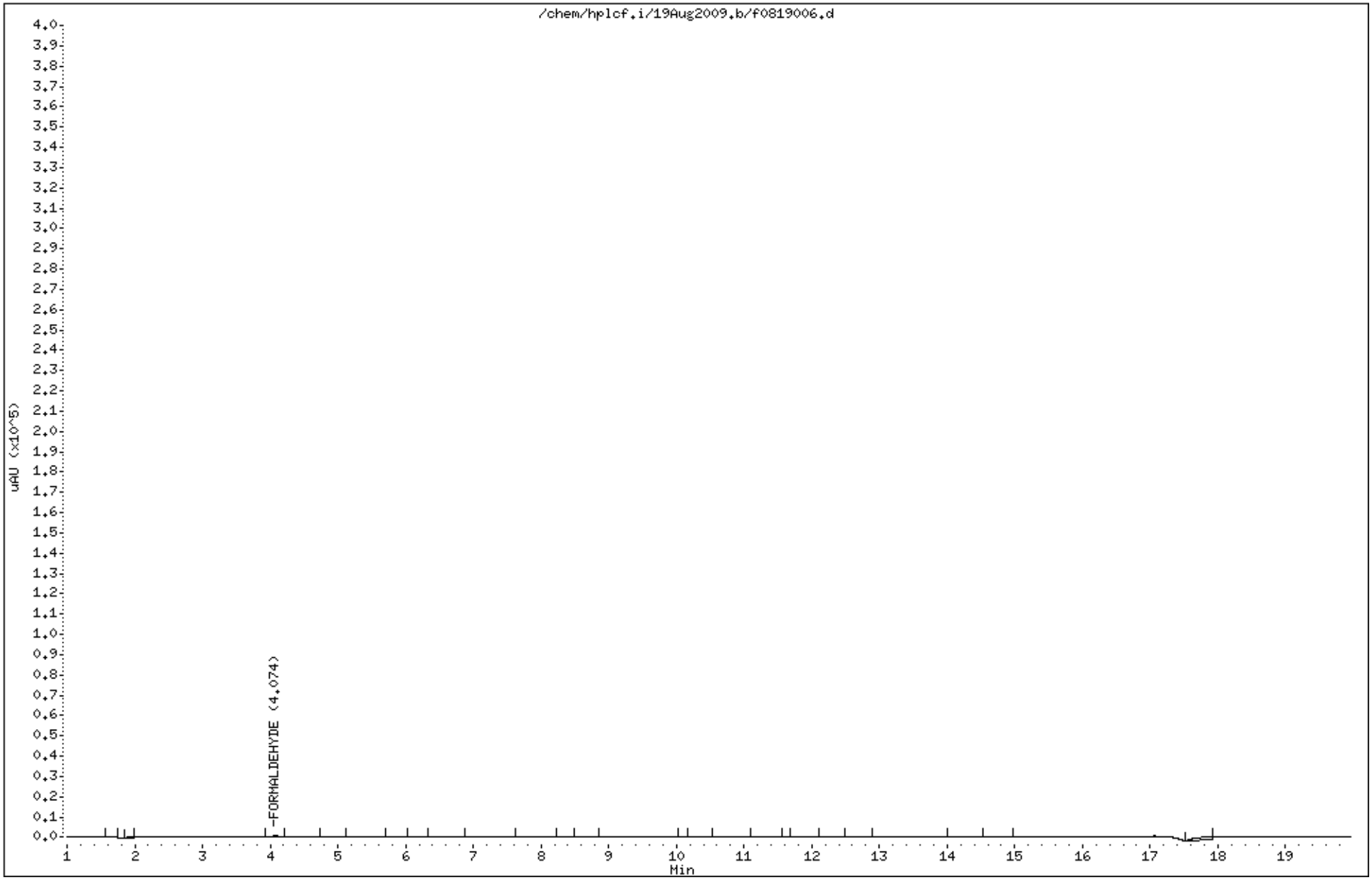
Sample Info: ;1331-138-0.05;1

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



0114

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819005.d
Lab Smp Id: 1331-138-0.05 Client Smp ID: 1
Inj Date : 19-AUG-2009 11:04
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.05;1
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 11:04 Cal File: f0819005.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: form.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable

Vs	2.00000	Sample Final Volume (mL)
Vo	5.00000	Curve baesed Volume (mL)

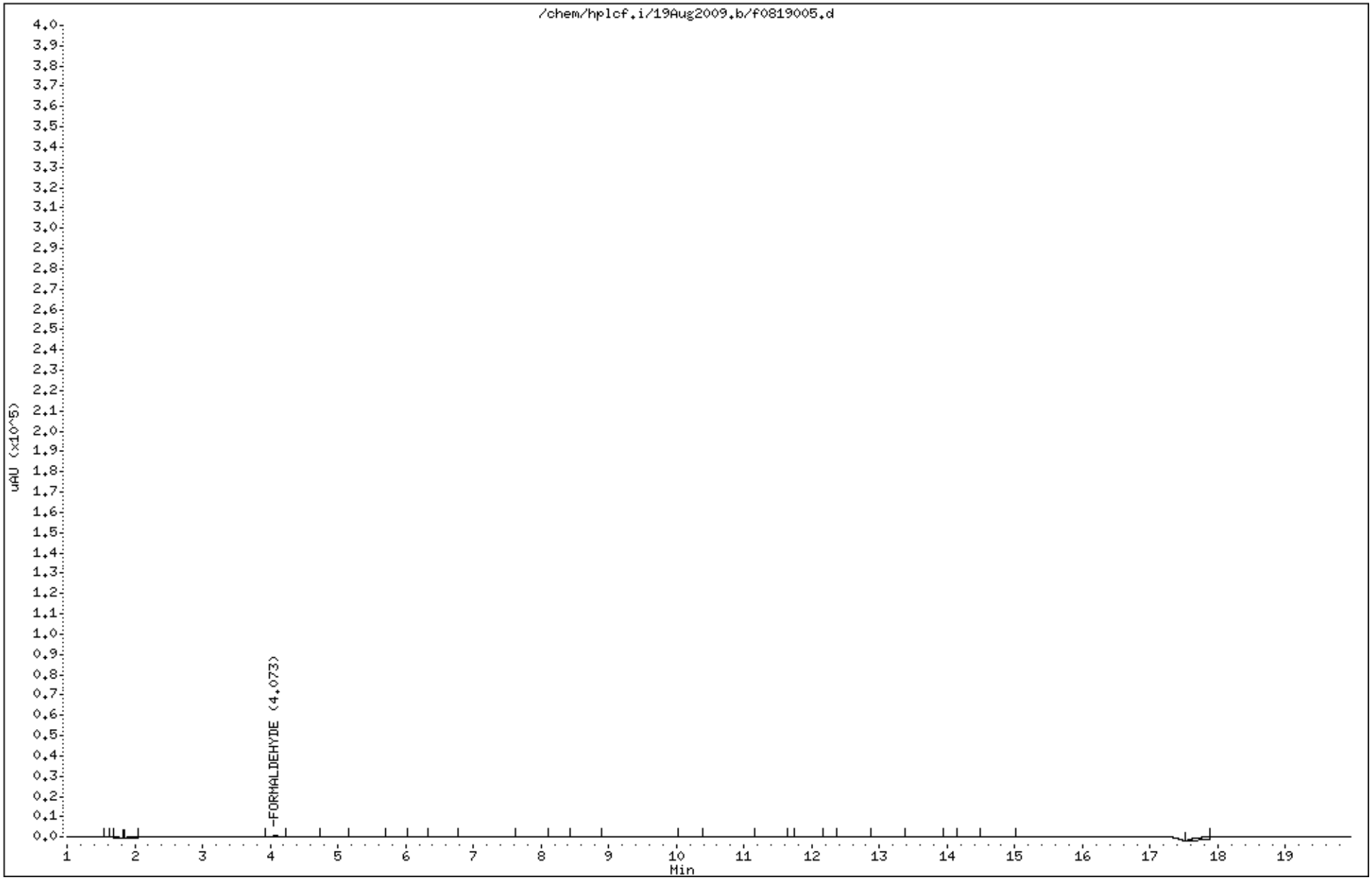
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	Compound Not Detected.					
2 FORMALDEHYDE	4.073	4.073	0.000	5250	0.05000	0.0504

0116

Data File: /chem/hplcf.i/19Aug2009.b/f0819005.d
Date : 19-AUG-2009 11:04
Client ID: 1
Sample Info: ;1331-138-0.05;1
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819004.d
Lab Smp Id: 1331-138-0.05 Client Smp ID: 1
Inj Date : 19-AUG-2009 10:43
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.05;1
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 10:43 Cal File: f0819004.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: form.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable

Vs	2.00000	Sample Final Volume (mL)
Vo	5.00000	Curve baesed Volume (mL)

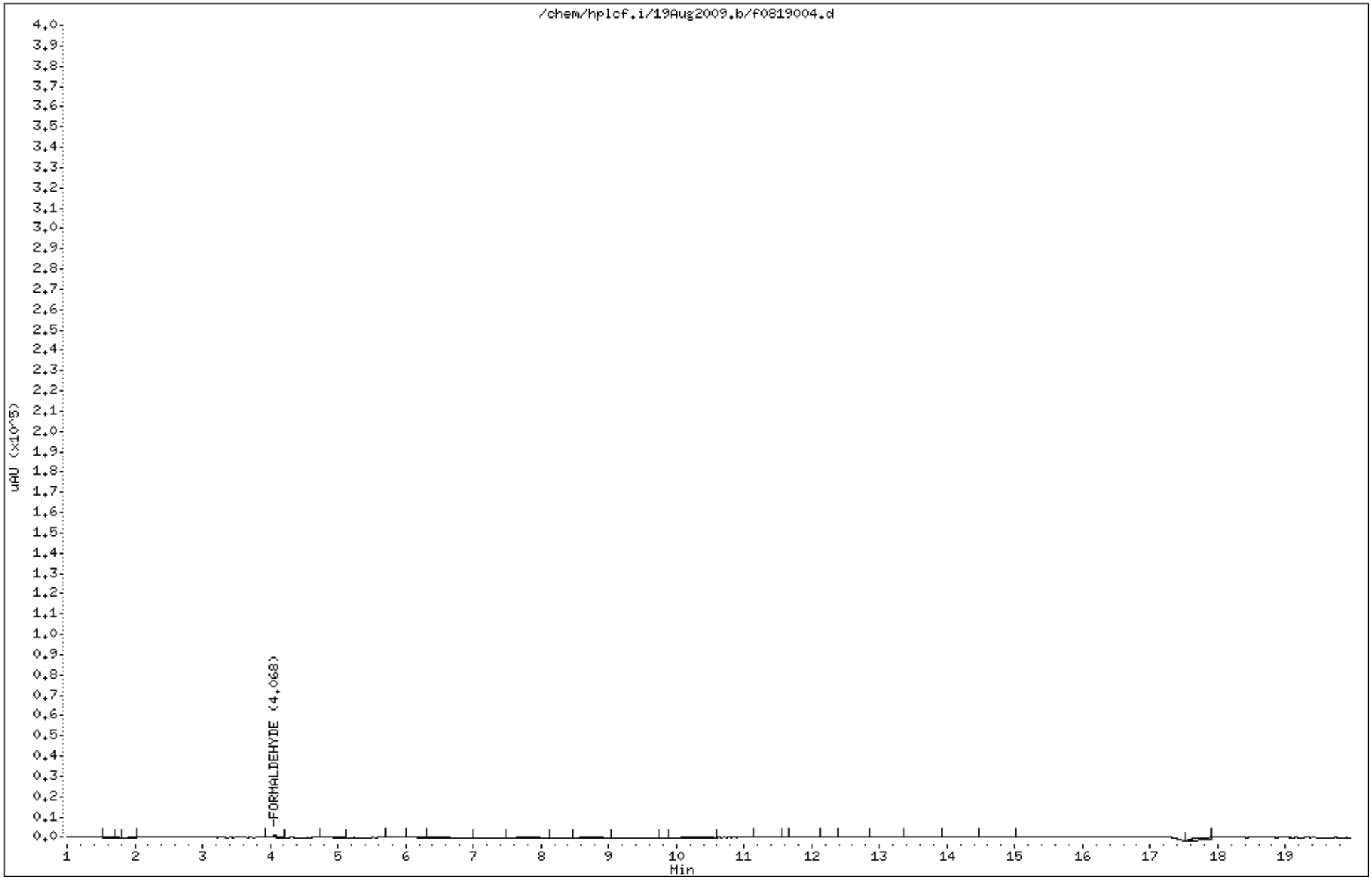
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	Compound Not Detected.					
2 FORMALDEHYDE	4.068	4.068	0.000	5162	0.05000	0.0500

0118

Data File: /chem/hplcf.i/19Aug2009.b/f0819004.d
Date : 19-AUG-2009 10:43
Client ID: 1
Sample Info: ;1331-138-0.05;1
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819009.d
Lab Smp Id: 1331-138-0.1 Client Smp ID: L2
Inj Date : 19-AUG-2009 12:27
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.1;L2
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 12:27 Cal File: f0819009.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: foracetmp.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

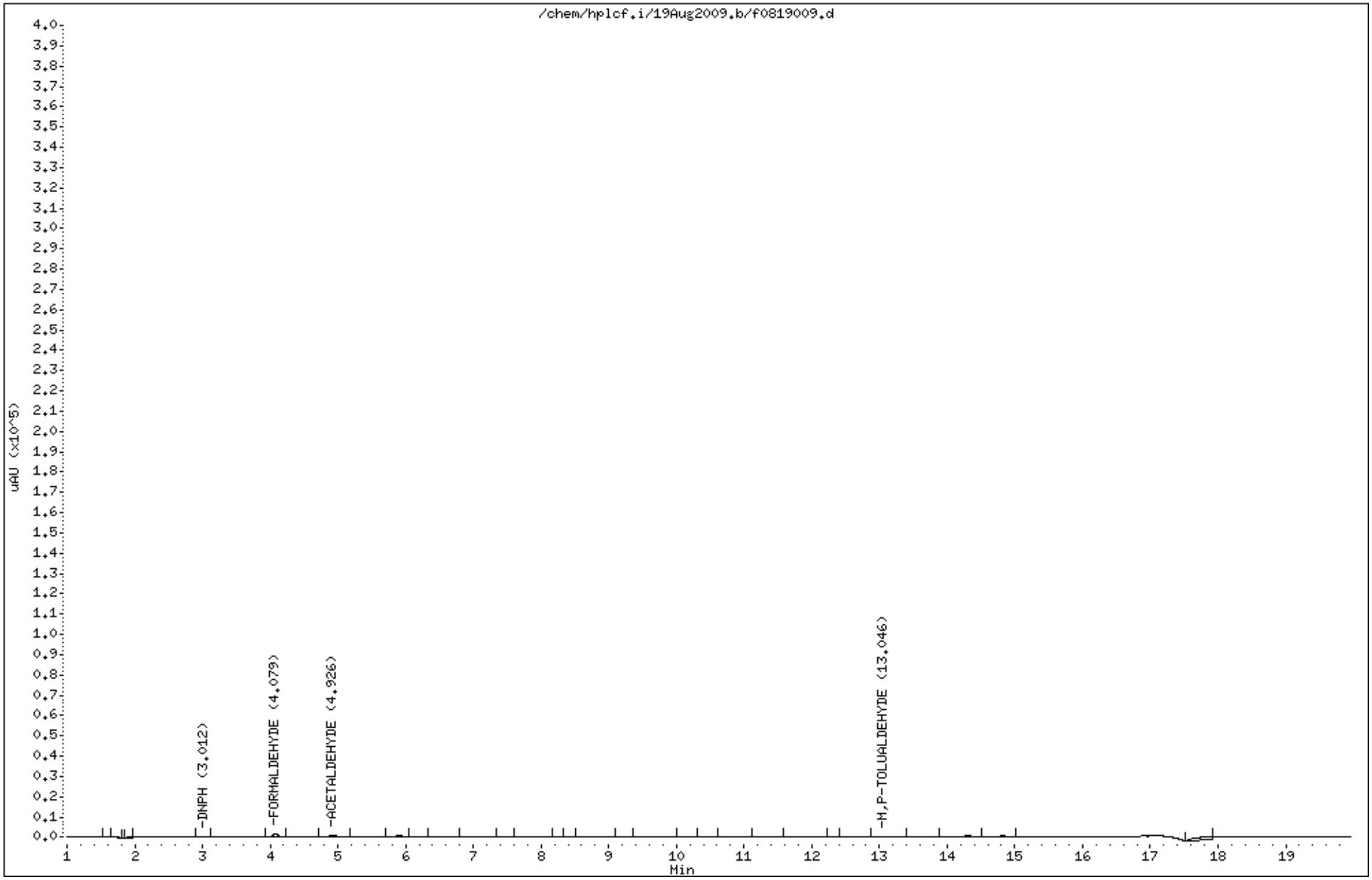
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.012	3.012	0.000	1668	0.10000	
2 FORMALDEHYDE	4.079	4.079	0.000	10421	0.10000	0.0998
3 ACETALDEHYDE	4.926	4.926	0.000	8325	0.10000	0.100
15 M,P-TOLUALDEHYDE	13.046	13.046	0.000	7347	0.20000	0.198

0120

Data File: /chem/hplcf.i/19Aug2009.b/f0819009.d
Date : 19-AUG-2009 12:27
Client ID: L2
Sample Info: ;1331-138-0.1;L2
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819008.d
Lab Smp Id: 1331-138-0.1 Client Smp ID: L2
Inj Date : 19-AUG-2009 12:06
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.1;L2
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 12:06 Cal File: f0819008.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: foracetmp.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

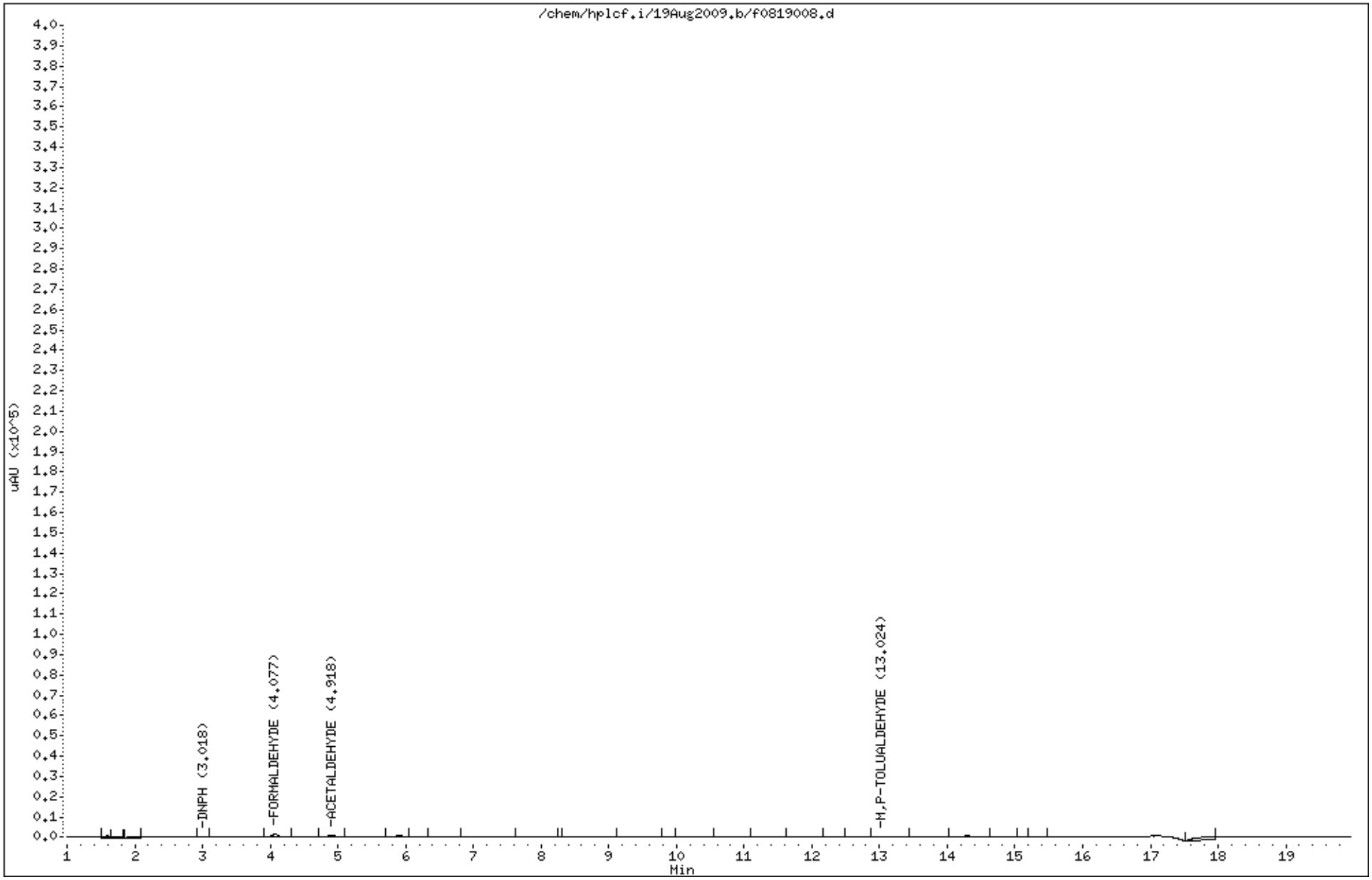
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.018	3.018	0.000	1817	0.10000	
2 FORMALDEHYDE	4.077	4.077	0.000	10754	0.10000	0.103
3 ACETALDEHYDE	4.918	4.918	0.000	8296	0.10000	0.100
15 M,P-TOLUALDEHYDE	13.024	13.024	0.000	7777	0.20000	0.208

0122

Data File: /chem/hplcf.i/19Aug2009.b/f0819008.d
Date : 19-AUG-2009 12:06
Client ID: L2
Sample Info: ;1331-138-0.1;L2
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819007.d
Lab Smp Id: 1331-138-0.1 Client Smp ID: L2
Inj Date : 19-AUG-2009 11:45
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.1;L2
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 11:45 Cal File: f0819007.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: foracetmp.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.011	3.011	0.000	1775	0.10000	
2 FORMALDEHYDE	4.078	4.078	0.000	10857	0.10000	0.105
3 ACETALDEHYDE	4.918	4.918	0.000	8289	0.10000	0.100
15 M,P-TOLUALDEHYDE	13.005	13.005	0.000	7168	0.20000	0.200

Data File: /chem/hplcf.i/19Aug2009.b/f0819007.d

Date : 19-AUG-2009 11:45

Client ID: L2

Instrument: hplcf.i

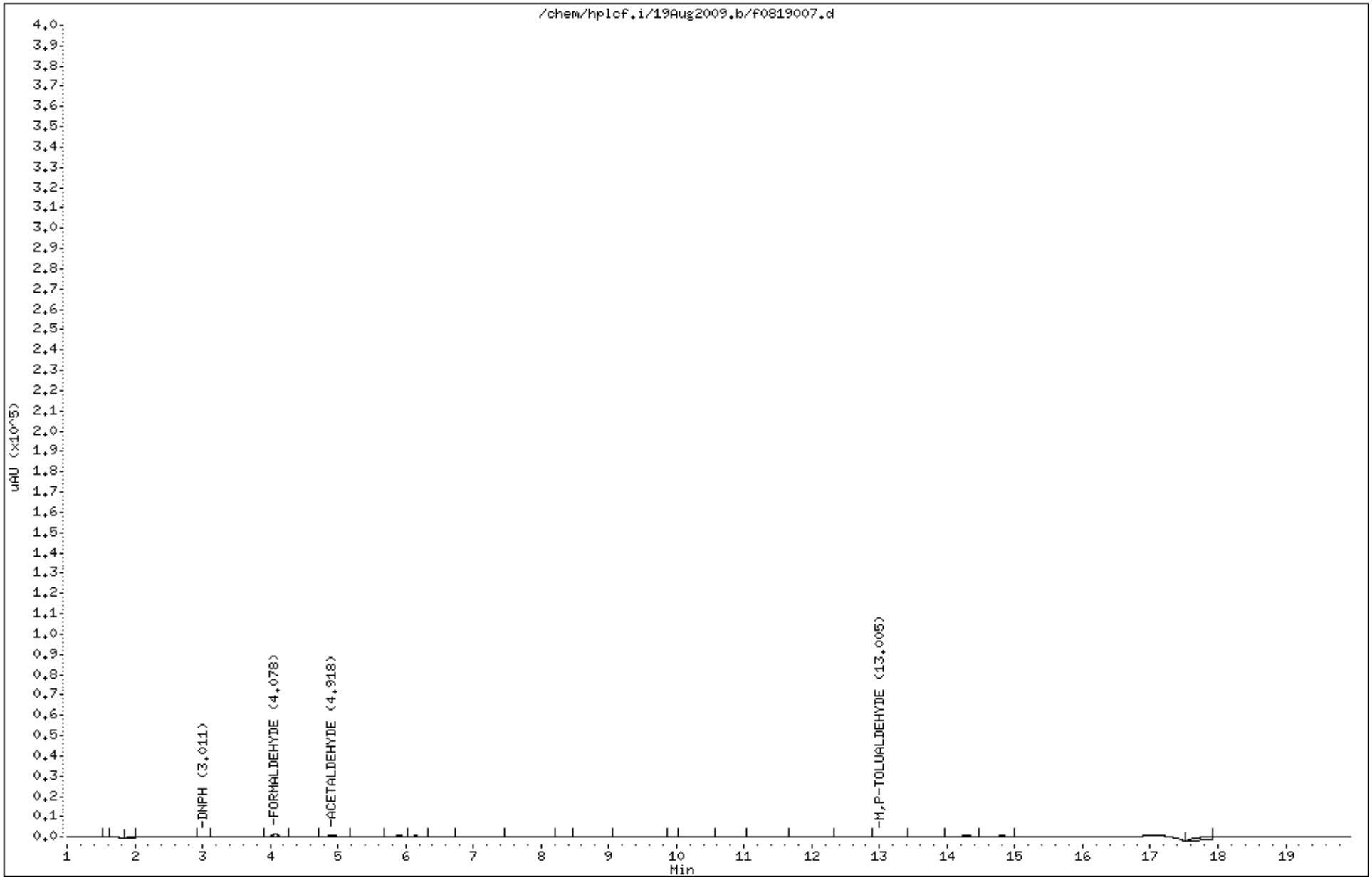
Sample Info: ;1331-138-0.1;L2

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



0124

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819012.d
Lab Smp Id: 1331-138-0.25 Client Smp ID: 3
Inj Date : 19-AUG-2009 13:30
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.25;3
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 13:30 Cal File: f0819012.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

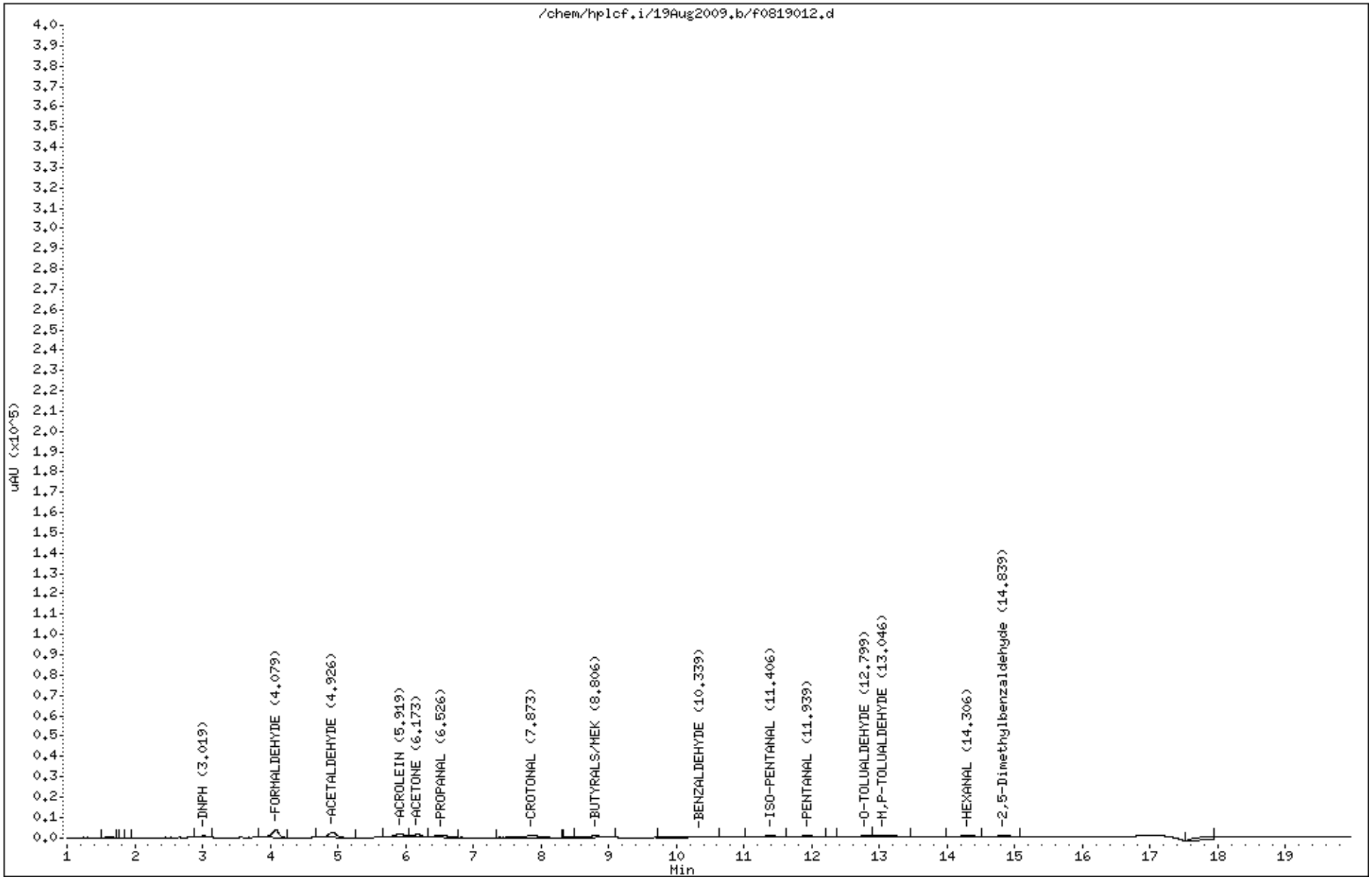
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.019	3.019	0.000	4604	0.25000	
2 FORMALDEHYDE	4.079	4.079	0.000	28808	0.25000	0.269
3 ACETALDEHYDE	4.926	4.926	0.000	21153	0.25000	0.254
4 ACROLEIN	5.919	5.919	0.000	18261	0.25000	0.248
5 ACETONE	6.173	6.173	0.000	14844	0.25000	0.248
6 PROPANAL	6.526	6.526	0.000	15327	0.25000	0.248
7 CROTONAL	7.873	7.873	0.000	14770	0.25000	0.260
9 BUTYRALS/MEK	8.806	8.806	0.000	12710	0.25000	0.234
10 BENZALDEHYDE	10.339	10.339	0.000	10904	0.25000	0.254
11 ISO-PENTANAL	11.406	11.406	0.000	11380	0.25000	0.248
12 PENTANAL	11.939	11.939	0.000	11925	0.25000	0.253
14 O-TOLUALDEHYDE	12.799	12.799	0.000	9026	0.25000	0.244
15 M,P-TOLUALDEHYDE	13.046	13.046	0.000	17594	0.50000	0.489
16 HEXANAL	14.306	14.306	0.000	10721	0.25000	0.245
17 2,5-Dimethylbenzaldehyde	14.839	14.839	0.000	8668	0.25000	0.258

0126

Data File: /chem/hplcf.i/19Aug2009.b/f0819012.d
Date : 19-AUG-2009 13:30
Client ID: 3
Sample Info: ;1331-138-0.25;3
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819011.d
Lab Smp Id: 1331-138-0.25 Client Smp ID: 3
Inj Date : 19-AUG-2009 13:09
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.25;3
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 13:09 Cal File: f0819011.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

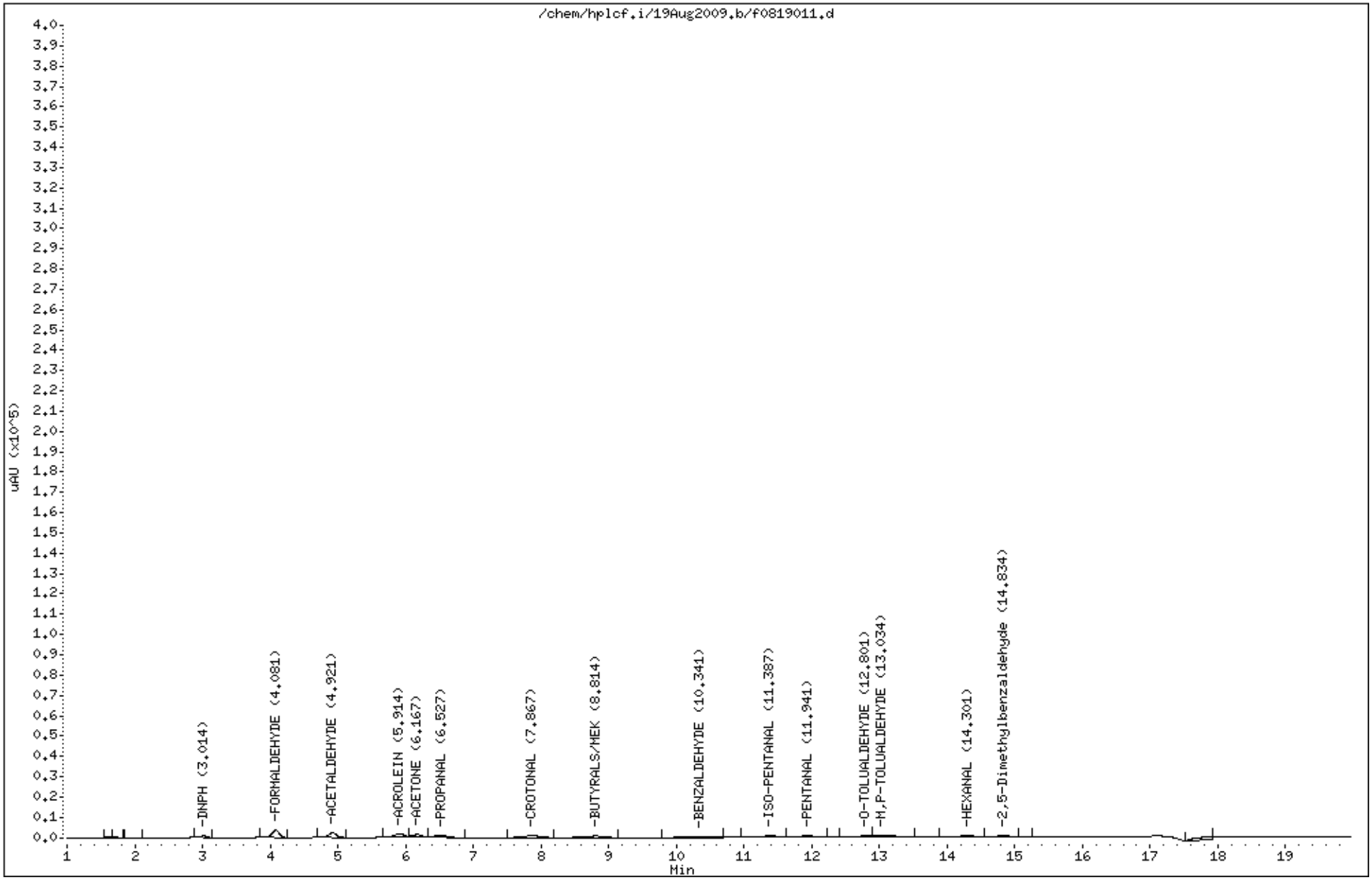
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.014	3.014	0.000	4907	0.25000	
2 FORMALDEHYDE	4.081	4.081	0.000	27774	0.25000	0.262
3 ACETALDEHYDE	4.921	4.921	0.000	20613	0.25000	0.249
4 ACROLEIN	5.914	5.914	0.000	18506	0.25000	0.250
5 ACETONE	6.167	6.167	0.000	15000	0.25000	0.250
6 PROPANAL	6.527	6.527	0.000	15329	0.25000	0.247
7 CROTONAL	7.867	7.867	0.000	14139	0.25000	0.254
9 BUTYRALS/MEK	8.814	8.814	0.000	14046	0.25000	0.251
10 BENZALDEHYDE	10.341	10.341	0.000	10911	0.25000	0.256
11 ISO-PENTANAL	11.387	11.387	0.000	11914	0.25000	0.259
12 PENTANAL	11.941	11.941	0.000	12006	0.25000	0.257
14 O-TOLUALDEHYDE	12.801	12.801	0.000	9470	0.25000	0.254
15 M,P-TOLUALDEHYDE	13.034	13.034	0.000	17767	0.50000	0.491
16 HEXANAL	14.301	14.301	0.000	11133	0.25000	0.251
17 2,5-Dimethylbenzaldehyde	14.834	14.834	0.000	8195	0.25000	0.247

0128

Data File: /chem/hplcf.i/19Aug2009.b/f0819011.d
Date : 19-AUG-2009 13:09
Client ID: 3
Sample Info: ;1331-138-0.25;3
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819010.d
Lab Smp Id: 1331-138-0.25 Client Smp ID: 3
Inj Date : 19-AUG-2009 12:48
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.25;3
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 12:48 Cal File: f0819010.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

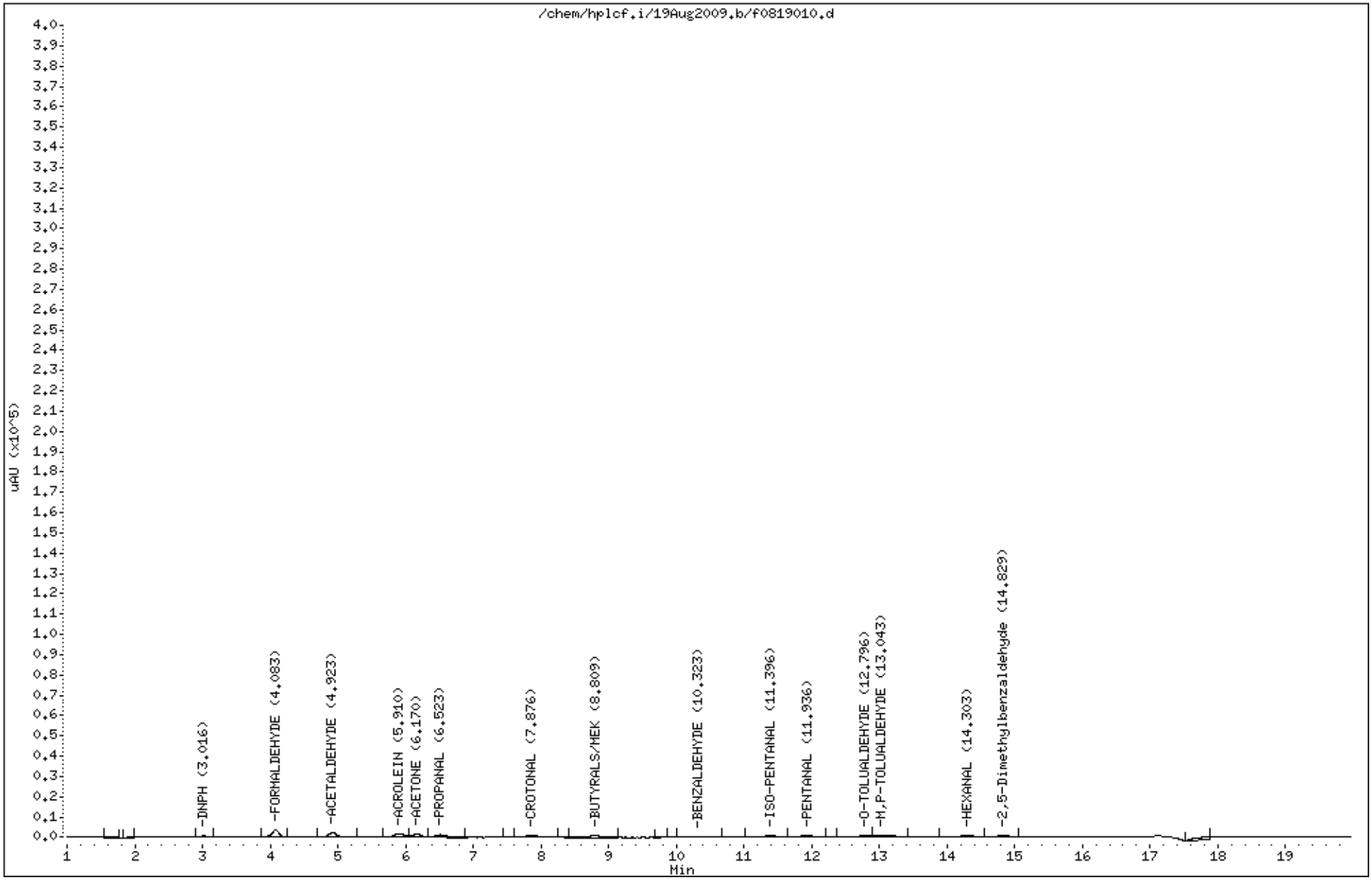
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.016	3.016	0.000	4784	0.25000	
2 FORMALDEHYDE	4.083	4.083	0.000	27289	0.25000	0.260
3 ACETALDEHYDE	4.923	4.923	0.000	20598	0.25000	0.248
4 ACROLEIN	5.910	5.910	0.000	18505	0.25000	0.250
5 ACETONE	6.170	6.170	0.000	14990	0.25000	0.250
6 PROPANAL	6.523	6.523	0.000	15678	0.25000	0.250
7 CROTONAL	7.876	7.876	0.000	13737	0.25000	0.250
9 BUTYRALS/MEK	8.809	8.809	0.000	13910	0.25000	0.250
10 BENZALDEHYDE	10.323	10.323	0.000	10382	0.25000	0.250
11 ISO-PENTANAL	11.396	11.396	0.000	11104	0.25000	0.250
12 PENTANAL	11.936	11.936	0.000	11378	0.25000	0.250
14 O-TOLUALDEHYDE	12.796	12.796	0.000	9202	0.25000	0.250
15 M,P-TOLUALDEHYDE	13.043	13.043	0.000	16909	0.50000	0.466
16 HEXANAL	14.303	14.303	0.000	11001	0.25000	0.250
17 2,5-Dimethylbenzaldehyde	14.829	14.829	0.000	8373	0.25000	0.250

0130

Data File: /chem/hplcf.i/19Aug2009.b/f0819010.d
Date : 19-AUG-2009 12:48
Client ID: 3
Sample Info: ;1331-138-0.25;3
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819015.d
Lab Smp Id: 1331-138-0.5 Client Smp ID: L4
Inj Date : 19-AUG-2009 14:33
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.5;L4
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 14:33 Cal File: f0819015.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

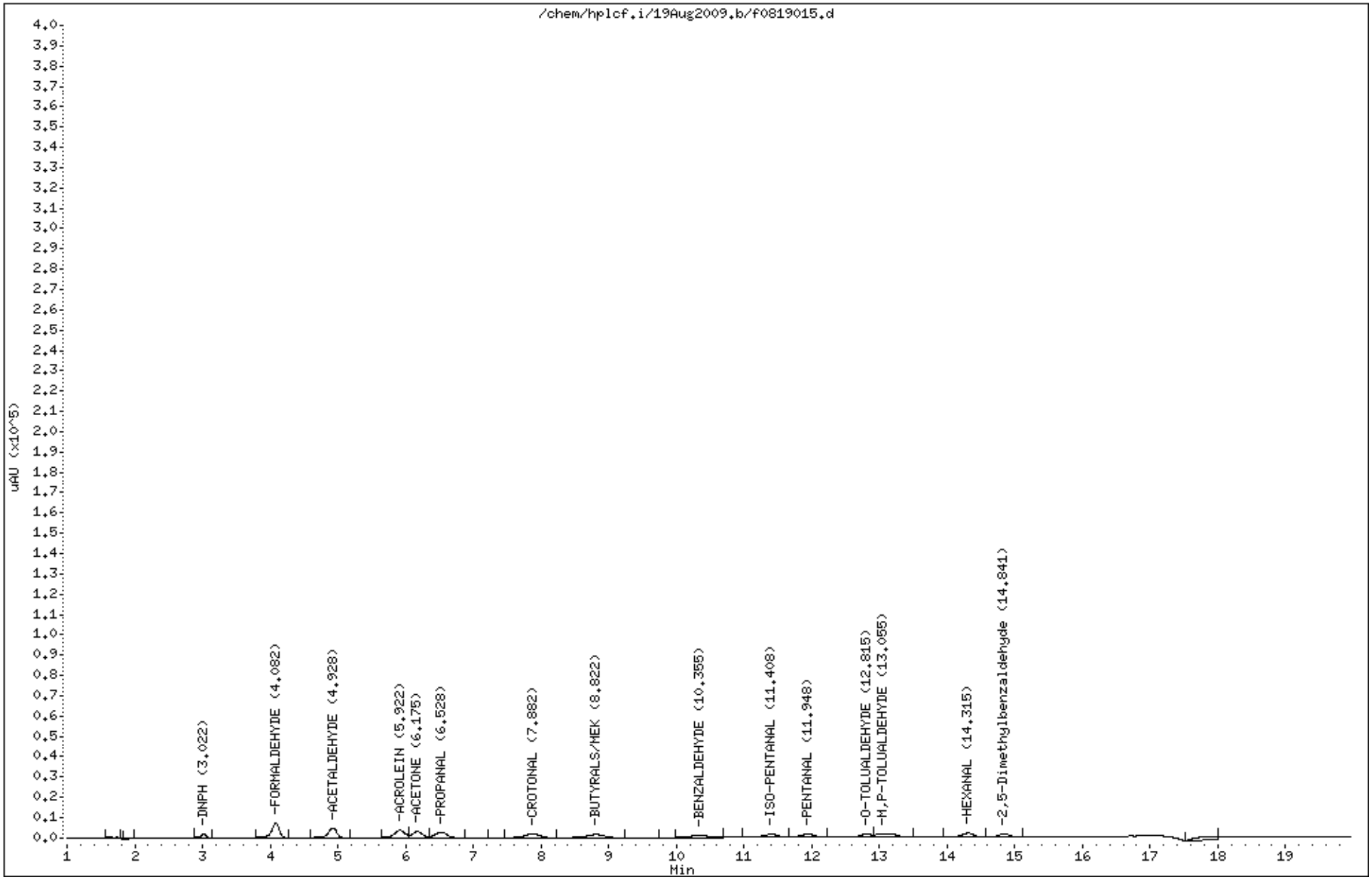
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.022	3.022	0.000	9587	0.50000	
2 FORMALDEHYDE	4.082	4.082	0.000	57256	0.50000	0.524
3 ACETALDEHYDE	4.928	4.928	0.000	43191	0.50000	0.510
4 ACROLEIN	5.922	5.922	0.000	38632	0.50000	0.513
5 ACETONE	6.175	6.175	0.000	30120	0.50000	0.501
6 PROPANAL	6.528	6.528	0.000	31195	0.50000	0.502
7 CROTONAL	7.882	7.882	0.000	29220	0.50000	0.506
9 BUTYRALS/MEK	8.822	8.822	0.000	28632	0.50000	0.518
10 BENZALDEHYDE	10.355	10.355	0.000	20194	0.50000	0.480
11 ISO-PENTANAL	11.408	11.408	0.000	23490	0.50000	0.501
12 PENTANAL	11.948	11.948	0.000	23141	0.50000	0.490
14 O-TOLUALDEHYDE	12.815	12.815	0.000	17662	0.50000	0.483
15 M,P-TOLUALDEHYDE	13.055	13.055	0.000	32890	1.00000	0.937
16 HEXANAL	14.315	14.315	0.000	20886	0.50000	0.485
17 2,5-Dimethylbenzaldehyde	14.841	14.841	0.000	15679	0.50000	0.483

0132

Data File: /chem/hplcf.i/19Aug2009.b/f0819015.d
Date : 19-AUG-2009 14:33
Client ID: L4
Sample Info: ;1331-138-0.5;L4
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819014.d
Lab Smp Id: 1331-138-0.5 Client Smp ID: L4
Inj Date : 19-AUG-2009 14:12
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.5;L4
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 14:12 Cal File: f0819014.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

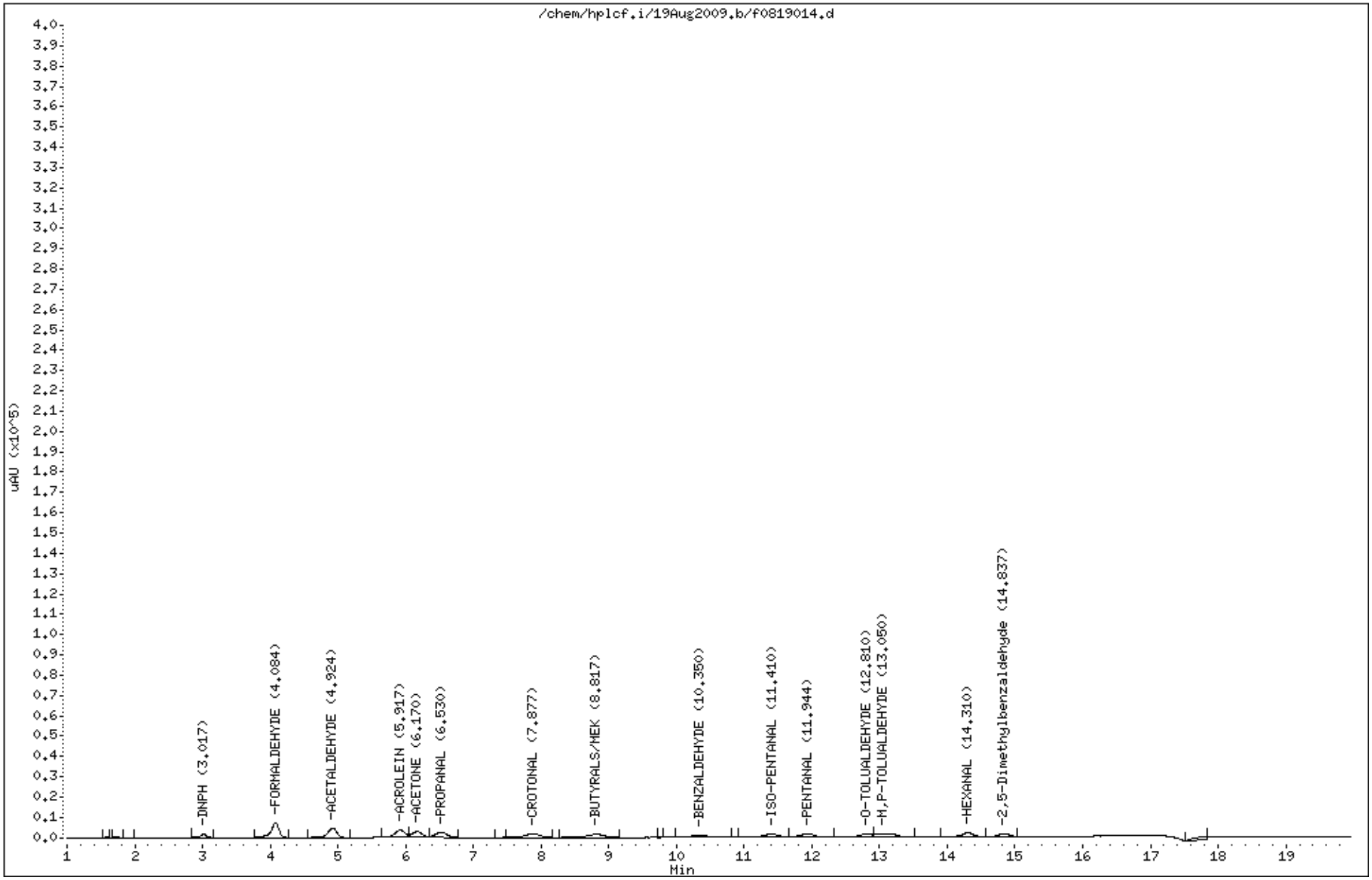
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.017	3.017	0.000	10531	0.50000	
2 FORMALDEHYDE	4.084	4.084	0.000	58510	0.50000	0.538
3 ACETALDEHYDE	4.924	4.924	0.000	44318	0.50000	0.525
4 ACROLEIN	5.917	5.917	0.000	37771	0.50000	0.504
5 ACETONE	6.170	6.170	0.000	29965	0.50000	0.499
6 PROPANAL	6.530	6.530	0.000	30743	0.50000	0.496
7 CROTONAL	7.877	7.877	0.000	29246	0.50000	0.508
9 BUTYRALS/MEK	8.817	8.817	0.000	27551	0.50000	0.502
10 BENZALDEHYDE	10.350	10.350	0.000	20859	0.50000	0.492
11 ISO-PENTANAL	11.410	11.410	0.000	24927	0.50000	0.532
12 PENTANAL	11.944	11.944	0.000	24426	0.50000	0.515
14 O-TOLUALDEHYDE	12.810	12.810	0.000	18470	0.50000	0.502
15 M,P-TOLUALDEHYDE	13.050	13.050	0.000	34373	1.00000	0.971
16 HEXANAL	14.310	14.310	0.000	21467	0.50000	0.496
17 2,5-Dimethylbenzaldehyde	14.837	14.837	0.000	15425	0.50000	0.472

0134

Data File: /chem/hplcf.i/19Aug2009.b/f0819014.d
Date : 19-AUG-2009 14:12
Client ID: L4
Sample Info: ;1331-138-0.5;L4
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819013.d
Lab Smp Id: 1331-138-0.5 Client Smp ID: L4
Inj Date : 19-AUG-2009 13:51
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-0.5;L4
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 13:51 Cal File: f0819013.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

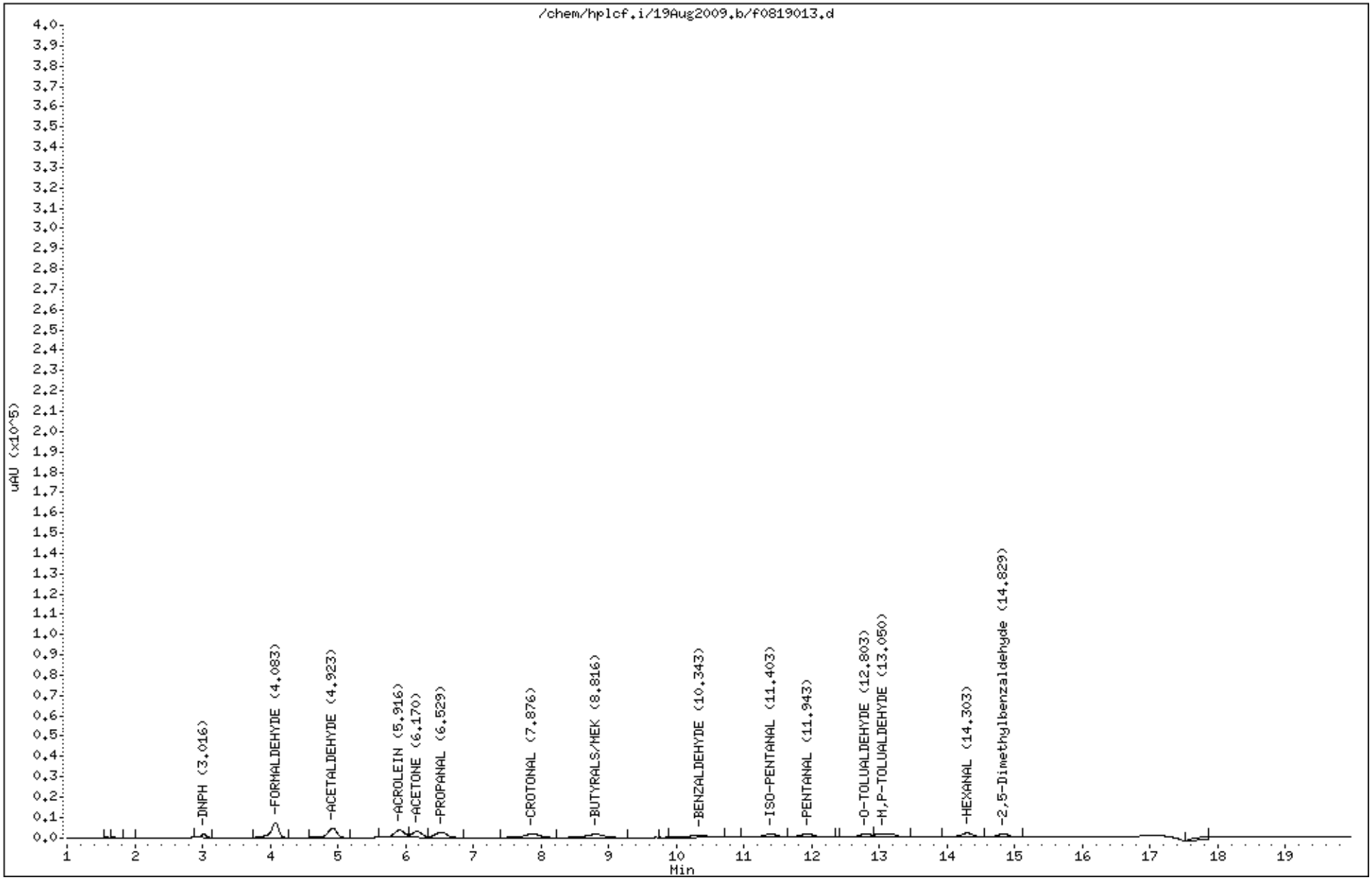
Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.016	3.016	0.000	9870	0.50000	
2 FORMALDEHYDE	4.083	4.083	0.000	58493	0.50000	0.542
3 ACETALDEHYDE	4.923	4.923	0.000	43974	0.50000	0.525
4 ACROLEIN	5.916	5.916	0.000	38956	0.50000	0.521
5 ACETONE	6.170	6.170	0.000	30483	0.50000	0.507
6 PROPANAL	6.529	6.529	0.000	31657	0.50000	0.509
7 CROTONAL	7.876	7.876	0.000	29384	0.50000	0.512
9 BUTYRALS/MEK	8.816	8.816	0.000	28326	0.50000	0.517
10 BENZALDEHYDE	10.343	10.343	0.000	20768	0.50000	0.488
11 ISO-PENTANAL	11.403	11.403	0.000	23450	0.50000	0.508
12 PENTANAL	11.943	11.943	0.000	23536	0.50000	0.500
14 O-TOLUALDEHYDE	12.803	12.803	0.000	18192	0.50000	0.494
15 M,P-TOLUALDEHYDE	13.050	13.050	0.000	32773	1.00000	0.922
16 HEXANAL	14.303	14.303	0.000	21066	0.50000	0.486
17 2,5-Dimethylbenzaldehyde	14.829	14.829	0.000	15827	0.50000	0.477

Data File: /chem/hplcf.i/19Aug2009.b/f0819013.d
Date : 19-AUG-2009 13:51
Client ID: L4
Sample Info: ;1331-138-0.5;L4
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819018.d
Lab Smp Id: 1331-138-1.0 Client Smp ID: L5
Inj Date : 19-AUG-2009 15:35
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-1.0;L5
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 15:35 Cal File: f0819018.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

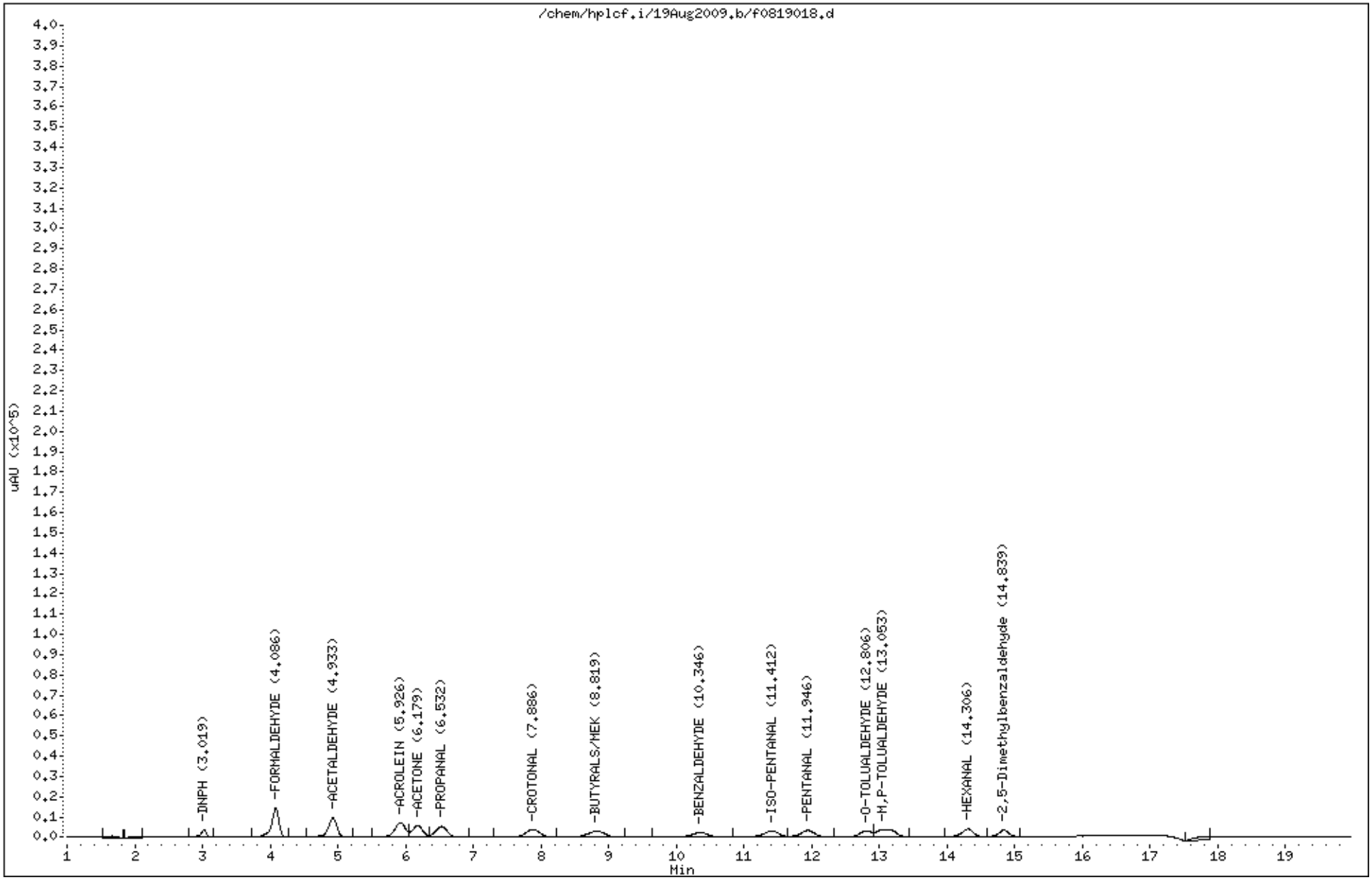
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.019	3.019	0.000	21186	1.00000	
2 FORMALDEHYDE	4.086	4.086	0.000	115697	1.00000	1.04
3 ACETALDEHYDE	4.933	4.933	0.000	86984	1.00000	1.02
4 ACROLEIN	5.926	5.926	0.000	81611	1.00000	1.06
5 ACETONE	6.179	6.179	0.000	63170	1.00000	1.04
6 PROPANAL	6.532	6.532	0.000	63753	1.00000	1.02
7 CROTONAL	7.886	7.886	0.000	58100	1.00000	1.01
9 BUTYRALS/MEK	8.819	8.819	0.000	55272	1.00000	1.00
10 BENZALDEHYDE	10.346	10.346	0.000	40915	1.00000	0.981
11 ISO-PENTANAL	11.412	11.412	0.000	48224	1.00000	1.02
12 PENTANAL	11.946	11.946	0.000	46345	1.00000	0.985
14 O-TOLUALDEHYDE	12.806	12.806	0.000	35385	1.00000	0.973
15 M,P-TOLUALDEHYDE	13.053	13.053	0.000	64650	2.00000	1.87
16 HEXANAL	14.306	14.306	0.000	41106	1.00000	0.969
17 2,5-Dimethylbenzaldehyde	14.839	14.839	0.000	29608	1.00000	0.936

0138

Data File: /chem/hplcf.i/19Aug2009.b/f0819018.d
Date : 19-AUG-2009 15:35
Client ID: L5
Sample Info: ;1331-138-1.0;L5
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819017.d
Lab Smp Id: 1331-138-1.0 Client Smp ID: L5
Inj Date : 19-AUG-2009 15:14
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-1.0;L5
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 15:14 Cal File: f0819017.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

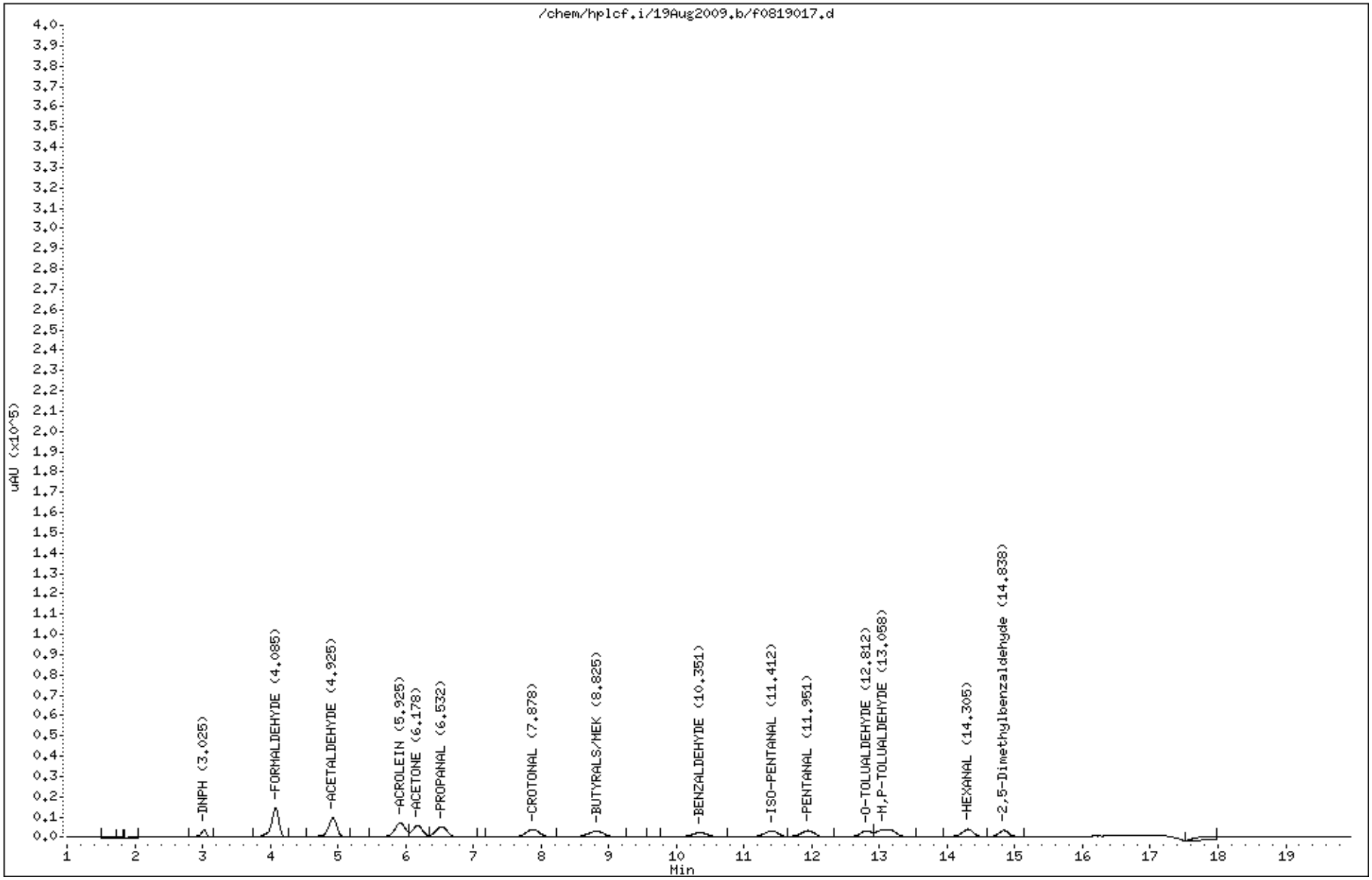
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.025	3.025	0.000	21440	1.00000	
2 FORMALDEHYDE	4.085	4.085	0.000	116575	1.00000	1.06
3 ACETALDEHYDE	4.925	4.925	0.000	87377	1.00000	1.03
4 ACROLEIN	5.925	5.925	0.000	82795	1.00000	1.08
5 ACETONE	6.178	6.178	0.000	63425	1.00000	1.05
6 PROPANAL	6.532	6.532	0.000	63714	1.00000	1.02
7 CROTONAL	7.878	7.878	0.000	57897	1.00000	1.00
9 BUTYRALS/MEK	8.825	8.825	0.000	55647	1.00000	1.01
10 BENZALDEHYDE	10.351	10.351	0.000	41098	1.00000	0.983
11 ISO-PENTANAL	11.412	11.412	0.000	48863	1.00000	1.03
12 PENTANAL	11.951	11.951	0.000	47165	1.00000	1.00
14 O-TOLUALDEHYDE	12.812	12.812	0.000	36859	1.00000	1.01
15 M,P-TOLUALDEHYDE	13.058	13.058	0.000	65508	2.00000	1.89
16 HEXANAL	14.305	14.305	0.000	41171	1.00000	0.967
17 2,5-Dimethylbenzaldehyde	14.838	14.838	0.000	30221	1.00000	0.947

0140

Data File: /chem/hplcf.i/19Aug2009.b/f0819017.d
Date : 19-AUG-2009 15:14
Client ID: L5
Sample Info: ;1331-138-1.0;L5
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819016.d
Lab Smp Id: 1331-138-1.0 Client Smp ID: L5
Inj Date : 19-AUG-2009 14:53
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-1.0;L5
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:12 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 14:53 Cal File: f0819016.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

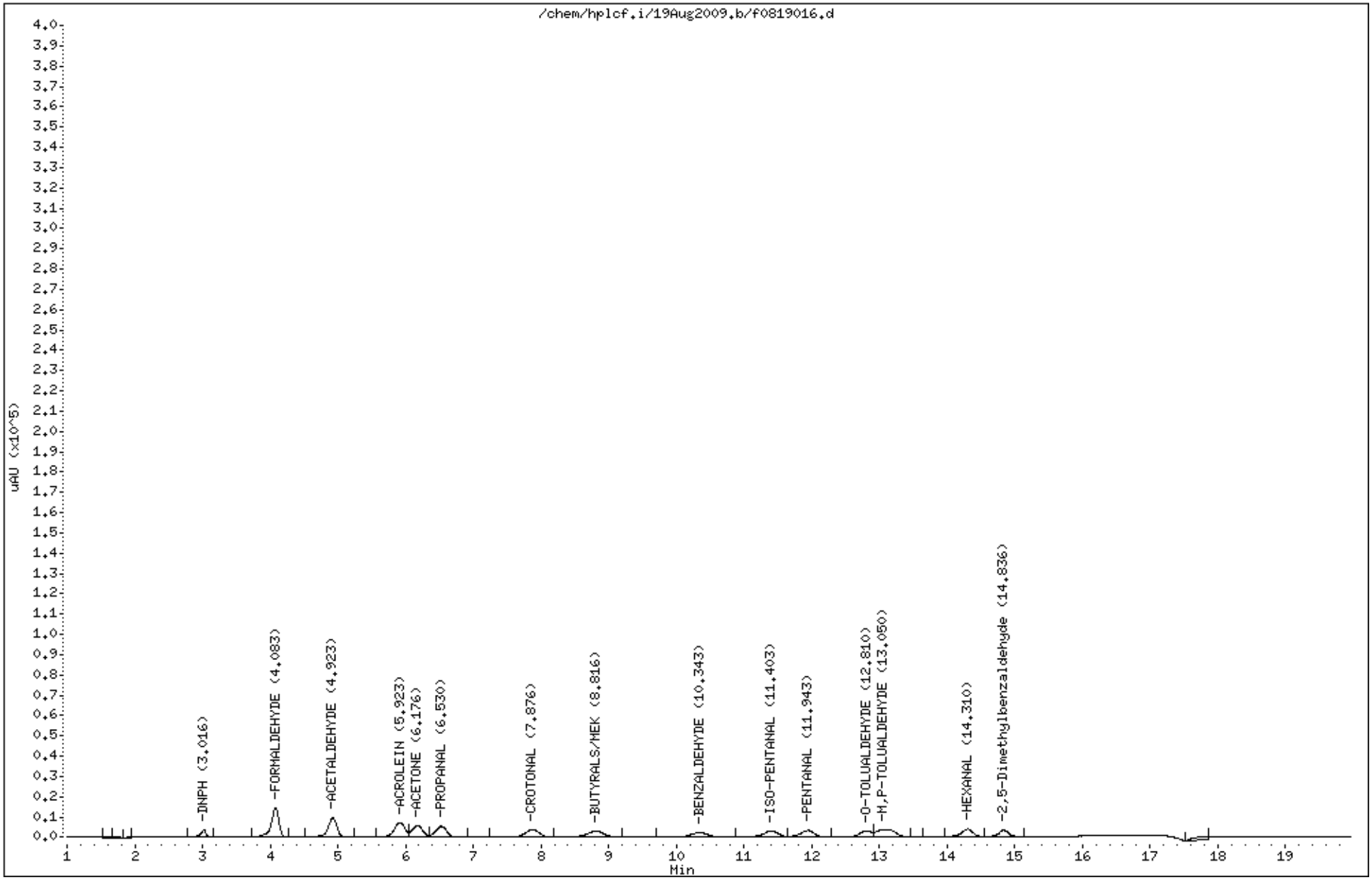
Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.016	3.016	0.000	21402	1.00000	
2 FORMALDEHYDE	4.083	4.083	0.000	116616	1.00000	1.06
3 ACETALDEHYDE	4.923	4.923	0.000	87493	1.00000	1.03
4 ACROLEIN	5.923	5.923	0.000	77808	1.00000	1.03
5 ACETONE	6.176	6.176	0.000	60871	1.00000	1.01
6 PROPANAL	6.530	6.530	0.000	61694	1.00000	0.994
7 CROTONAL	7.876	7.876	0.000	56756	1.00000	0.986
9 BUTYRALS/MEK	8.816	8.816	0.000	54179	1.00000	0.983
10 BENZALDEHYDE	10.343	10.343	0.000	40916	1.00000	0.976
11 ISO-PENTANAL	11.403	11.403	0.000	48271	1.00000	1.02
12 PENTANAL	11.943	11.943	0.000	46491	1.00000	0.986
14 O-TOLUALDEHYDE	12.810	12.810	0.000	35454	1.00000	0.974
15 M,P-TOLUALDEHYDE	13.050	13.050	0.000	65441	2.00000	1.88
16 HEXANAL	14.310	14.310	0.000	41319	1.00000	0.965
17 2,5-Dimethylbenzaldehyde	14.836	14.836	0.000	30165	1.00000	0.938

Data File: /chem/hplcf.i/19Aug2009.b/f0819016.d
Date : 19-AUG-2009 14:53
Client ID: L5
Sample Info: ;1331-138-1.0;L5
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819021.d
Lab Smp Id: 1331-138-4.0 Client Smp ID: L6
Inj Date : 19-AUG-2009 16:38
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-4.0;L6
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 16:38 Cal File: f0819021.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

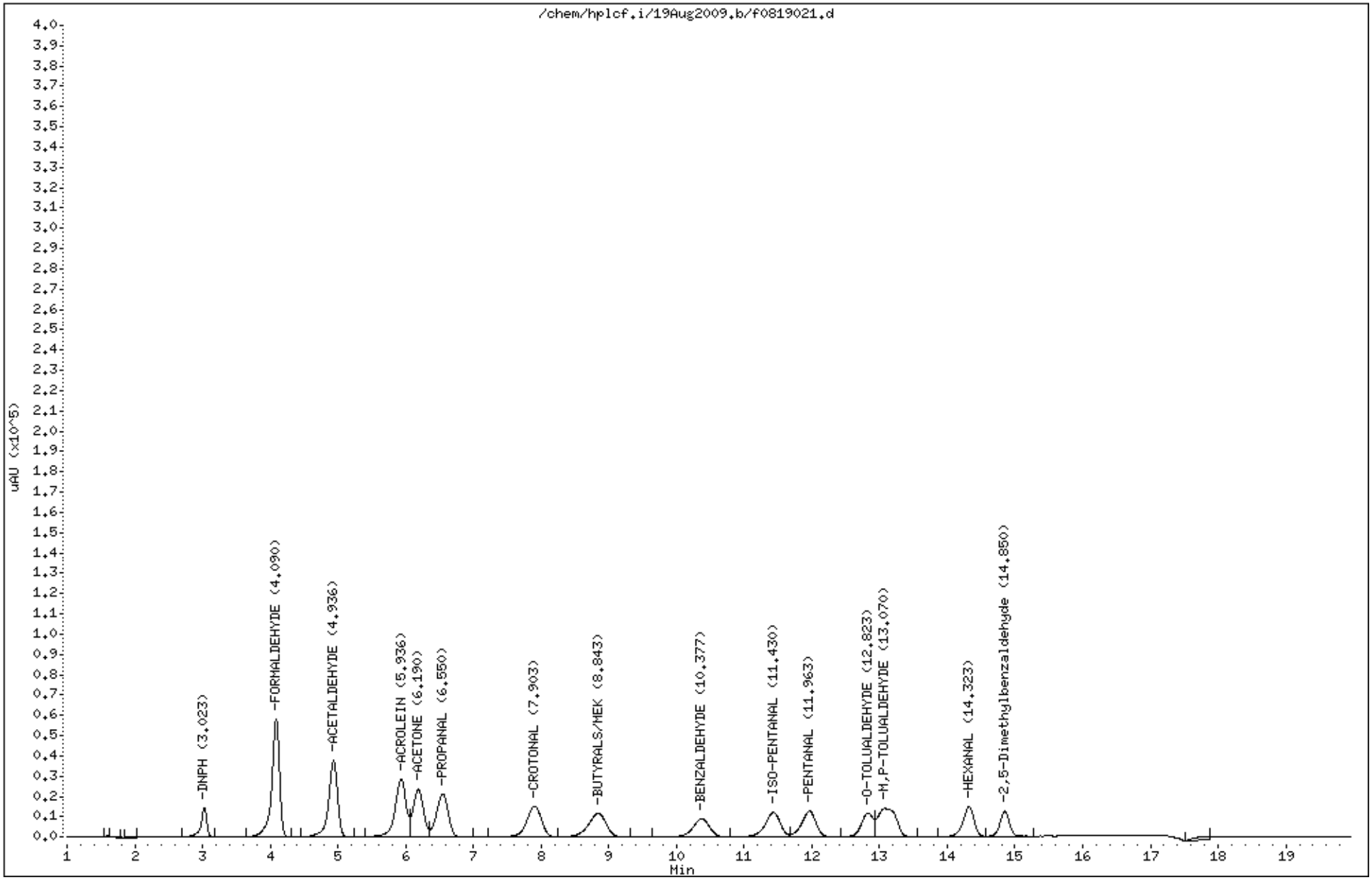
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.023	3.023	0.000	86481	4.00000	
2 FORMALDEHYDE	4.090	4.090	0.000	464998	4.00000	4.17
3 ACETALDEHYDE	4.936	4.936	0.000	345359	4.00000	4.04
4 ACROLEIN	5.936	5.936	0.000	329098	4.00000	4.19
5 ACETONE	6.190	6.190	0.000	252264	4.00000	4.11
6 PROPANAL	6.550	6.550	0.000	255367	4.00000	4.07
7 CROTONAL	7.903	7.903	0.000	228619	4.00000	3.98
9 BUTYRALS/MEK	8.843	8.843	0.000	217403	4.00000	3.96
10 BENZALDEHYDE	10.377	10.377	0.000	155756	4.00000	3.80
11 ISO-PENTANAL	11.430	11.430	0.000	187051	4.00000	3.97
12 PENTANAL	11.963	11.963	0.000	182957	4.00000	3.92
14 O-TOLUALDEHYDE	12.823	12.823	0.000	138582	4.00000	3.86
15 M,P-TOLUALDEHYDE	13.070	13.070	0.000	259529	8.00000	7.62
16 HEXANAL	14.323	14.323	0.000	160689	4.00000	3.84
17 2,5-Dimethylbenzaldehyde	14.850	14.850	0.000	117362	4.00000	3.78

0144

Data File: /chem/hplcf.i/19Aug2009.b/f0819021.d
Date : 19-AUG-2009 16:38
Client ID: L6
Sample Info: ;1331-138-4.0;L6
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819020.d
Lab Smp Id: 1331-138-4.0 Client Smp ID: L6
Inj Date : 19-AUG-2009 16:17
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-4.0;L6
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 16:17 Cal File: f0819020.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

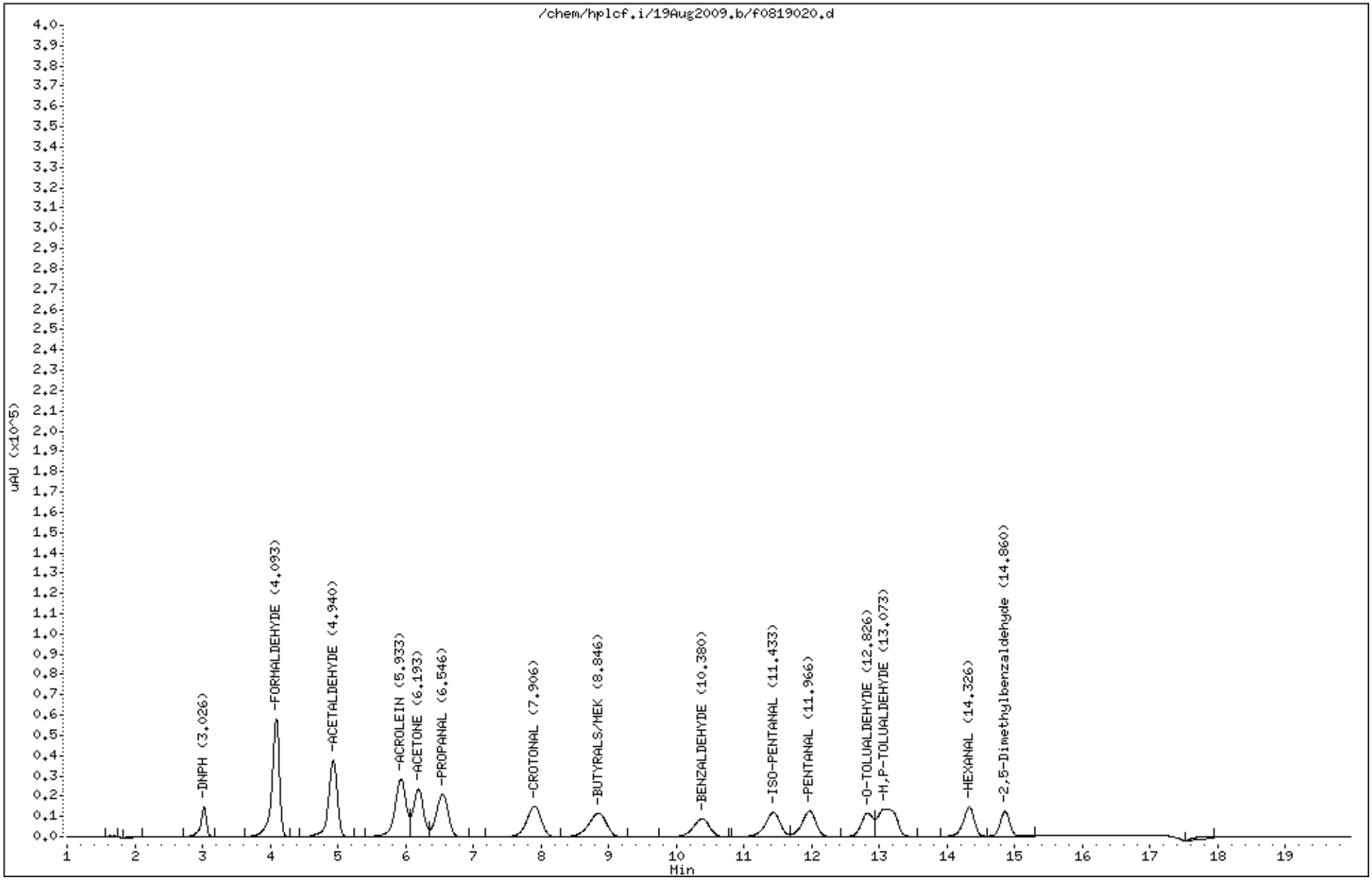
Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.026	3.026	0.000	85723	4.00000	
2 FORMALDEHYDE	4.093	4.093	0.000	464653	4.00000	4.17
3 ACETALDEHYDE	4.940	4.940	0.000	346088	4.00000	4.05
4 ACROLEIN	5.933	5.933	0.000	329418	4.00000	4.22
5 ACETONE	6.193	6.193	0.000	250896	4.00000	4.10
6 PROPANAL	6.546	6.546	0.000	254892	4.00000	4.07
7 CROTONAL	7.906	7.906	0.000	228573	4.00000	3.97
9 BUTYRALS/MEK	8.846	8.846	0.000	217059	4.00000	3.95
10 BENZALDEHYDE	10.380	10.380	0.000	155362	4.00000	3.77
11 ISO-PENTANAL	11.433	11.433	0.000	185898	4.00000	3.94
12 PENTANAL	11.966	11.966	0.000	183421	4.00000	3.92
14 O-TOLUALDEHYDE	12.826	12.826	0.000	139299	4.00000	3.86
15 M,P-TOLUALDEHYDE	13.073	13.073	0.000	258751	8.00000	7.57
16 HEXANAL	14.326	14.326	0.000	160387	4.00000	3.82
17 2,5-Dimethylbenzaldehyde	14.860	14.860	0.000	116914	4.00000	3.75

Data File: /chem/hplcf.i/19Aug2009.b/f0819020.d
Date : 19-AUG-2009 16:17
Client ID: L6
Sample Info: ;1331-138-4.0;L6
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819019.d
Lab Smp Id: 1331-138-4.0 Client Smp ID: L6
Inj Date : 19-AUG-2009 15:56
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-4.0;L6
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 15:56 Cal File: f0819019.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.023	3.023	0.000	87401	4.00000	
2 FORMALDEHYDE	4.090	4.090	0.000	464648	4.00000	4.19
3 ACETALDEHYDE	4.936	4.936	0.000	345379	4.00000	4.04
4 ACROLEIN	5.930	5.930	0.000	332758	4.00000	4.28
5 ACETONE	6.183	6.183	0.000	248146	4.00000	4.07
6 PROPANAL	6.543	6.543	0.000	253066	4.00000	4.05
7 CROTONAL	7.896	7.896	0.000	226524	4.00000	3.93
9 BUTYRALS/MEK	8.836	8.836	0.000	215259	4.00000	3.91
10 BENZALDEHYDE	10.363	10.363	0.000	154334	4.00000	3.73
11 ISO-PENTANAL	11.423	11.423	0.000	183898	4.00000	3.89
12 PENTANAL	11.956	11.956	0.000	179067	4.00000	3.82
14 O-TOLUALDEHYDE	12.816	12.816	0.000	138163	4.00000	3.82
15 M,P-TOLUALDEHYDE	13.063	13.063	0.000	257297	8.00000	7.50
16 HEXANAL	14.316	14.316	0.000	160638	4.00000	3.81
17 2,5-Dimethylbenzaldehyde	14.850	14.850	0.000	116025	4.00000	3.70

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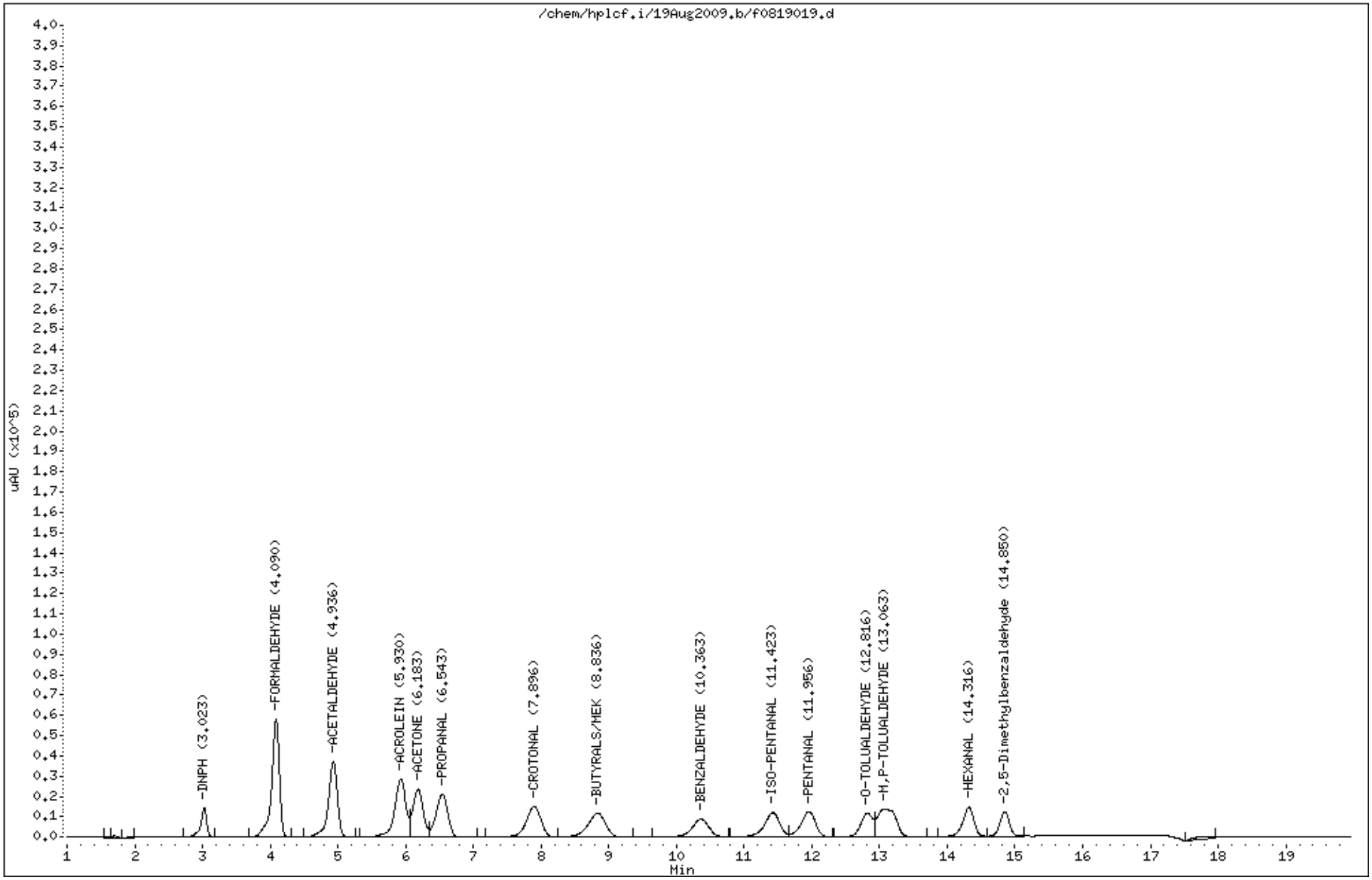
Data File: /chem/hplcf.i/19Aug2009.b/f0819019.d
Date : 19-AUG-2009 15:56
Client ID: L6
Sample Info: ;1331-138-4.0;L6
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819024.d
Lab Smp Id: 1331-138-10 Client Smp ID: L7
Inj Date : 19-AUG-2009 17:41
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-10;L7
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 17:41 Cal File: f0819024.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

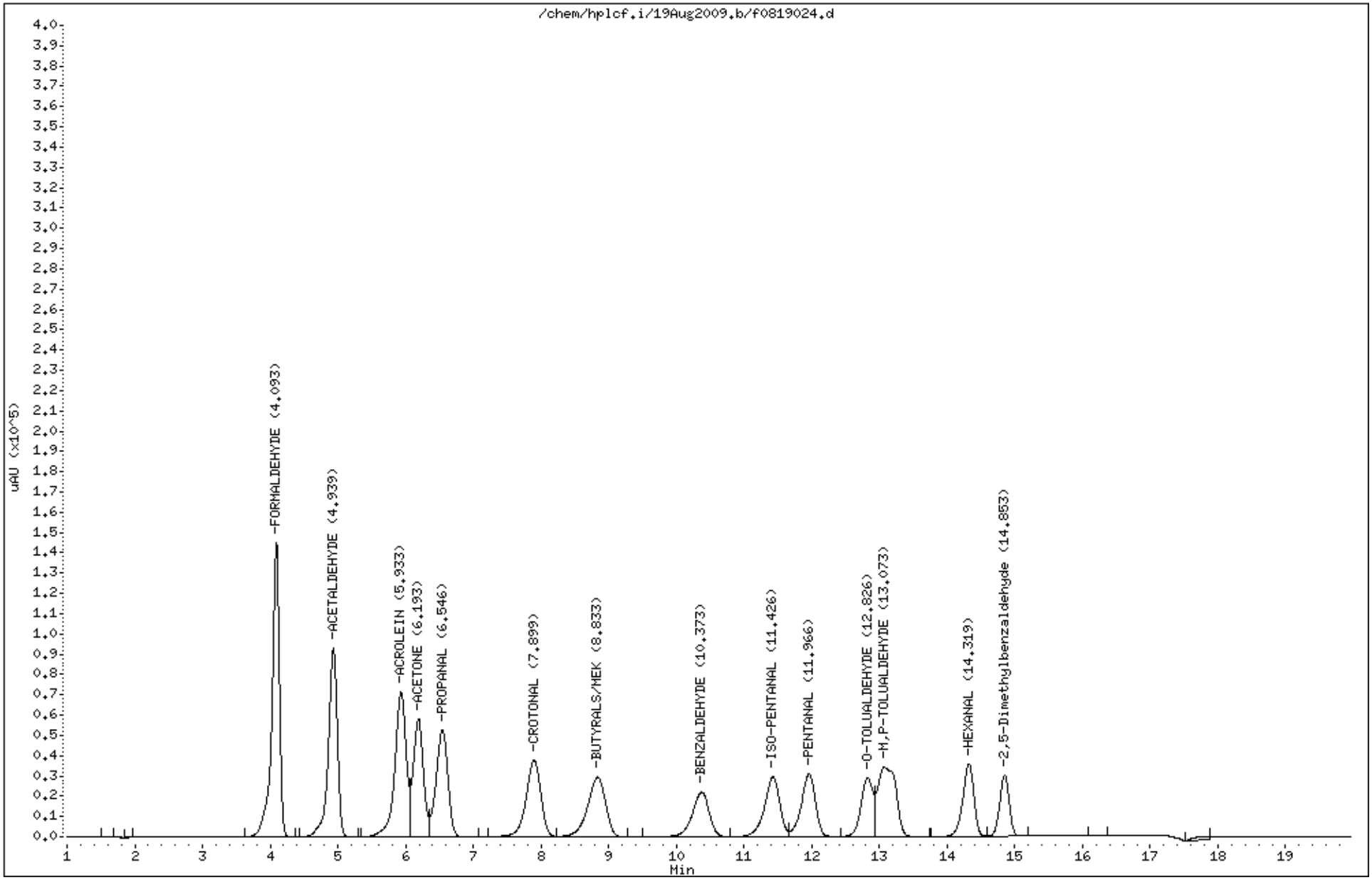
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	Compound Not Detected.					
2 FORMALDEHYDE	4.093	4.093	0.000	1160792	10.0000	10.3
3 ACETALDEHYDE	4.939	4.939	0.000	861005	10.0000	10.0
4 ACROLEIN	5.933	5.933	0.000	832689	10.0000	10.5
5 ACETONE	6.193	6.193	0.000	625050	10.0000	10.1
6 PROPANAL	6.546	6.546	0.000	630060	10.0000	10.0
7 CROTONAL	7.899	7.899	0.000	568885	10.0000	9.91
9 BUTYRALS/MEK	8.833	8.833	0.000	540455	10.0000	9.87
10 BENZALDEHYDE	10.373	10.373	0.000	388413	10.0000	9.58
11 ISO-PENTANAL	11.426	11.426	0.000	464312	10.0000	9.87
12 PENTANAL	11.966	11.966	0.000	452628	10.0000	9.76
14 O-TOLUALDEHYDE	12.826	12.826	0.000	349775	10.0000	9.80
15 M,P-TOLUALDEHYDE	13.073	13.073	0.000	638302	20.0000	18.9
16 HEXANAL	14.319	14.319	0.000	400417	10.0000	9.65
17 2,5-Dimethylbenzaldehyde	14.853	14.853	0.000	288379	10.0000	9.42

0150

Data File: /chem/hplcf.i/19Aug2009.b/f0819024.d
Date : 19-AUG-2009 17:41
Client ID: L7
Sample Info: ;1331-138-10;L7
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819023.d
Lab Smp Id: 1331-138-10 Client Smp ID: L7
Inj Date : 19-AUG-2009 17:20
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-10;L7
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 17:20 Cal File: f0819023.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	Compound Not Detected.					
2 FORMALDEHYDE	4.094	4.094	0.000	1161251	10.0000	10.4
3 ACETALDEHYDE	4.934	4.934	0.000	861245	10.0000	10.1
4 ACROLEIN	5.928	5.928	0.000	828163	10.0000	10.5
5 ACETONE	6.188	6.188	0.000	628750	10.0000	10.2
6 PROPANAL	6.541	6.541	0.000	630799	10.0000	10.0
7 CROTONAL	7.894	7.894	0.000	569157	10.0000	9.91
9 BUTYRALS/MEK	8.828	8.828	0.000	541060	10.0000	9.87
10 BENZALDEHYDE	10.361	10.361	0.000	388590	10.0000	9.55
11 ISO-PENTANAL	11.421	11.421	0.000	464879	10.0000	9.88
12 PENTANAL	11.954	11.954	0.000	452277	10.0000	9.74
14 O-TOLUALDEHYDE	12.821	12.821	0.000	350516	10.0000	9.80
15 M,P-TOLUALDEHYDE	13.061	13.061	0.000	637876	20.0000	18.9
16 HEXANAL	14.314	14.314	0.000	399335	10.0000	9.60
17 2,5-Dimethylbenzaldehyde	14.848	14.848	0.000	289220	10.0000	9.41

Data File: /chem/hplcf.i/19Aug2009.b/f0819023.d

0152

Date : 19-AUG-2009 17:20

Client ID: L7

Instrument: hplcf.i

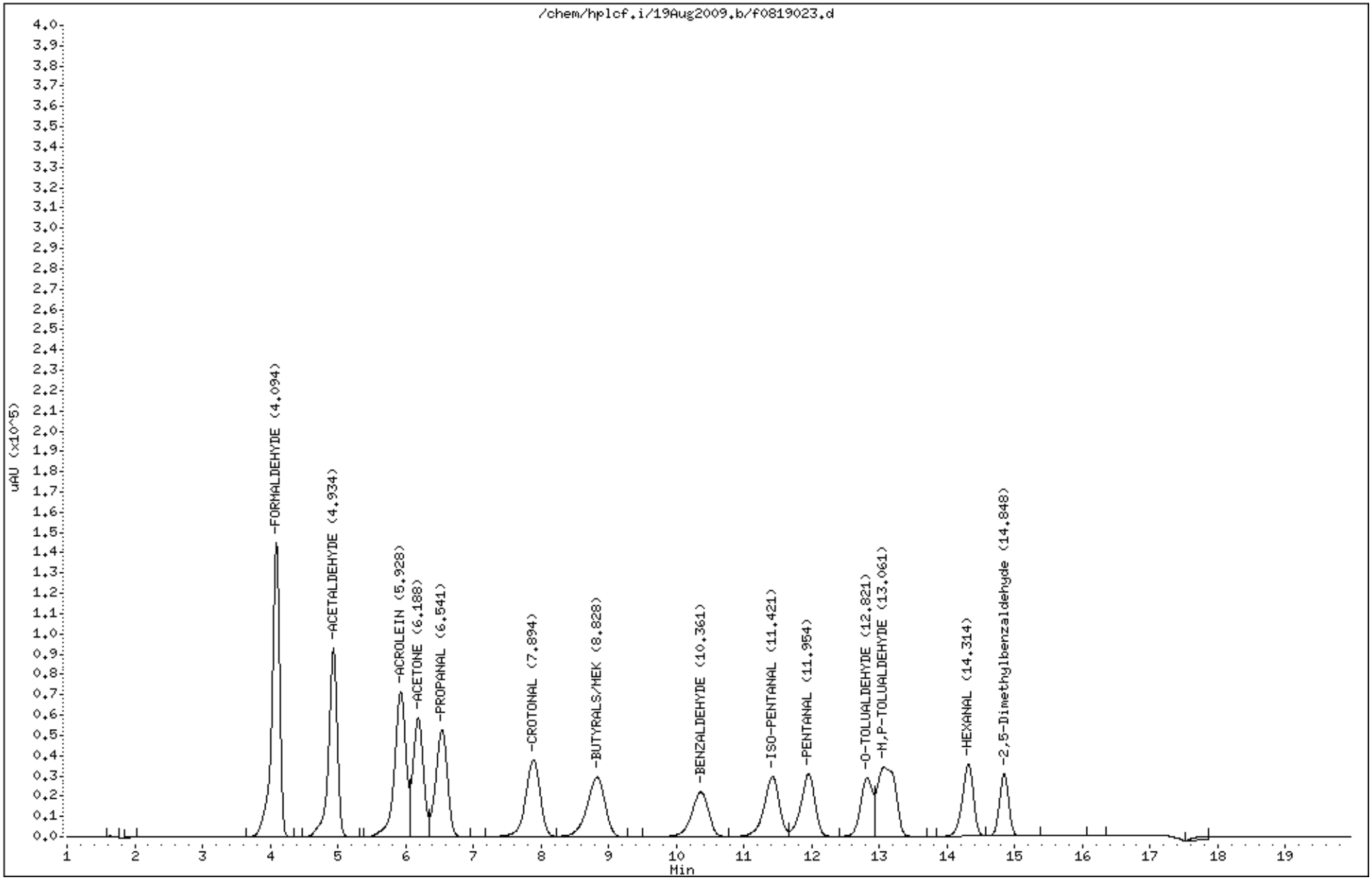
Sample Info: ;1331-138-10;L7

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819022.d
Lab Smp Id: 1331-138-10 Client Smp ID: L7
Inj Date : 19-AUG-2009 16:59
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-10;L7
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 16:59 Cal File: f0819022.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	Compound Not Detected.					
2 FORMALDEHYDE	4.088	4.088	0.000	1162679	10.0000	10.4
3 ACETALDEHYDE	4.934	4.934	0.000	861919	10.0000	10.1
4 ACROLEIN	5.934	5.934	0.000	825566	10.0000	10.5
5 ACETONE	6.188	6.188	0.000	629423	10.0000	10.2
6 PROPANAL	6.541	6.541	0.000	633251	10.0000	10.1
7 CROTONAL	7.894	7.894	0.000	569442	10.0000	9.91
9 BUTYRALS/MEK	8.834	8.834	0.000	540622	10.0000	9.85
10 BENZALDEHYDE	10.367	10.367	0.000	388480	10.0000	9.52
11 ISO-PENTANAL	11.428	11.428	0.000	465577	10.0000	9.88
12 PENTANAL	11.961	11.961	0.000	452114	10.0000	9.71
14 O-TOLUALDEHYDE	12.828	12.828	0.000	344484	10.0000	9.62
15 M,P-TOLUALDEHYDE	13.068	13.068	0.000	643463	20.0000	19.0
16 HEXANAL	14.321	14.321	0.000	400309	10.0000	9.60
17 2,5-Dimethylbenzaldehyde	14.854	14.854	0.000	289174	10.0000	9.37

Data File: /chem/hplcf.i/19Aug2009.b/f0819022.d

Date : 19-AUG-2009 16:59

Client ID: L7

Sample Info: ;1331-138-10;L7

Purge Volume: 5.0

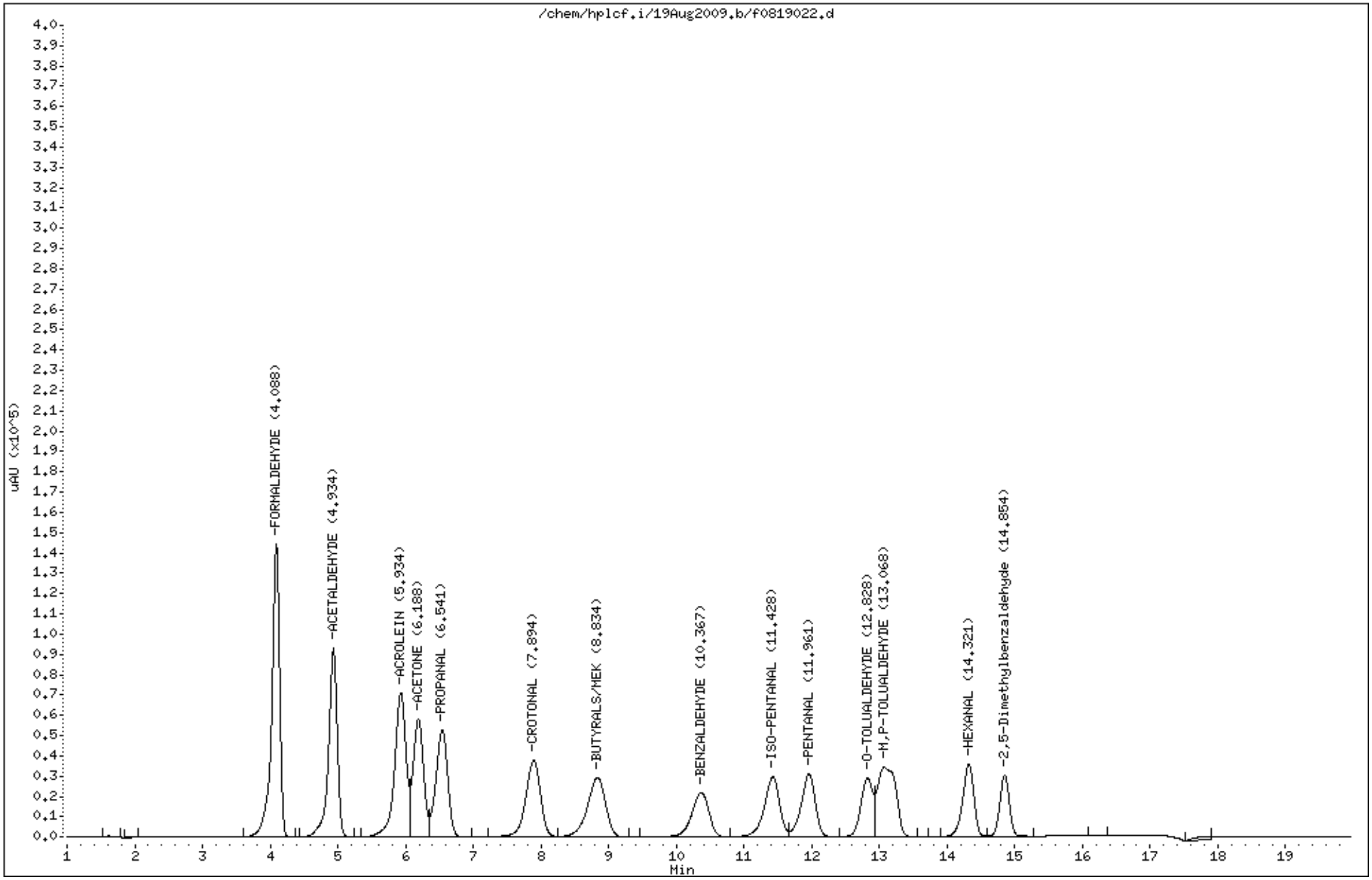
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: LZ

Column diameter: 2.00

0154



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819027.d
Lab Smp Id: 1331-138-20 Client Smp ID: L8
Inj Date : 19-AUG-2009 18:43
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-20;L8
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 18:43 Cal File: f0819027.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.092	3.092	0.000	4287	20.0000	
2 FORMALDEHYDE	4.092	4.092	0.000	2327000	20.0000	20.6
3 ACETALDEHYDE	4.939	4.939	0.000	1724398	20.0000	20.1
4 ACROLEIN	5.932	5.932	0.000	1663354	20.0000	20.8
5 ACETONE	6.192	6.192	0.000	1255989	20.0000	20.3
6 PROPANAL	6.545	6.545	0.000	1264402	20.0000	20.1
7 CROTONAL	7.899	7.899	0.000	1142131	20.0000	19.9
9 BUTYRALS/MEK	8.839	8.839	0.000	1084877	20.0000	19.8
10 BENZALDEHYDE	10.372	10.372	0.000	777222	20.0000	19.3
11 ISO-PENTANAL	11.425	11.425	0.000	929571	20.0000	19.8
12 PENTANAL	11.959	11.959	0.000	906906	20.0000	19.6
14 O-TOLUALDEHYDE	12.825	12.825	0.000	703201	20.0000	19.8
15 M,P-TOLUALDEHYDE	13.065	13.065	0.000	1278103	40.0000	38.2
16 HEXANAL	14.319	14.319	0.000	802045	20.0000	19.4
17 2,5-Dimethylbenzaldehyde	14.845	14.845	0.000	579193	20.0000	19.1

Data File: /chem/hplcf.i/19Aug2009.b/f0819027.d

Date : 19-AUG-2009 18:43

Client ID: L8

Instrument: hplcf.i

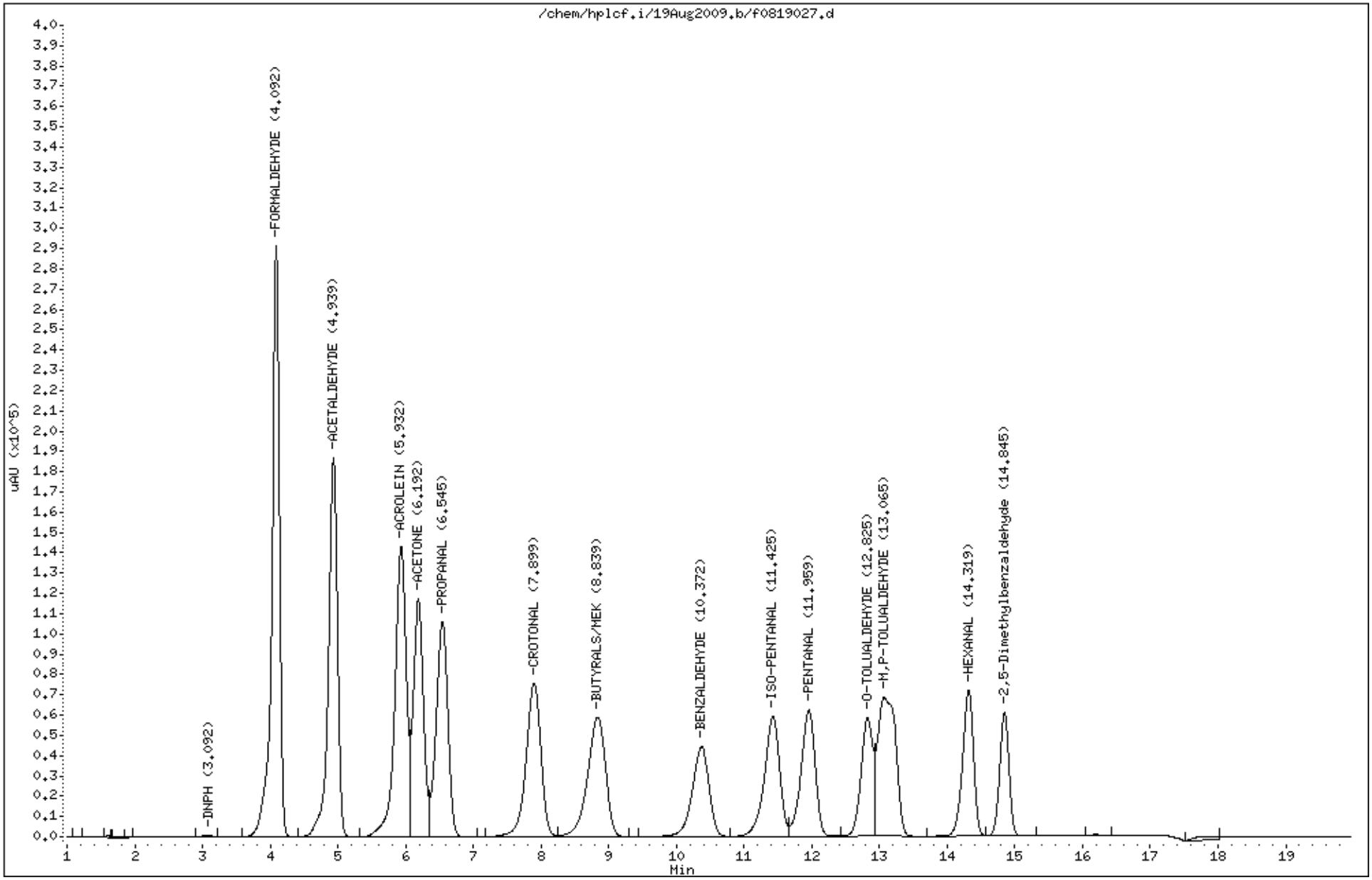
Sample Info: ;1331-138-20;L8

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819026.d
Lab Smp Id: 1331-138-20 Client Smp ID: L8
Inj Date : 19-AUG-2009 18:23
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-20;L8
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 18:23 Cal File: f0819026.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.044	3.044	0.000	1771	20.0000	
2 FORMALDEHYDE	4.091	4.091	0.000	2327435	20.0000	20.7
3 ACETALDEHYDE	4.938	4.938	0.000	1726343	20.0000	20.1
4 ACROLEIN	5.938	5.938	0.000	1657382	20.0000	20.8
5 ACETONE	6.191	6.191	0.000	1259816	20.0000	20.4
6 PROPANAL	6.544	6.544	0.000	1269907	20.0000	20.2
7 CROTONAL	7.898	7.898	0.000	1143755	20.0000	19.9
9 BUTYRALS/MEK	8.831	8.831	0.000	1087360	20.0000	19.9
10 BENZALDEHYDE	10.364	10.364	0.000	778010	20.0000	19.3
11 ISO-PENTANAL	11.424	11.424	0.000	930723	20.0000	19.8
12 PENTANAL	11.958	11.958	0.000	909171	20.0000	19.6
14 O-TOLUALDEHYDE	12.824	12.824	0.000	692251	20.0000	19.4
15 M,P-TOLUALDEHYDE	13.064	13.064	0.000	1291538	40.0000	38.5
16 HEXANAL	14.318	14.318	0.000	803037	20.0000	19.4
17 2,5-Dimethylbenzaldehyde	14.851	14.851	0.000	579170	20.0000	19.0

Data File: /chem/hplcf.i/19Aug2009.b/f0819026.d

Date : 19-AUG-2009 18:23

Client ID: L8

Sample Info: ;1331-138-20;L8

Purge Volume: 5.0

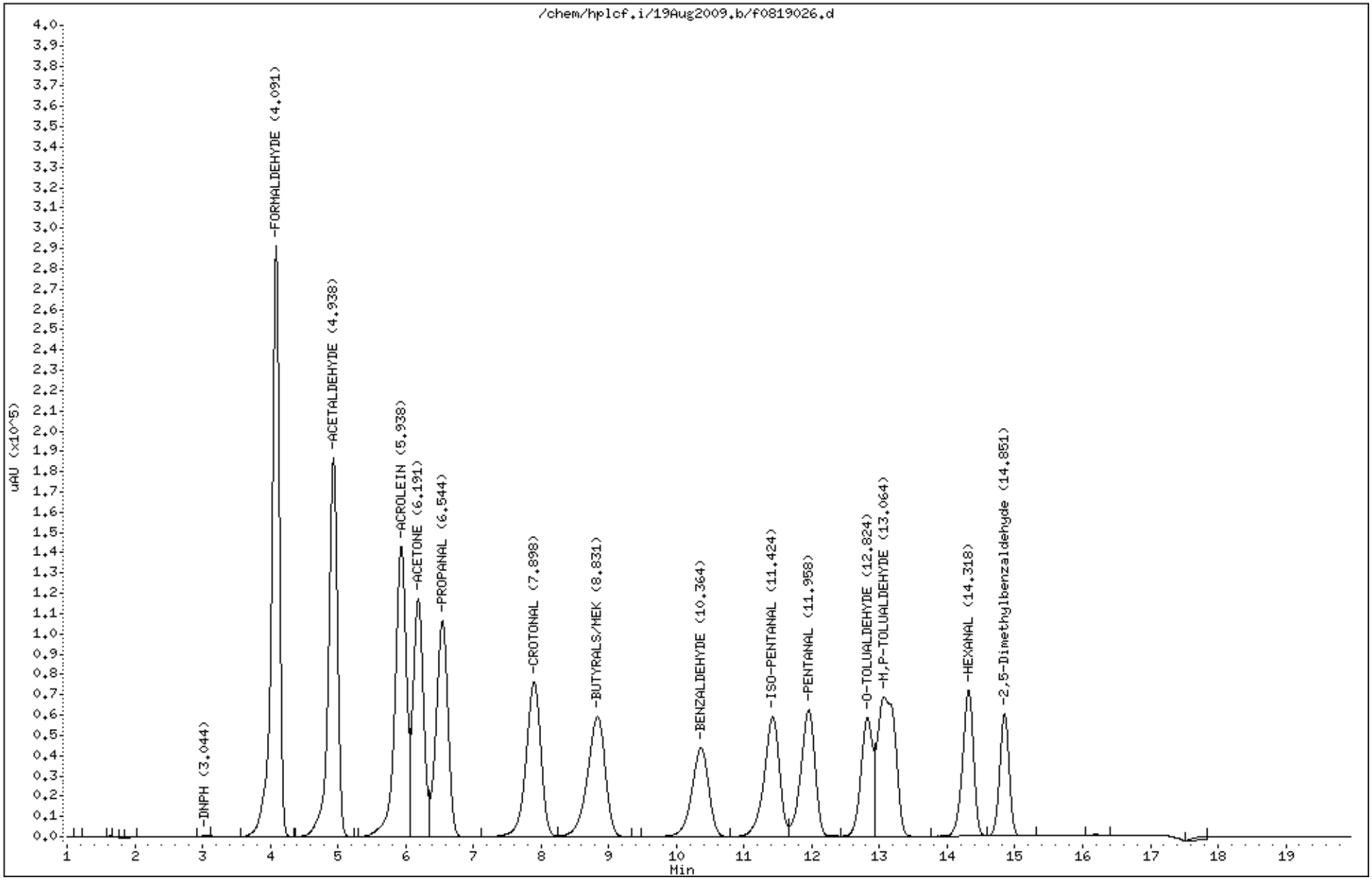
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: LZ

Column diameter: 2.00

0158



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819025.d
Lab Smp Id: 1331-138-20 Client Smp ID: L8
Inj Date : 19-AUG-2009 18:02
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-20;L8
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 18:02 Cal File: f0819025.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

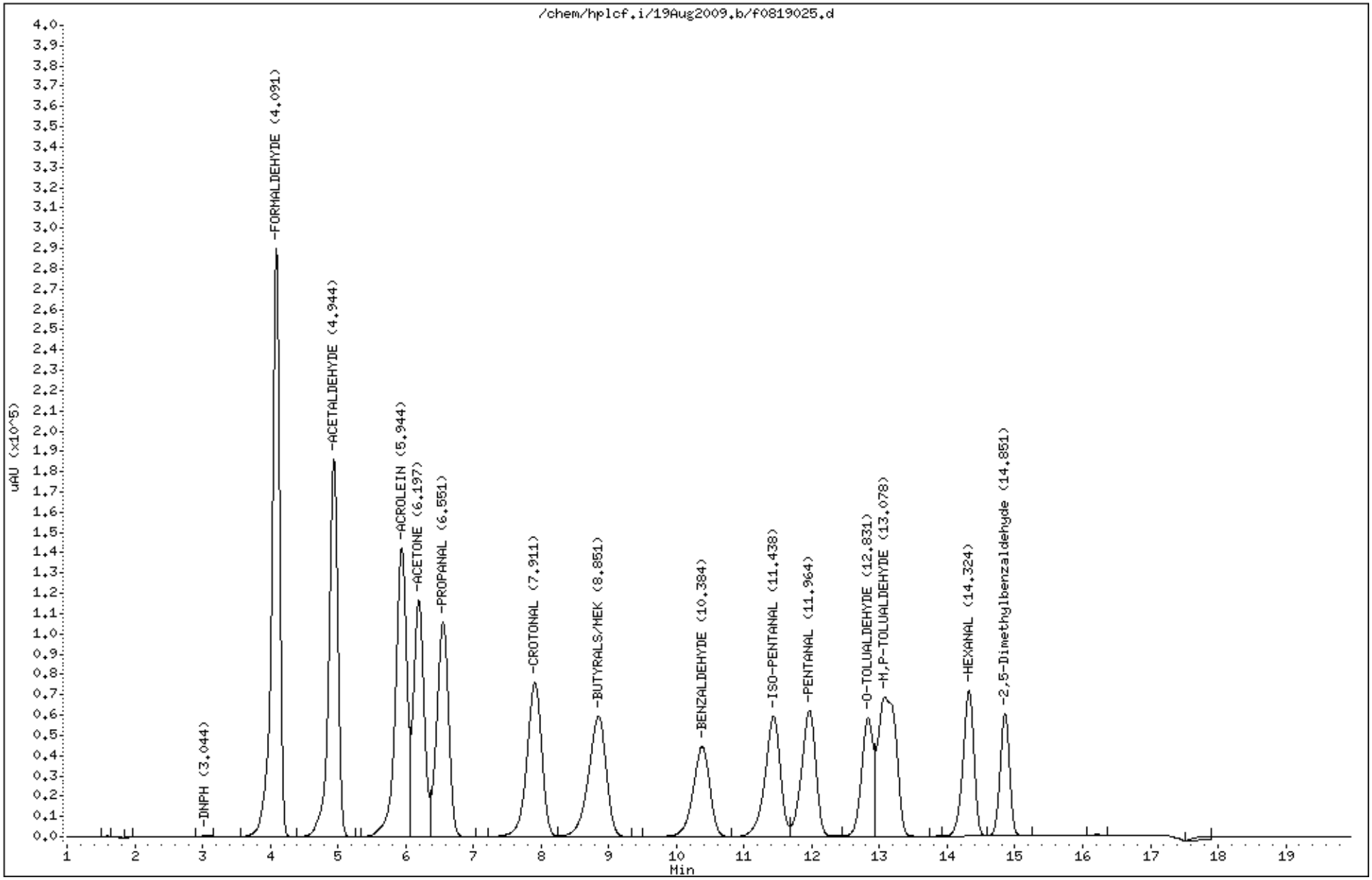
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.044	3.044	0.000	3514	20.0000	
2 FORMALDEHYDE	4.091	4.091	0.000	2326198	20.0000	20.7
3 ACETALDEHYDE	4.944	4.944	0.000	1726678	20.0000	20.2
4 ACROLEIN	5.944	5.944	0.000	1651764	20.0000	20.8
5 ACETONE	6.197	6.197	0.000	1259653	20.0000	20.4
6 PROPANAL	6.551	6.551	0.000	1274389	20.0000	20.3
7 CROTONAL	7.911	7.911	0.000	1144761	20.0000	20.0
9 BUTYRALS/MEK	8.851	8.851	0.000	1089940	20.0000	19.9
10 BENZALDEHYDE	10.384	10.384	0.000	778484	20.0000	19.2
11 ISO-PENTANAL	11.438	11.438	0.000	929698	20.0000	19.8
12 PENTANAL	11.964	11.964	0.000	911402	20.0000	19.7
14 O-TOLUALDEHYDE	12.831	12.831	0.000	700133	20.0000	19.6
15 M,P-TOLUALDEHYDE	13.078	13.078	0.000	1285434	40.0000	38.2
16 HEXANAL	14.324	14.324	0.000	801919	20.0000	19.4
17 2,5-Dimethylbenzaldehyde	14.851	14.851	0.000	578574	20.0000	19.0

0160

Data File: /chem/hplcf.i/19Aug2009.b/f0819025.d
Date : 19-AUG-2009 18:02
Client ID: L8
Sample Info: ;1331-138-20;L8
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: LZ
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819030.d
Lab Smp Id: 1331-138-50 Client Smp ID: L9
Inj Date : 19-AUG-2009 19:46
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-50;L9
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 19:46 Cal File: f0819030.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.042	3.042	0.000	3907	50.0000	
2 FORMALDEHYDE	4.089	4.089	0.000	5856519	50.0000	51.7
3 ACETALDEHYDE	4.935	4.935	0.000	4341787	50.0000	50.6
4 ACROLEIN	5.929	5.929	0.000	4214220	50.0000	52.4
5 ACETONE	6.182	6.182	0.000	3132318	50.0000	50.5
6 PROPANAL	6.535	6.535	0.000	3190715	50.0000	50.6
7 CROTONAL	7.889	7.889	0.000	2903279	50.0000	50.6
9 BUTYRALS/MEK	8.822	8.822	0.000	2756958	50.0000	50.4
10 BENZALDEHYDE	10.362	10.362	0.000	1955012	50.0000	48.7
11 ISO-PENTANAL	11.415	11.415	0.000	2337569	50.0000	49.8
12 PENTANAL	11.942	11.942	0.000	2280605	50.0000	49.4
14 O-TOLUALDEHYDE	12.815	12.815	0.000	1746219	50.0000	49.1
15 M,P-TOLUALDEHYDE	13.055	13.055	0.000	3241394	100.000	97.3
16 HEXANAL	14.302	14.302	0.000	2018868	50.0000	49.1
17 2,5-Dimethylbenzaldehyde	14.842	14.842	0.000	1456712	50.0000	48.3

Data File: /chem/hplcf.i/19Aug2009.b/f0819030.d

Date : 19-AUG-2009 19:46

Client ID: L9

Sample Info: ;1331-138-50;L9

Purge Volume: 5.0

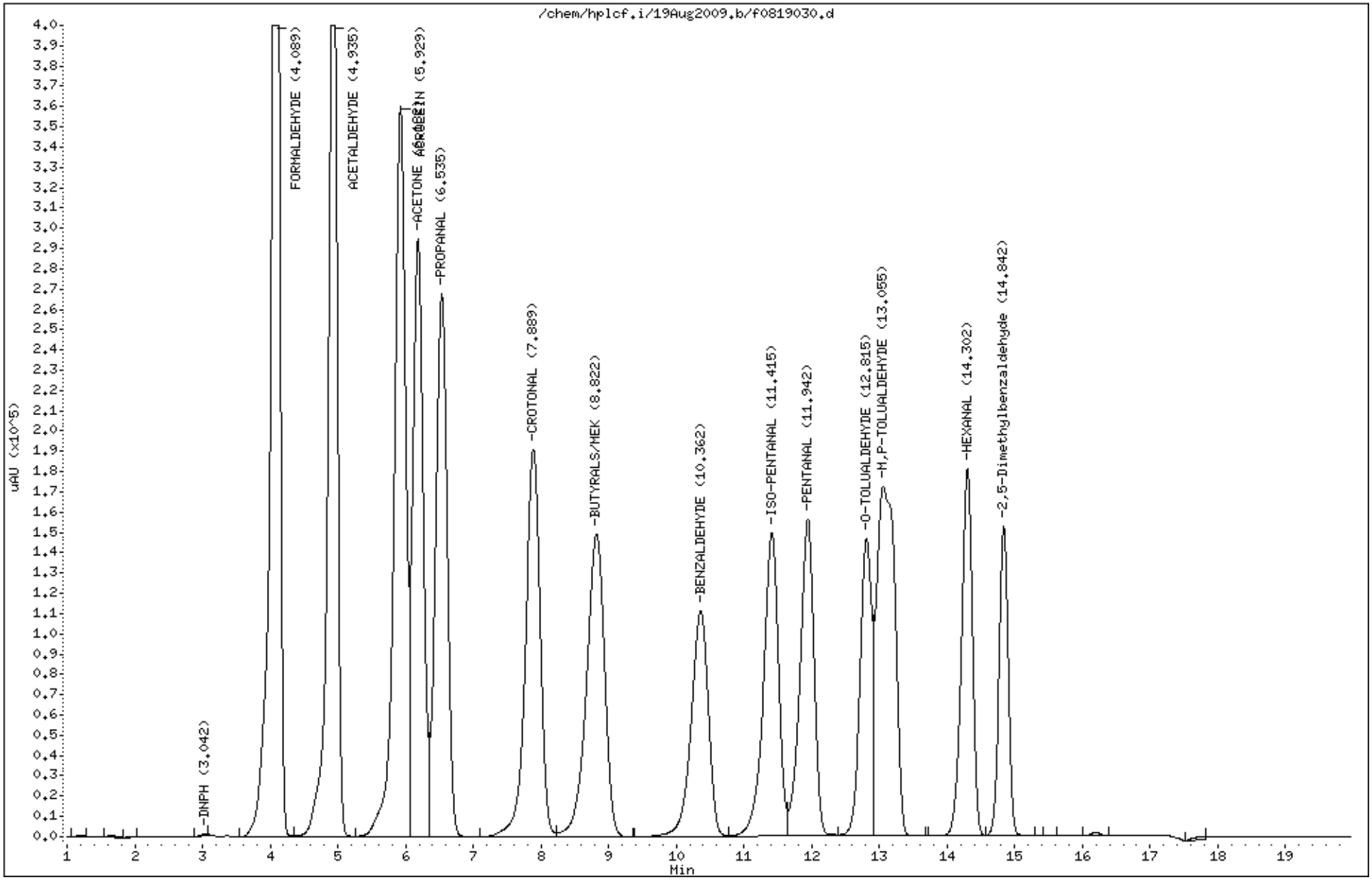
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: LZ

Column diameter: 2.00

0162



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819029.d
Lab Smp Id: 1331-138-50 Client Smp ID: L9
Inj Date : 19-AUG-2009 19:25
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-50;L9
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 19:25 Cal File: f0819029.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.035	3.035	0.000	3628	50.0000	
2 FORMALDEHYDE	4.088	4.088	0.000	5855194	50.0000	51.8
3 ACETALDEHYDE	4.935	4.935	0.000	4340372	50.0000	50.6
4 ACROLEIN	5.935	5.935	0.000	4171469	50.0000	51.9
5 ACETONE	6.188	6.188	0.000	3172591	50.0000	51.2
6 PROPANAL	6.542	6.542	0.000	3189975	50.0000	50.6
7 CROTONAL	7.895	7.895	0.000	2875815	50.0000	50.1
9 BUTYRALS/MEK	8.828	8.828	0.000	2732926	50.0000	50.0
10 BENZALDEHYDE	10.361	10.361	0.000	1954003	50.0000	48.7
11 ISO-PENTANAL	11.422	11.422	0.000	2335709	50.0000	49.8
12 PENTANAL	11.948	11.948	0.000	2282270	50.0000	49.4
14 O-TOLUALDEHYDE	12.822	12.822	0.000	1779136	50.0000	50.0
15 M,P-TOLUALDEHYDE	13.062	13.062	0.000	3205569	100.000	96.1
16 HEXANAL	14.315	14.315	0.000	2017641	50.0000	49.0
17 2,5-Dimethylbenzaldehyde	14.841	14.841	0.000	1455891	50.0000	48.2

Data File: /chem/hplcf.i/19Aug2009.b/f0819029.d

Date : 19-AUG-2009 19:25

Client ID: L9

Sample Info: ;1331-138-50;L9

Purge Volume: 5.0

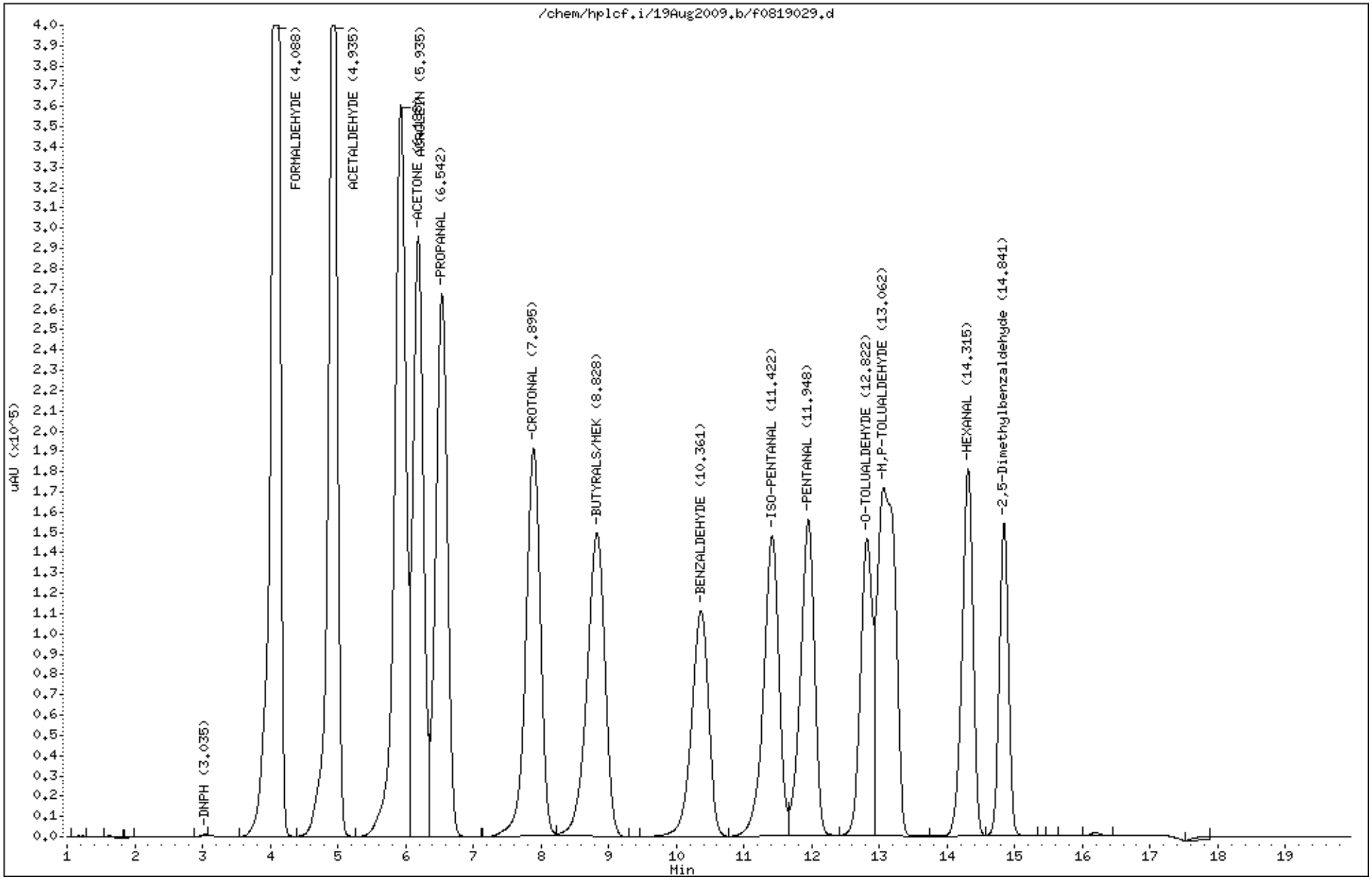
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: LZ

Column diameter: 2.00

0164



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819028.d
Lab Smp Id: 1331-138-50 Client Smp ID: L9
Inj Date : 19-AUG-2009 19:04
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-50;L9
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 19:04 Cal File: f0819028.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.036	3.036	0.000	4072	50.0000	
2 FORMALDEHYDE	4.090	4.090	0.000	5855197	50.0000	51.8
3 ACETALDEHYDE	4.936	4.936	0.000	4341401	50.0000	50.6
4 ACROLEIN	5.936	5.936	0.000	4176438	50.0000	52.1
5 ACETONE	6.190	6.190	0.000	3174715	50.0000	51.3
6 PROPANAL	6.543	6.543	0.000	3185573	50.0000	50.6
7 CROTONAL	7.896	7.896	0.000	2876102	50.0000	50.1
9 BUTYRALS/MEK	8.830	8.830	0.000	2734186	50.0000	50.0
10 BENZALDEHYDE	10.370	10.370	0.000	1954164	50.0000	48.6
11 ISO-PENTANAL	11.423	11.423	0.000	2340569	50.0000	49.9
12 PENTANAL	11.956	11.956	0.000	2279519	50.0000	49.4
14 O-TOLUALDEHYDE	12.823	12.823	0.000	1768707	50.0000	49.7
15 M,P-TOLUALDEHYDE	13.063	13.063	0.000	3218663	100.000	96.3
16 HEXANAL	14.310	14.310	0.000	2019071	50.0000	49.0
17 2,5-Dimethylbenzaldehyde	14.850	14.850	0.000	1457104	50.0000	48.1

Data File: /chem/hplcf.i/19Aug2009.b/f0819028.d

Date : 19-AUG-2009 19:04

Client ID: L9

Sample Info: ;1331-138-50;L9

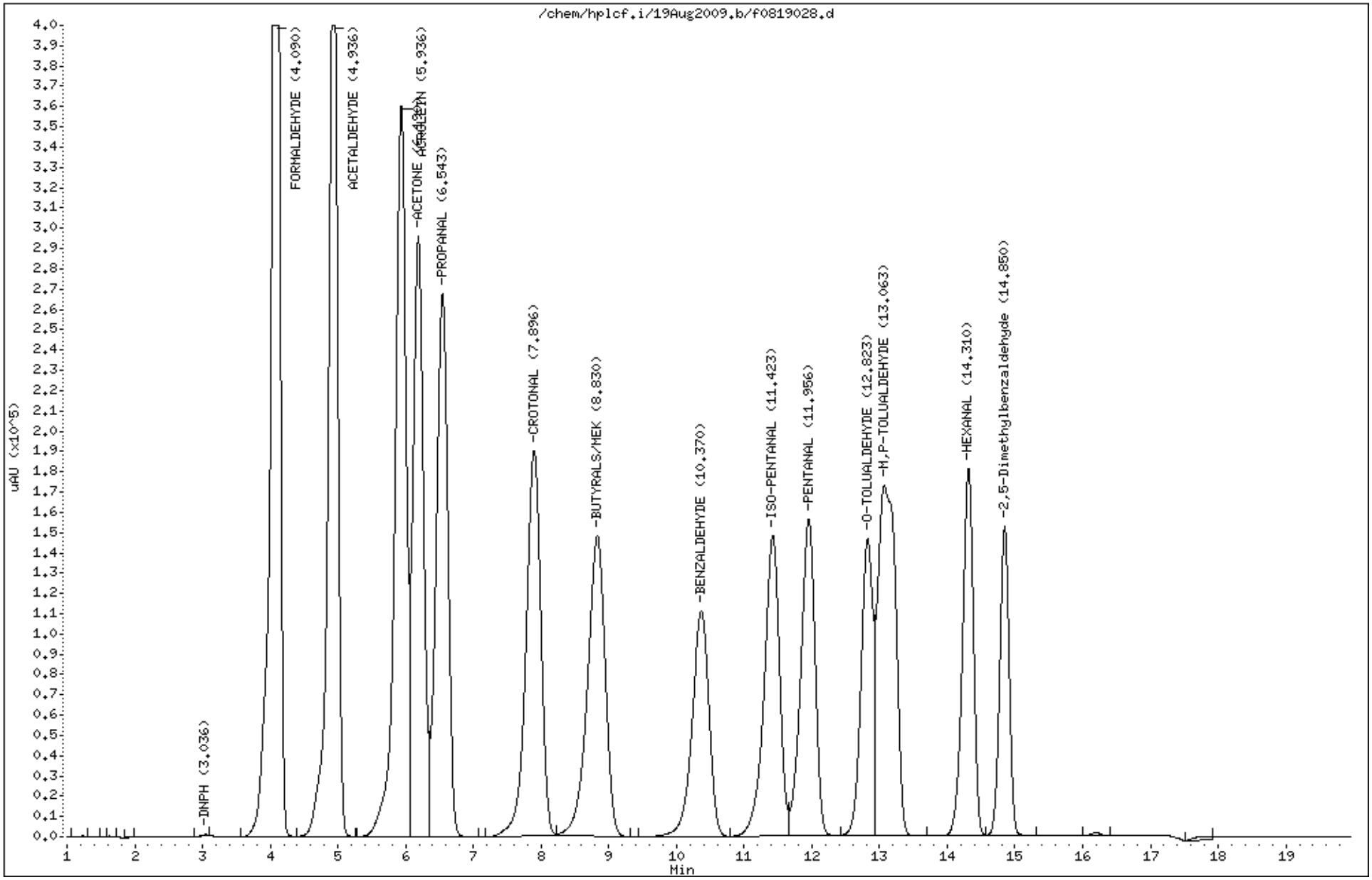
Purge Volume: 5.0

Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: LZ

Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819033.d
Lab Smp Id: 1331-138-75 Client Smp ID: L10
Inj Date : 19-AUG-2009 20:49
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-75;L10
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.032	3.032	0.000	15072	75.0000	
2 FORMALDEHYDE	4.086	4.086	0.000	8760098	75.0000	77.1(A)
3 ACETALDEHYDE	4.932	4.932	0.000	6508786	75.0000	75.7(A)
4 ACROLEIN	5.926	5.926	0.000	6253630	75.0000	77.4(A)
5 ACETONE	6.179	6.179	0.000	4753346	75.0000	76.4(A)
6 PROPANAL	6.532	6.532	0.000	4787785	75.0000	75.8(A)
7 CROTONAL	7.886	7.886	0.000	4315812	75.0000	75.2
9 BUTYRALS/MEK	8.819	8.819	0.000	4101975	75.0000	75.0
10 BENZALDEHYDE	10.359	10.359	0.000	2931154	75.0000	73.3
11 ISO-PENTANAL	11.412	11.412	0.000	3508625	75.0000	74.8
12 PENTANAL	11.946	11.946	0.000	3425968	75.0000	74.4
14 O-TOLUALDEHYDE	12.812	12.812	0.000	2642016	75.0000	74.4
15 M,P-TOLUALDEHYDE	13.059	13.059	0.000	4841070	150.000	146
16 HEXANAL	14.299	14.299	0.000	3023093	75.0000	73.7
17 2,5-Dimethylbenzaldehyde	14.839	14.839	0.000	2182983	75.0000	72.7

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: /chem/hplcf.i/19Aug2009.b/f0819033.d

Date : 19-AUG-2009 20:49

Client ID: L10

Sample Info: ;1331-138-75;L10

Purge Volume: 5.0

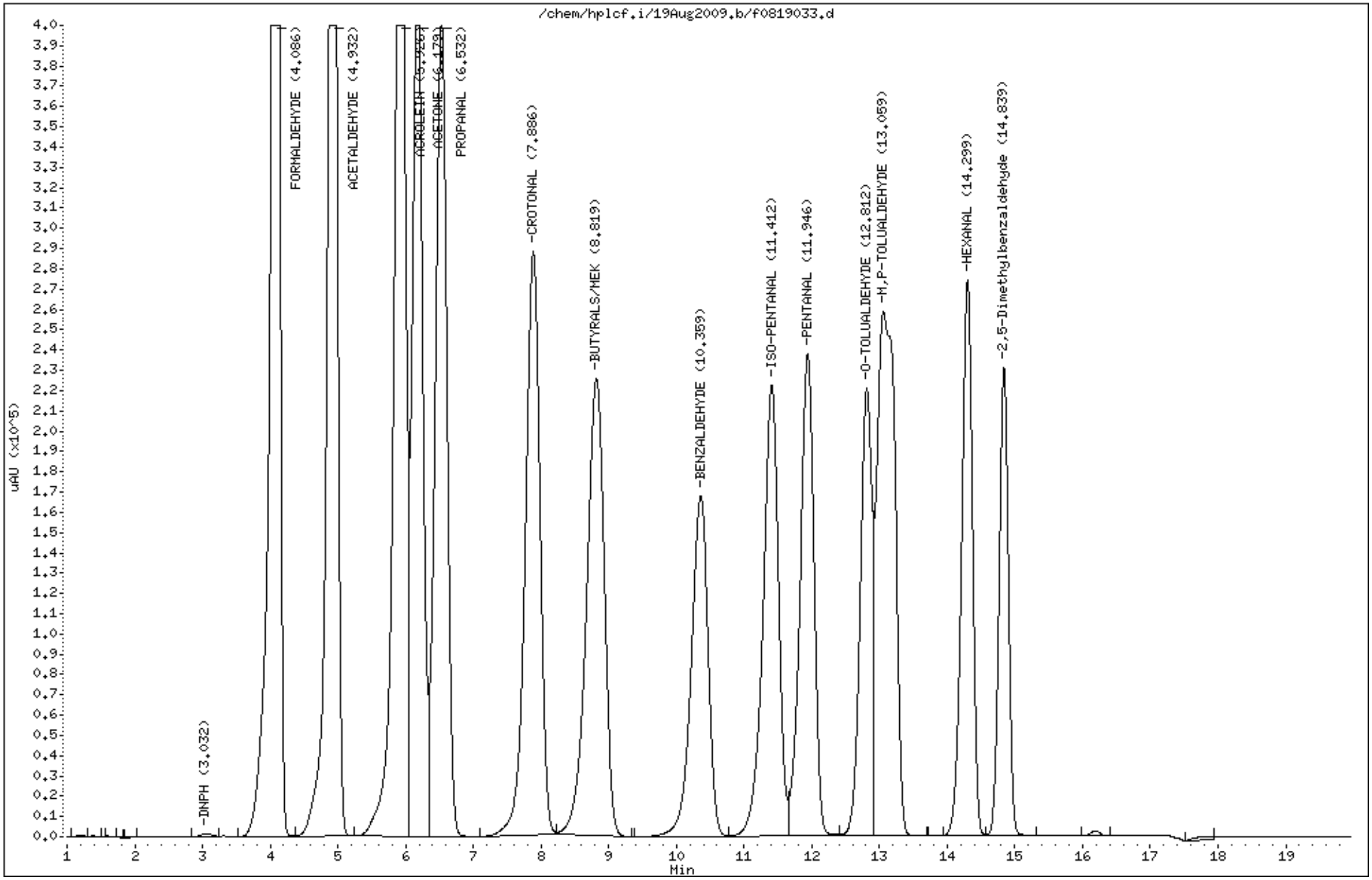
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: LZ

Column diameter: 2.00

0169



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819032.d
Lab Smp Id: 1331-138-75 Client Smp ID: L10
Inj Date : 19-AUG-2009 20:28
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-75;L10
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:28 Cal File: f0819032.d
Als bottle: 1 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.037	3.037	0.000	6286	75.0000	
2 FORMALDEHYDE	4.090	4.090	0.000	8747741	75.0000	77.1(A)
3 ACETALDEHYDE	4.937	4.937	0.000	6495471	75.0000	75.6(A)
4 ACROLEIN	5.937	5.937	0.000	6253408	75.0000	77.4(A)
5 ACETONE	6.190	6.190	0.000	4736007	75.0000	76.2(A)
6 PROPANAL	6.544	6.544	0.000	4772575	75.0000	75.6(A)
7 CROTONAL	7.904	7.904	0.000	4305516	75.0000	75.0
9 BUTYRALS/MEK	8.830	8.830	0.000	4089175	75.0000	74.7
10 BENZALDEHYDE	10.370	10.370	0.000	2923207	75.0000	73.1
11 ISO-PENTANAL	11.424	11.424	0.000	3501031	75.0000	74.7
12 PENTANAL	11.950	11.950	0.000	3413659	75.0000	74.1
14 O-TOLUALDEHYDE	12.824	12.824	0.000	2643615	75.0000	74.4
15 M,P-TOLUALDEHYDE	13.064	13.064	0.000	4820080	150.000	145
16 HEXANAL	14.310	14.310	0.000	3019110	75.0000	73.5
17 2,5-Dimethylbenzaldehyde	14.850	14.850	0.000	2179261	75.0000	72.5

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: /chem/hplcf.i/19Aug2009.b/f0819032.d

Date : 19-AUG-2009 20:28

Client ID: L10

Sample Info: ;1331-138-75;L10

Purge Volume: 5.0

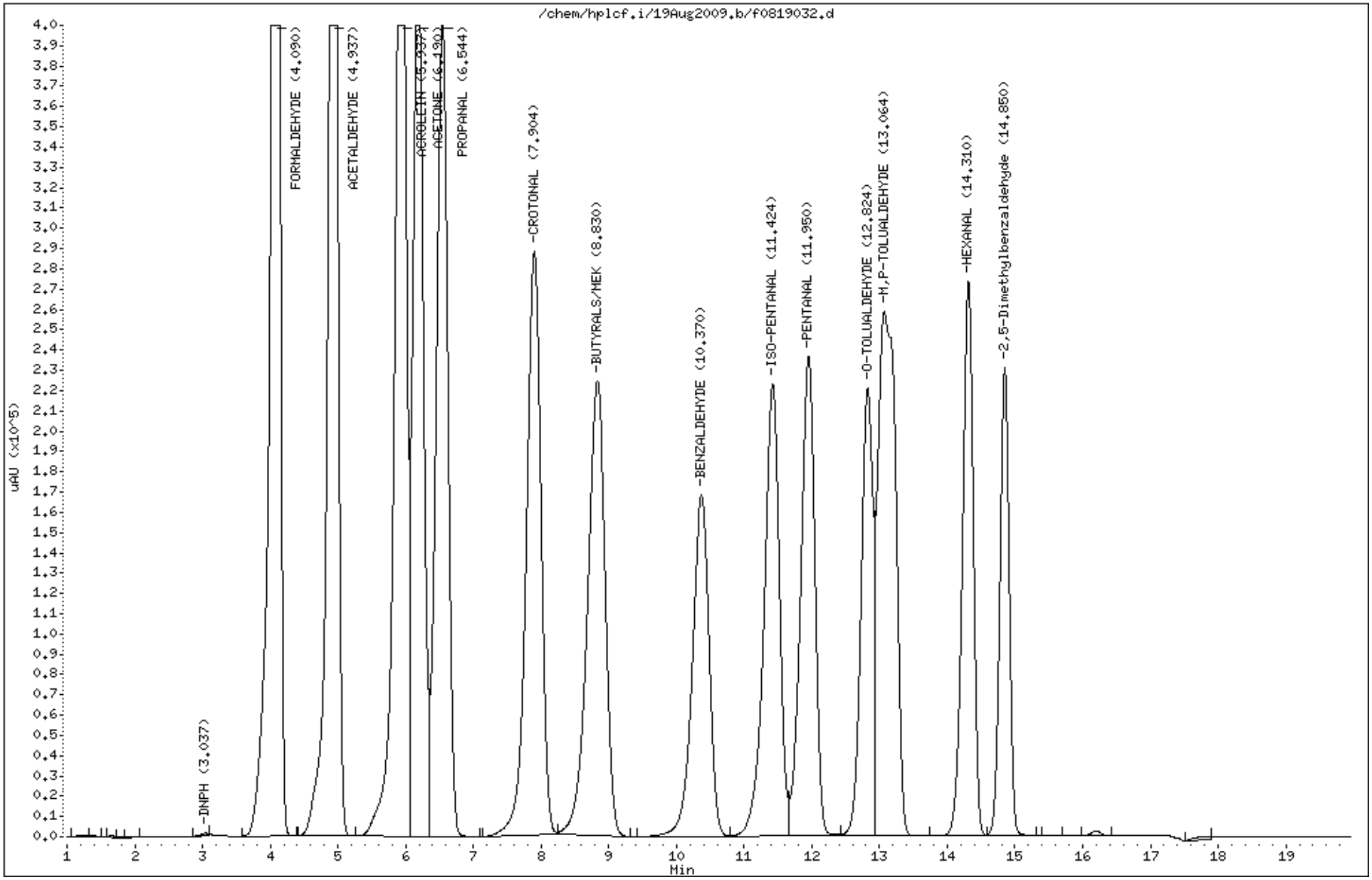
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: LZ

Column diameter: 2.00

0172



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/19Aug2009.b/f0819031.d
Lab Smp Id: 1331-138-75 Client Smp ID: L10
Inj Date : 19-AUG-2009 20:07
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-75;L10
Misc Info :
Comment :
Method : /chem/hplcf.i/19Aug2009.b/F09D0819.m
Meth Date : 24-Aug-2009 18:13 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:07 Cal File: f0819031.d
Als bottle: 1 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.037	3.037	0.000	14641	75.0000	
2 FORMALDEHYDE	4.090	4.090	0.000	8746467	75.0000	77.2(A)
3 ACETALDEHYDE	4.937	4.937	0.000	6497445	75.0000	75.6(A)
4 ACROLEIN	5.937	5.937	0.000	6236197	75.0000	77.4(A)
5 ACETONE	6.190	6.190	0.000	4745156	75.0000	76.4(A)
6 PROPANAL	6.543	6.543	0.000	4783611	75.0000	75.8(A)
7 CROTONAL	7.904	7.904	0.000	4343599	75.0000	75.6(A)
9 BUTYRALS/MEK	8.837	8.837	0.000	4122502	75.0000	75.3
10 BENZALDEHYDE	10.377	10.377	0.000	2921831	75.0000	72.9
11 ISO-PENTANAL	11.430	11.430	0.000	3499557	75.0000	74.6
12 PENTANAL	11.963	11.963	0.000	3407680	75.0000	73.9
14 O-TOLUALDEHYDE	12.830	12.830	0.000	2644665	75.0000	74.4
15 M,P-TOLUALDEHYDE	13.070	13.070	0.000	4817759	150.000	145
16 HEXANAL	14.317	14.317	0.000	3022890	75.0000	73.6
17 2,5-Dimethylbenzaldehyde	14.857	14.857	0.000	2180740	75.0000	72.4

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: /chem/hplcf.i/19Aug2009.b/f0819031.d

Date : 19-AUG-2009 20:07

Client ID: L10

Sample Info: ;1331-138-75;L10

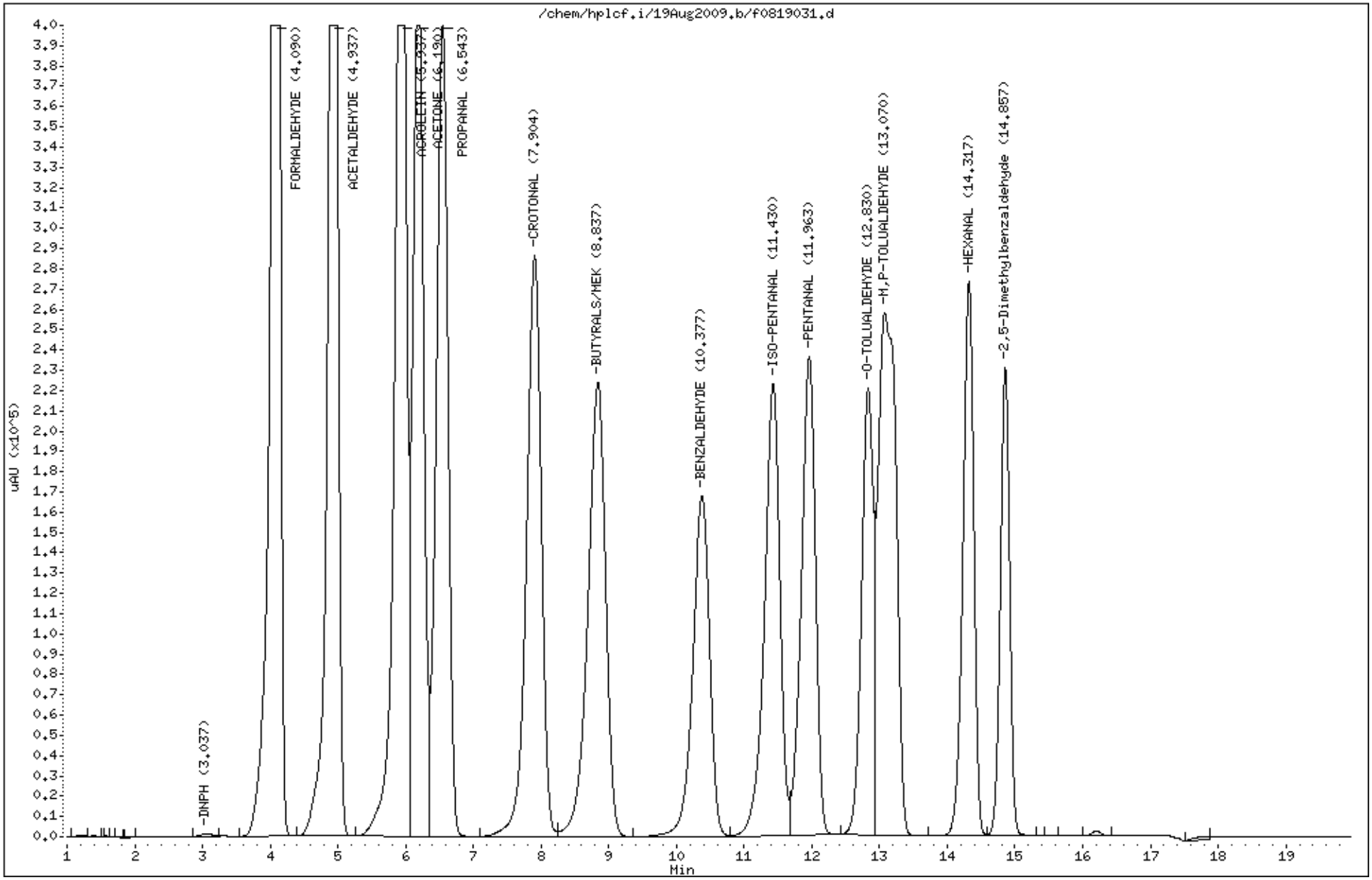
Purge Volume: 5.0

Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: LZ

Column diameter: 2.00



Report Date: 25-Aug-2009 12:20

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplcf.i Injection Date: 25-AUG-2009 11:51
Lab File ID: f0825016.d Init. Cal. Date(s): 19-AUG-2009 19-AUG-2009
Analysis Type: AIR Init. Cal. Times: 10:43 20:49
Lab Sample ID: 1331-138-4 Quant Type: ESTD
Method: /chem/hplcf.i/25Aug2009a.b/F09D0819.m

COMPOUND	RRF / AMOUNT	RF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 DNPH	++++	24045	0.100	++++	10.00000	Averaged	<-
2 FORMALDEHYDE	113572	116659	0.010	-2.71824	10.00000	Averaged	
3 ACETALDEHYDE	85939	87581	0.010	-1.90999	10.00000	Averaged	
4 ACROLEIN	80844	82982	0.010	-2.64433	10.00000	Averaged	
5 ACETONE	62177	63916	0.010	-2.79645	10.00000	Averaged	
6 PROPANAL	63123	64211	0.010	-1.72458	10.00000	Averaged	
7 CROTONAL	57426	57653	0.010	-0.39550	10.00000	Averaged	
9 BUTYRALS/MEK	54717	55057	0.010	-0.62265	10.00000	Averaged	
10 BENZALDEHYDE	39968	39400	0.010	1.42225	10.00000	Averaged	
11 ISO-PENTANAL	46886	46833	0.010	0.11470	10.00000	Averaged	
12 PENTANAL	46057	46377	0.010	-0.69596	10.00000	Averaged	
14 O-TOLUALDEHYDE	35501	34468	0.010	2.90953	10.00000	Averaged	
15 M,P-TOLUALDEHYDE	33197	32721	0.010	1.43387	10.00000	Averaged	
16 HEXANAL	41026	40589	0.010	1.06569	10.00000	Averaged	
17 2,5-Dimethylbenzaldehyde	30022	29347	0.010	2.24924	10.00000	Averaged	

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/25Aug2009a.b/f0825016.d
Lab Smp Id: 1331-138-4 Client Smp ID: CCV
Inj Date : 25-AUG-2009 11:51
Operator : CRL Inst ID: hplcf.i
Smp Info : ;1331-138-4;CCV
Misc Info :
Comment :
Method : /chem/hplcf.i/25Aug2009a.b/F09D0819.m
Meth Date : 25-Aug-2009 12:20 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 5.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

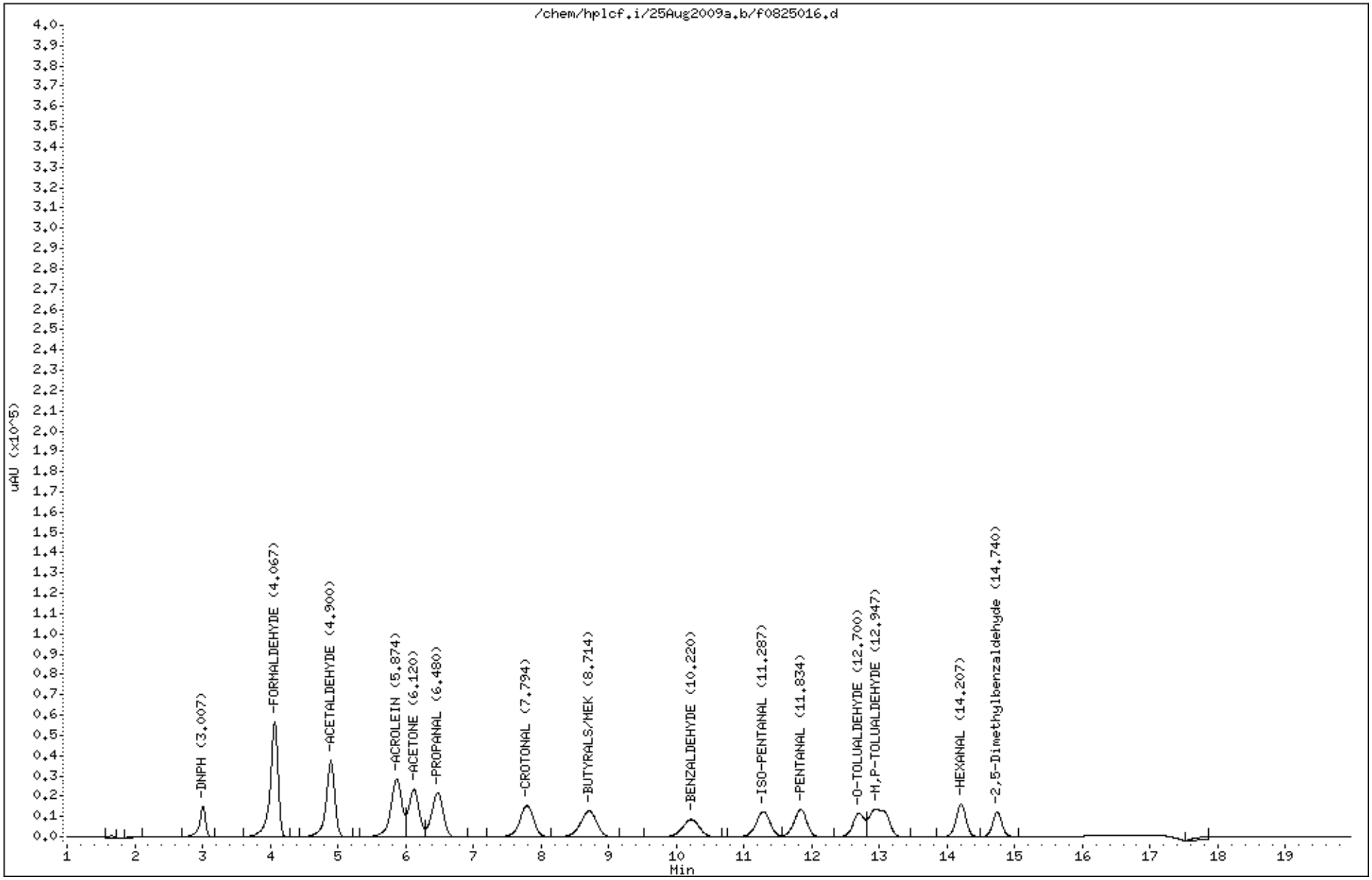
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG)	AMOUNTS ON-COL (UG)
1 DNPH	3.007	3.007	0.000	96179	4.00000	
2 FORMALDEHYDE	4.067	4.067	0.000	466637	4.00000	4.11
3 ACETALDEHYDE	4.900	4.900	0.000	350323	4.00000	4.08
4 ACROLEIN	5.874	5.874	0.000	331927	4.00000	4.10
5 ACETONE	6.120	6.120	0.000	255662	4.00000	4.11
6 PROPANAL	6.480	6.480	0.000	256844	4.00000	4.07
7 CROTONAL	7.794	7.794	0.000	230611	4.00000	4.02
9 BUTYRALS/MEK	8.714	8.714	0.000	220228	4.00000	4.02
10 BENZALDEHYDE	10.220	10.220	0.000	157598	4.00000	3.94
11 ISO-PENTANAL	11.287	11.287	0.000	187330	4.00000	4.00
12 PENTANAL	11.834	11.834	0.000	185508	4.00000	4.03
14 O-TOLUALDEHYDE	12.700	12.700	0.000	137872	4.00000	3.88
15 M,P-TOLUALDEHYDE	12.947	12.947	0.000	261769	8.00000	7.88
16 HEXANAL	14.207	14.207	0.000	162354	4.00000	3.96
17 2,5-Dimethylbenzaldehyde	14.740	14.740	0.000	117387	4.00000	3.91

0178

Data File: /chem/hplcf.i/25Aug2009a.b/f0825016.d
Date : 25-AUG-2009 11:51
Client ID: CCV
Sample Info: ;1331-138-4;CCV
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: CRL
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/25Aug2009a.b/f0825017.d
Lab Smp Id: CCB Client Smp ID: LAB BLANK
Inj Date : 25-AUG-2009 12:12
Operator : CRL Inst ID: hplcf.i
Smp Info : ;CCB;LAB BLANK
Misc Info :
Comment :
Method : /chem/hplcf.i/25Aug2009a.b/F09D0819.m
Meth Date : 25-Aug-2009 12:20 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable

Vs	5.00000	Sample Final Volume (mL)
Vo	5.00000	Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	Compound Not Detected.					
2 FORMALDEHYDE	Compound Not Detected.					
3 ACETALDEHYDE	Compound Not Detected.					
4 ACROLEIN	Compound Not Detected.					
5 ACETONE	Compound Not Detected.					
6 PROPANAL	Compound Not Detected.					
7 CROTONAL	Compound Not Detected.					
9 BUTYRALS/MEK	Compound Not Detected.					
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	Compound Not Detected.					
14 O-TOLUALDEHYDE	Compound Not Detected.					
15 M,P-TOLUALDEHYDE	Compound Not Detected.					
16 HEXANAL	Compound Not Detected.					
17 2,5-Dimethylbenzaldehyde	Compound Not Detected.					

Data File: /chem/hplcf.i/25Aug2009a.b/f0825017.d

Date : 25-AUG-2009 12:12

Client ID: LAB BLANK

Instrument: hplcf.i

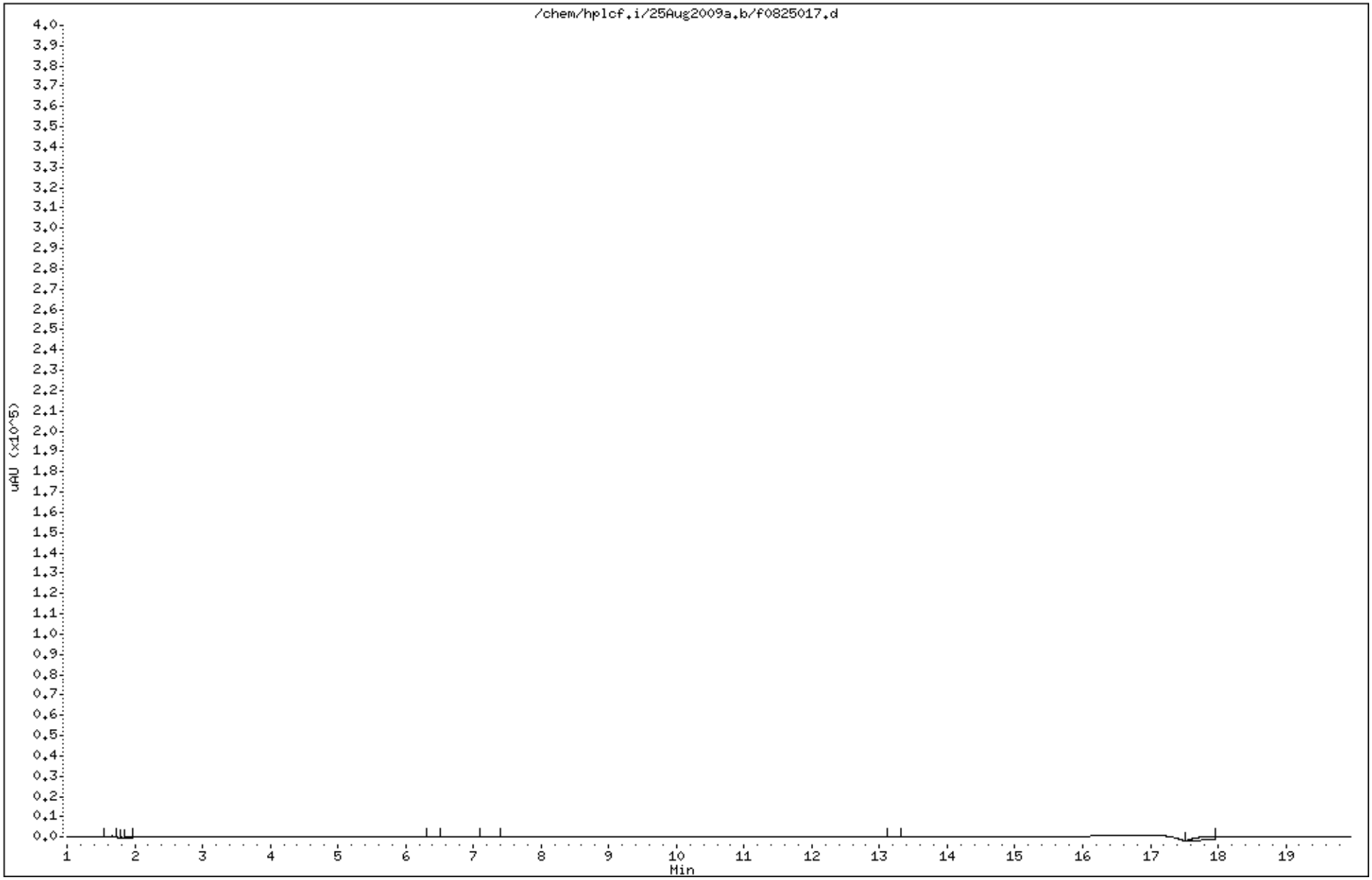
Sample Info: :CCB:LAB BLANK

Purge Volume: 5.0

Operator: CRL

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



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Air Toxics Ltd.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1331-138-4
Sample Location:
Sample Date:
Sample Matrix: AIR
Analysis Type: OTHER
Data Type: LC DATA
Misc Info:

Client SDG: 25Aug2009a
Client Smp ID: CCV
Sample Point:
Date Received:
Quant Type: ESTD
Level: MED
Operator: CRL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug	Q
119-26-6	DNPH	0.00	
50-00-0	FORMALDEHYDE	4.10	
75-07-0	ACETALDEHYDE	4.05	
107-02-8	ACROLEIN	4.18	
67-64-1	ACETONE	4.08	
123-38-6	PROPANAL	3.98	
123-73-9	CROTONAL	4.02	
9999-9999-007	BUTYRALS/MEK	4.02	
100-52-7	BENZALDEHYDE	3.97	
590-86-3	ISO-PENTANAL	4.35	
110-62-3	PENTANAL	4.02	
529-20-4	O-TOLUALDEHYDE	3.93	
620-23-51	M,P-TOLUALDEHYDE	7.86	
66-25-1	HEXANAL	3.95	
5779-94-2	2,5-Dimethylbenzaldehyde	3.91	

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011

Data file : /chem/hplcf.i/25Aug2009a.b/f0825034.d
Lab Smp Id: 1331-138-4 Client Smp ID: CCV
Inj Date : 25-AUG-2009 18:18
Operator : CRL Inst ID: hplcf.i
Smp Info : ;1331-138-4;CCV
Misc Info :
Comment :
Method : /chem/hplcf.i/25Aug2009a.b/F09D0819.m
Meth Date : 25-Aug-2009 12:20 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 5.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.013	3.007	0.006	92794		
2 FORMALDEHYDE	4.066	4.067	-0.001	466019	4.10329	4.10
3 ACETALDEHYDE	4.906	4.900	0.006	348230	4.05205	4.05
4 ACROLEIN	5.880	5.874	0.006	337724	4.17748	4.18
5 ACETONE	6.133	6.120	0.013	253728	4.08075	4.08
6 PROPANAL	6.486	6.480	0.006	251267	3.98063	3.98
7 CROTONAL	7.813	7.794	0.019	230868	4.02031	4.02
9 BUTYRALS/MEK	8.733	8.714	0.019	219914	4.01916	4.02
10 BENZALDEHYDE	10.246	10.220	0.026	158830	3.97392	3.97
11 ISO-PENTANAL	11.306	11.287	0.019	204137	4.35389	4.35
12 PENTANAL	11.853	11.834	0.019	185137	4.01979	4.02
14 O-TOLUALDEHYDE	12.726	12.700	0.026	139491	3.92923	3.93
15 M,P-TOLUALDEHYDE	12.966	12.947	0.019	260788	7.85574	7.86
16 HEXANAL	14.226	14.207	0.019	162022	3.94928	3.95
17 2,5-Dimethylbenzaldehyde	14.760	14.740	0.020	117469	3.91274	3.91

Report Date: 26-Aug-2009 07:50

Air Toxics Ltd.

RECOVERY REPORT

Client Name:
Client SDG: 25Aug2009a
Sample Matrix: LIQUID
Fraction: OTHER
Lab Smp Id: 1331-138-4
Client Smp ID: CCV
Level: MED
Operator: CRL
Data Type: LC DATA
SampleType: METHSPIKE
SpikeList File: 4ug.spk
Quant Type: ESTD
Sublist File: TO-11+Acr+17.sub
Method File: /chem/hplcf.i/25Aug2009a.b/F09D0819.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
2 FORMALDEHYDE	4.00	4.10	102.58	90-110
3 ACETALDEHYDE	4.00	4.05	101.30	90-110
4 ACROLEIN	4.00	4.18	104.44	90-110
5 ACETONE	4.00	4.08	102.02	90-110
6 PROPANAL	4.00	3.98	99.52	90-110
7 CROTONAL	4.00	4.02	100.51	90-110
9 BUTYRALS/MEK	4.00	4.02	100.48	90-110
10 BENZALDEHYDE	4.00	3.97	99.35	90-110
11 ISO-PENTANAL	4.00	4.35	108.85	90-110
12 PENTANAL	4.00	4.02	100.49	90-110
14 O-TOLUALDEHYDE	4.00	3.93	98.23	90-110
15 M,P-TOLUALDEHYDE	8.00	7.86	98.20	90-110
16 HEXANAL	4.00	3.95	98.73	90-110
17 2,5-Dimethylbenzal	4.00	3.91	97.82	90-110

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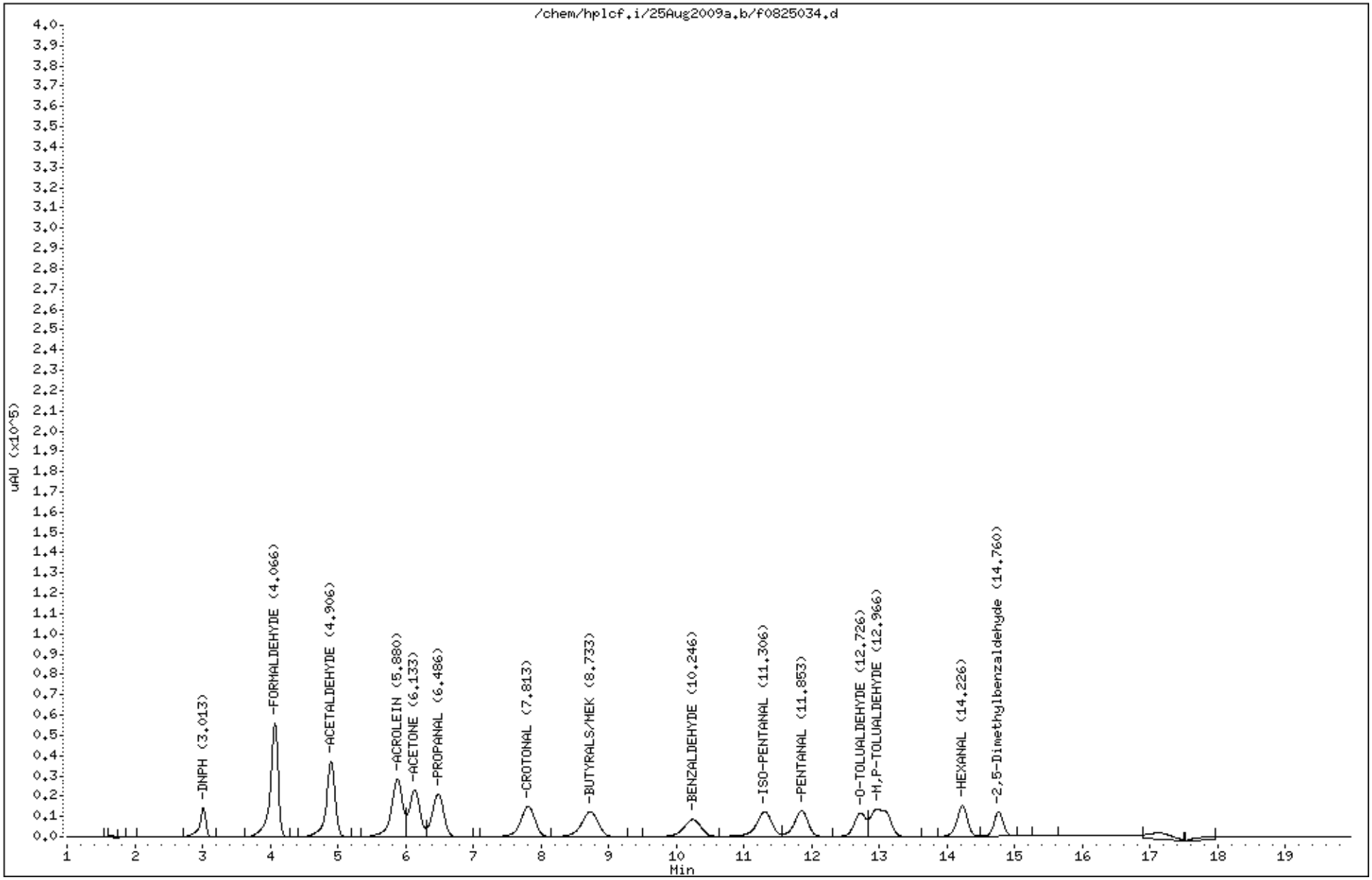
Data File: /chem/hplcf.i/25Aug2009a.b/f0825034.d
Date : 25-AUG-2009 18:18
Client ID: CCV
Sample Info: ;1331-138-4;CCV
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: CRL
Column diameter: 2.00



Air Toxics Ltd.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1331-138-4
Sample Location:
Sample Date:
Sample Matrix: AIR
Analysis Type: OTHER
Data Type: LC DATA
Misc Info:

Client SDG: 27Aug2009a
Client Smp ID: CCV
Sample Point:
Date Received:
Quant Type: ESTD
Level: MED
Operator: CRL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug	Q
119-26-6	DNPH	0.00	
50-00-0	FORMALDEHYDE	4.12	
75-07-0	ACETALDEHYDE	4.07	
107-02-8	ACROLEIN	4.23	
67-64-1	ACETONE	4.04	
123-38-6	PROPANAL	4.01	
123-73-9	CROTONAL	4.06	
9999-9999-007	BUTYRALS/MEK	4.03	
100-52-7	BENZALDEHYDE	3.92	
590-86-3	ISO-PENTANAL	4.07	
110-62-3	PENTANAL	3.98	
529-20-4	O-TOLUALDEHYDE	3.83	
620-23-51	M,P-TOLUALDEHYDE	7.95	
66-25-1	HEXANAL	3.94	
5779-94-2	2,5-Dimethylbenzaldehyde	3.89	

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/27Aug2009a.b/f0827039.d
Lab Smp Id: 1331-138-4 Client Smp ID: CCV
Inj Date : 27-AUG-2009 22:14
Operator : CRL Inst ID: hplcf.i
Smp Info : ;1331-138-4;CCV
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 27-Aug-2009 14:05 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 5.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.008	3.017	-0.009	87832		
2 FORMALDEHYDE	4.055	4.070	-0.015	467352	4.11503	4.12
3 ACETALDEHYDE	4.888	4.910	-0.022	349981	4.07242	4.07
4 ACROLEIN	5.868	5.883	-0.015	341980	4.23013	4.23
5 ACETONE	6.115	6.137	-0.022	251051	4.03770	4.04
6 PROPANAL	6.468	6.497	-0.029	252906	4.00658	4.01
7 CROTONAL	7.782	7.817	-0.035	233322	4.06304	4.06
9 BUTYRALS/MEK	8.688	8.737	-0.049	220299	4.02620	4.03
10 BENZALDEHYDE	10.202	10.250	-0.048	156602	3.91818	3.92
11 ISO-PENTANAL	11.268	11.310	-0.042	190729	4.06791	4.07
12 PENTANAL	11.815	11.857	-0.042	183154	3.97674	3.98
14 O-TOLUALDEHYDE	12.702	12.730	-0.028	136025	3.83159	3.83
15 M,P-TOLUALDEHYDE	12.995	12.983	0.012	263890	7.94918	7.95
16 HEXANAL	14.195	14.237	-0.042	161823	3.94443	3.94
17 2,5-Dimethylbenzaldehyde	14.735	14.764	-0.029	116799	3.89042	3.89

Report Date: 28-Aug-2009 06:53

Air Toxics Ltd.

RECOVERY REPORT

Client Name:
Client SDG: 27Aug2009a
Sample Matrix: LIQUID
Fraction: OTHER
Lab Smp Id: 1331-138-4
Client Smp ID: CCV
Level: MED
Operator: CRL
Data Type: LC DATA
SampleType: METHSPIKE
SpikeList File: 4ug.spk
Quant Type: ESTD
Sublist File: TO-11+Acr+17.sub
Method File: /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
2 FORMALDEHYDE	4.00	4.12	102.88	90-110
3 ACETALDEHYDE	4.00	4.07	101.81	90-110
4 ACROLEIN	4.00	4.23	105.75	90-110
5 ACETONE	4.00	4.04	100.94	90-110
6 PROPANAL	4.00	4.01	100.16	90-110
7 CROTONAL	4.00	4.06	101.58	90-110
9 BUTYRALS/MEK	4.00	4.03	100.65	90-110
10 BENZALDEHYDE	4.00	3.92	97.95	90-110
11 ISO-PENTANAL	4.00	4.07	101.70	90-110
12 PENTANAL	4.00	3.98	99.42	90-110
14 O-TOLUALDEHYDE	4.00	3.83	95.79	90-110
15 M,P-TOLUALDEHYDE	8.00	7.95	99.36	90-110
16 HEXANAL	4.00	3.94	98.61	90-110
17 2,5-Dimethylbenzal	4.00	3.89	97.26	90-110

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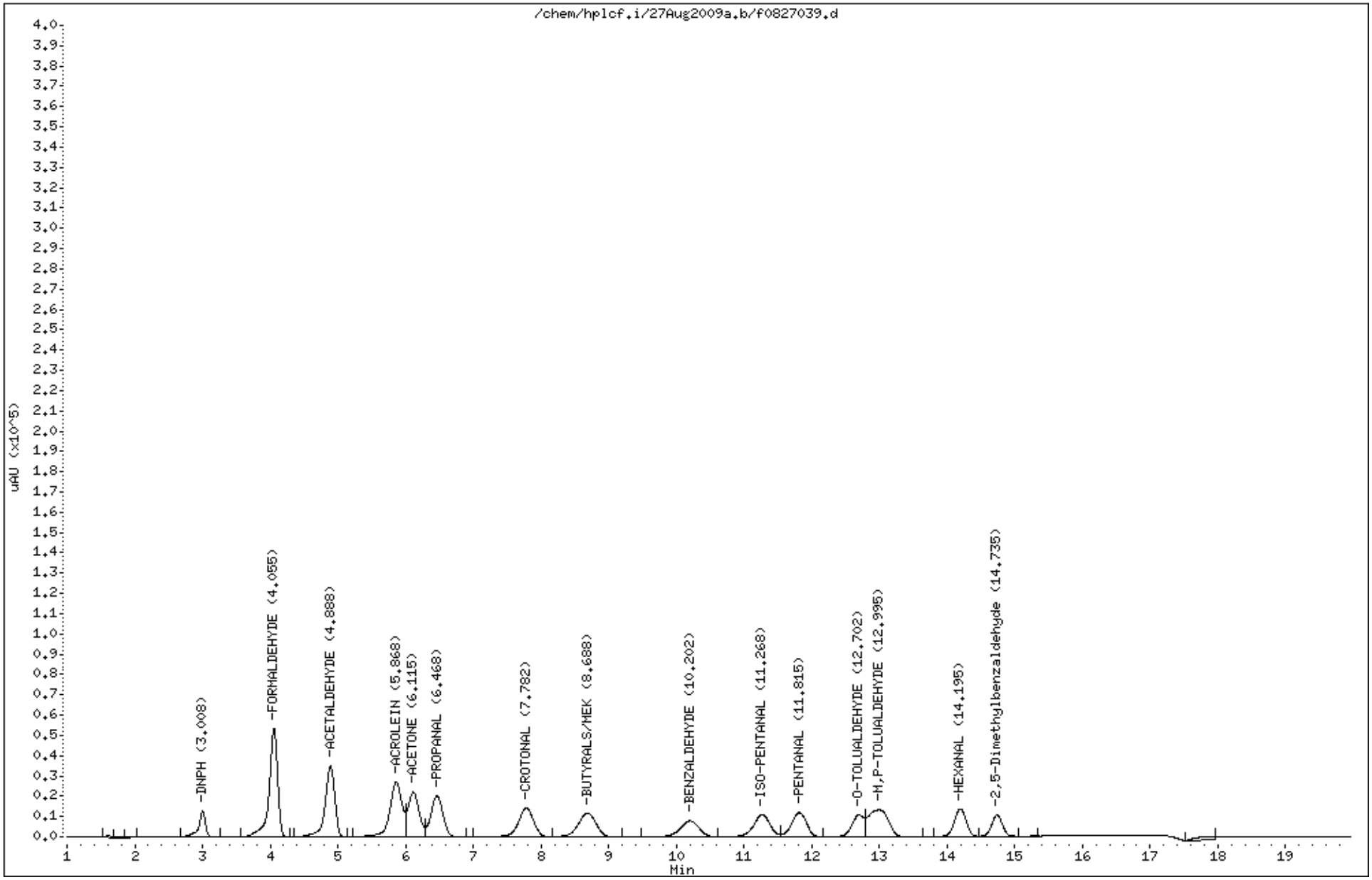
Data File: /chem/hplcf.i/27Aug2009a.b/f0827039.d
Date : 27-AUG-2009 22:14
Client ID: CCV
Sample Info: ;1331-138-4;CCV
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: CRL
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/27Aug2009a.b/f0827040.d
Lab Smp Id: CCB Client Smp ID: Lab Blank
Inj Date : 27-AUG-2009 22:35
Operator : CRL Inst ID: hplcf.i
Smp Info : ;CCB;
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 28-Aug-2009 17:48 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 5.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	Compound Not Detected.					
2 FORMALDEHYDE	Compound Not Detected.					
3 ACETALDEHYDE	Compound Not Detected.					
4 ACROLEIN	Compound Not Detected.					
5 ACETONE	Compound Not Detected.					
6 PROPANAL	Compound Not Detected.					
7 CROTONAL	Compound Not Detected.					
9 BUTYRALS/MEK	Compound Not Detected.					
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	Compound Not Detected.					
14 O-TOLUALDEHYDE	Compound Not Detected.					
15 M,P-TOLUALDEHYDE	Compound Not Detected.					
16 HEXANAL	Compound Not Detected.					
17 2,5-Dimethylbenzaldehyde	Compound Not Detected.					

Data File: /chem/hplcf.i/27Aug2009a.b/f0827040.d

Date : 27-AUG-2009 22:35

Client ID: Lab Blank

Instrument: hplcf.i

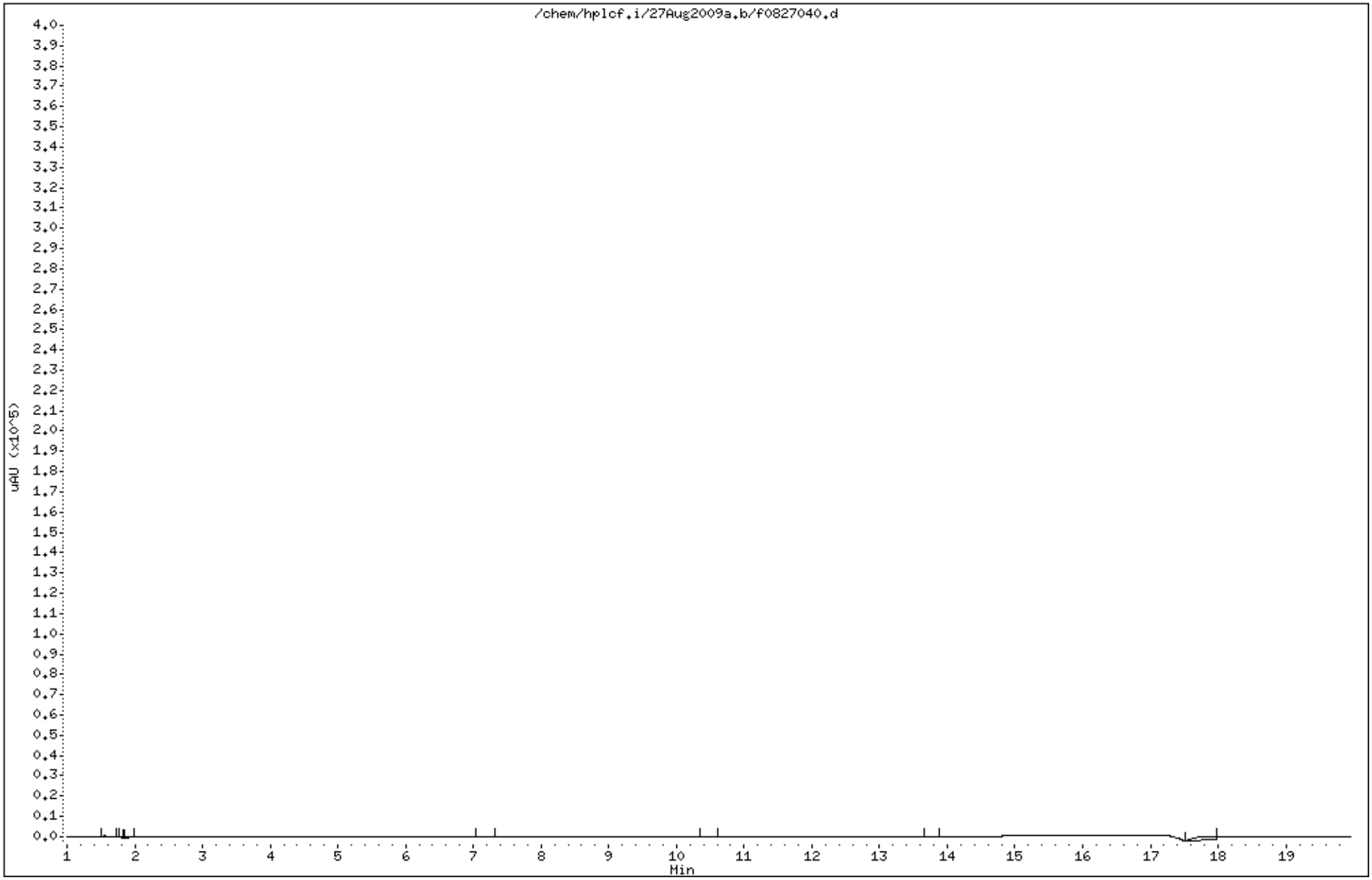
Sample Info: ;CCB;

Purge Volume: 5.0

Operator: CRL

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



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Air Toxics Ltd.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1331-138-4
Sample Location:
Sample Date:
Sample Matrix: AIR
Analysis Type: OTHER
Data Type: LC DATA
Misc Info:

Client SDG: 27Aug2009a
Client Smp ID: CCV
Sample Point:
Date Received:
Quant Type: ESTD
Level: MED
Operator: CRL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug	Q
119-26-6	DNPH	0.00	
50-00-0	FORMALDEHYDE	4.11	
75-07-0	ACETALDEHYDE	4.06	
107-02-8	ACROLEIN	4.17	
67-64-1	ACETONE	4.00	
123-38-6	PROPANAL	3.97	
123-73-9	CROTONAL	3.92	
9999-9999-007	BUTYRALS/MEK	3.92	
100-52-7	BENZALDEHYDE	3.85	
590-86-3	ISO-PENTANAL	3.92	
110-62-3	PENTANAL	3.90	
529-20-4	O-TOLUALDEHYDE	3.76	
620-23-51	M,P-TOLUALDEHYDE	7.92	
66-25-1	HEXANAL	3.93	
5779-94-2	2,5-Dimethylbenzaldehyde	3.85	

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/27Aug2009a.b/f0827051.d
Lab Smp Id: 1331-138-4 Client Smp ID: CCV
Inj Date : 28-AUG-2009 02:24
Operator : CRL Inst ID: hplcf.i
Smp Info : ;1331-138-4;CCV
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 27-Aug-2009 14:05 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 5.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.010	3.017	-0.007	110783		
2 FORMALDEHYDE	4.064	4.070	-0.006	467059	4.11245	4.11
3 ACETALDEHYDE	4.890	4.910	-0.020	349135	4.06257	4.06
4 ACROLEIN	5.864	5.883	-0.019	337208	4.17110	4.17
5 ACETONE	6.117	6.137	-0.020	248696	3.99983	4.00
6 PROPANAL	6.470	6.497	-0.027	250897	3.97476	3.97
7 CROTONAL	7.790	7.817	-0.027	225391	3.92493	3.92
9 BUTYRALS/MEK	8.697	8.737	-0.040	214680	3.92351	3.92
10 BENZALDEHYDE	10.210	10.250	-0.040	154016	3.85349	3.85
11 ISO-PENTANAL	11.270	11.310	-0.040	184032	3.92508	3.92
12 PENTANAL	11.817	11.857	-0.040	179394	3.89508	3.90
14 O-TOLUALDEHYDE	12.704	12.730	-0.026	133311	3.75515	3.76
15 M,P-TOLUALDEHYDE	12.997	12.983	0.014	263031	7.92329	7.92
16 HEXANAL	14.204	14.237	-0.033	161318	3.93212	3.93
17 2,5-Dimethylbenzaldehyde	14.737	14.764	-0.027	115665	3.85267	3.85

Report Date: 28-Aug-2009 06:53

Air Toxics Ltd.

RECOVERY REPORT

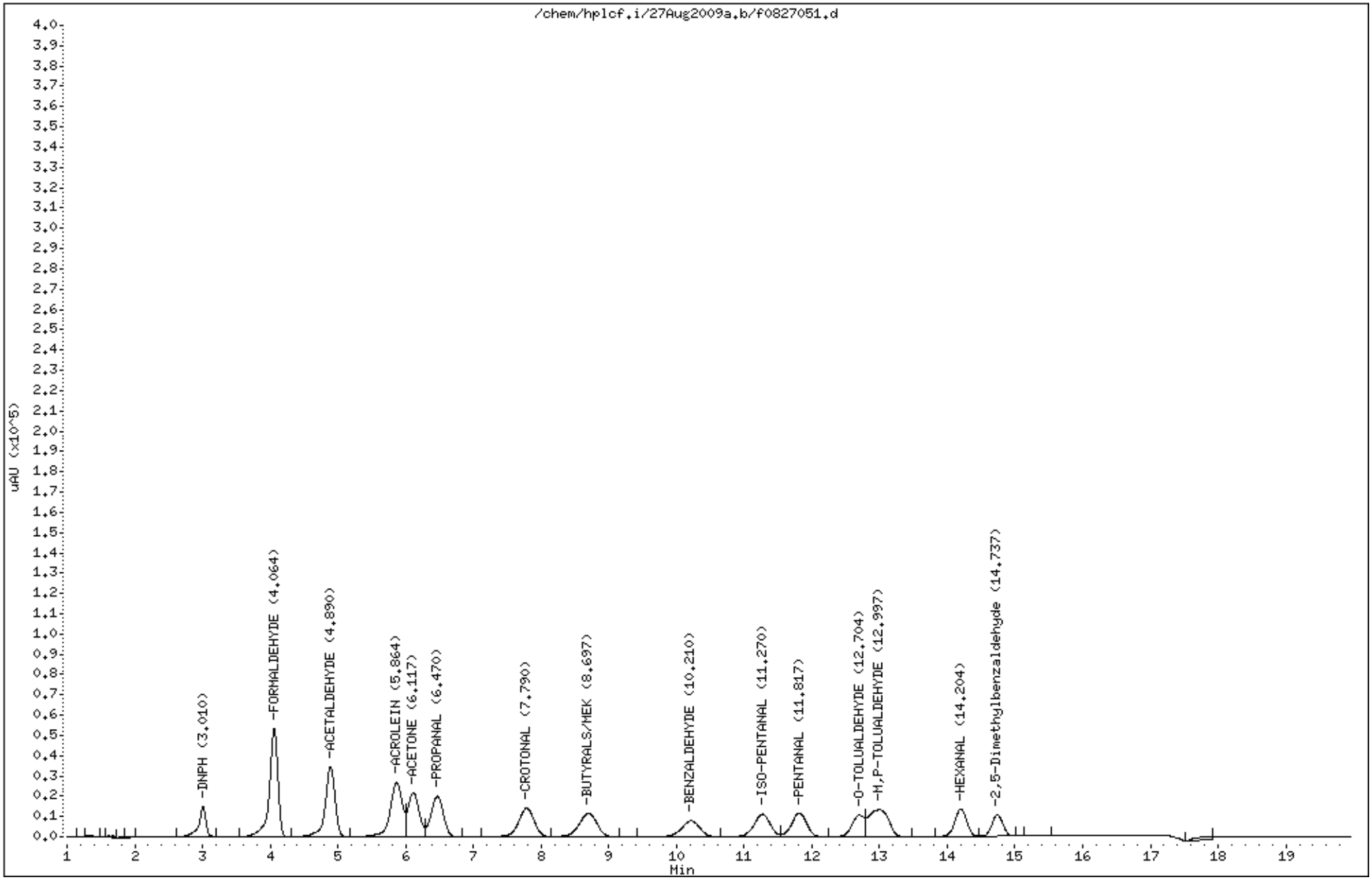
Client Name:
Client SDG: 27Aug2009a
Sample Matrix: LIQUID
Fraction: OTHER
Lab Smp Id: 1331-138-4
Client Smp ID: CCV
Level: MED
Operator: CRL
Data Type: LC DATA
SampleType: METHSPIKE
SpikeList File: 4ug.spk
Quant Type: ESTD
Sublist File: TO-11+Acr+17.sub
Method File: /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
2 FORMALDEHYDE	4.00	4.11	102.81	90-110
3 ACETALDEHYDE	4.00	4.06	101.56	90-110
4 ACROLEIN	4.00	4.17	104.28	90-110
5 ACETONE	4.00	4.00	100.00	90-110
6 PROPANAL	4.00	3.97	99.37	90-110
7 CROTONAL	4.00	3.92	98.12	90-110
9 BUTYRALS/MEK	4.00	3.92	98.09	90-110
10 BENZALDEHYDE	4.00	3.85	96.34	90-110
11 ISO-PENTANAL	4.00	3.92	98.13	90-110
12 PENTANAL	4.00	3.90	97.38	90-110
14 O-TOLUALDEHYDE	4.00	3.76	93.88	90-110
15 M,P-TOLUALDEHYDE	8.00	7.92	99.04	90-110
16 HEXANAL	4.00	3.93	98.30	90-110
17 2,5-Dimethylbenzal	4.00	3.85	96.32	90-110

0194

Data File: /chem/hplcf.i/27Aug2009a.b/f0827051.d
Date : 28-AUG-2009 02:24
Client ID: CCV
Sample Info: ;1331-138-4;CCV
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: CRL
Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165
Data file : /chem/hplcf.i/27Aug2009a.b/f0827052.d
Lab Smp Id: CCB Client Smp ID: Lab Blank
Inj Date : 28-AUG-2009 02:45
Operator : CRL Inst ID: hplcf.i
Smp Info : ;CCB;
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 28-Aug-2009 17:48 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 5.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	2.986	3.017	-0.031	12047		
2 FORMALDEHYDE	Compound Not Detected.					
3 ACETALDEHYDE	Compound Not Detected.					
4 ACROLEIN	Compound Not Detected.					
5 ACETONE	Compound Not Detected.					
6 PROPANAL	Compound Not Detected.					
7 CROTONAL	Compound Not Detected.					
9 BUTYRALS/MEK	Compound Not Detected.					
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	Compound Not Detected.					
14 O-TOLUALDEHYDE	Compound Not Detected.					
15 M,P-TOLUALDEHYDE	Compound Not Detected.					
16 HEXANAL	Compound Not Detected.					
17 2,5-Dimethylbenzaldehyde	Compound Not Detected.					

Data File: /chem/hplcf.i/27Aug2009a.b/f0827052.d

Date : 28-AUG-2009 02:45

Client ID: Lab Blank

Sample Info: ;CCB;

Purge Volume: 5.0

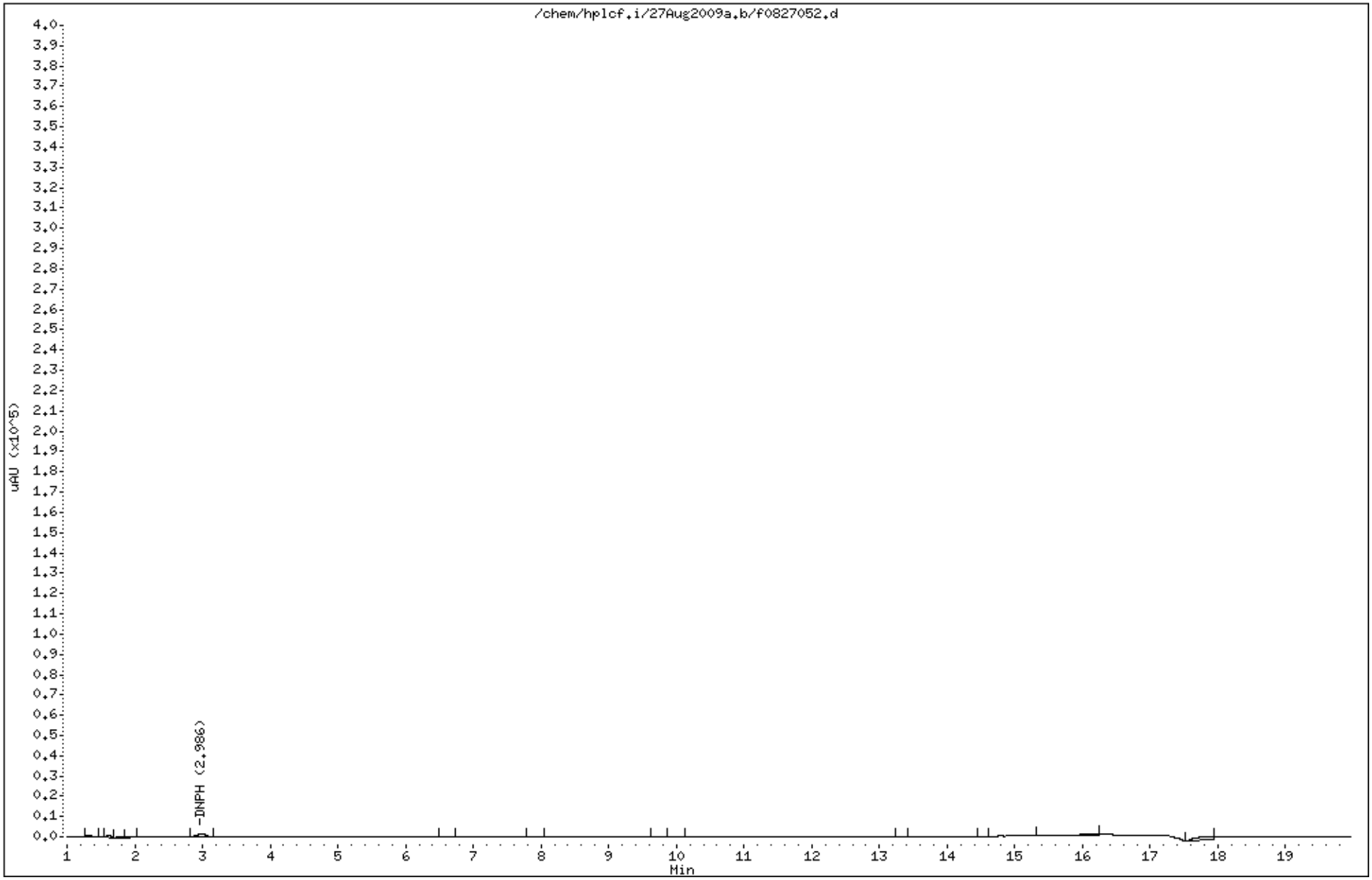
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: CRL

Column diameter: 2.00

0196



Air Toxics Ltd.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1331-138-4
Sample Location:
Sample Date:
Sample Matrix: AIR
Analysis Type: OTHER
Data Type: LC DATA
Misc Info:

Client SDG: 27Aug2009a
Client Smp ID: CCV
Sample Point:
Date Received:
Quant Type: ESTD
Level: MED
Operator: CRL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug	Q
119-26-6	DNPH	0.00	
50-00-0	FORMALDEHYDE	4.11	
75-07-0	ACETALDEHYDE	4.08	
107-02-8	ACROLEIN	4.21	
67-64-1	ACETONE	4.06	
123-38-6	PROPANAL	3.98	
123-73-9	CROTONAL	4.04	
9999-9999-007	BUTYRALS/MEK	4.00	
100-52-7	BENZALDEHYDE	3.92	
590-86-3	ISO-PENTANAL	4.05	
110-62-3	PENTANAL	4.00	
529-20-4	O-TOLUALDEHYDE	3.74	
620-23-51	M,P-TOLUALDEHYDE	8.06	
66-25-1	HEXANAL	3.96	
5779-94-2	2,5-Dimethylbenzaldehyde	3.93	

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/27Aug2009a.b/f0827065.d
Lab Smp Id: 1331-138-4 Client Smp ID: CCV
Inj Date : 28-AUG-2009 07:17
Operator : CRL Inst ID: hplcf.i
Smp Info : ;1331-138-4;CCV
Misc Info :
Comment :
Method : /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Meth Date : 27-Aug-2009 14:05 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TO-11+Acr+17.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 5.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.009	3.017	-0.008	95739		
2 FORMALDEHYDE	4.062	4.070	-0.008	466692	4.10922	4.11
3 ACETALDEHYDE	4.896	4.910	-0.014	350524	4.07873	4.08
4 ACROLEIN	5.869	5.883	-0.014	340333	4.20975	4.21
5 ACETONE	6.116	6.137	-0.021	252399	4.05938	4.06
6 PROPANAL	6.469	6.497	-0.028	251353	3.98199	3.98
7 CROTONAL	7.782	7.817	-0.035	232036	4.04063	4.04
9 BUTYRALS/MEK	8.682	8.737	-0.055	219174	4.00564	4.00
10 BENZALDEHYDE	10.203	10.250	-0.047	156681	3.92015	3.92
11 ISO-PENTANAL	11.262	11.310	-0.048	189953	4.05137	4.05
12 PENTANAL	11.809	11.857	-0.048	184035	3.99586	4.00
14 O-TOLUALDEHYDE	12.703	12.730	-0.027	132940	3.74470	3.74
15 M,P-TOLUALDEHYDE	12.996	12.983	0.013	267437	8.05604	8.06
16 HEXANAL	14.196	14.237	-0.041	162402	3.95855	3.96
17 2,5-Dimethylbenzaldehyde	14.736	14.764	-0.028	118032	3.93150	3.93

Report Date: 28-Aug-2009 07:45

Air Toxics Ltd.

RECOVERY REPORT

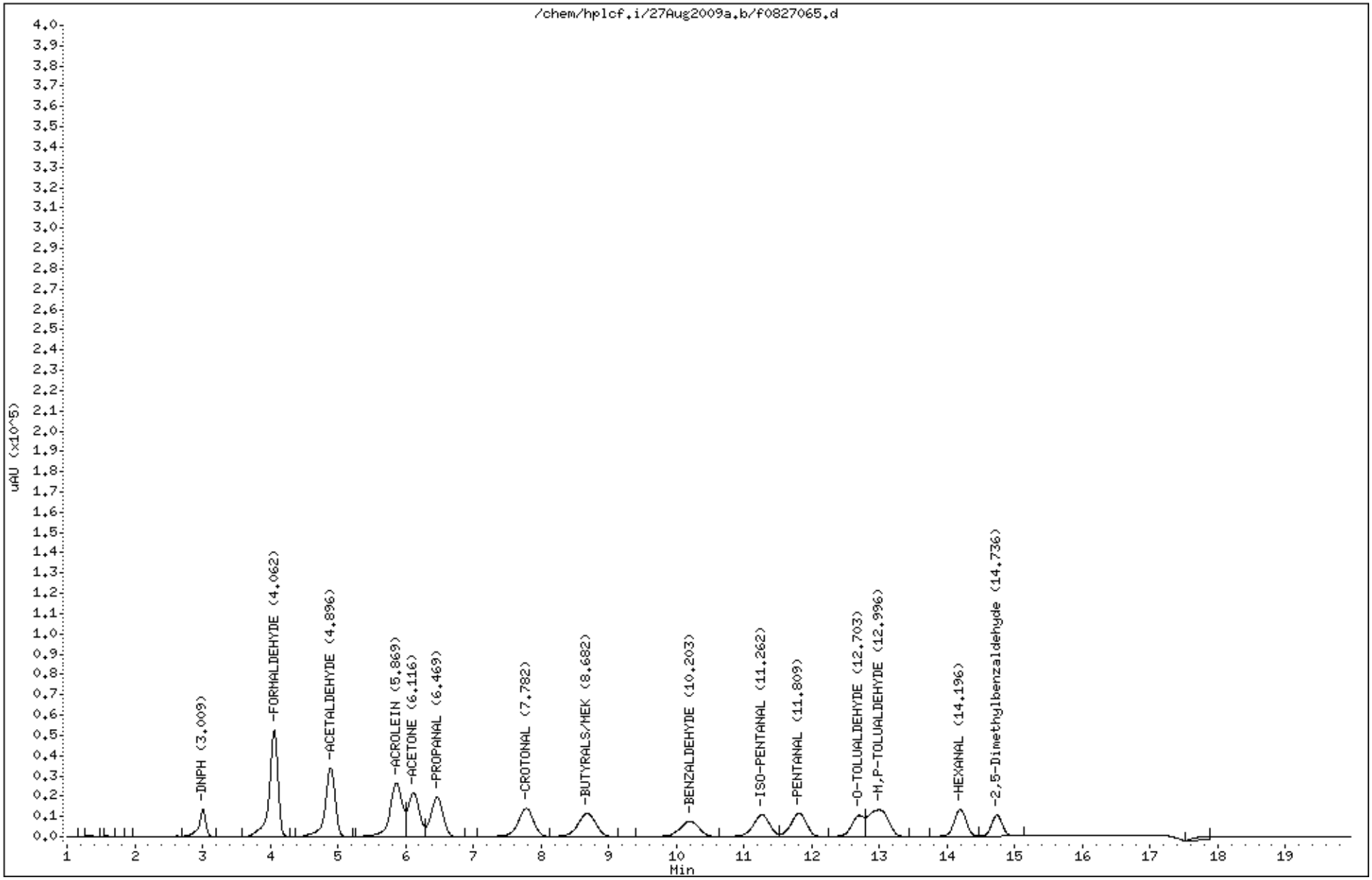
Client Name:
Client SDG: 27Aug2009a
Sample Matrix: LIQUID
Fraction: OTHER
Lab Smp Id: 1331-138-4
Client Smp ID: CCV
Level: MED
Operator: CRL
Data Type: LC DATA
SampleType: METHSPIKE
SpikeList File: 4ug.spk
Quant Type: ESTD
Sublist File: TO-11+Acr+17.sub
Method File: /chem/hplcf.i/27Aug2009a.b/F09D0819.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
2 FORMALDEHYDE	4.00	4.11	102.73	90-110
3 ACETALDEHYDE	4.00	4.08	101.97	90-110
4 ACROLEIN	4.00	4.21	105.24	90-110
5 ACETONE	4.00	4.06	101.48	90-110
6 PROPANAL	4.00	3.98	99.55	90-110
7 CROTONAL	4.00	4.04	101.02	90-110
9 BUTYRALS/MEK	4.00	4.00	100.14	90-110
10 BENZALDEHYDE	4.00	3.92	98.00	90-110
11 ISO-PENTANAL	4.00	4.05	101.28	90-110
12 PENTANAL	4.00	4.00	99.90	90-110
14 O-TOLUALDEHYDE	4.00	3.74	93.62	90-110
15 M,P-TOLUALDEHYDE	8.00	8.06	100.70	90-110
16 HEXANAL	4.00	3.96	98.96	90-110
17 2,5-Dimethylbenzal	4.00	3.93	98.29	90-110

0200

Data File: /chem/hplcf.i/27Aug2009a.b/f0827065.d
Date : 28-AUG-2009 07:17
Client ID: CCV
Sample Info: ;1331-138-4;CCV
Purge Volume: 5.0
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i
Operator: CRL
Column diameter: 2.00



Air Toxics Ltd.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1331-138-4
Sample Location:
Sample Date:
Sample Matrix: AIR
Analysis Type: OTHER
Data Type: LC DATA
Misc Info:

Client SDG: 28Aug2009
Client Smp ID: CCV
Sample Point:
Date Received:
Quant Type: ESTD
Level: MED
Operator: LZ

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug	Q
119-26-6	DNPH	0.00	
50-00-0	FORMALDEHYDE	4.08	
75-07-0	ACETALDEHYDE	4.03	
107-02-8	ACROLEIN	4.18	
123-38-6	PROPANAL	3.84	
9999-9999-007	BUTYRALS/MEK	3.87	
100-52-7	BENZALDEHYDE	3.82	
590-86-3	ISO-PENTANAL	3.88	
110-62-3	PENTANAL	3.82	
66-25-1	HEXANAL	3.89	

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/28Aug2009.b/f0828053.d
Lab Smp Id: 1331-138-4 Client Smp ID: CCV
Inj Date : 29-AUG-2009 06:02
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-4;CCV
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 5.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.018	3.014	0.004	85801		
2 FORMALDEHYDE	4.072	4.074	-0.002	463606	4.08204	4.08
3 ACETALDEHYDE	4.905	4.907	-0.002	346242	4.02891	4.03
4 ACROLEIN	5.878	5.881	-0.003	337723	4.17746	4.18
6 PROPANAL	6.478	6.481	-0.003	242240	3.83762	3.84
9 BUTYRALS/MEK	8.691	8.721	-0.030	211825	3.87133	3.87
10 BENZALDEHYDE	10.205	10.241	-0.036	152729	3.82128	3.82
11 ISO-PENTANAL	11.265	11.301	-0.036	181778	3.87700	3.88
12 PENTANAL	11.812	11.841	-0.029	176140	3.82444	3.82
16 HEXANAL	14.191	14.221	-0.030	159793	3.89496	3.89

Report Date: 01-Sep-2009 14:51

Air Toxics Ltd.

RECOVERY REPORT

Client Name:
Client SDG: 28Aug2009
Sample Matrix: LIQUID
Fraction: OTHER
Lab Smp Id: 1331-138-4
Client Smp ID: CCV
Level: MED
Operator: LZ
Data Type: LC DATA
SampleType: METHSPIKE
SpikeList File: R4ug.spk
Quant Type: ESTD
Sublist File: Rad165.sub
Method File: /chem/hplcf.i/28Aug2009.b/F09D0819.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
2 FORMALDEHYDE	4.00	4.08	102.05	90-110
3 ACETALDEHYDE	4.00	4.03	100.72	90-110
4 ACROLEIN	4.00	4.18	104.44	90-110
6 PROPANAL	4.00	3.84	95.94	90-110
9 BUTYRALS/MEK	4.00	3.87	96.78	90-110
10 BENZALDEHYDE	4.00	3.82	95.53	90-110
11 ISO-PENTANAL	4.00	3.88	96.92	90-110
12 PENTANAL	4.00	3.82	95.61	90-110
16 HEXANAL	4.00	3.89	97.37	90-110

Data File: /chem/hplcf.i/28Aug2009.b/f0828053.d

0204

Date : 29-AUG-2009 06:02

Client ID: CCV

Instrument: hplcf.i

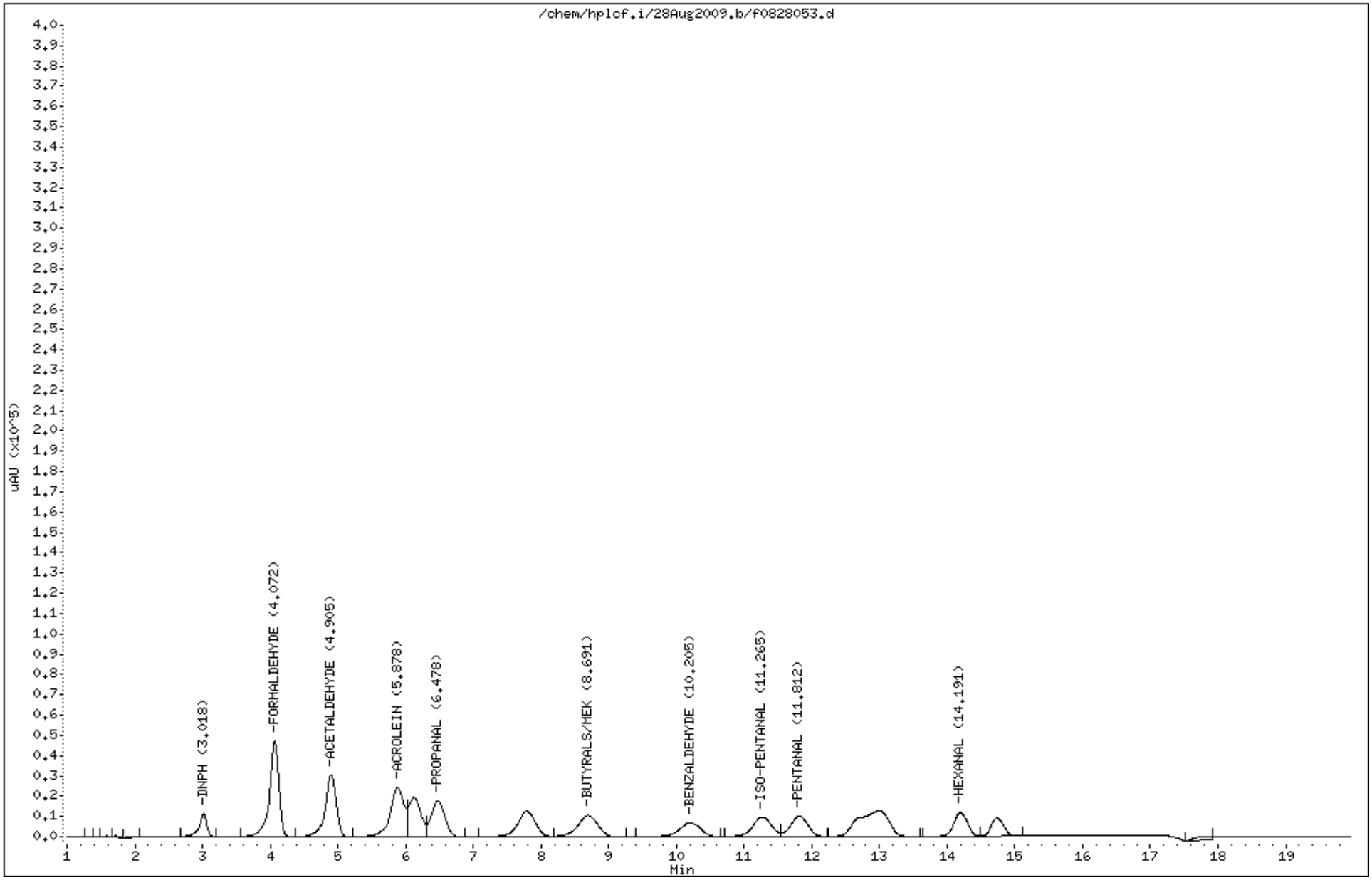
Sample Info: ;1331-138-4;CCV

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/28Aug2009.b/f0828054.d
Lab Smp Id: CCB Client Smp ID: Lab Blank
Inj Date : 29-AUG-2009 06:23
Operator : LZ Inst ID: hplcf.i
Smp Info : ;CCB;
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable

Vs	5.00000	Sample Final Volume (mL)
Vo	5.00000	Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.010	3.014	-0.004	5181		
2 FORMALDEHYDE	Compound Not Detected.					
3 ACETALDEHYDE	Compound Not Detected.					
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	Compound Not Detected.					
9 BUTYRALS/MEK	Compound Not Detected.					
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	Compound Not Detected.					
16 HEXANAL	Compound Not Detected.					

Data File: /chem/hplcf.i/28Aug2009.b/f0828054.d

0206

Date : 29-AUG-2009 06:23

Client ID: Lab Blank

Instrument: hplcf.i

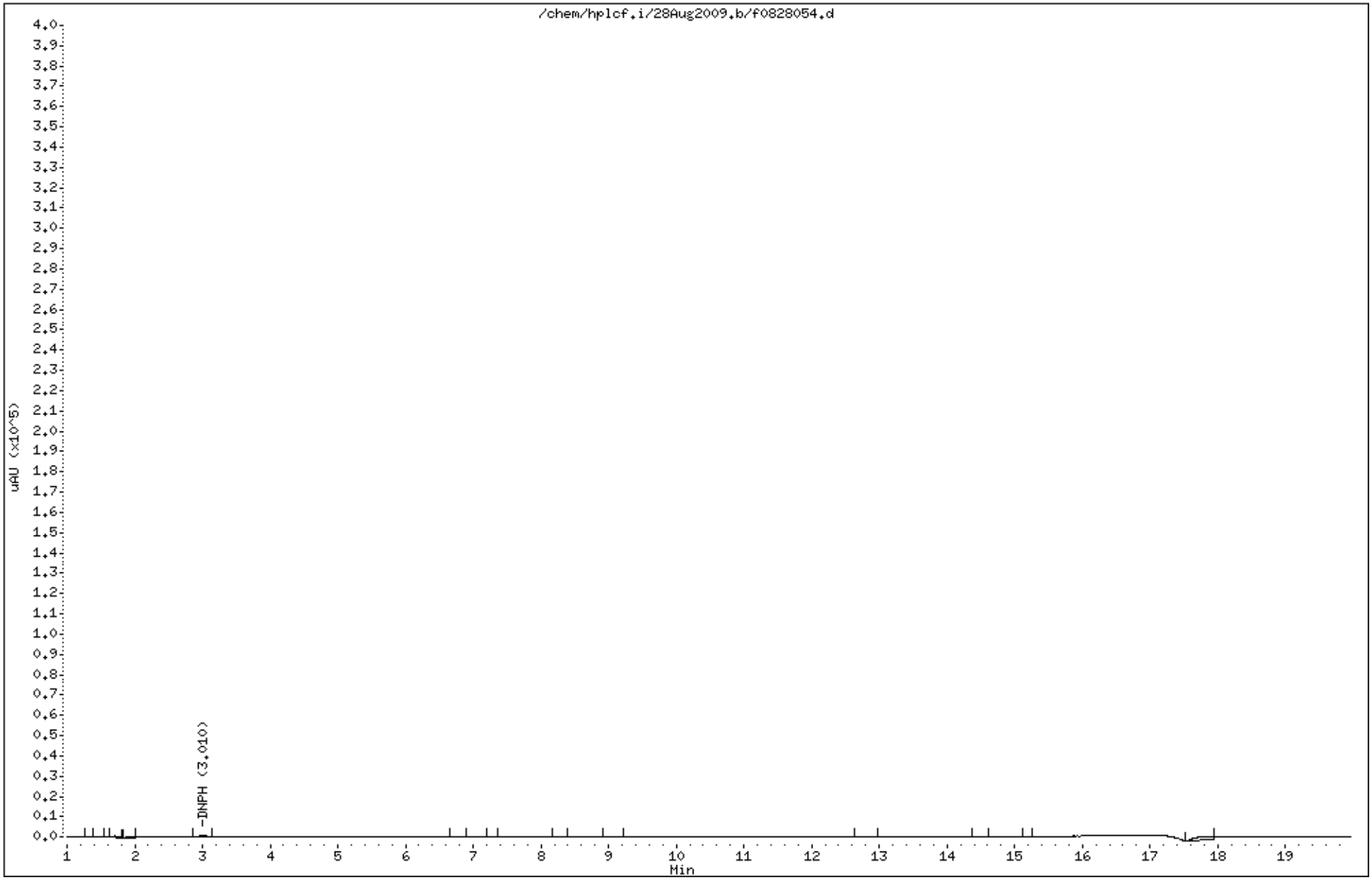
Sample Info: ;CCB;

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



Air Toxics Ltd.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1331-138-4
Sample Location:
Sample Date:
Sample Matrix: AIR
Analysis Type: OTHER
Data Type: LC DATA
Misc Info:

Client SDG: 28Aug2009
Client Smp ID: CCV
Sample Point:
Date Received:
Quant Type: ESTD
Level: MED
Operator: LZ

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug	Q
119-26-6	DNPH	0.00	
50-00-0	FORMALDEHYDE	4.15	
75-07-0	ACETALDEHYDE	4.09	
107-02-8	ACROLEIN	4.30	
123-38-6	PROPANAL	3.96	
9999-9999-007	BUTYRALS/MEK	4.05	
100-52-7	BENZALDEHYDE	3.96	
590-86-3	ISO-PENTANAL	4.08	
110-62-3	PENTANAL	4.01	
66-25-1	HEXANAL	3.97	

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/28Aug2009.b/f0828068.d
Lab Smp Id: 1331-138-4 Client Smp ID: CCV
Inj Date : 29-AUG-2009 11:16
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-4;CCV
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 5.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	2.998	3.014	-0.016	91611		
2 FORMALDEHYDE	4.045	4.074	-0.029	471498	4.15154	4.15
3 ACETALDEHYDE	4.871	4.907	-0.036	351360	4.08847	4.09
4 ACROLEIN	5.845	5.881	-0.036	347359	4.29666	4.30
6 PROPANAL	6.438	6.481	-0.043	249987	3.96035	3.96
9 BUTYRALS/MEK	8.645	8.721	-0.076	221546	4.04899	4.05
10 BENZALDEHYDE	10.151	10.241	-0.090	158283	3.96024	3.96
11 ISO-PENTANAL	11.218	11.301	-0.083	191247	4.07896	4.08
12 PENTANAL	11.765	11.841	-0.076	184771	4.01184	4.01
16 HEXANAL	14.158	14.221	-0.063	163073	3.97490	3.97

Report Date: 01-Sep-2009 14:54

Air Toxics Ltd.

RECOVERY REPORT

Client Name:
Client SDG: 28Aug2009
Sample Matrix: LIQUID
Fraction: OTHER
Lab Smp Id: 1331-138-4
Client Smp ID: CCV
Level: MED
Operator: LZ
Data Type: LC DATA
SampleType: METHSPIKE
SpikeList File: R4ug.spk
Quant Type: ESTD
Sublist File: Rad165.sub
Method File: /chem/hplcf.i/28Aug2009.b/F09D0819.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
2 FORMALDEHYDE	4.00	4.15	103.79	90-110
3 ACETALDEHYDE	4.00	4.09	102.21	90-110
4 ACROLEIN	4.00	4.30	107.42	90-110
6 PROPANAL	4.00	3.96	99.01	90-110
9 BUTYRALS/MEK	4.00	4.05	101.22	90-110
10 BENZALDEHYDE	4.00	3.96	99.01	90-110
11 ISO-PENTANAL	4.00	4.08	101.97	90-110
12 PENTANAL	4.00	4.01	100.30	90-110
16 HEXANAL	4.00	3.97	99.37	90-110

Data File: /chem/hplcf.i/28Aug2009.b/f0828068.d

0210

Date : 29-AUG-2009 11:16

Client ID: CCV

Instrument: hplcf.i

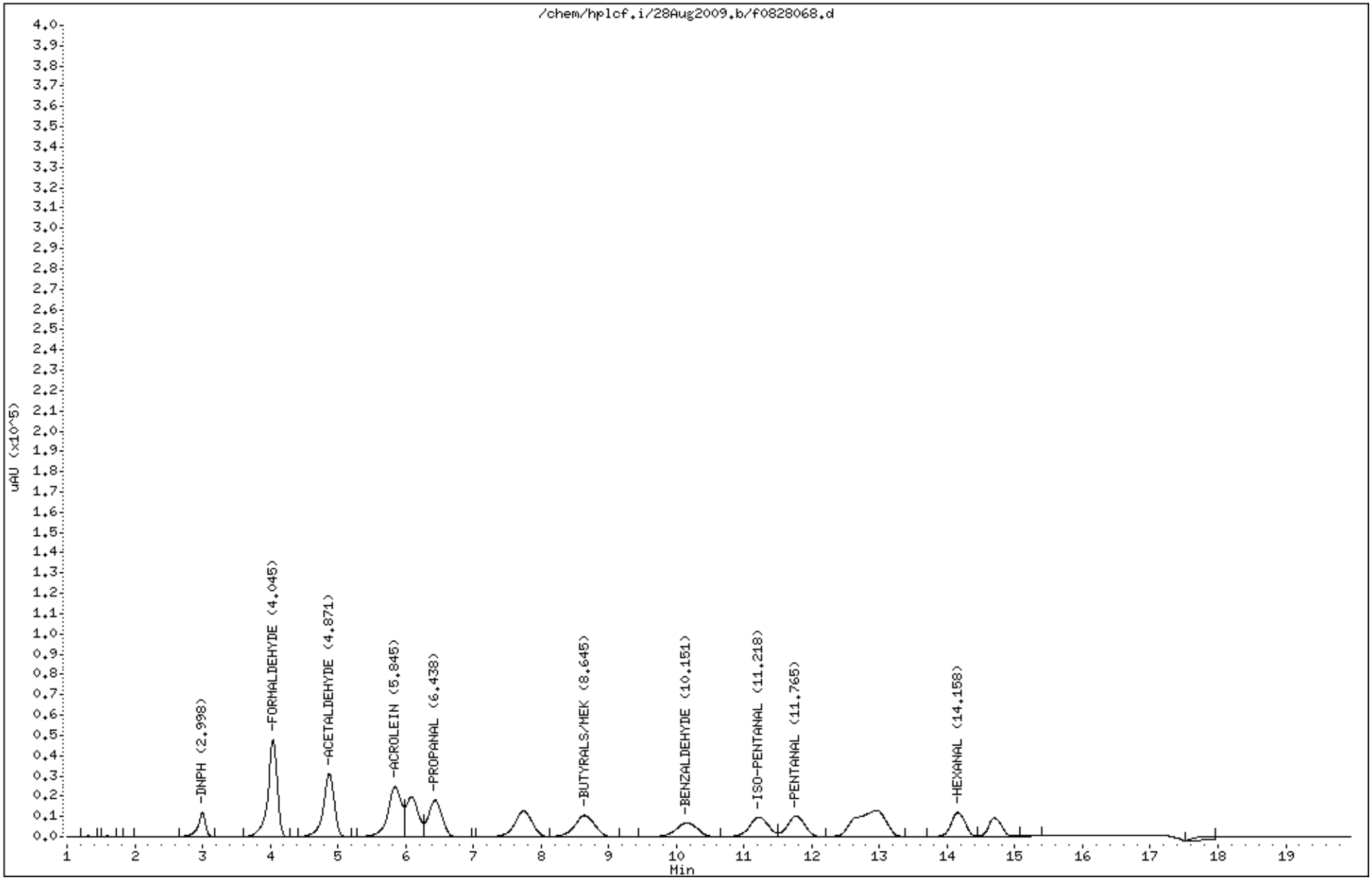
Sample Info: ;1331-138-4;CCV

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/28Aug2009.b/f0828069.d
Lab Smp Id: CCB Client Smp ID: Lab Blank
Inj Date : 29-AUG-2009 11:36
Operator : LZ Inst ID: hplcf.i
Smp Info : ;CCB;
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable

Vs	5.00000	Sample Final Volume (mL)
Vo	5.00000	Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	Compound Not Detected.					
2 FORMALDEHYDE	Compound Not Detected.					
3 ACETALDEHYDE	Compound Not Detected.					
4 ACROLEIN	Compound Not Detected.					
6 PROPANAL	Compound Not Detected.					
9 BUTYRALS/MEK	Compound Not Detected.					
10 BENZALDEHYDE	Compound Not Detected.					
11 ISO-PENTANAL	Compound Not Detected.					
12 PENTANAL	Compound Not Detected.					
16 HEXANAL	Compound Not Detected.					

Data File: /chem/hplcf.i/28Aug2009.b/f0828069.d

0212

Date : 29-AUG-2009 11:36

Client ID: Lab Blank

Instrument: hplcf.i

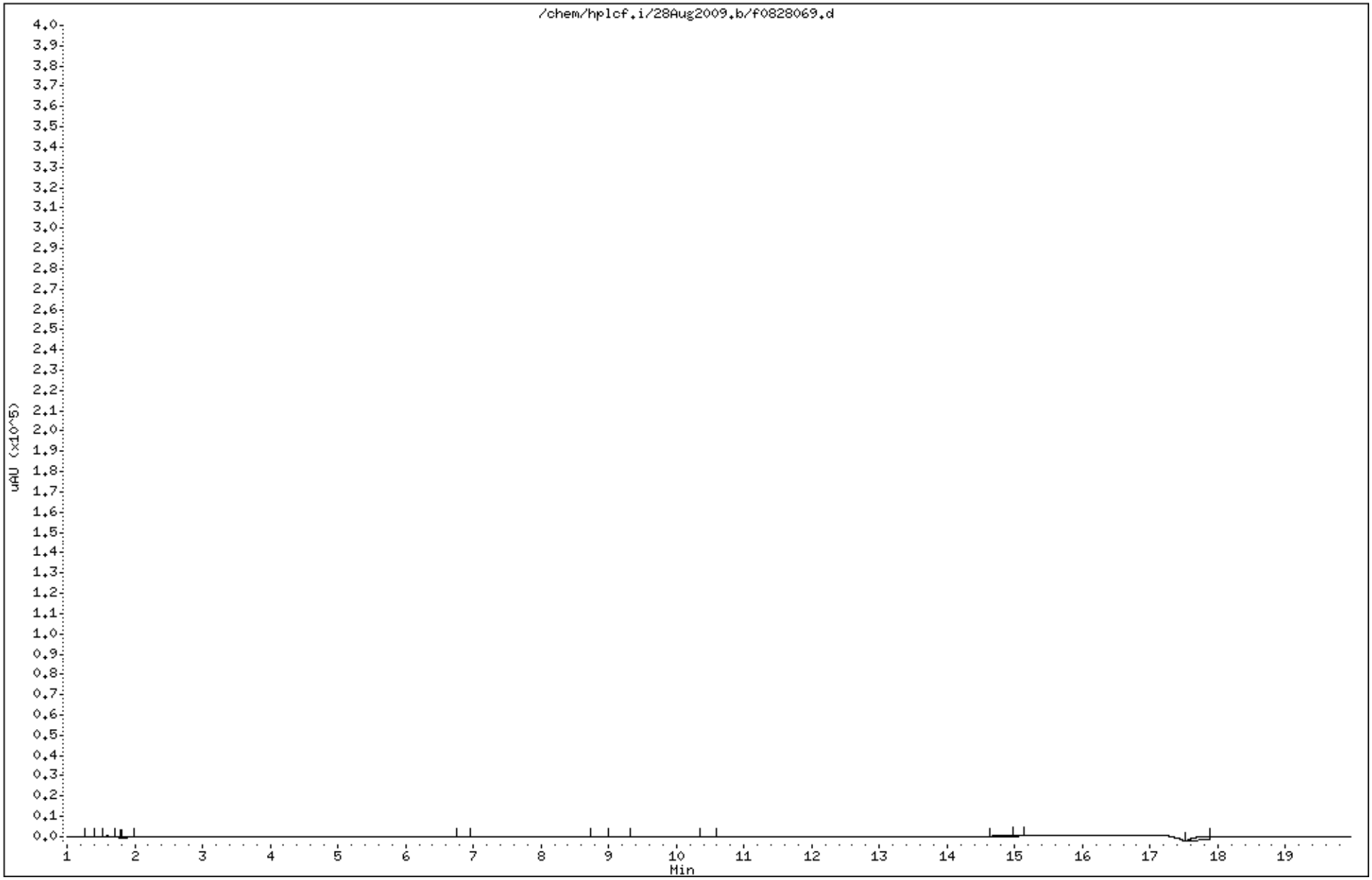
Sample Info: ;CCB;

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



Air Toxics Ltd.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1331-138-4
Sample Location:
Sample Date:
Sample Matrix: AIR
Analysis Type: OTHER
Data Type: LC DATA
Misc Info:

Client SDG: 28Aug2009
Client Smp ID: CCV
Sample Point:
Date Received:
Quant Type: ESTD
Level: MED
Operator: LZ

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug	Q
119-26-6	DNPH	0.00	
50-00-0	FORMALDEHYDE	4.13	
75-07-0	ACETALDEHYDE	4.09	
107-02-8	ACROLEIN	4.27	
123-38-6	PROPANAL	3.88	
9999-9999-007	BUTYRALS/MEK	4.03	
100-52-7	BENZALDEHYDE	3.96	
590-86-3	ISO-PENTANAL	4.12	
110-62-3	PENTANAL	3.98	
66-25-1	HEXANAL	4.03	

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/28Aug2009.b/f0828082.d
Lab Smp Id: 1331-138-4 Client Smp ID: CCV
Inj Date : 29-AUG-2009 16:08
Operator : LZ Inst ID: hplcf.i
Smp Info : ;1331-138-4;CCV
Misc Info :
Comment :
Method : /chem/hplcf.i/28Aug2009.b/F09D0819.m
Meth Date : 28-Aug-2009 13:27 cleaf Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 5.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.012	3.014	-0.002	87916		
2 FORMALDEHYDE	4.059	4.074	-0.015	469101	4.13043	4.13
3 ACETALDEHYDE	4.892	4.907	-0.015	351627	4.09157	4.09
4 ACROLEIN	5.865	5.881	-0.016	345085	4.26853	4.27
6 PROPANAL	6.465	6.481	-0.016	245269	3.88560	3.88
9 BUTYRALS/MEK	8.685	8.721	-0.036	220306	4.02633	4.03
10 BENZALDEHYDE	10.205	10.241	-0.036	158440	3.96416	3.96
11 ISO-PENTANAL	11.265	11.301	-0.036	193427	4.12545	4.12
12 PENTANAL	11.812	11.841	-0.029	183194	3.97759	3.98
16 HEXANAL	14.192	14.221	-0.029	165414	4.03197	4.03

Report Date: 01-Sep-2009 14:54

Air Toxics Ltd.

RECOVERY REPORT

Client Name:
Client SDG: 28Aug2009
Sample Matrix: LIQUID
Fraction: OTHER
Lab Smp Id: 1331-138-4
Client Smp ID: CCV
Level: MED
Operator: LZ
Data Type: LC DATA
SampleType: METHSPIKE
SpikeList File: R4ug.spk
Quant Type: ESTD
Sublist File: Rad165.sub
Method File: /chem/hplcf.i/28Aug2009.b/F09D0819.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
2 FORMALDEHYDE	4.00	4.13	103.26	90-110
3 ACETALDEHYDE	4.00	4.09	102.29	90-110
4 ACROLEIN	4.00	4.27	106.71	90-110
6 PROPANAL	4.00	3.88	97.14	90-110
9 BUTYRALS/MEK	4.00	4.03	100.66	90-110
10 BENZALDEHYDE	4.00	3.96	99.10	90-110
11 ISO-PENTANAL	4.00	4.12	103.14	90-110
12 PENTANAL	4.00	3.98	99.44	90-110
16 HEXANAL	4.00	4.03	100.80	90-110

Data File: /chem/hplcf.i/28Aug2009.b/f0828082.d

0216

Date : 29-AUG-2009 16:08

Client ID: CCV

Instrument: hplcf.i

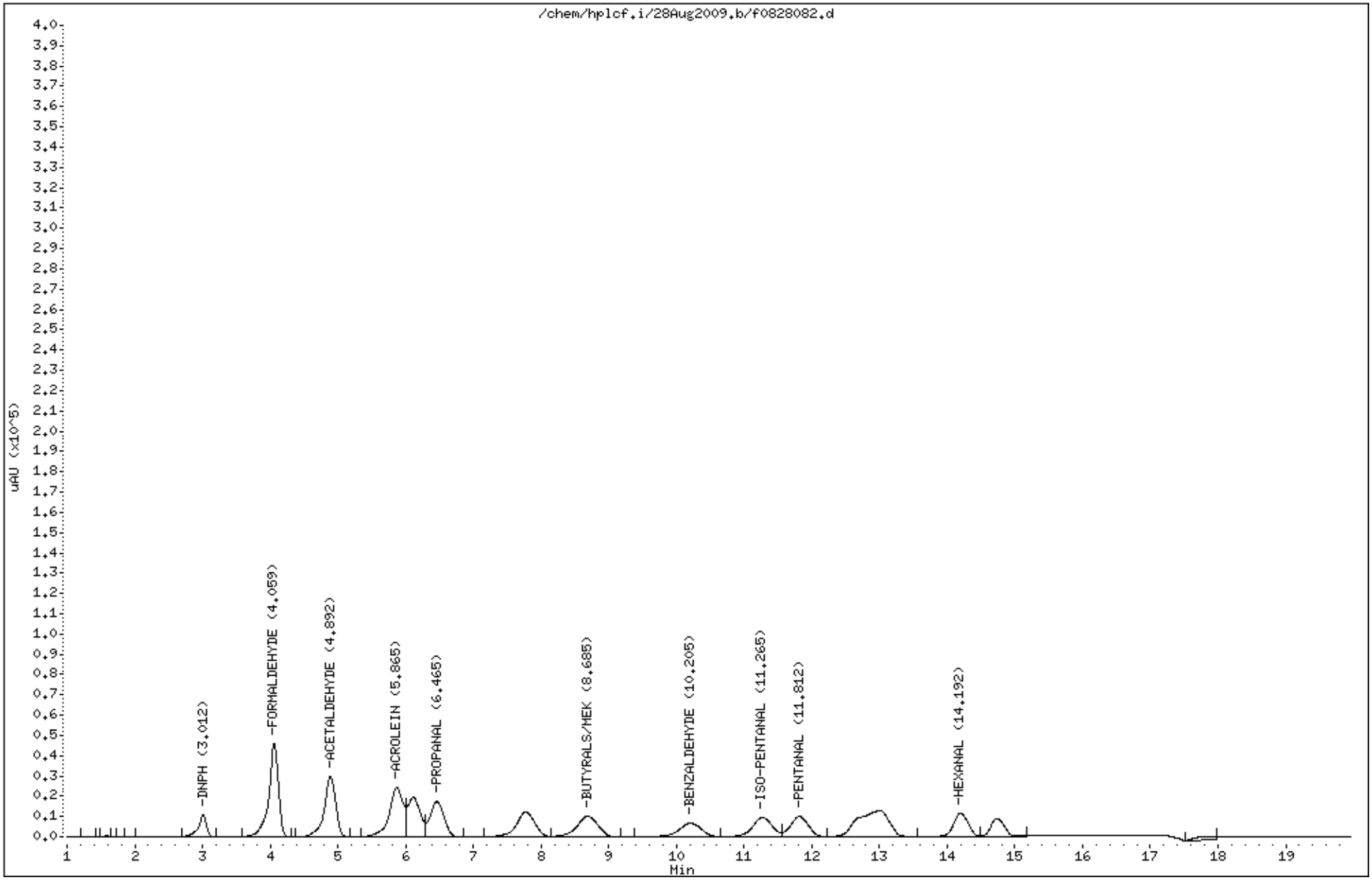
Sample Info: ;1331-138-4;CCV

Purge Volume: 5.0

Operator: LZ

Column phase: C-18 REVERSE PHASE

Column diameter: 2.00



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0908458A-22A

RADIELLO ANALYSIS BY HPLC/UV

File Name:	**f0825023**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/09 02:29 PM**
		Date of Extraction: 8/25/09

Compound	**%Recovery**
Formaldehyde	112
Acetaldehyde	106
Propanal	102
Methyl Ethyl Ketone/Butyraldehydes	99
Benzaldehyde	95
Pentanal	98
Isopentanal	99
Hexanal	94
Acrolein	101

Container Type: NA - Not Applicable

Report Date: 01-Sep-2009 11:00

Air Toxics Ltd.

RECOVERY REPORT

Client Name:
Client SDG: 25Aug2009a
Sample Matrix: LIQUID
Fraction: OTHER
Lab Smp Id: 0908458A-LCS
Client Smp ID: LCS
Level: MED
Operator: CRL
Data Type: LC DATA
SampleType: LCS
SpikeList File: Rvarlcs.spk
Quant Type: ESTD
Sublist File: Rad165.sub
Method File: /chem/hplcf.i/25Aug2009a.b/F09D0819.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
2 FORMALDEHYDE	2.86	3.19	111.62	85-115
3 ACETALDEHYDE	3.93	4.18	106.41	85-115
4 ACROLEIN	4.75	4.78	100.68	85-115
6 PROPANAL	4.87	4.96	101.86	85-115
9 BUTYRALS/MEK	5.71	5.66	99.18	85-115
10 BENZALDEHYDE	7.41	7.04	95.00	85-115
11 ISO-PENTANAL	6.47	6.39	98.70	85-115
12 PENTANAL	6.47	6.36	98.34	85-115
16 HEXANAL	7.14	6.70	93.84	85-115

Air Toxics Ltd.

Aldehydes/Ketones To-11,TO-5,CARB430,0011, Radiello 165

Data file : /chem/hplcf.i/25Aug2009a.b/f0825023.d
Lab Smp Id: 0908458A-LCS Client Smp ID: LCS
Inj Date : 25-AUG-2009 14:29
Operator : CRL Inst ID: hplcf.i
Smp Info : ;0908458A-LCS;
Misc Info :
Comment :
Method : /chem/hplcf.i/25Aug2009a.b/F09D0819.m
Meth Date : 26-Aug-2009 16:15 lzhang Quant Type: ESTD
Cal Date : 19-AUG-2009 20:49 Cal File: f0819033.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Rad165.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * Vs/Vo * CpndVariable
Vs 2.00000 Sample Final Volume (mL)
Vo 5.00000 Curve baesed Volume (mL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG)	CONCENTRATIONS FINAL (ug)
1 DNPH	3.011	3.007	0.004	40479281		
2 FORMALDEHYDE	4.065	4.067	-0.002	906396	7.98080	3.19
3 ACETALDEHYDE	4.898	4.900	-0.002	898483	10.4548	4.18
4 ACROLEIN	5.878	5.874	0.004	966573	11.9560	4.78
6 PROPANAL	6.485	6.480	0.005	782824	12.4016	4.96
9 BUTYRALS/MEK	8.725	8.714	0.011	774663	14.1578	5.66
10 BENZALDEHYDE	10.245	10.220	0.025	703408	17.5992	7.04
11 ISO-PENTANAL	11.305	11.287	0.018	748560	15.9654	6.39
12 PENTANAL	11.851	11.834	0.017	732617	15.9069	6.36
16 HEXANAL	14.225	14.207	0.018	687216	16.7508	6.70

Data File: /chem/hplcf.i/25Aug2009a.b/f0825023.d

Date : 25-AUG-2009 14:29

Client ID: LCS

Sample Info: ;0908458A-LCS;

Purge Volume: 5.0

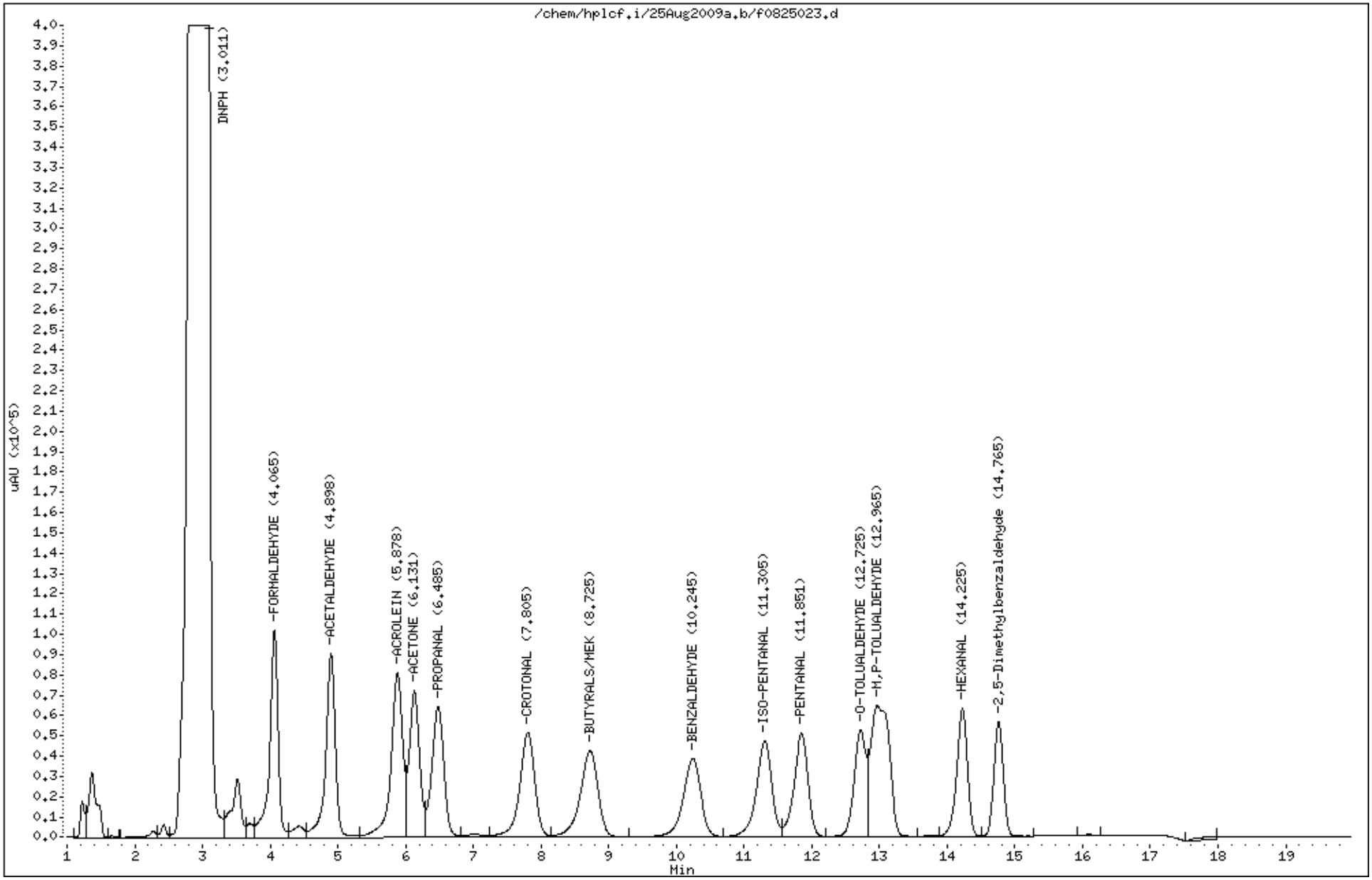
Column phase: C-18 REVERSE PHASE

Instrument: hplcf.i

Operator: CRL

Column diameter: 2.00

0220



TO-11 Extraction Logbook @Air Toxics Ltd. Log Book #: 1817

ATL Work Order # 0908458A **Final Solvent:** ACN **Solvent Lot #:** 092929
Date Extracted 8/25/09 **Spike I.D.:** 1331-132-var **Spiked By:** CRL
Spike Witness: MJS

ATL Fraction	Clients I.D. #	Cartridge type & size	Final Volume (ml)	Spike Amount (ul)	Comments
0908458A-BLK	N/A	RAD 145 lot#09144	2.0	N/A	
-LCS				1000	
-01A	99899	lot# N/A		N/A	
-02A	99900				
-03A	99901				vial was broken
-04A	99902				
-05A	99903				
-06A	99904				
-07A	99997				
-08A	99998				
-09A	99999				
-10A	10000				
-11A	10001				
-12A	100528				
-13A	100529				
-14A	100530				
-15A	100531				
-16A	100532				
-17A	100533				
-18A	100844				
-19A	100845				
-20A	100846				
		CRL 8/25/09			

Comments:

CRL 8/25/09

Cammy Lopez 8/25/09

Signed Date

HPLC-F Run Logbook **@Air Toxics Ltd.** **Logbook Book #: 1850**

Method (Circle all that apply): TO-5 CARB 430 TO-11A Method 0011 Pressure: 92 bar

Use	File #	Sample Name/Client	DF	Loaded by Init.	Date	Time	Reviewed by Init.	Comments
✓	f0825014	CCB	1.00	CRL	8/25/09	1110	W	
✓	15	CCB				1131		
✓	16	CCV 1331-138-4				1151		
✓	17	CCB				1212		
✓	18	CARB 430 CERT 1				1233		
✓	19	2				1254		
✓	20	3				1315		
✓	21	4				1336		
✓	22	0908458A - BLK				1408		
✓	23	-LCS				1429		
✓	24	0908458B - BLK				1449		
✓	25	-LCS				1510		
✓	26	0908458C - BLK				1531		
✓	27	-LCS				1552		%R form. = 117.58% > 115%
O	28	0908458A - 01A				1613		O : Over range
C	29	0908458C - LCS				1634		C : confirmed
O	30	0908458A - 01AA				1655		
O	31	-02A				1716		
O	32	-02AA				1737		
X	33	-03A				1757		
✓	34	1331-138-4 CCV				1818		
X	35	CCB				1839		
	36	0908458A - 04A				1900		
	37	-05A				1921		
	38	-06A				1942		
	39	-07A				2003		
	40	-08A				2024		
✓	41	-09A				2045	✓	

Calculation Check:

File ID: f0825034 Compound: Formaldehyde Initials: W

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × DF = $\frac{(466019)}{(113572)}$ × (1) = 4.10

Reported Result: 4.10

Signed: [signature] Date: 8/25/09

0222

Revised 07/08

HPLC-F Run Logbook @Air Toxics Ltd. **Logbook Book #:** 1850

Radiello 165

Method (Circle all that apply): TO-5 CARB 430 TO-11A Method 0011 Pressure: 97 bar

Use	File #	Sample Name/Client	DF	Loaded by Init.	Date	Time	Reviewed by Init.	Comments
X	F0827012	ACN WASH	1.00	CRL	8/27/09	1145	CRL	
✓	13					1206		
✓	14					1227		
✓	15	CCV 1331-138-4				1248		
✓	16	CCB				1309		
✓	17	S10 BLANK				1329		
✓	18	DNPH CERT 781-87				1350		
✓	19	CARB430 Cert 1				1411		
X	20	2				1432		formaldehyde out
X	21	3				1453		
✓	22	4				1514		
X	23	CARB430 MDL - BLK				1640		Blank not pass
	24	-1				1700		
	25	-2				1721		
	26	-3				1742		
✓	27	CCV 1331-138-4				1803		
✓	28	CCB				1824		
X	29	CARB430 MDL-4				1845		
	30	-5				1906		
	31	-6				1927		
	32	-7				1948		
	33	-8				2009		
X	34	RAD165 MDL-BLK				2029		Casey Leaf's DOC
X	35	-1				2050		wrong level
X	36	-2				2111		spiked.
X	37	-3				2132		
X	38	-4				2153		
✓	39	1331-138-4 CCV				2214		

Calculation Check:

File ID: F0827039 Compound: propanol Initials: CRL

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × DF = $\frac{(252906)}{(63123)}$ × (1.00) = 4.01

Reported Result: 4.01

Signed: CRL Date: 8/28/09

0223

Revised 07/08

HPLC-F Run Logbook **@Air Toxics Ltd.** **Logbook Book #: 1850**

Method (Circle all that apply): TO-5 CARB 430 (TO-11A) Radiello 165 Method 0011 Pressure: 75 bar

Use	File #	Sample Name/Client	DF	Loaded by Init.	Date	Time	Reviewed by Init.	Comments
✓	f0827040	CCB	1.00	CRL	08/27/09	2235	CRL / ⌂	
C	41	0908458C-LCS		⌂		2256		C = Confirmed
✓	42	0908458A-03A				2317		
✓	43	-06A				2337		
✓	44	-10A				2358		
✓	45	-14A			8/28/09	0019		
✓	46	-17A				0040		
✓	47	-20A				0101		
✓	48	0908458B -23A				0122		
✓	49	-26A				0143		
✓	50	CCB				0204	CRL	
✓	51	1331-138-4 CCV				0224		
✓	52	CCB				CRL 08/28/09 0240245		
✓	53	0908458B-29A				0306		
✓	54	-32A				0327		
✓	55	-35A				0348		
✓	56	-36A				0409		
✓	57	-39A				0430		
✓	58	0908458C -42A				0451		
✓	59	0908458A -01A	4.00			0512		
✓	60	~~-02A~~ CRL 08/28/09				0532		
✓	61	~~CCB~~ 0908458A-02A	4.00			0553		
✓	62	~~CCB~~ CRL 08/28/09 0908458A-02A				0614		
✓	63	~~CCV~~ CCB ~~1331-138-4~~ CRL 8/28/09	1.00			0635	CRL /	
✓	64	CCB				0656		
✓	65	~~0908408/409-BLK~~ 1331-138-4 CRL 8/28/09				0717		
✓	66	CCB	1.00			0738		
X	67	0908408/409-BLK		CRL		0759		wrong injection, actually 0908458B-26A

Calculation Check:

File ID: f0827054 Compound: Acetaldehyde Initials: CRL

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × DF = $\frac{(449332)}{(85939)}$ × (1.00) = 5.23

Reported Result: 5.23

Signed 8/28/09 Date

HPLC-F Run Logbook **@Air Toxics Ltd.** **Logbook Book #: 1850**

Radiello 165

Method (Circle all that apply): TO-5 CARB 430 TO-11A Method 0011 Pressure: 101 bar

Use	File #	Sample Name/Client	DF	Loaded by Init.	Date	Time	Reviewed by Init.	Comments
X	f0828029	TO-5/CARB430 - BLK	1.00	W	8/28/09	2141	W	
✓	30	↓				2202		
✓	31	TO5 CARB430 MDL-1				2203		
✓	32	-2				2243		
✓	33	-3				2304		
✓	34	-4				~~2305~~ 2325		
✓	35	-5				2346		
✓	36	-6			8/29/09	0007		
✓	37	-7				0028		
✓	38	-8				0049		
✓	39	CCV 1331-138-4				0110		
✓	40	CCB				0131		
✓	41	0908458C-43A	10.0			0151		
✓	42	-44A				0212		
✓	43	-45A				0233		
✓	44	-46A				0254		
✓	45	-49A				0315		
✓	46	-50A				0336		
✓	47	-51A				0357		
✓	48	-52A				0418		
✓	49	-53A				0439		
✓	50	-54A				0500		
X	51	CCB	1.00			0520		
✓	52	CCB				0541		
✓	53	1331-138-4 CCV				0602		
✓	54	CCB				0623		
✓	55	0908458C-58A	1.00			0644		
✓	56	-48A				0705		

Calculation Check:

File ID: f0828039 Compound: Acetaldehyde Initials: W

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × DF = $\frac{(351870)}{(85939)}$ × (1) = 4.09

Reported Result: 4.09

Signed: [signature] Date: 8/31/09

0225

Revised 07/08

HPLC-F Run Logbook **@Air Toxics Ltd.** Radiello 165 **Logbook Book #: 1850**

Method (Circle all that apply): TO-5 CARB 430 TO-11A Method 0011 Pressure: 101 bar

Use	File #	Sample Name/Client	DF	Loaded by Init.	Date	Time	Reviewed by Init.	Comments
X	f0828057	0908458C-47A	3.00	Li	8/29/09	0726	Li	over diluted.
X	58	-47AA	3.00			0747		
X	59	-55A	3.00			0808		
✓	60	~~-55~~ 41A Li 8/31/09	4.00			0828		
✓	61	-41AA	4.00			0849		
✓	62	-56A	10.0			0910		
✓	63	-57A				0931		
✓	64	0908458A-04A	5.00			0952		
✓	65	-05A				1013		
✓	66	CCB	1.00			1034		
✓	67					1055		
✓	68	1331-138-4 CCV				1116		
✓	69	CCB				1136		
✓	70	0908458A-07A	5.00			1157		
✓	71	-08A				1218		
✓	72	-09A				1239		
✓	73	-11A				1300		
✓	74	-12A	4.00			1321		
✓	75	-13A				1342		
✓	76	-15A				1403		
✓	77	-16A				1424		
✓	78	-18A				1445		
✓	79	-19A				1505		
✓	80	CCB	1.00			1526		
✓	81	CCB				1547		
✓	82	1331-138-4 CCV				1608		
✓	83	CCB				1629		
✓	84	0908458B-21A	4.00			1650		

Calculation Check:

File ID: f0828082 Compound: Formaldehyde Initials: Li

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × DF = $\frac{(469101)}{(113572)}$ × (1) = **4.13**

Reported Result: **4.13**

Signed 8/31/09 Date

Shipping/ Receiving Documents

Air Toxics LTD.
Laboratory Services Since 1989

180 Blue Ravine Road, Suite B
Folsom, CA 95630

Phone (916) 985-1000 FAX (916) 985-1020
Hours 8:00 A.M. to 6:00 P.M. Pacific

COMPANY: Environmental Health & Engineering, Inc.
ATTENTION: Mr. Taeko Minegishi
FAX #: 781-247-4305
FROM: Sample Receiving
Workorder #: 0908458A
# of pages (Including Cover): 1

9/10/2009

Thank you for selecting Air Toxics Ltd. We have received your samples and have found discrepancies. In order to expedite analysis and reporting, please review the attached information for accuracy. Corrections can be faxed to **Ausha Scott at 916-985-1020.**
ATL will proceed with the analysis as specified on the Chain of Custody and Sample Login page.

In accordance with your company's contract, this account is required to have a PO that is fully executed by both parties which also covers the cost of the workorder before any data can be released. Please ensure that you have given all appropriate information to our Project Manager so that there will be no delay in reporting of the data you are requesting.

The following discrepancies have been observed:

We have found a discrepancy between the Chain of Custody (COC) and the sample tag. The sample labeled 100533 on the COC is labeled as 100539 on the sample tag. ATL will report the sample identification on the COC unless otherwise notified.

Samples were not received at the recommended temperature (4 ± 2 °C). ATL will proceed with the analysis unless otherwise notified.

All samples were received without documentation regarding collection date on the Chain of Custody. The sampling dates of 8/18/09 and 8/19/09 you have provided by e-mail will be used to determine the extent of hold time.

Your prompt response is appreciated.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

0908458

DATE: 20 Aug 09

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: Air Toxics

Please send invoices to ATTN: Accounts Payable.
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to **EH&E** Project # 16512

The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - **URGENT DATA** ☒

	SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
1A	99899	AIR PASSIVE	ALDEHYDE ANALYSIS	14D 16H 20M
2A	99900			
3A	99901			
4A	99902			
5A	99903			
6A	99904			Ø
7A	99997			14D 22H 3M
8A	99998			
9A	99999			
0A	100000			
1A	100001			
2A	100528			13D 23H 25M
3A	100529			
4A	100530			
5A	100531			
6A	100532			

Special Instructions:

☒ Standard turn around time ☐ Rush by _____ date/time ☐ Fed ex 8204 2332 9241

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@ehinc.com

☒ Additional report recipient margaret@ehinc.com

CUSTODY SEAL INTACT? Y N NONE TEMP 8°C

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 8/20/09

Received by: _____ ATL of (company name) ATL Date: 8/21/09

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 1 of 4

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

0908458

DATE: 20 Aug 09

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: Air Toxics

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 16512

The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - URGENT DATA ☒

	SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
7A	100533	Air Passive	Aldehyde Analysis	∅
8A	100844			~~12~~ 11 DAYS
19A	100845			
20A	100846			
	100847			
	100848			
	100849			∅
	100153			13D 20H 58M
	100154			
	100155			
	100156			
	100157			
	100158			∅
	100620			13D 18H 50M
	100621			
	100622			

Special Instructions:

☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other Fedex 8204 2732 2291

☐ Fax results 781-247-4305

☐ RETURN SAMPLES ☒ Electronic transfer - datacoordinator@ehenc.com

☒ Additional report recipient mirugala@ehenc.com

CUSTODY SEAL INTACT? Y N NONE TEMP 8°C

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 8/20/09

Received by: _____ of (company name) ATL Date: 8/21/09

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 2 of 4

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY

WORKORDER 0908458A

Client

Mr. Taeko Minegishi
Environmental Health &
Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Sales Rep: TL

Phone

800-825-5343

Fax

781-247-4305

Date Promised: 09/04/09
Date Completed: 9/8/09
Date Received: 8/21/09
PO#: 16512
Project#: 16512

Total $: $ 1,600.00
Logged By: HD

Fraction	Sample #	Analysis	Collected	Amount$
01A	99899	ATL Application	8/18/2009	$75.00
01AA	99899 Lab Duplicate	ATL Application	8/18/2009	$0.00
02A	99900	ATL Application	8/18/2009	$75.00
02AA	99900 Lab Duplicate	ATL Application	8/18/2009	$0.00
03A	99901	ATL Application	8/18/2009	$75.00
04A	99902	ATL Application	8/18/2009	$75.00
05A	99903	ATL Application	8/18/2009	$75.00
06A	99904	ATL Application	8/18/2009	$75.00
07A	99997	ATL Application	8/19/2009	$75.00
08A	99998	ATL Application	8/19/2009	$75.00
09A	99999	ATL Application	8/19/2009	$75.00
10A	100000	ATL Application	8/19/2009	$75.00
11A	100001	ATL Application	8/19/2009	$75.00
12A	100528	ATL Application	8/18/2009	$75.00
13A	100529	ATL Application	8/18/2009	$75.00
14A	100530	ATL Application	8/18/2009	$75.00
15A	100531	ATL Application	8/18/2009	$75.00
16A	100532	ATL Application	8/18/2009	$75.00
17A	100533	ATL Application	8/18/2009	$75.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: CPSC Indoor Air Monitoring/13297

BILL TO: Accounts Payable
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Analysis Code: HPLC

TERMS:

Reporting Method: Modified TO-11A Passive-Radiello 165 (Full list) (ug)

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY Continued

Client

Mr. Taeko Minegishi
Environmental Health &
Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Sales Rep: TL

Phone

800-825-5343

Fax

781-247-4305

Date Promised: 09/04/09
Date Completed: 9/8/09
Date Received: 8/21/09
PO#: 16512
Project#: 16512

Total $: $ 1,600.00
Logged By: HD

Fraction	Sample #	Analysis	Collected	Amount$
18A	100844	ATL Application	8/18/2009	$75.00
19A	100845	ATL Application	8/18/2009	$75.00
20A	100846	ATL Application	8/18/2009	$75.00
21A	Lab Blank	ATL Application	NA	$0.00
22A	LCS	ATL Application	NA	$0.00

Misc. Charges eCVP (20) @ $5.00 each. $100.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: CPSC Indoor Air Monitoring/13297

BILL TO: Accounts Payable
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Analysis Code: HPLC

TERMS:

Reporting Method: Modified TO-11A Passive-Radiello 165 (Full list) (ug)

Sample Discrepancy Report

Identification

Initiated By: hd **Project ID:**13297 **PM:** bl **Date:** 8/21/2009 **Discrepancy Type:** ☒ **1.** ☒ **2.** ☐ **3.**

Workorder(s) affected:0908458 **Sample(s) affected:** 01a-20a

1. Sample Receipt Discrepancies

Narration Not Required:

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☒ Sample tags / can numbers do not match the COC.

1.8. ☒ Sample date ☒ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below).

Describe the Discrepancy: 1.7 The COC sample ID 100533 does not match the sample ID on tube 100539.
1.8 There was no collection date for all samples on COC.

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

2.1. ☐ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of H_2O in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☐ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (< 25"Hg).

2.18. ☒ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☒ ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☒ was not present (check one).

2.19. ☐ Other (describe below)

Initials: hd **Date:** 8/21/2009 **Notify Receiving:** ☐ **Notify PM:** ☐

Describe the Discrepancy: 2.18 The sample was received at 8*C.

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

Team Lead Initials: _____ **Date:** _____

Describe the Discrepancy: _____

_____

_____

How Does this Affect Client: _____

_____

_____

Project Manager Use Only

Project Manager Notification ☒ **Section 2 Complete** ☐ **Section 3 Complete**

Action:

☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials:_____ Date: _____

☒ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials:AS Person notified: Conference call Date: 8/24/2009

☐ Waiting for Client Reply

Comments: **Dates provided. Proceed**

_____

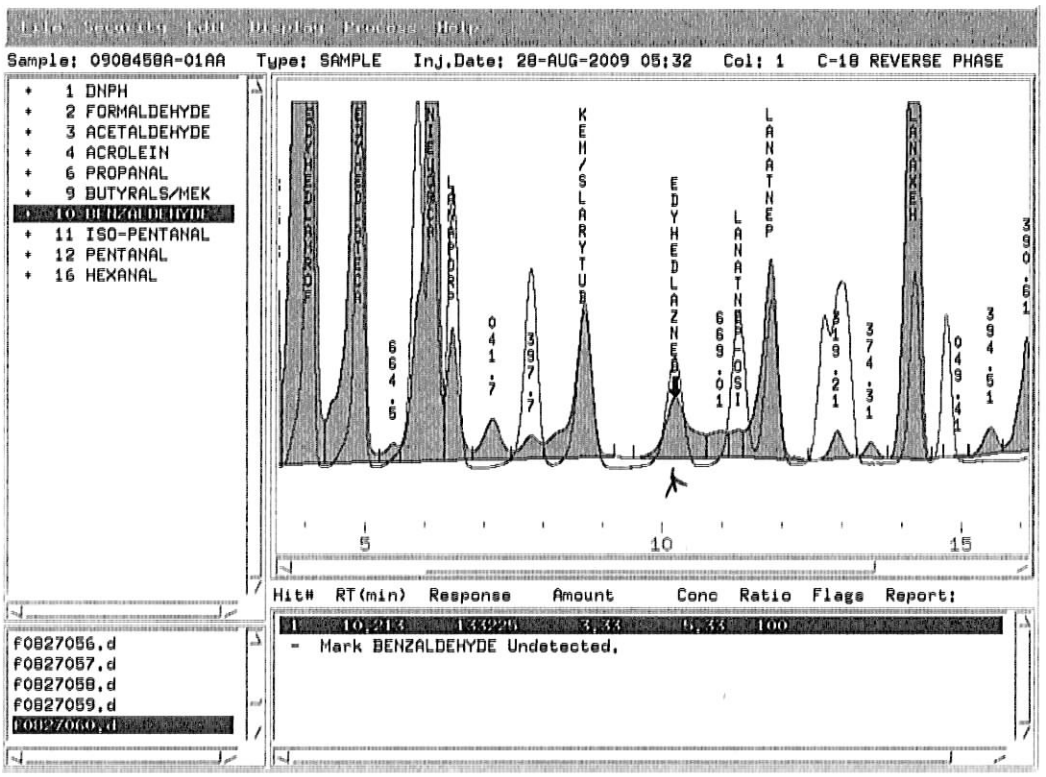
☐ Notify Lab Name: _____ Date: _____ **Notify Receiving:** ☐

☐ **Additional notifications attached.**

Additional Comments:

_____

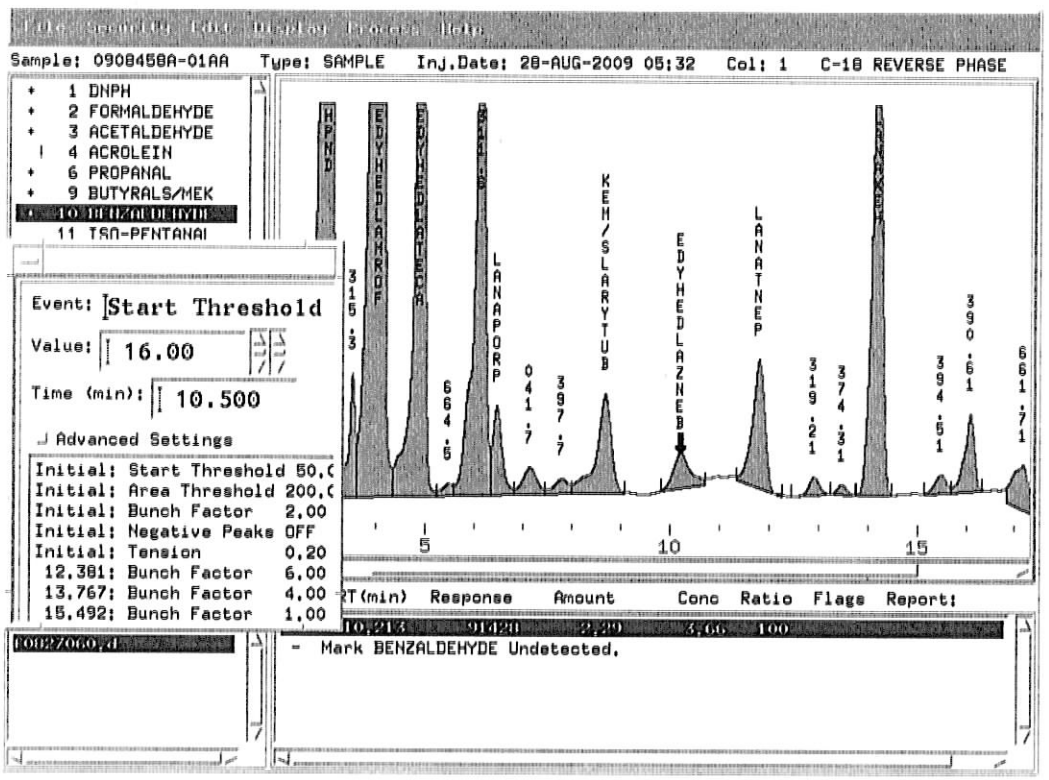
Other Records



before.

Li 9/11/09

Excessive baseline

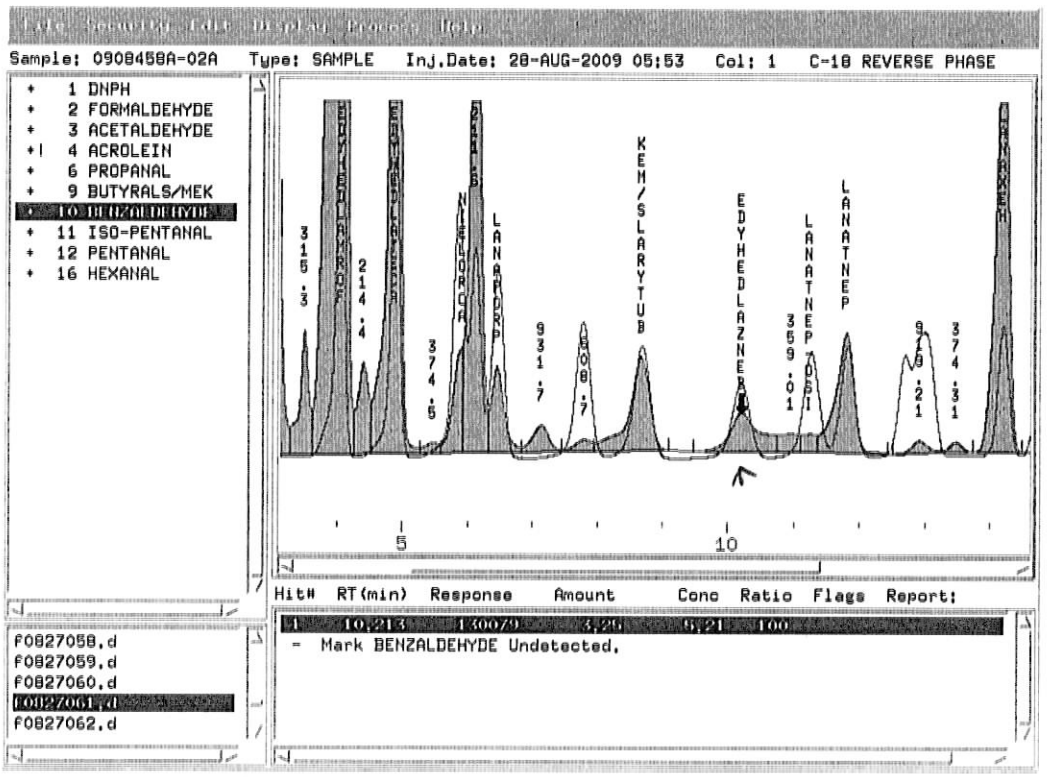


After

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

W 9/11/09

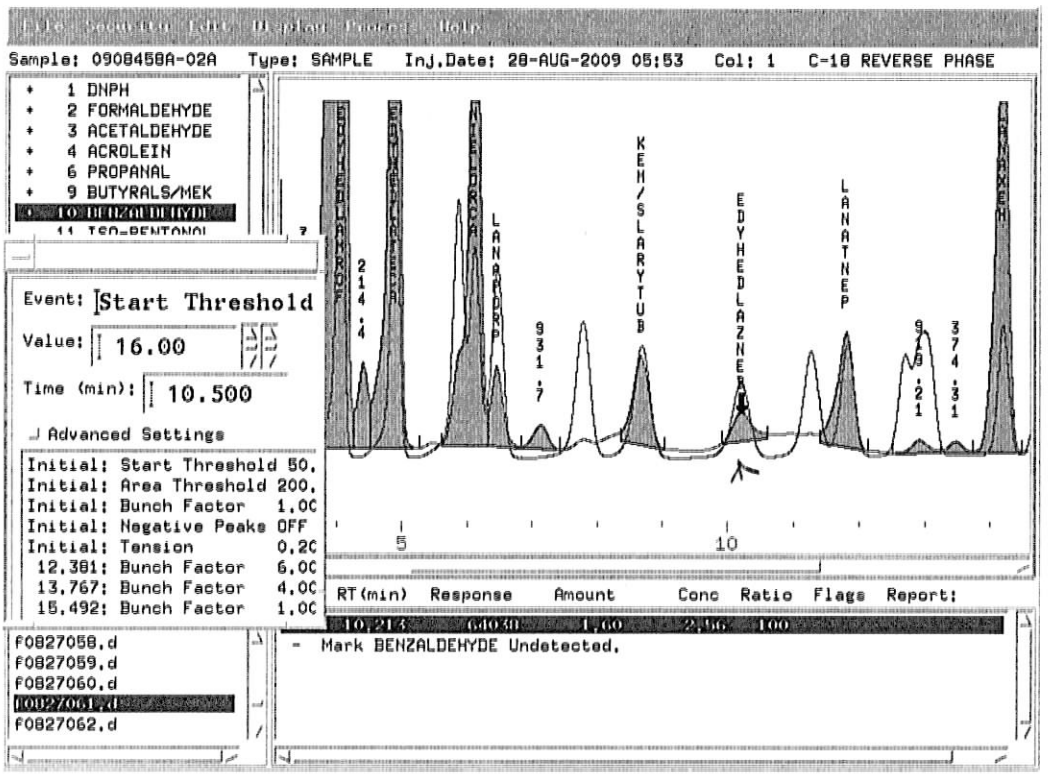
SS 9/1/09



Before.

LS 9/11/09

Excessive baseline

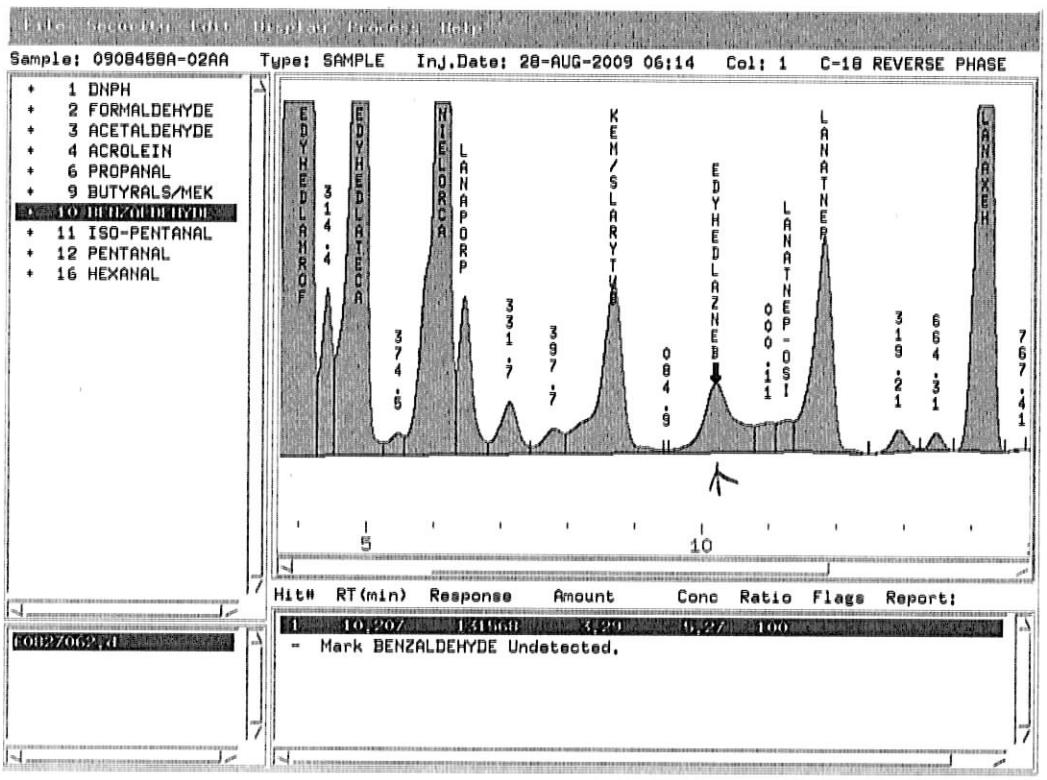


After

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

GS 9/1/09

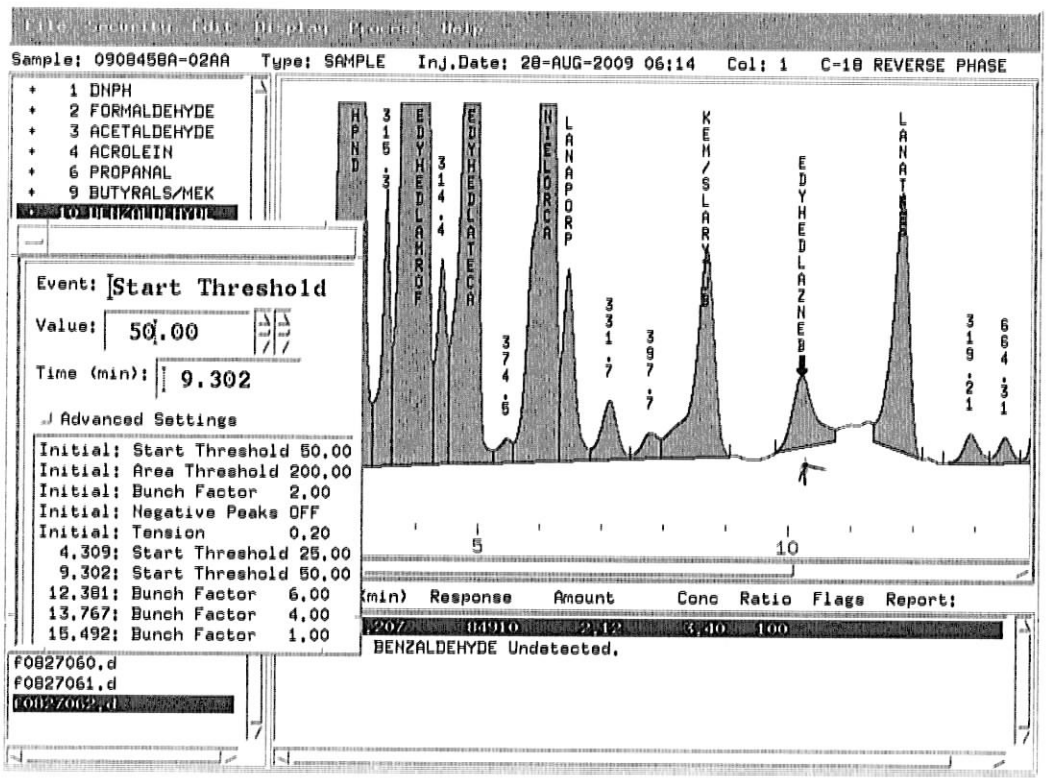
W 9/11/09



Before.

W 9/11/09

Excessive baseline

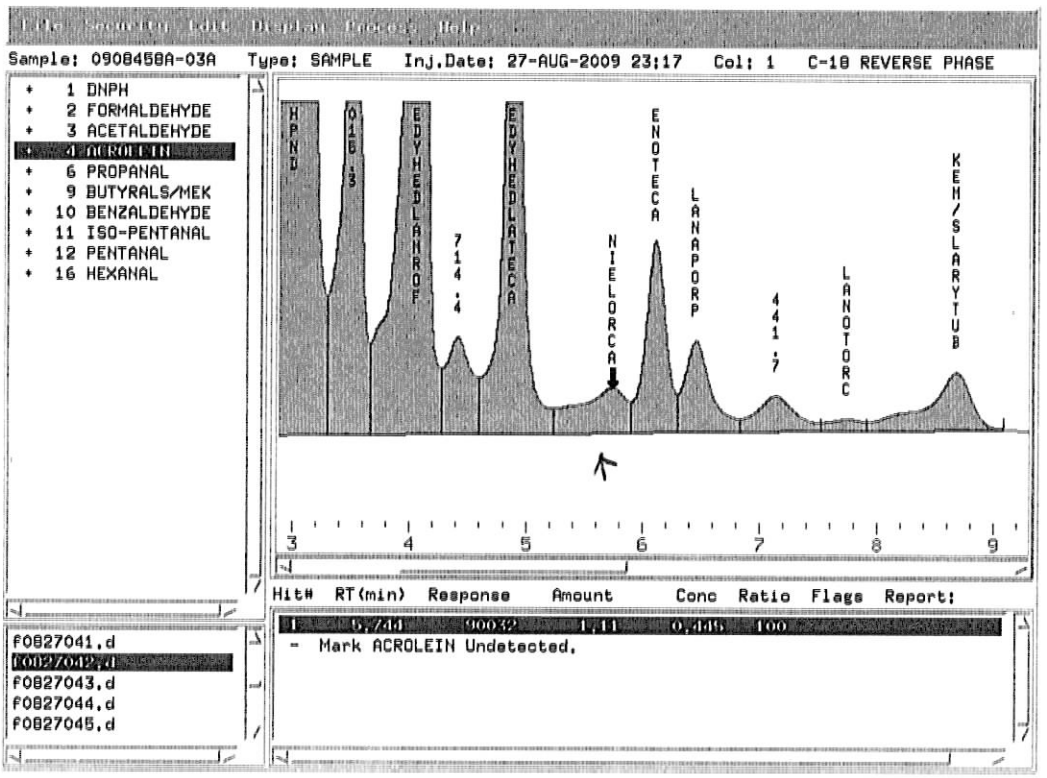


After

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

GS 9/1/09

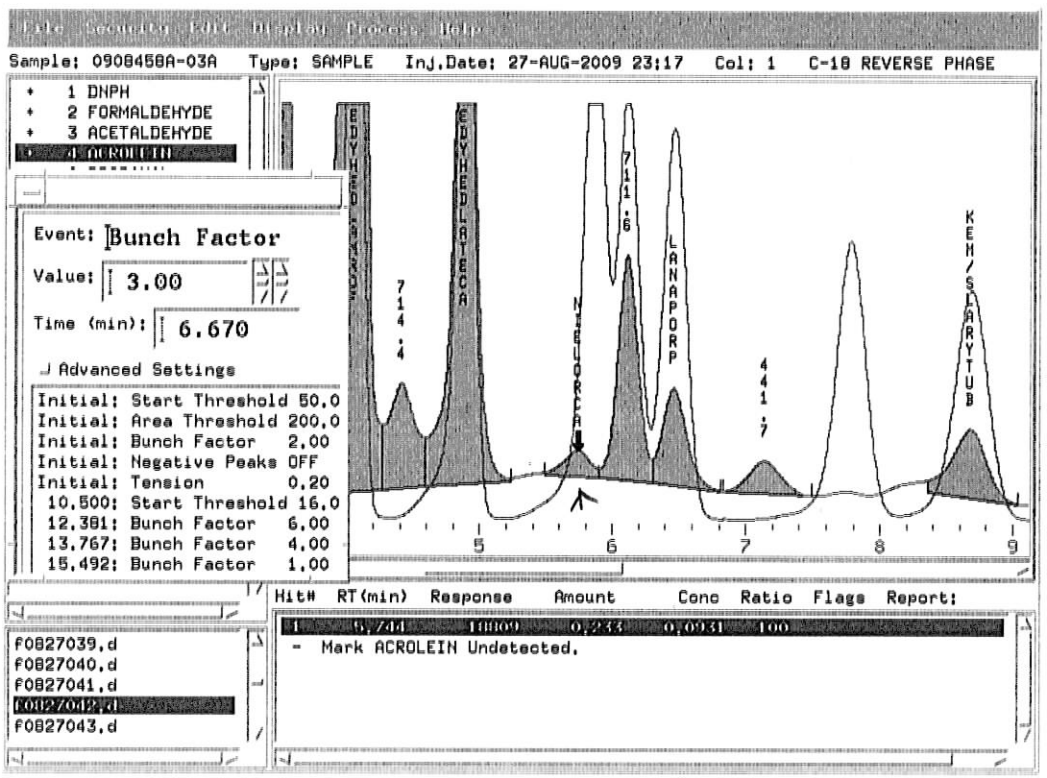
W 9/11/09



Before.

W 9/11/09

Excessive baseline



After

Correct Baseline	✓
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Zoom In	
Change Parameter	
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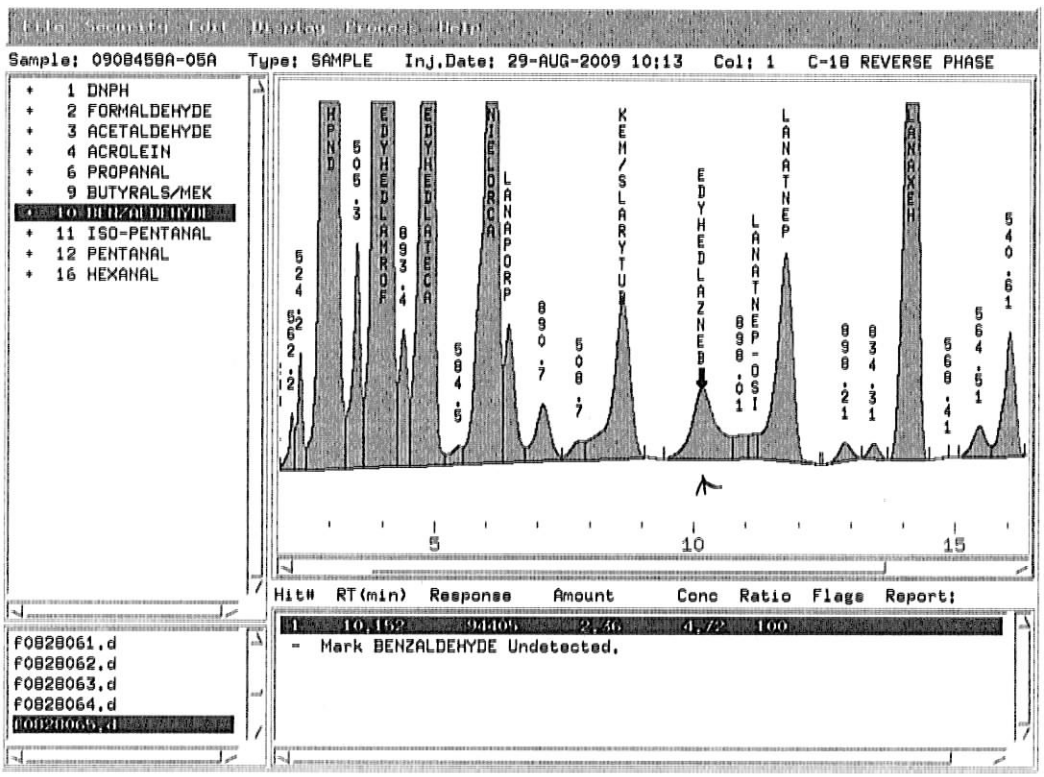
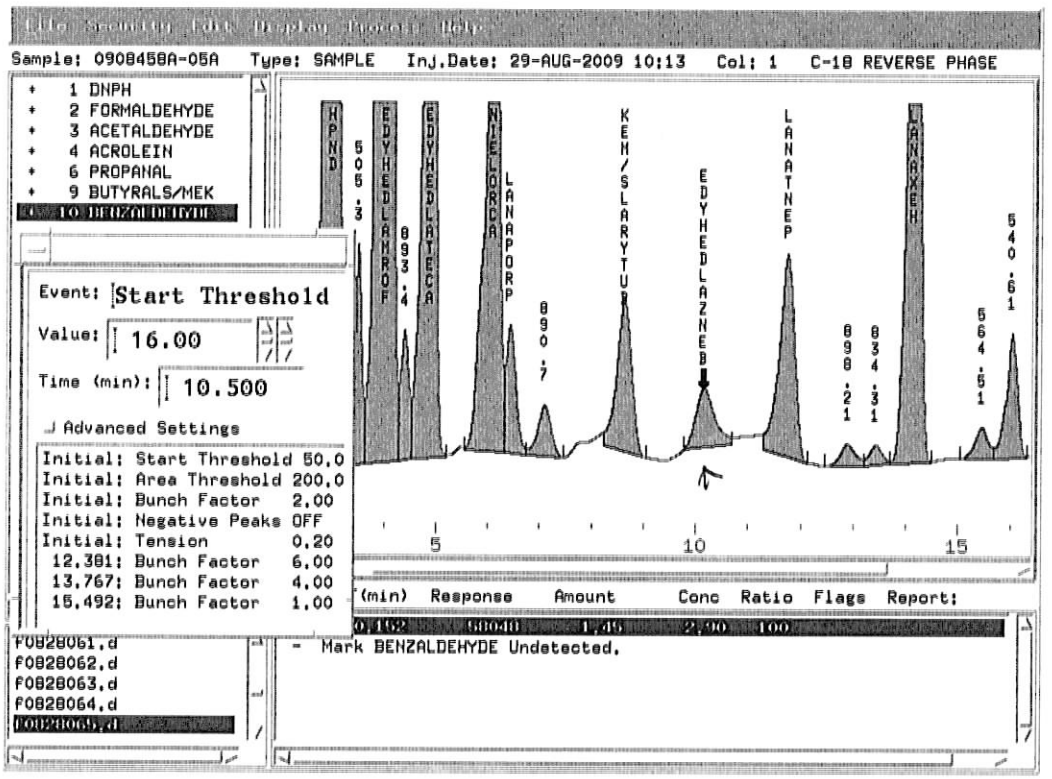
Peak Misidentified	
Corrected Peak Integration	✓

W9111109



Before.

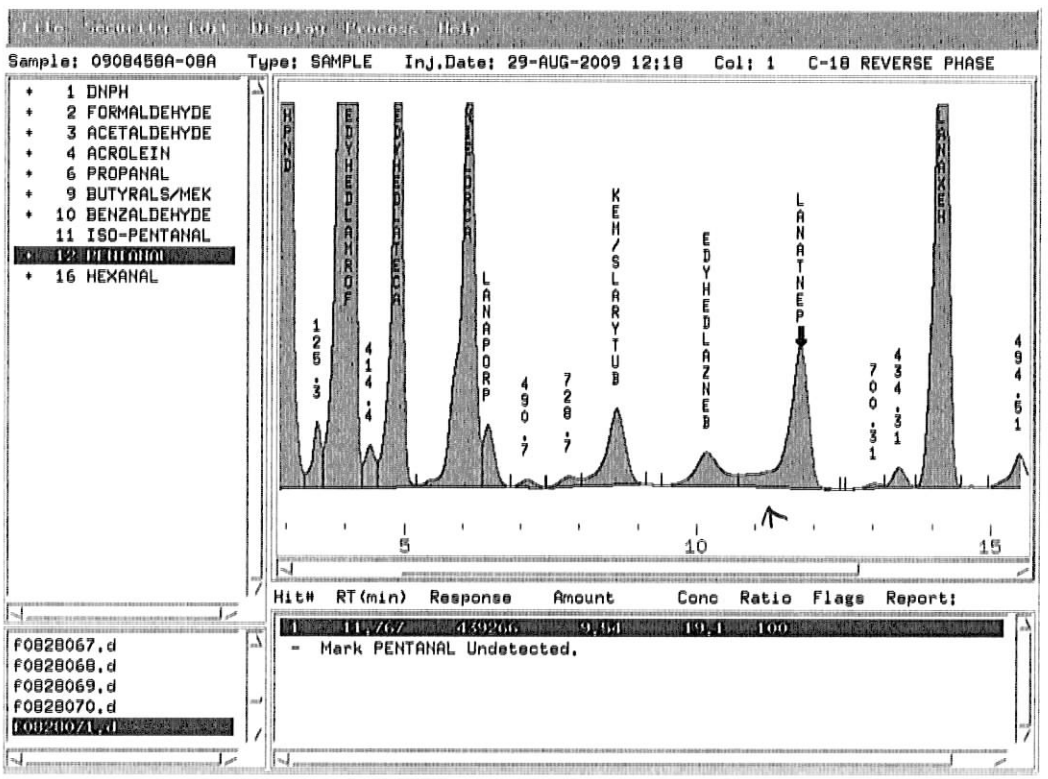
W 9/11/09



After

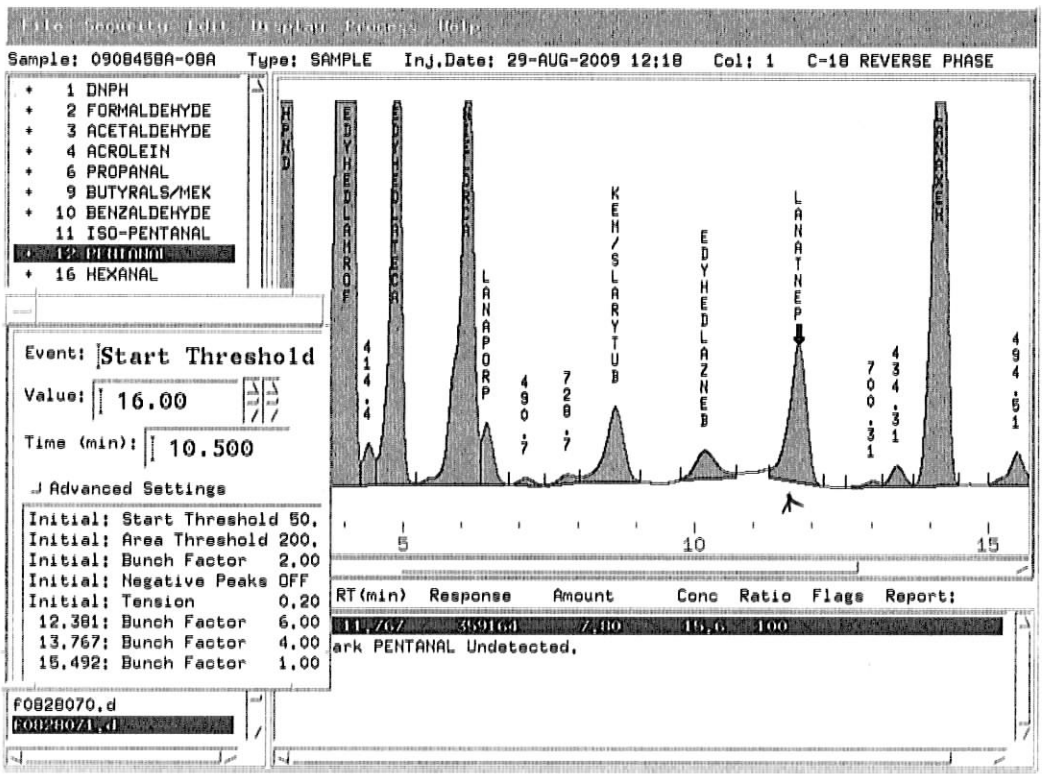
Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	↓

W 9/11/09



Before

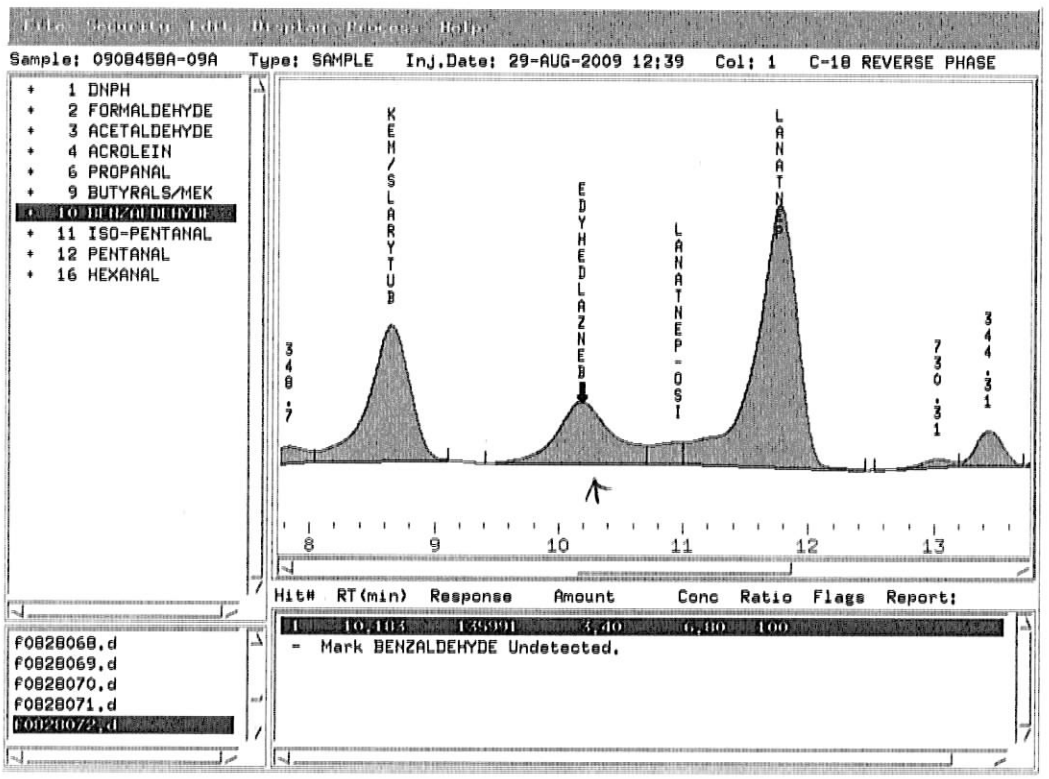
9/11/09



After

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

W 9/11/09

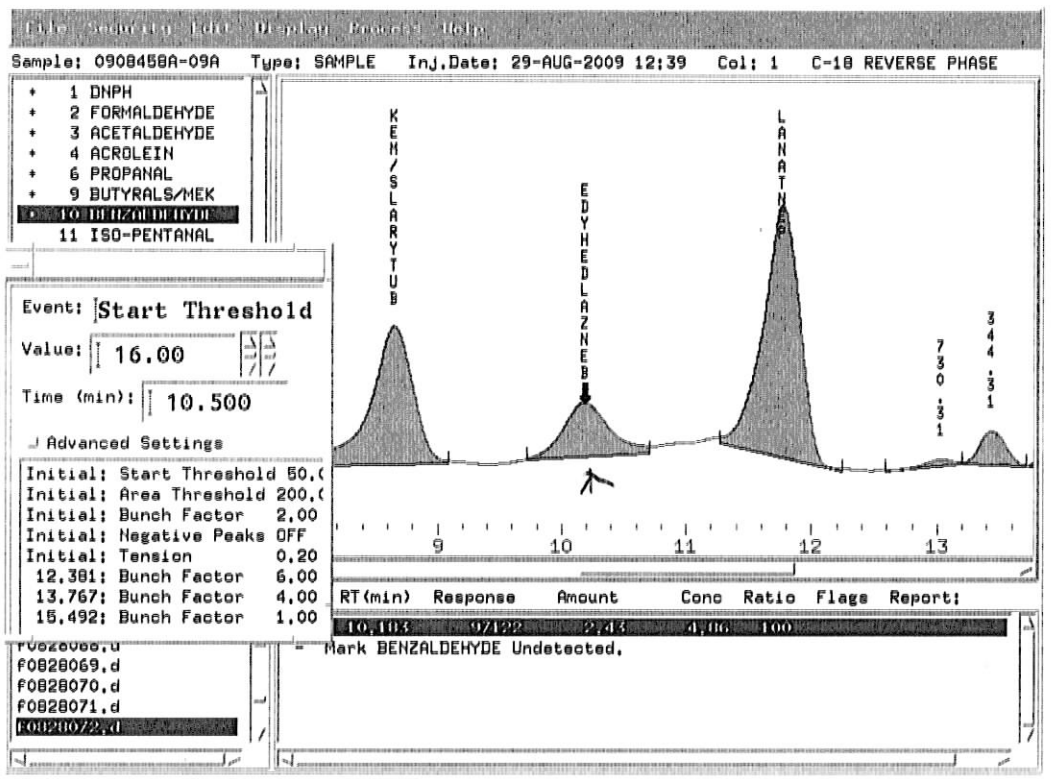


Before
W9111109

After

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

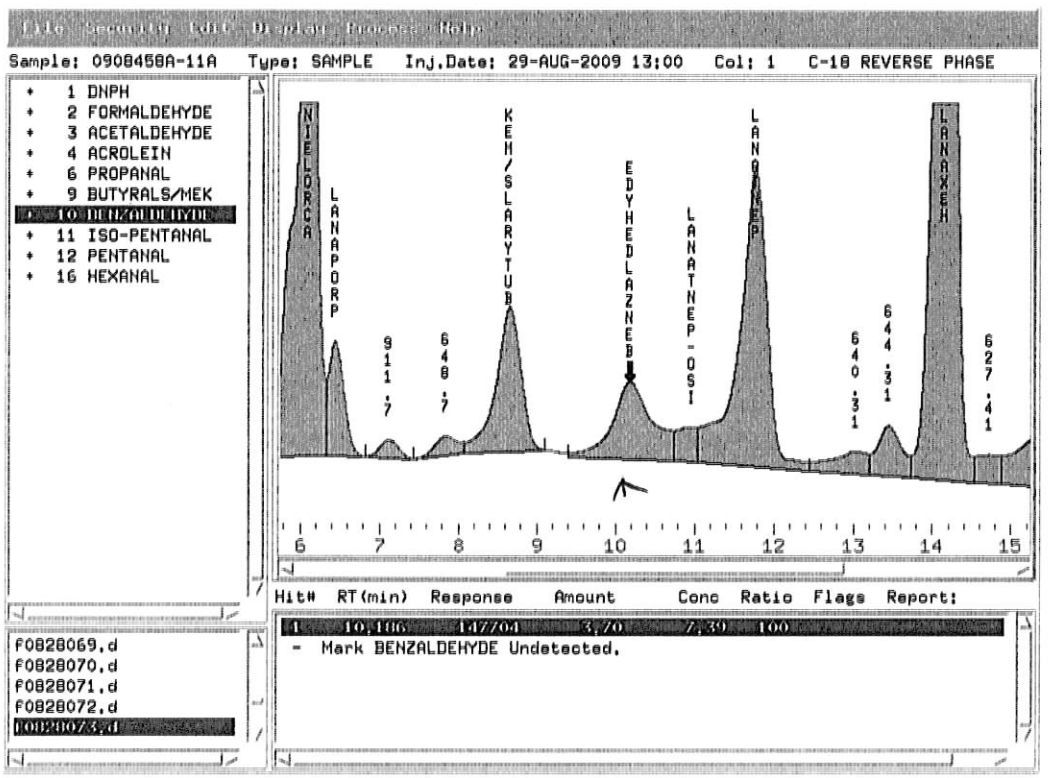
W 9/11/09



After

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

W 9/11/09



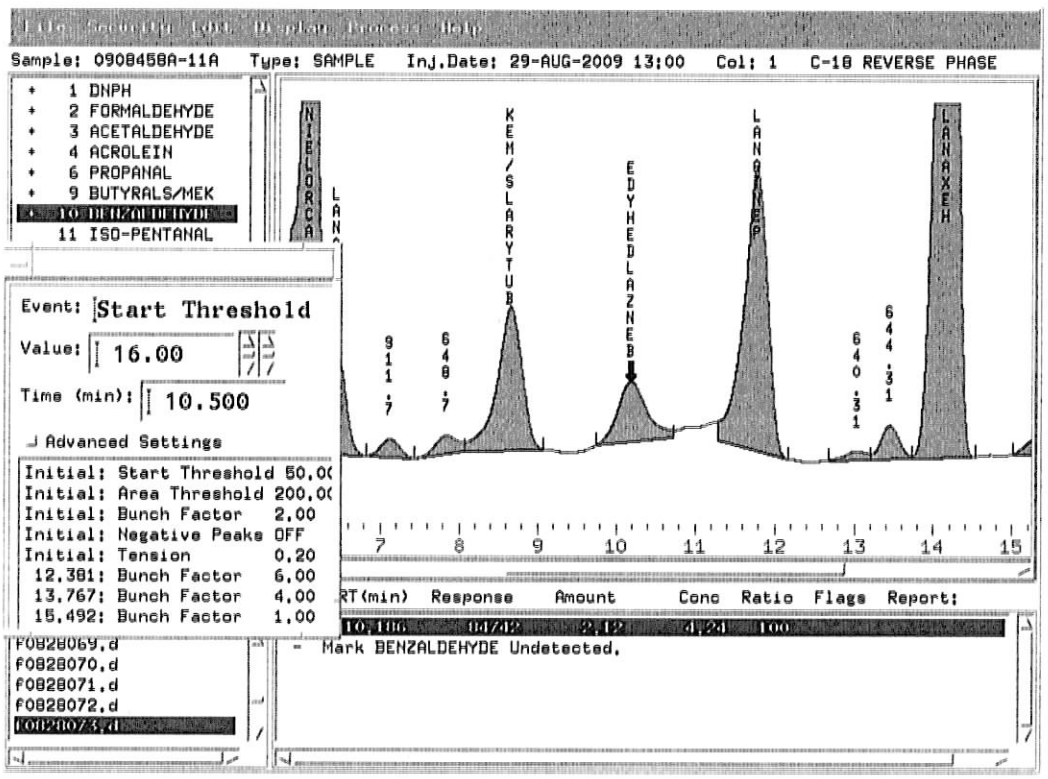
Before

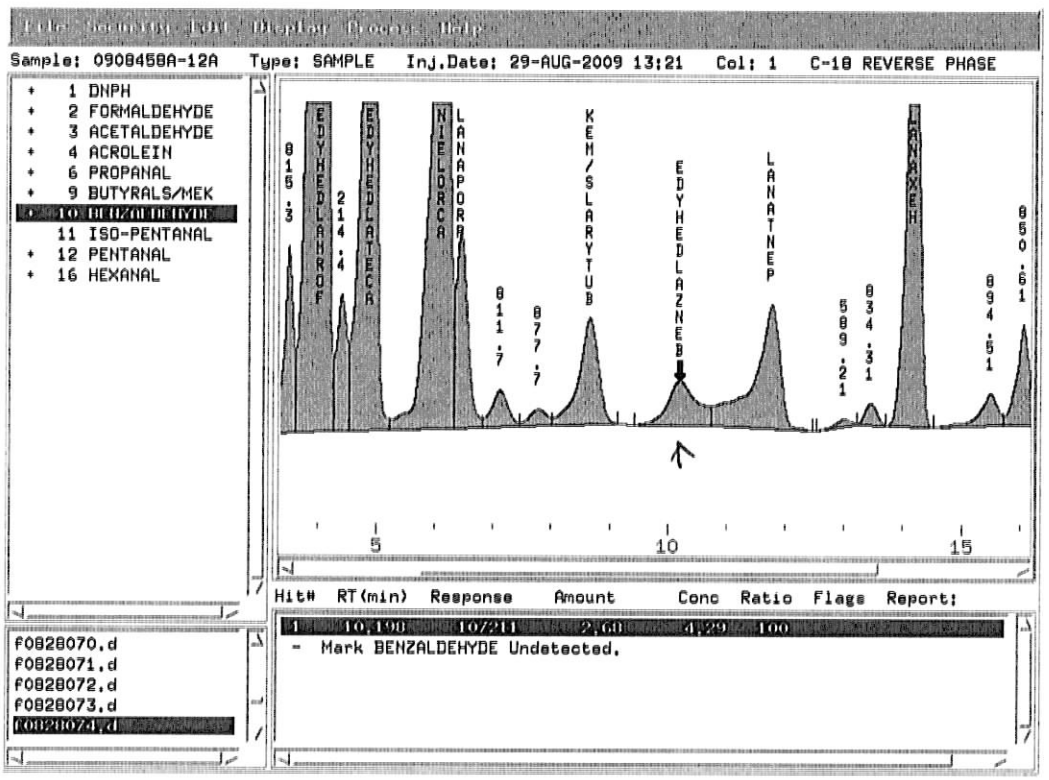
W 9/11/09

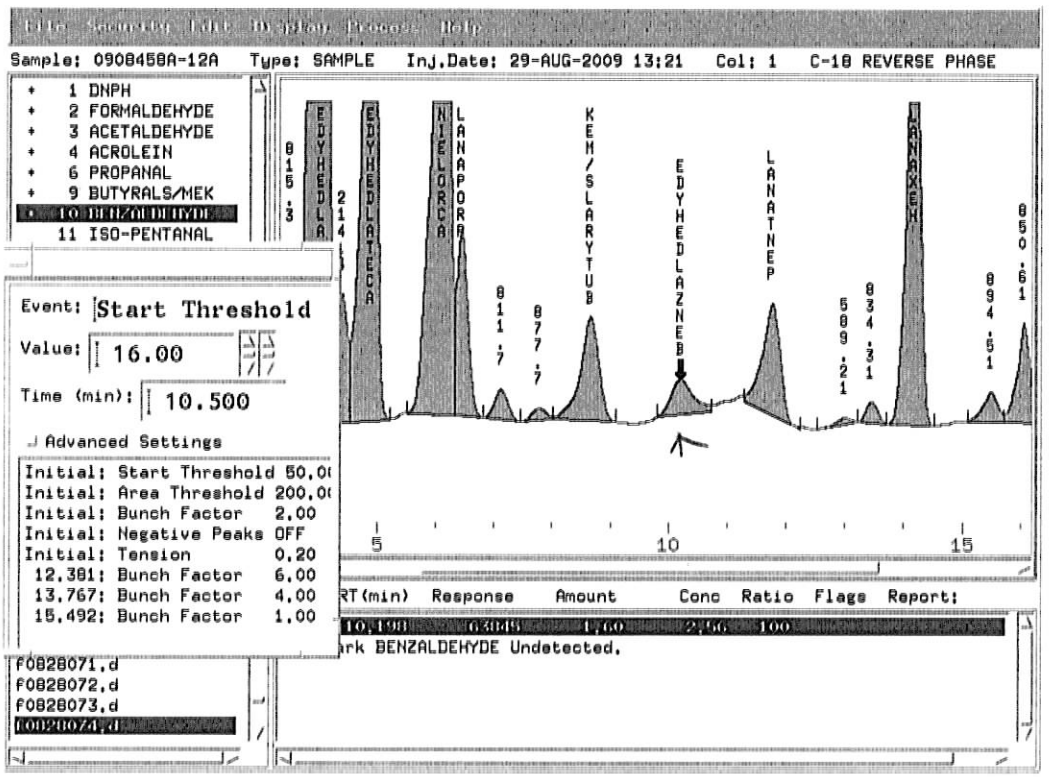
After

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

W 9/11/09



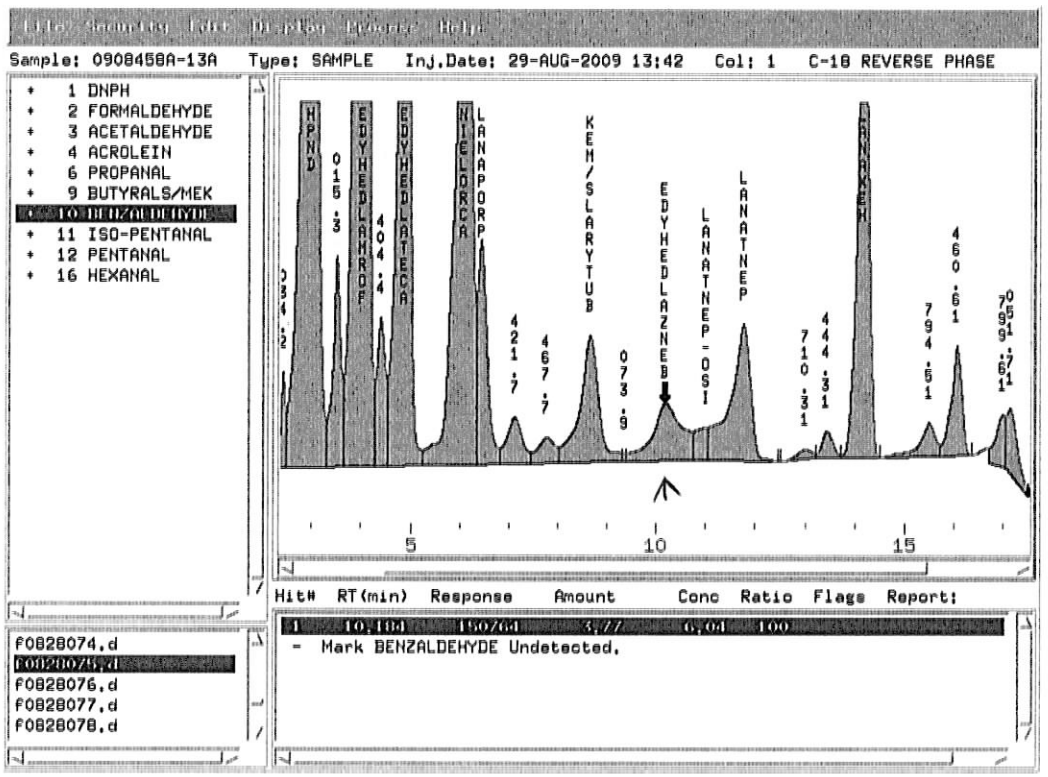

Sample: 0908458A-12A
Type: SAMPLE
Inj.Date: 29-AUG-2009 13:21
Col: 1
C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
+ 4 ACROLEIN
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
5
10
15
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 10.198 10711 2.68 4.29 100
- Mark BENZALDEHYDE Undetected.
f0828070.d
f0828071.d
f0828072.d
f0828073.d
f0828074.d



After

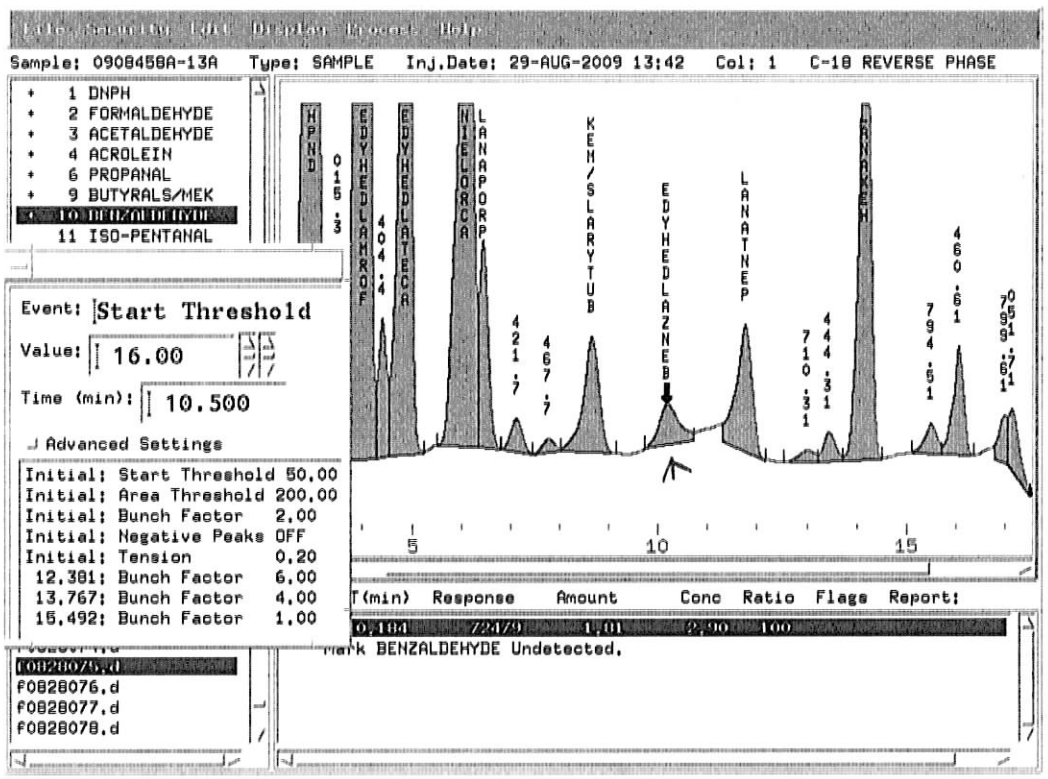
Correct Baseline	✓
Split Peak	✓
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

W911109


Sample: 0908458A-13A Type: SAMPLE Inj.Date: 29-AUG-2009 13:42 Col: 1 C-18 REVERSE PHASE
1 DNPH
2 FORMALDEHYDE
3 ACETALDEHYDE
4 ACROLEIN
6 PROPANAL
9 BUTYRALS/MEK
10 BENZALDEHYDE
11 ISO-PENTANAL
12 PENTANAL
16 HEXANAL
5
10
15
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 10.184 150764 3.77 6.04 100
- Mark BENZALDEHYDE Undetected.
F0828074.d
F0828075.d
F0828076.d
F0828077.d
F0828078.d

Before

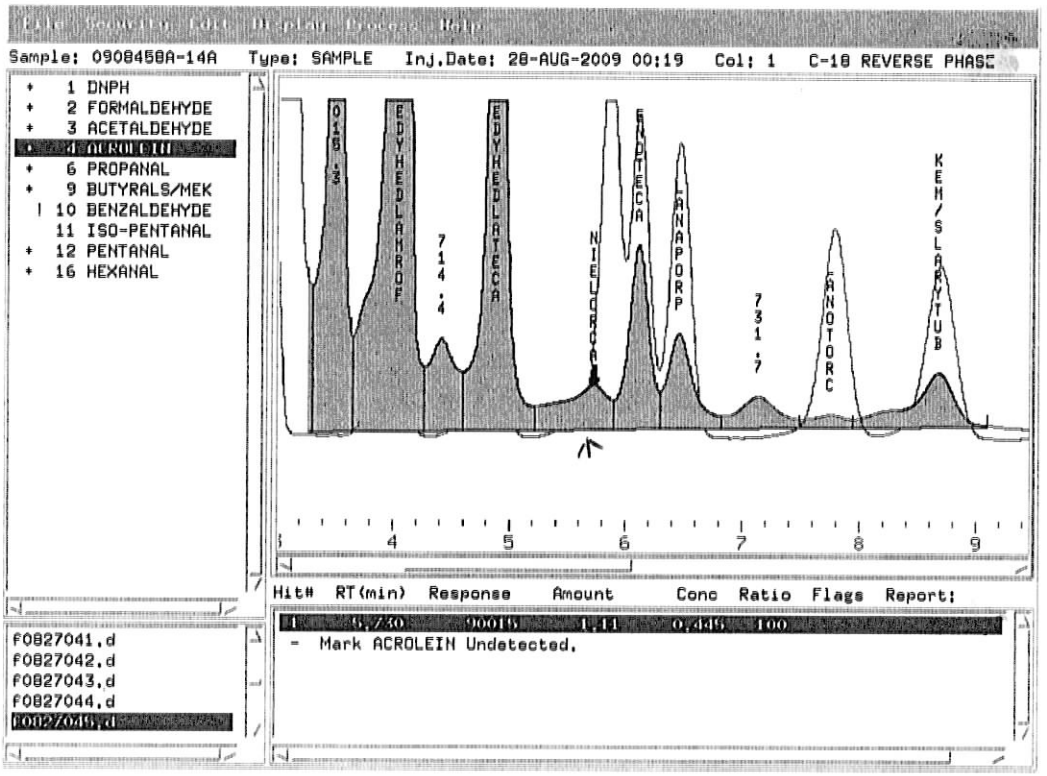
9/1/09



After

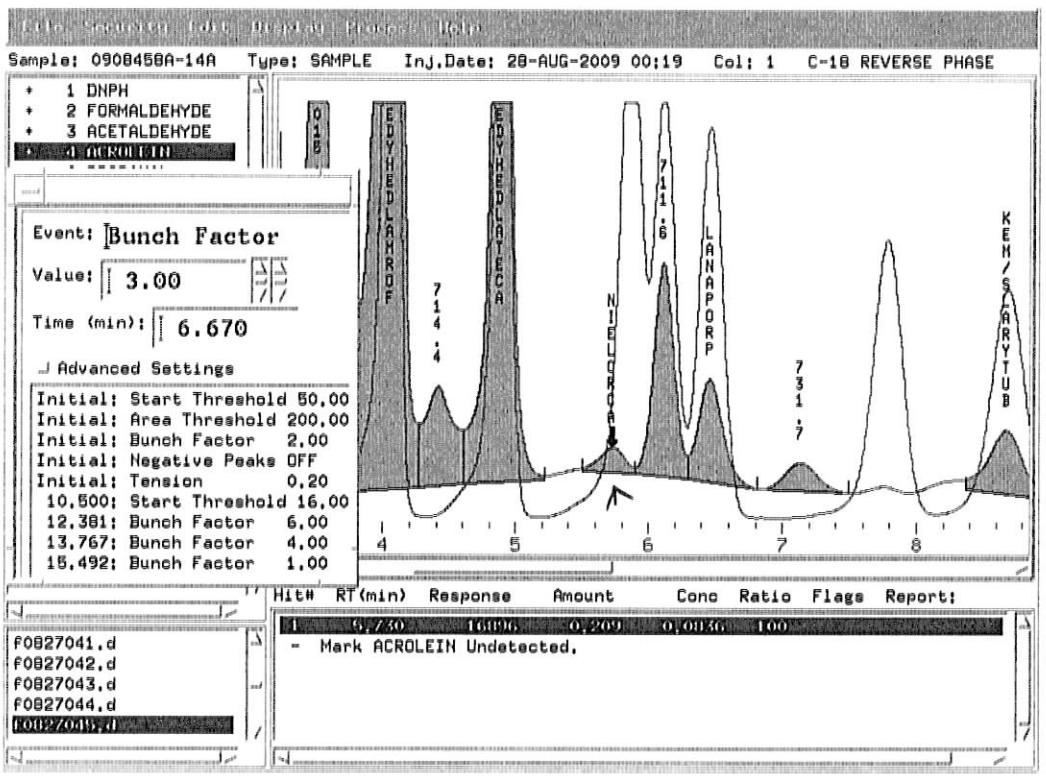
Correct Baseline	✓
Split Peak	
Merge Peak	✓
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

W 9/11/09



before.

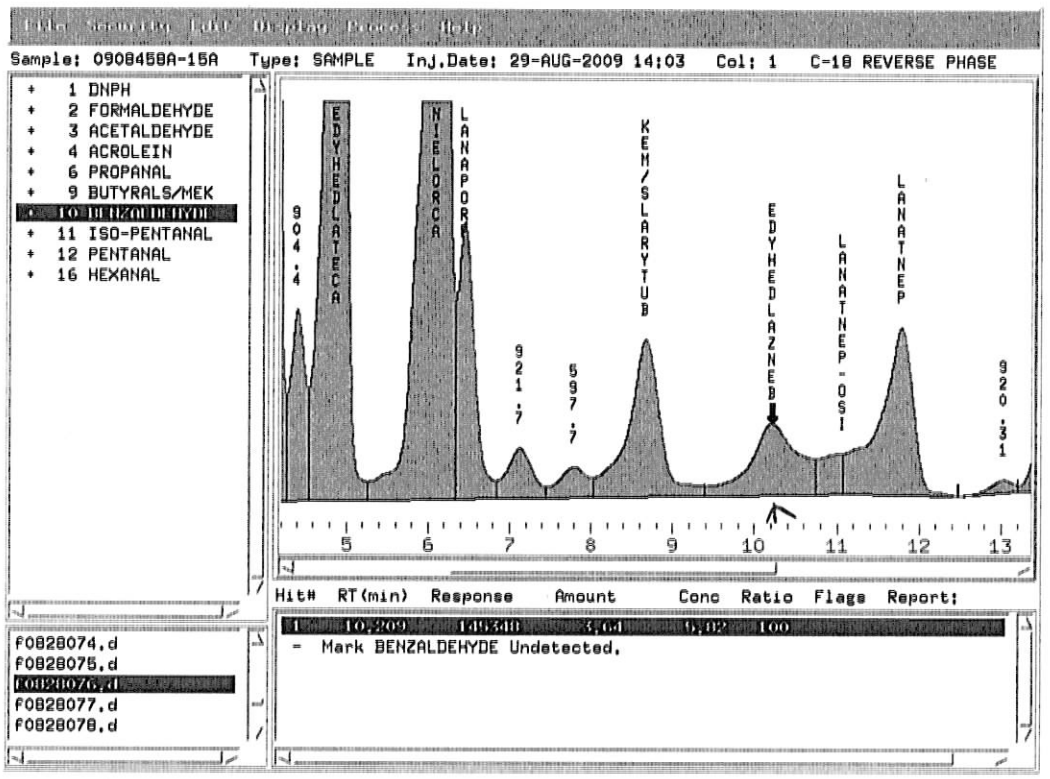
Excessive baseline



After

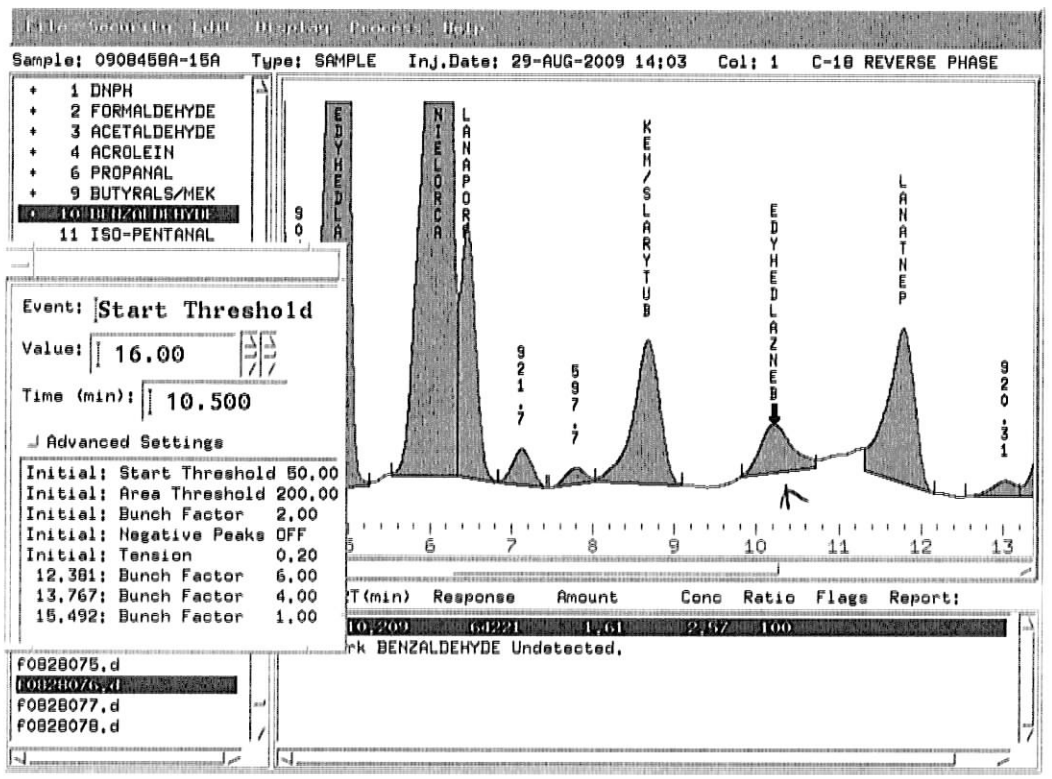
Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

W 9/11/09



Before.

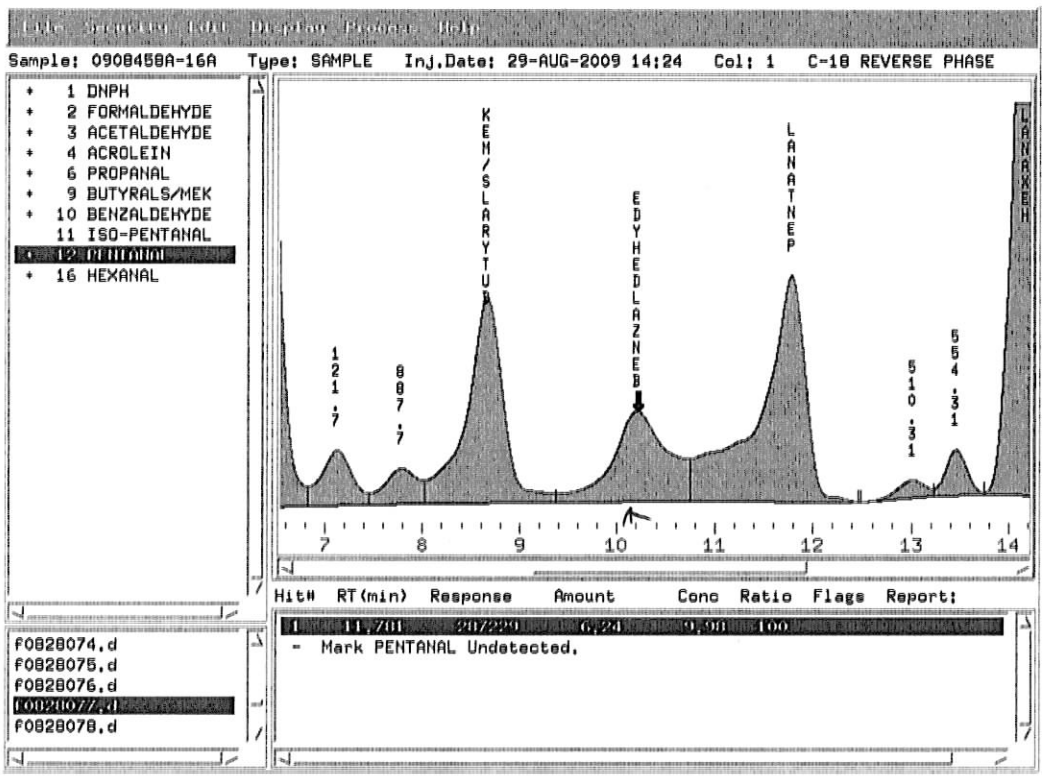
W-91110



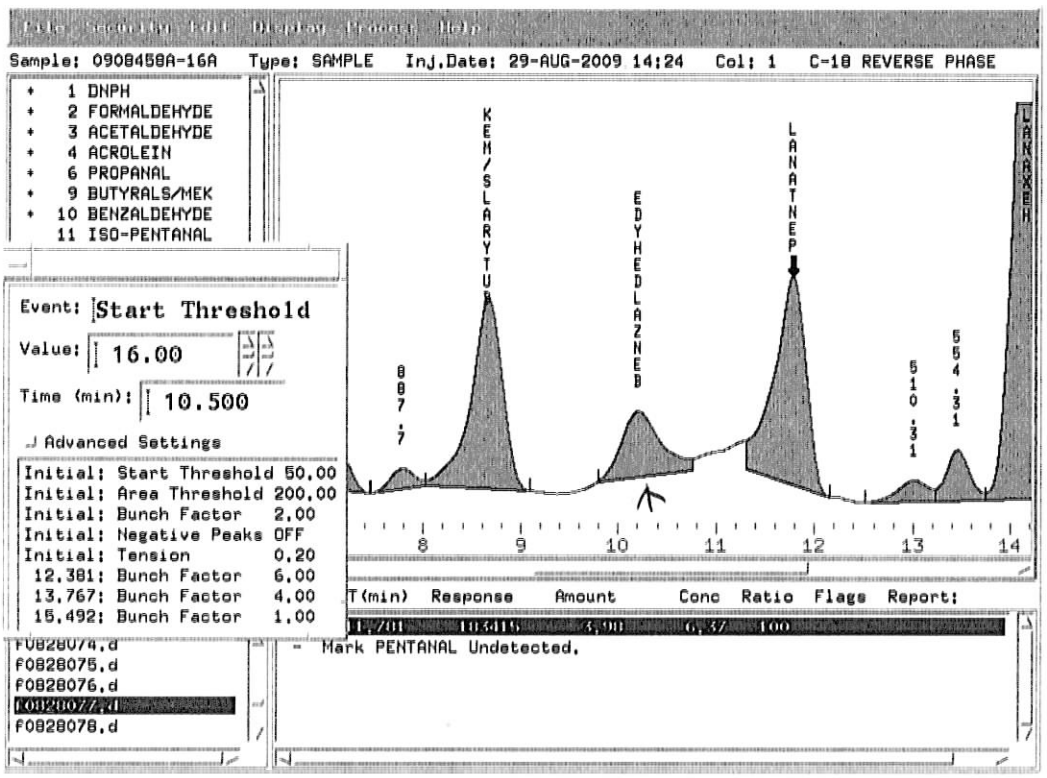
After

Correct Baseline	✓
Split Peak	
Merge Peak	M
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

W 9/11/09

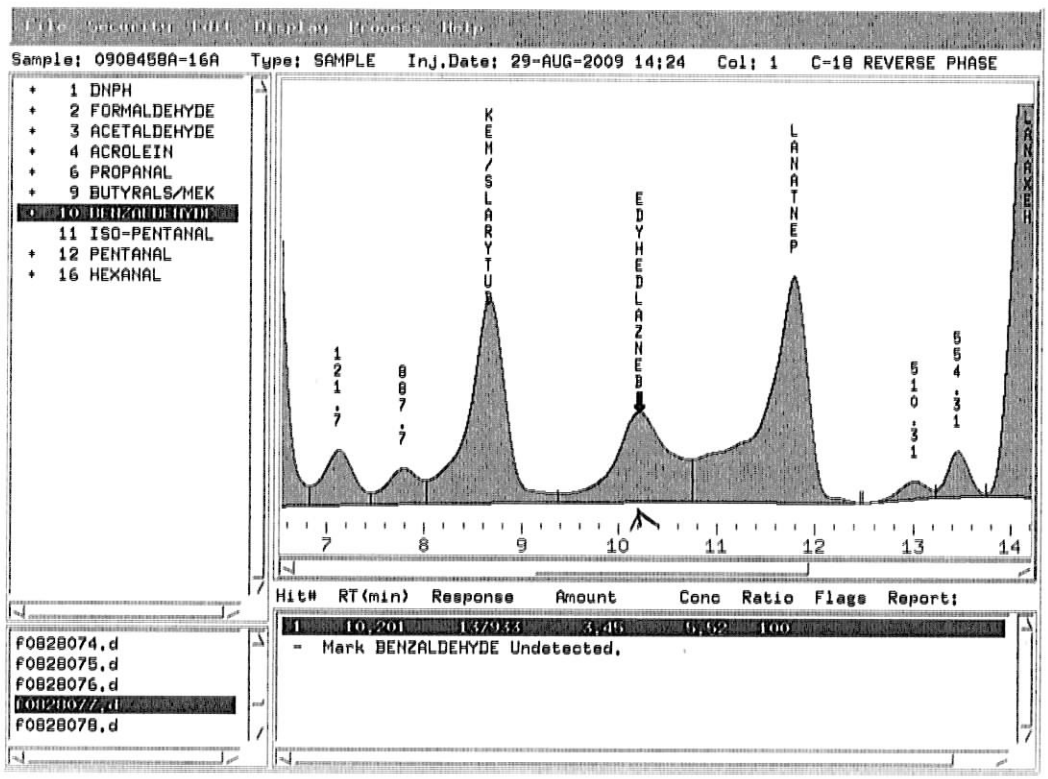


Before
W-9/11/09

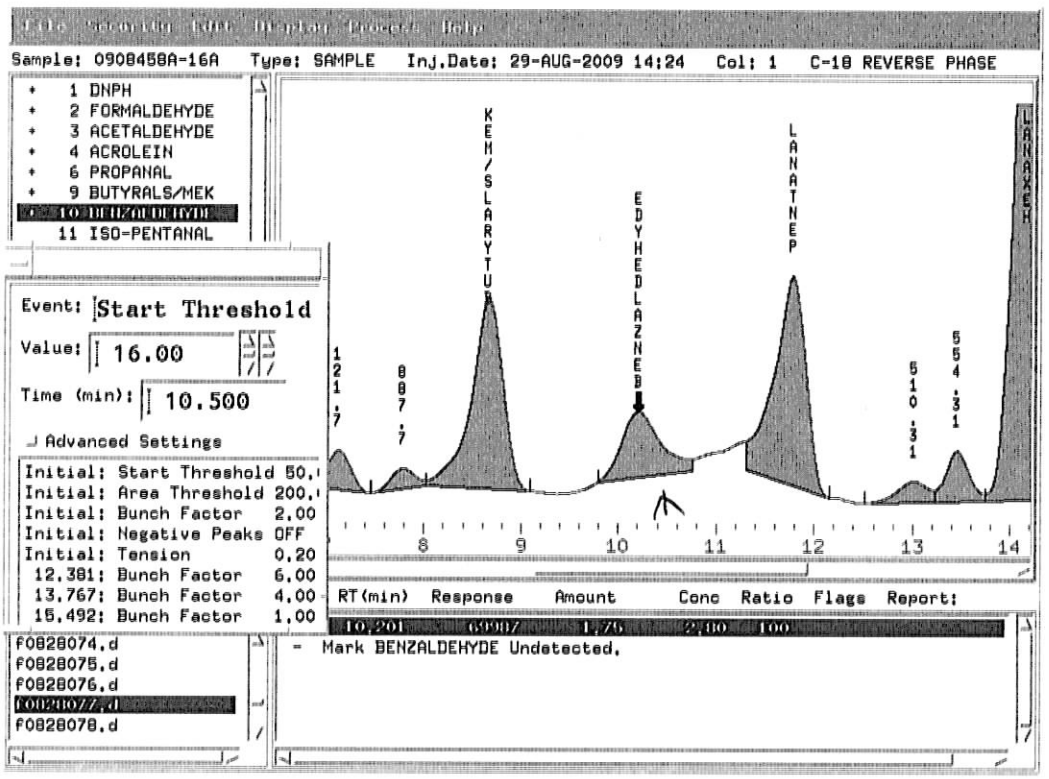


After

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	↓


Sample: 0908458A-16A Type: SAMPLE Inj.Date: 29-AUG-2009 14:24 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
+ 4 ACROLEIN
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
7
8
9
10
11
12
13
14
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 10.201 137933 3.45 0.62 100
- Mark BENZALDEHYDE Undetected.
F0828074.d
F0828075.d
F0828076.d
F0828077.d
F0828078.d

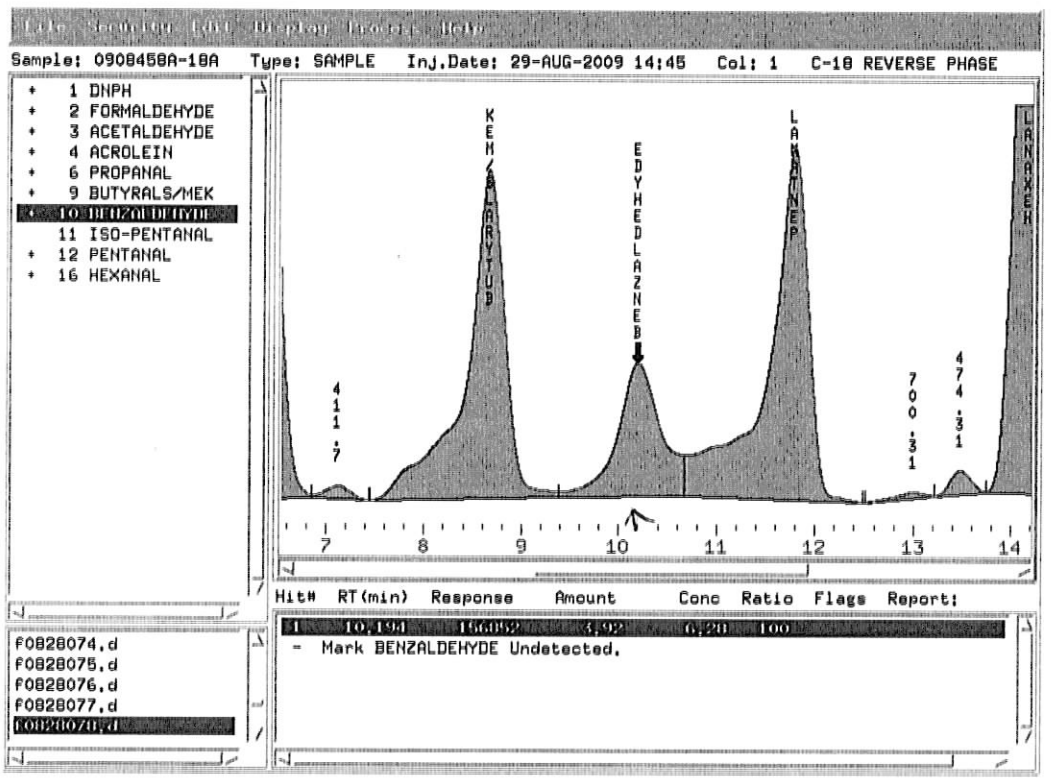
Before.



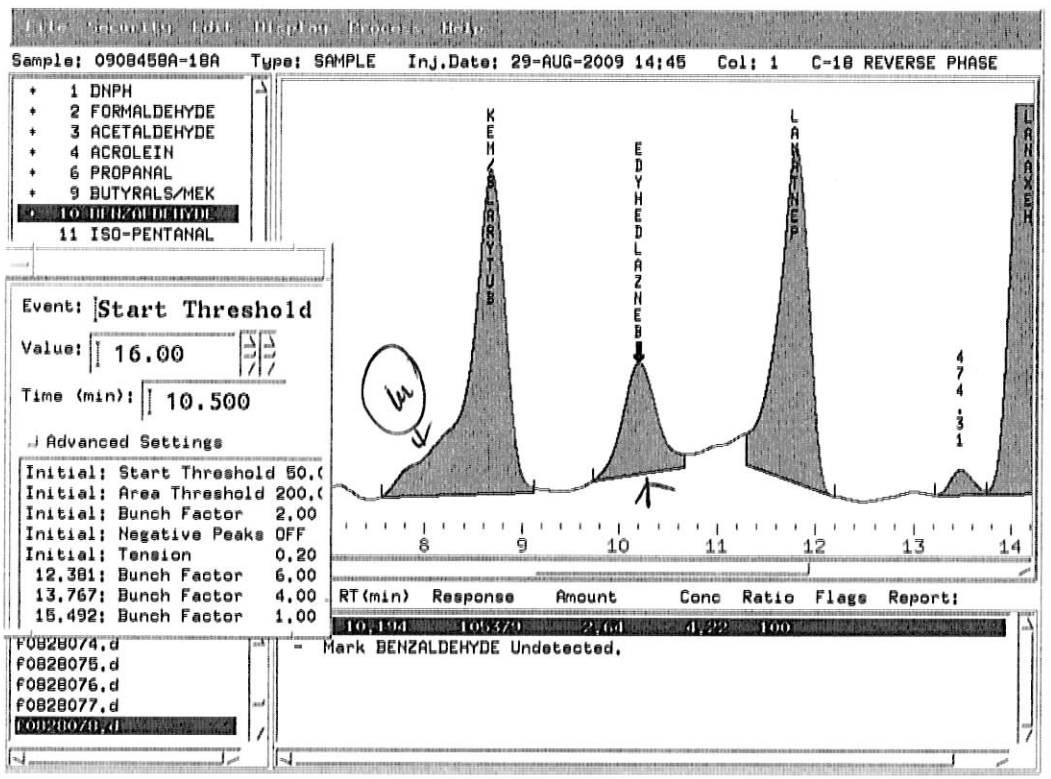
After

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

W9111-09



before
w 9/11/09

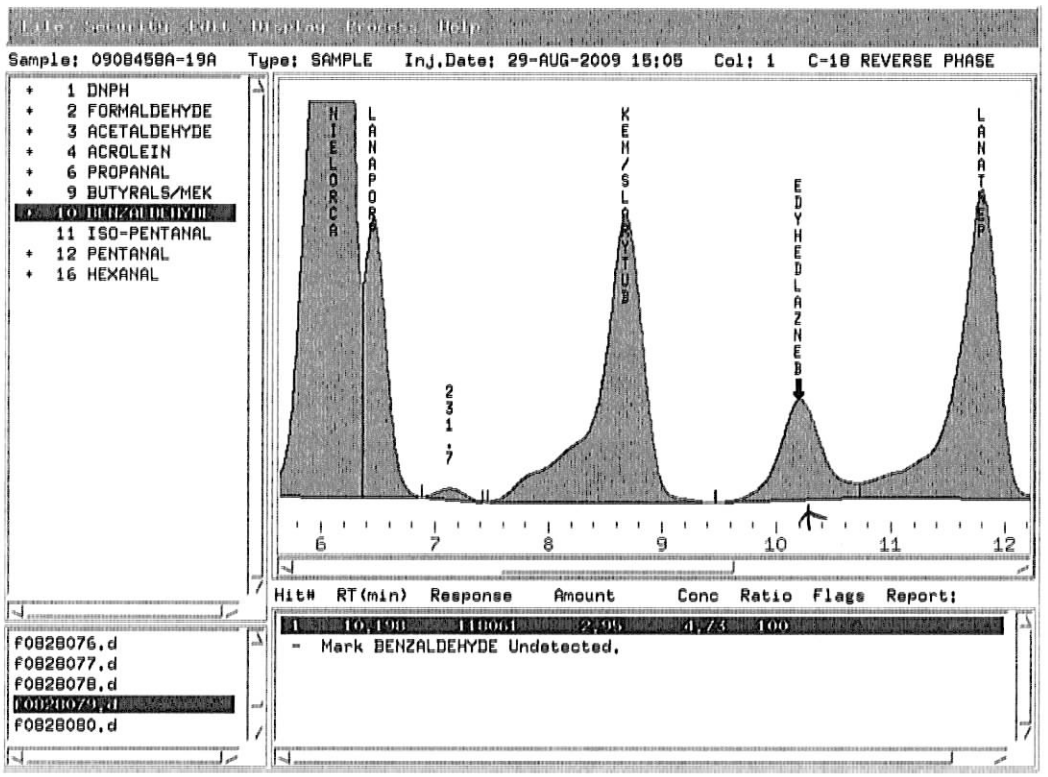


(M) = matrix

After

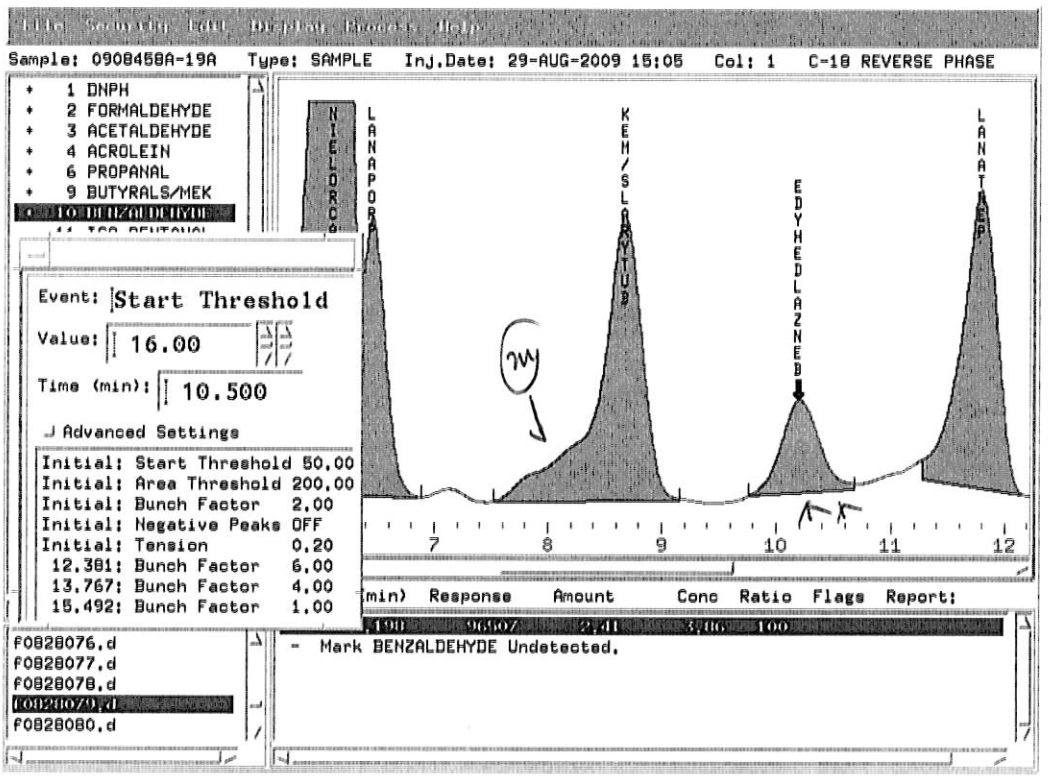
Correct Baseline	✓
Split Peak	M
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

W 9/11/09



before.

9/11/09

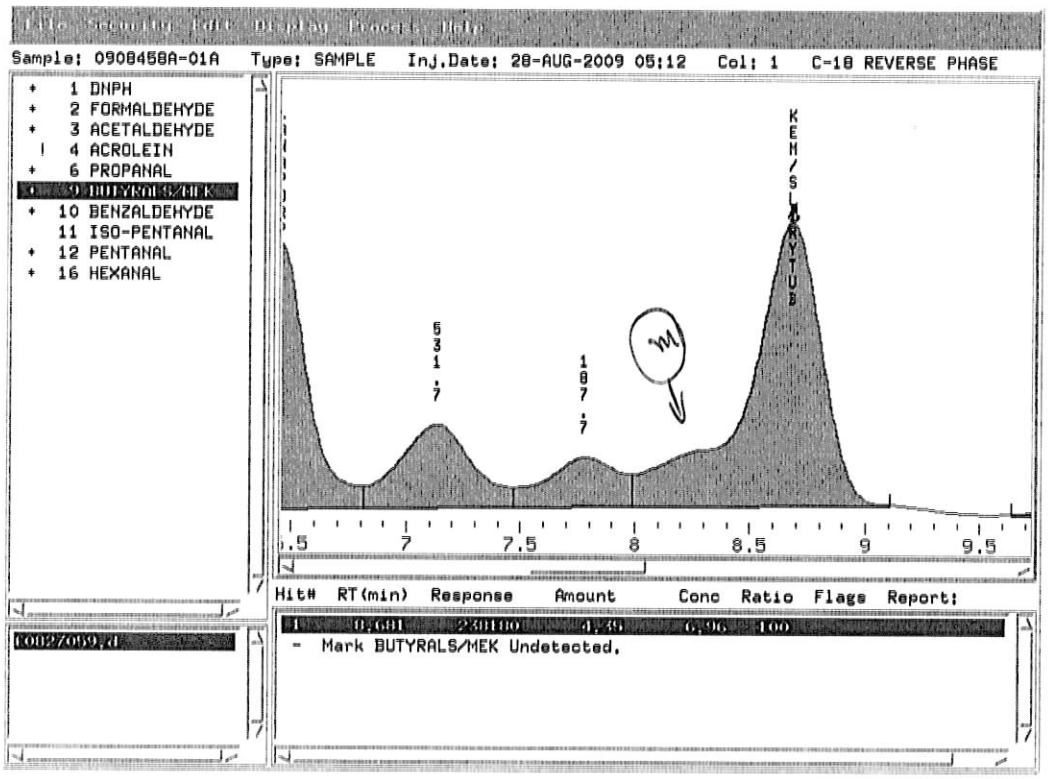


(m) = matrix

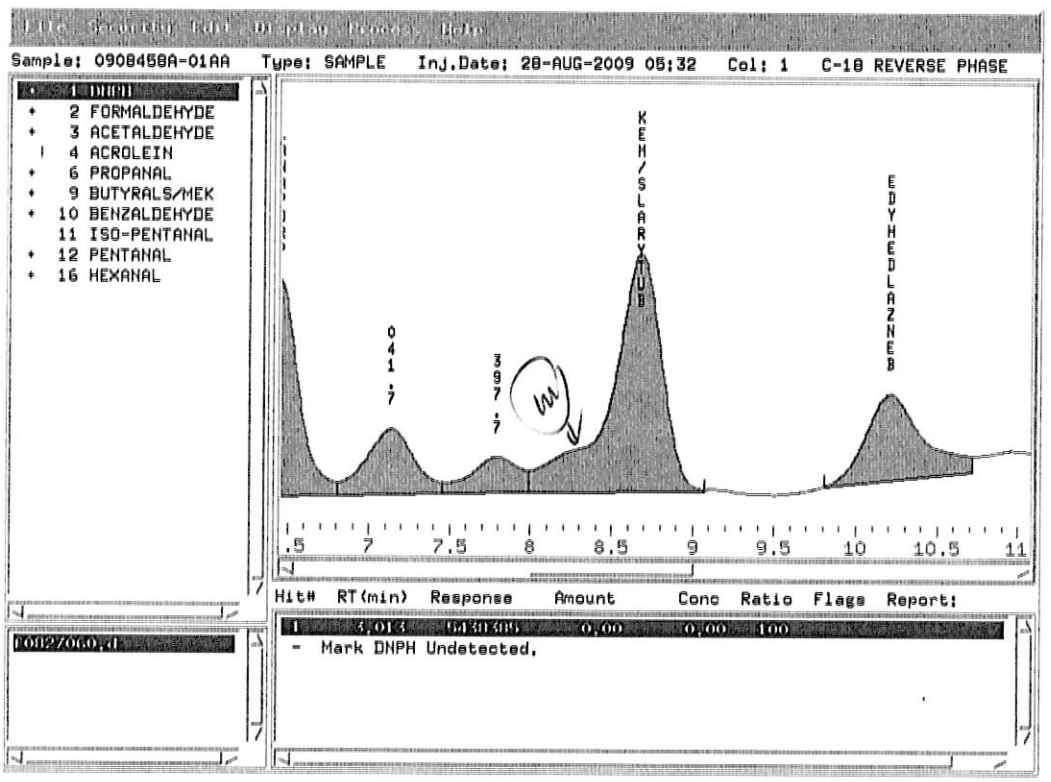
After

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

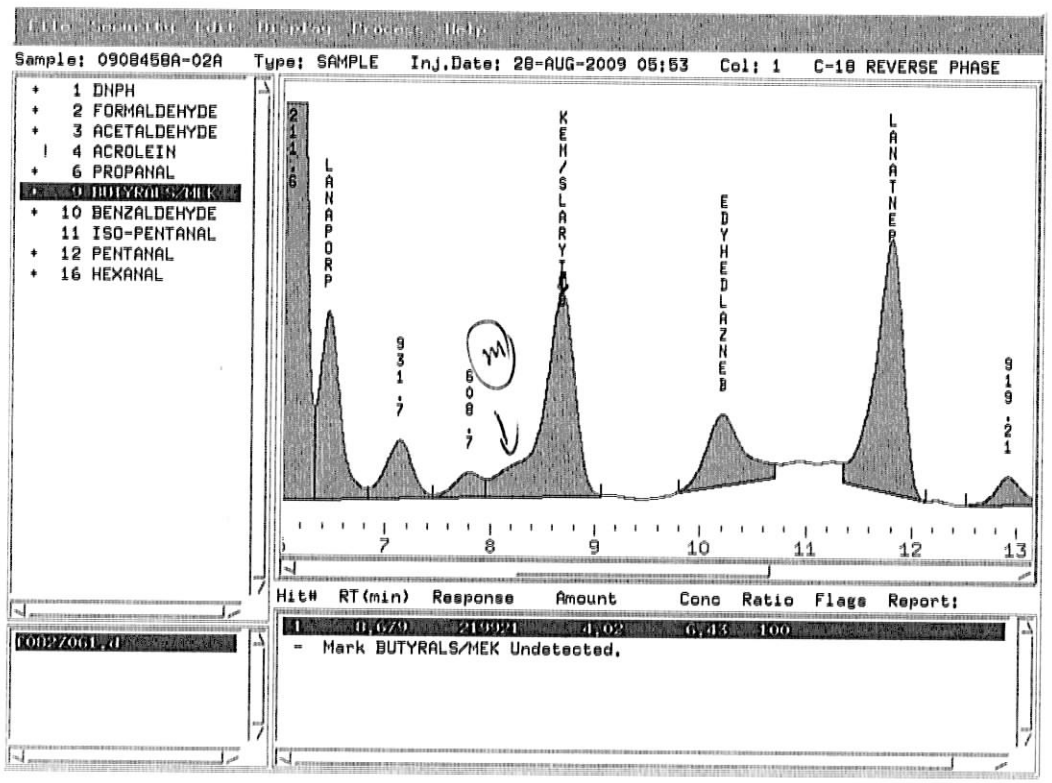
9/11/09



w 9/11/09 m = matrix.

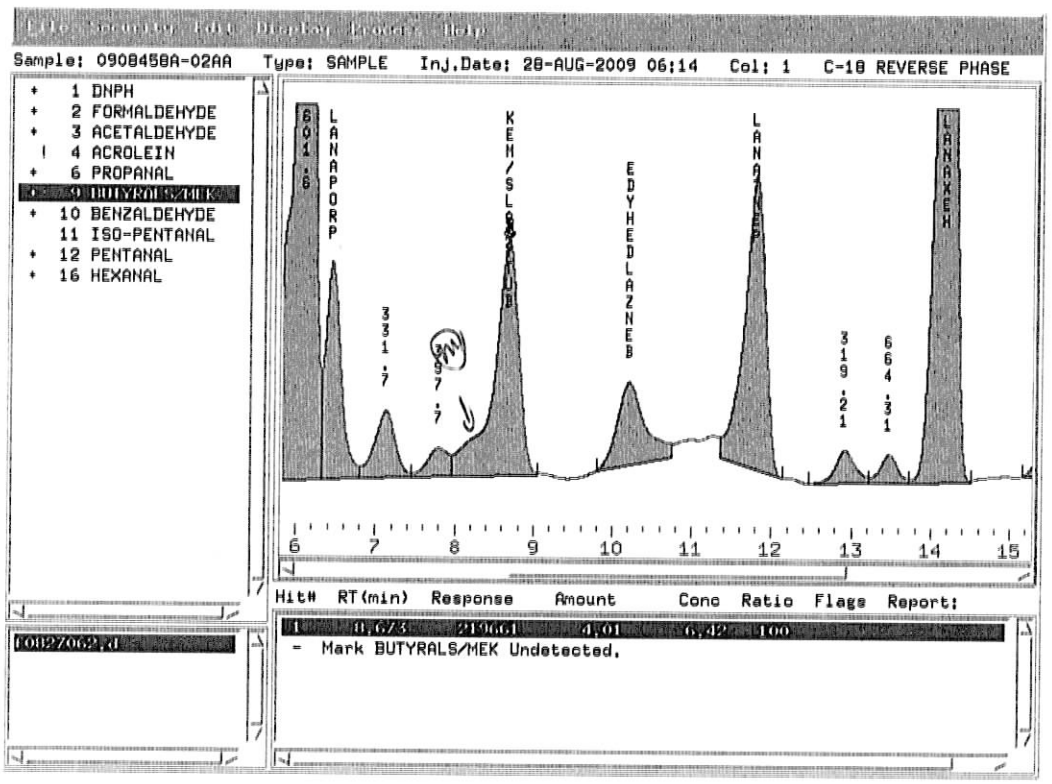


W 91109 M = Matrix.



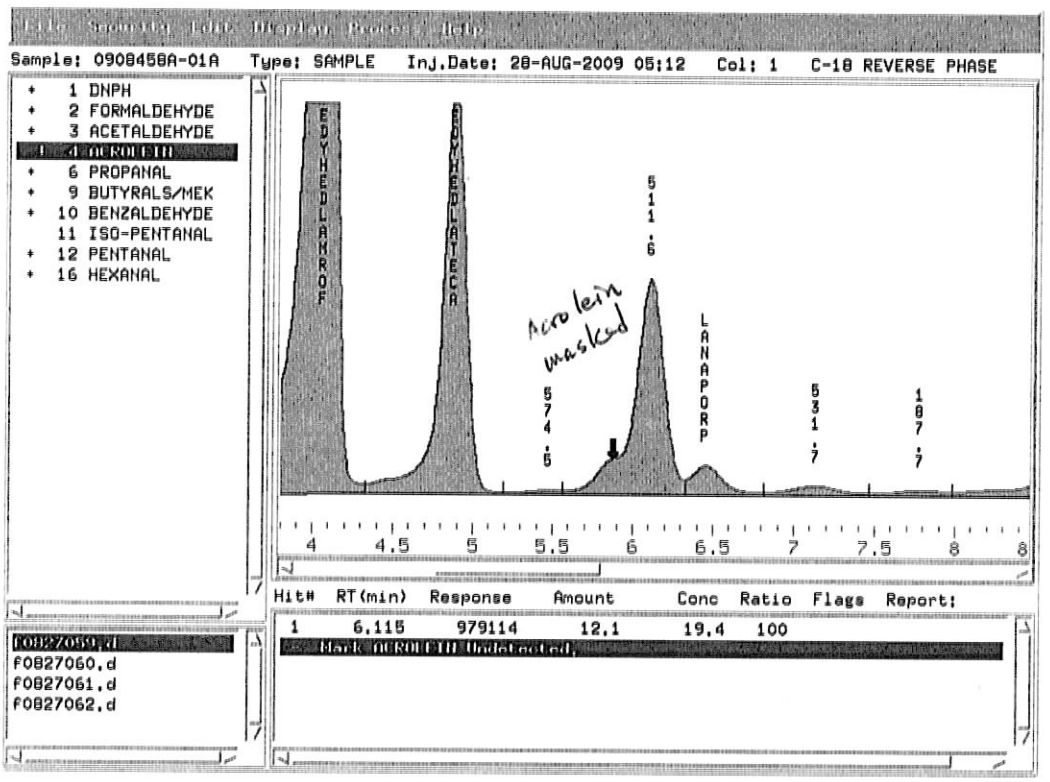
6/11/09

m = matrix.

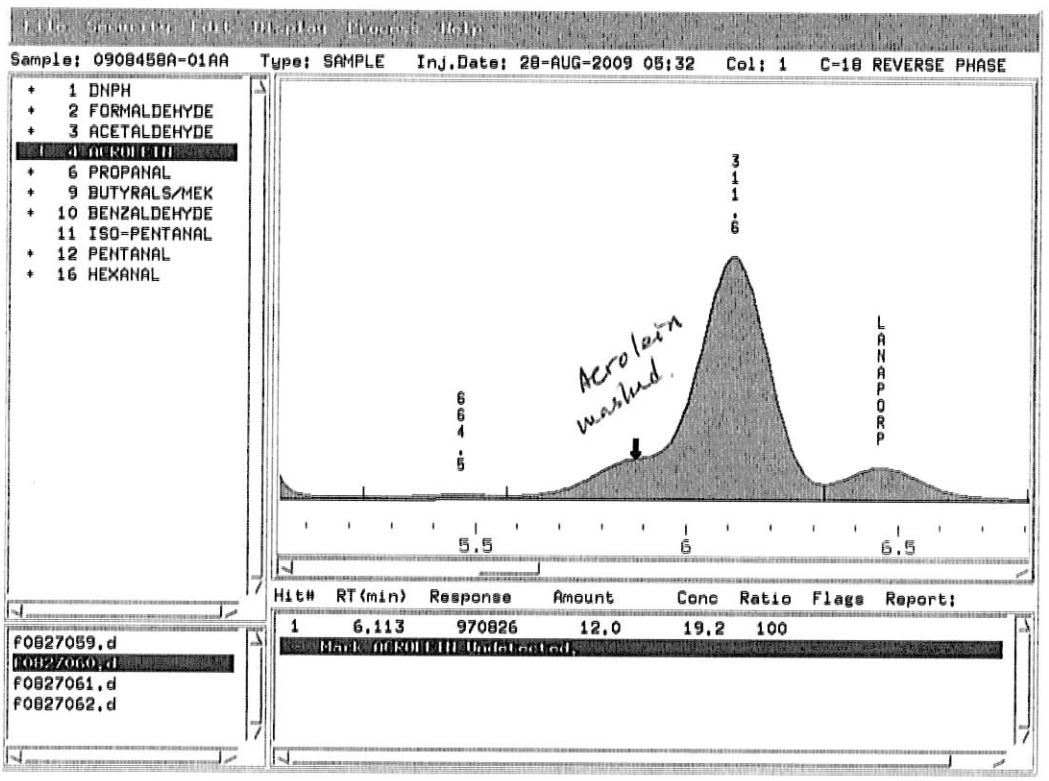


W 9/11/09

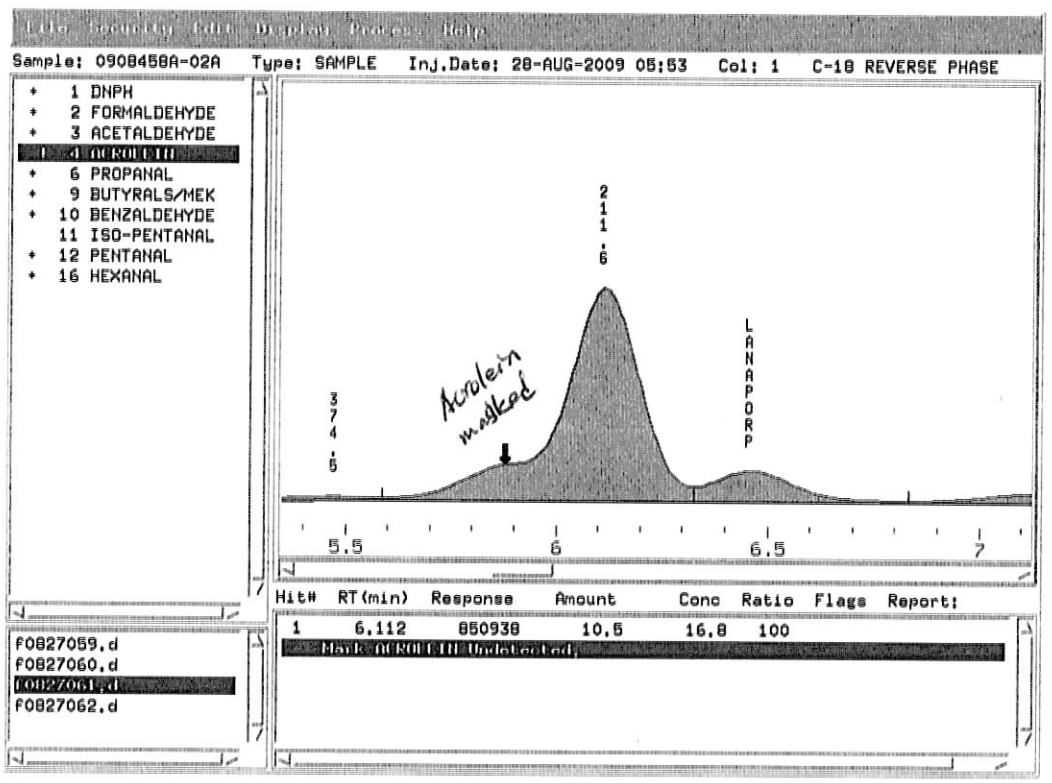
M = Matrix


Sample: 0908458A-01A Type: SAMPLE Inj.Date: 28-AUG-2009 05:12 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
+ 4 ACROLEIN
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
Acrolein masked
4 4.5 5 5.5 6 6.5 7 7.5 8
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.115 979114 12.1 19.4 100
Mark ACROLEIN Undetected.
F0827059.d
F0827060.d
F0827061.d
F0827062.d

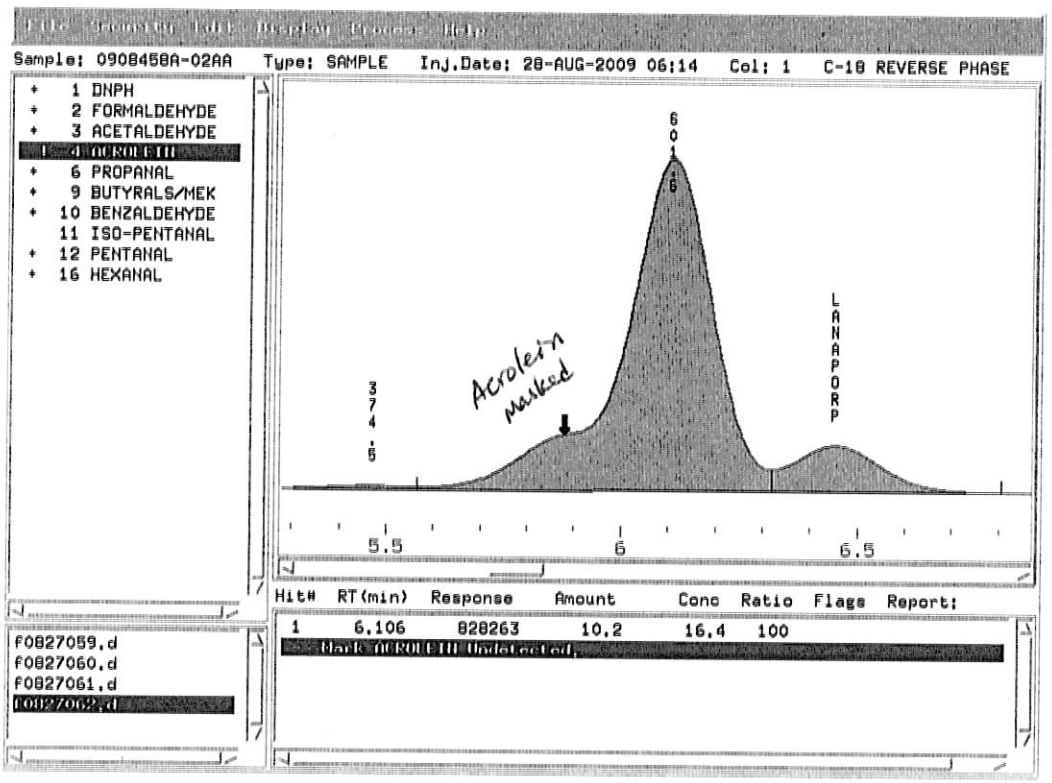
9/11/09


Sample: 0908458A-01AA Type: SAMPLE Inj.Date: 28-AUG-2009 05:32 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
3 1 1 . 6
6 6 4 . 5
Acrolein washed
LANAPORP
5.5
6
6.5
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.113 970826 12.0 19.2 100
Mark ACROLEIN Undetected.
F0827059.d
F0827060.d
F0827061.d
F0827062.d

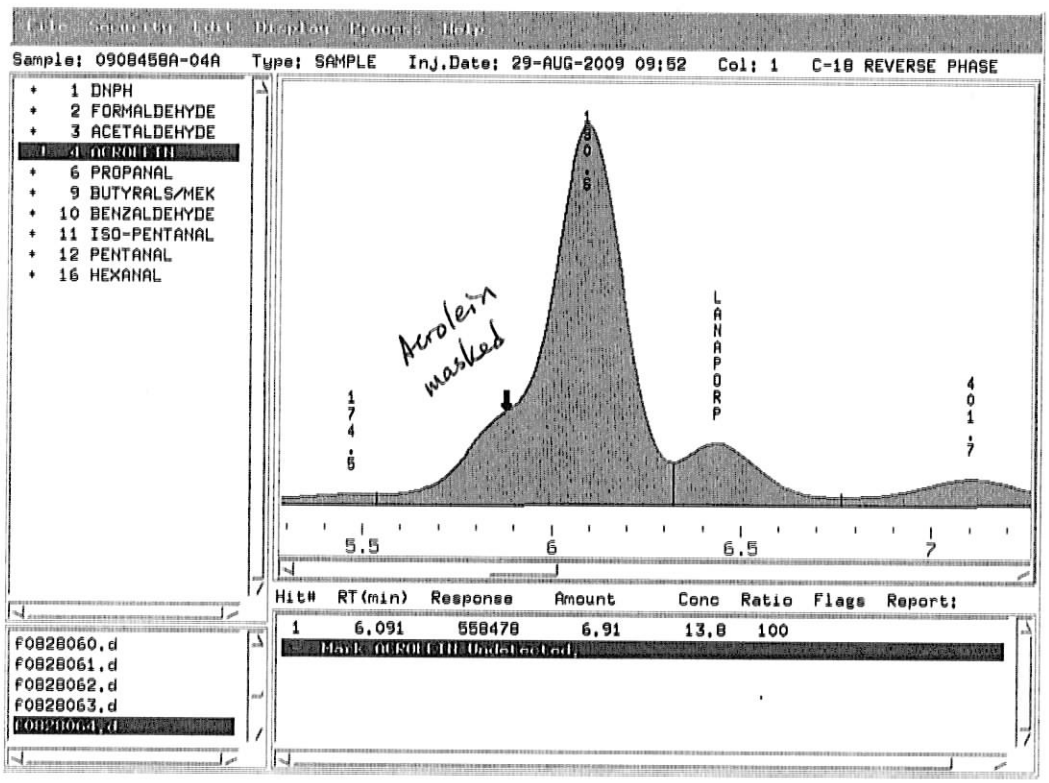
W 9/11/09


File Security Edit Display Process Help
Sample: 0908458A-02A Type: SAMPLE Inj.Date: 28-AUG-2009 05:53 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
4 ACROLEIN
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
2116
3745
LANAPORP
Acrolein masked
5.5
6
6.5
7
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.112 850938 10.5 16.8 100
Mark ACROLEIN Undetected
F0827059.d
F0827060.d
F0827061.d
F0827062.d

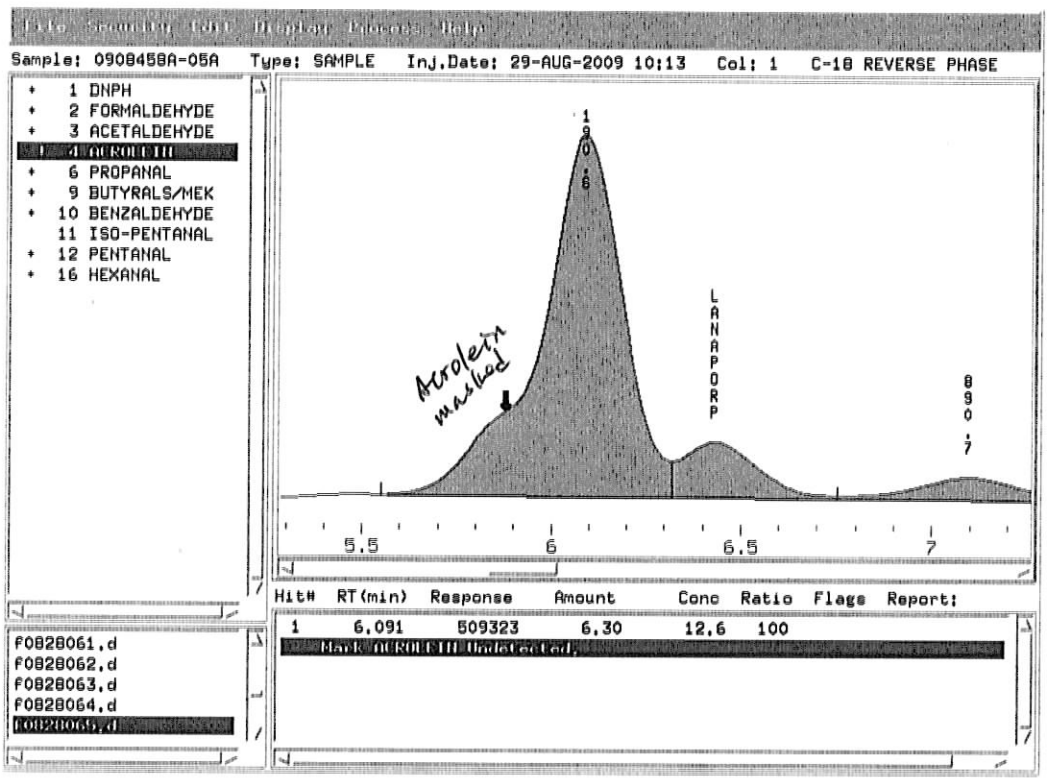
Li 9/1/09


Sample: 0908458A-02AA
Type: SAMPLE
Inj.Date: 28-AUG-2009 06:14
Col: 1
C-18 REVERSE PHASE
1 DNPH
2 FORMALDEHYDE
3 ACETALDEHYDE
4 ACROLEIN
6 PROPANAL
9 BUTYRALS/MEK
10 BENZALDEHYDE
11 ISO-PENTANAL
12 PENTANAL
16 HEXANAL
Acrolein masked
LANAPORP
5.5
6
6.5
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.106 828263 10.2 16.4 100
Mark ACROLEIN Undetected
F0827059.d
F0827060.d
F0827061.d
F0827062.d

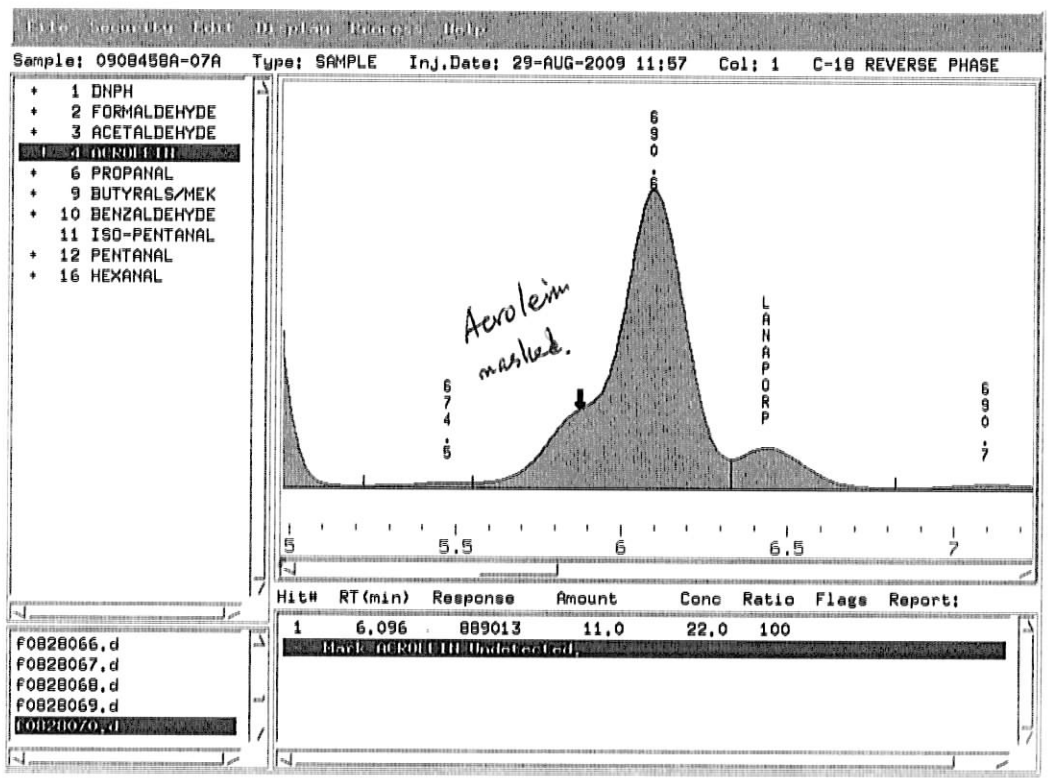
Waiting


Sample: 0908458A-04A Type: SAMPLE Inj.Date: 29-AUG-2009 09:52 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
+ 11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
Acrolein masked
LANAPORP
5.5
6
6.5
7
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.091 558478 6.91 13.8 100
Mark ACROLEIN Undetected
F0828060.d
F0828061.d
F0828062.d
F0828063.d
F0828064.d

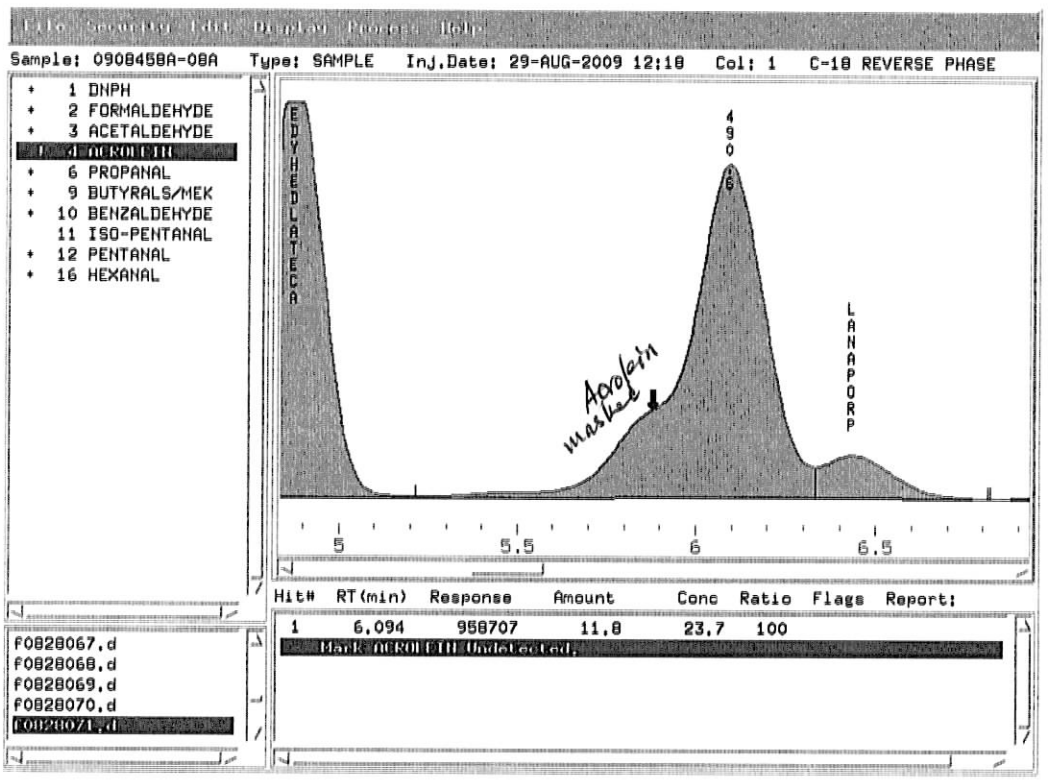
6-9-11-09


Sample: 0908458A-05A Type: SAMPLE Inj.Date: 29-AUG-2009 10:13 Col: 1 C-18 REVERSE PHASE
1 DNPH
2 FORMALDEHYDE
3 ACETALDEHYDE
4 ACROLEIN
6 PROPANAL
9 BUTYRALS/MEK
10 BENZALDEHYDE
11 ISO-PENTANAL
12 PENTANAL
16 HEXANAL
Acrolein masked
LANAPORP
5.5
6
6.5
7
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.091 509323 6.30 12.6 100
F0828061.d
F0828062.d
F0828063.d
F0828064.d

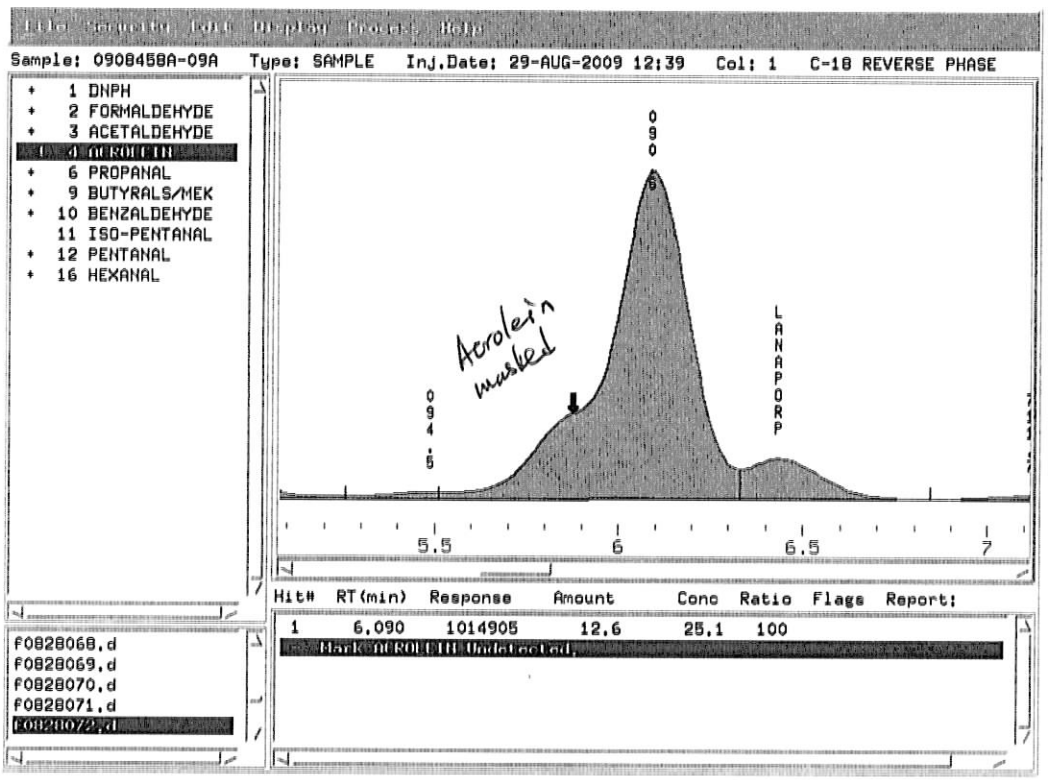
W91109


Sample: 0908458A-07A Type: SAMPLE Inj.Date: 29-AUG-2009 11:57 Col: 1 C-18 REVERSE PHASE
1 DNPH
2 FORMALDEHYDE
3 ACETALDEHYDE
4 ACROLEIN
6 PROPANAL
9 BUTYRALS/MEK
10 BENZALDEHYDE
11 ISO-PENTANAL
12 PENTANAL
16 HEXANAL
Acrolein masked.
LANAPORP
5
5.5
6
6.5
7
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.096 889013 11.0 22.0 100
Mark ACROLEIN Undetected.
F0828066.d
F0828067.d
F0828068.d
F0828069.d
F0828070.d

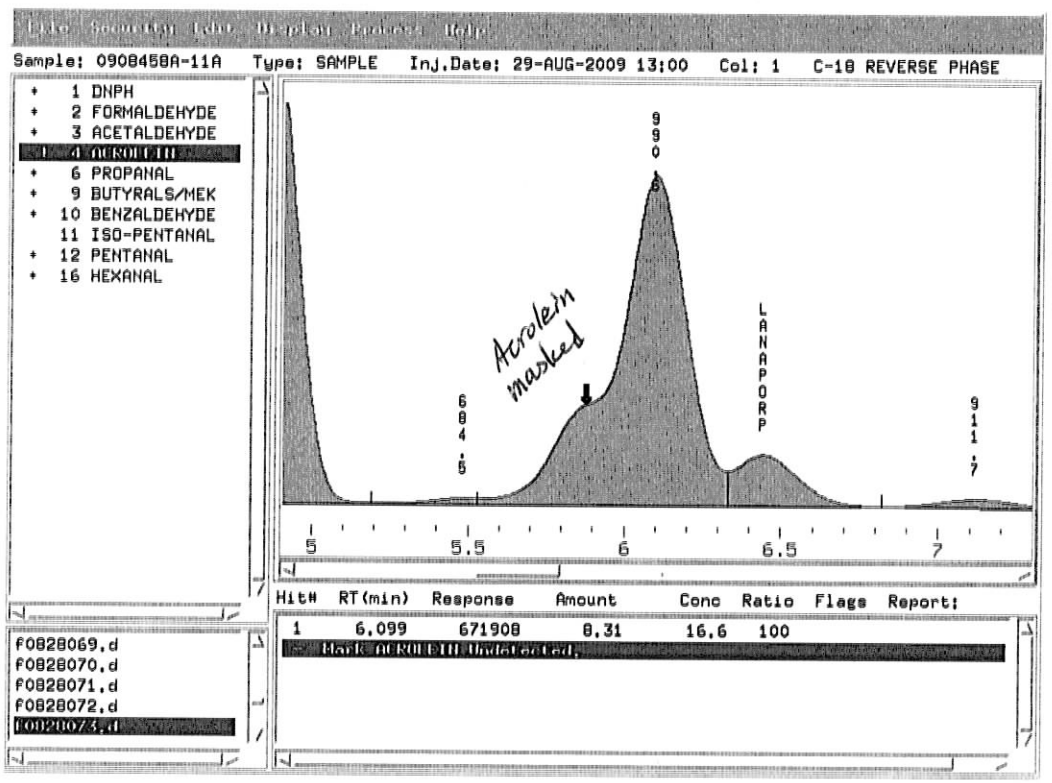
L: 9/11/09


File Security Edit Display Process Help
Sample: 0908458A-08A Type: SAMPLE Inj.Date: 29-AUG-2009 12:18 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
EDYHEDLATECA
490
6
LANAPORP
Acrolein
5
5.5
6
6.5
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.094 958707 11.8 23.7 100
Mark ACROLEIN Undetected.
F0828067.d
F0828068.d
F0828069.d
F0828070.d
F0828071.d

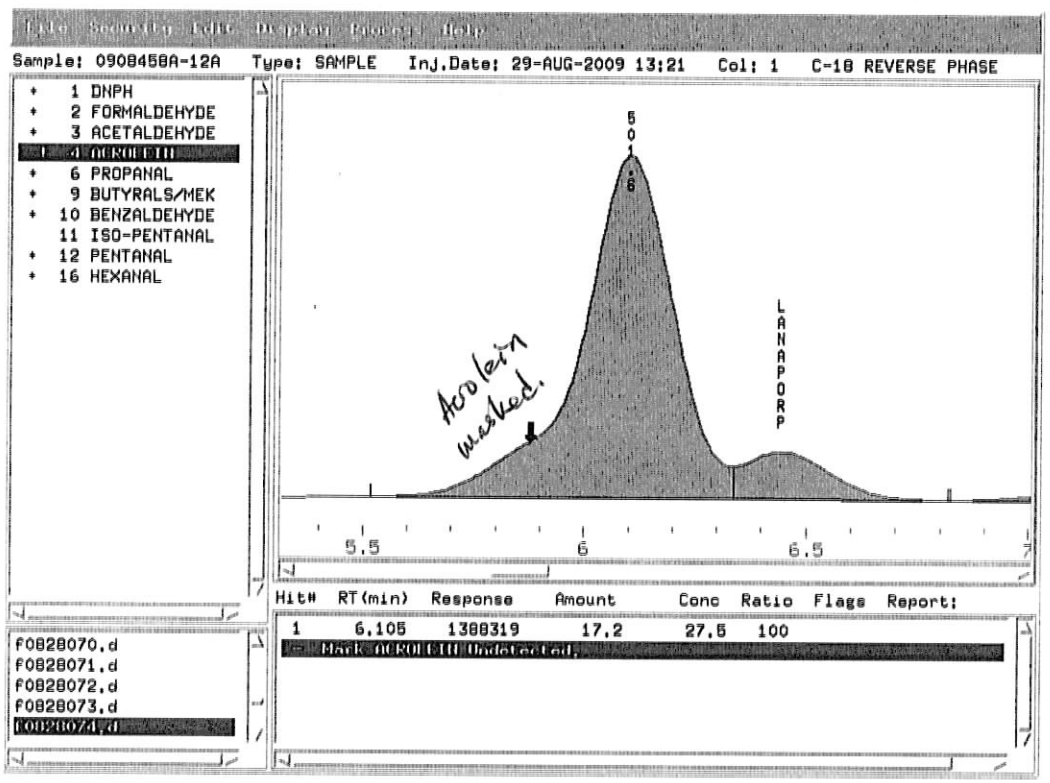
W911109


Sample: 0908458A-09A Type: SAMPLE Inj.Date: 29-AUG-2009 12:39 Col: 1 C-18 REVERSE PHASE
1 DNPH
2 FORMALDEHYDE
3 ACETALDEHYDE
4 ACROLEIN
6 PROPANAL
9 BUTYRALS/MEK
10 BENZALDEHYDE
11 ISO-PENTANAL
12 PENTANAL
16 HEXANAL
Acrolein masked
LANAPORP
5.5
6
6.5
7
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.090 1014905 12.6 25.1 100
Mark ACROLEIN Undetected
F0828068.d
F0828069.d
F0828070.d
F0828071.d
F0828072.d

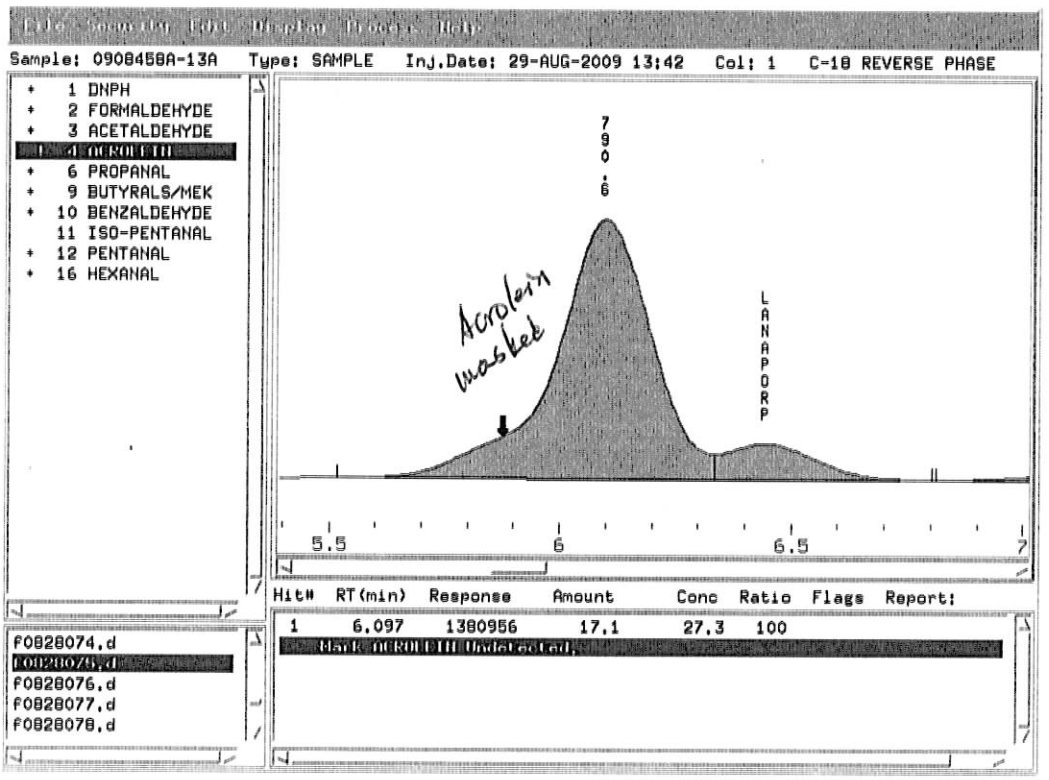
V 911109


Sample: 0908458A-11A Type: SAMPLE Inj.Date: 29-AUG-2009 13:00 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
Acrolein masked
LANAPORP
5
5.5
6
6.5
7
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.099 671908 8.31 16.6 100
f0828069.d
f0828070.d
f0828071.d
f0828072.d

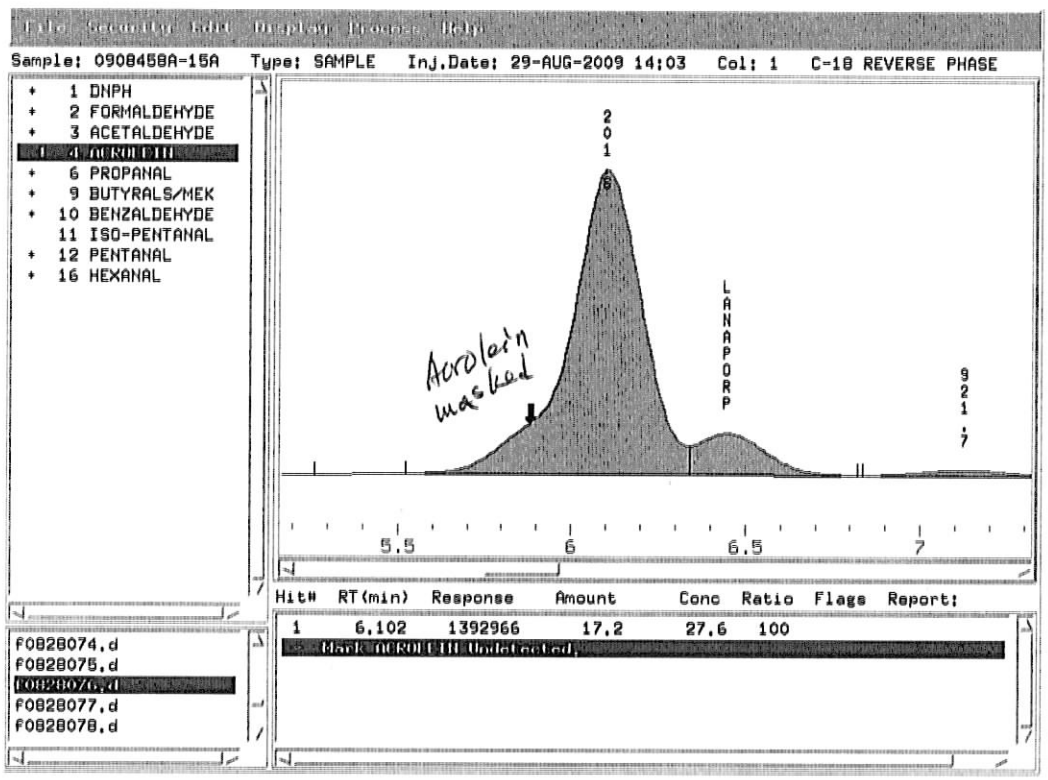
6/9/11/09


Sample: 0908458A-12A Type: SAMPLE Inj.Date: 29-AUG-2009 13:21 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
Acrolein masked.
LANAPORP
5.5
6
6.5
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.105 1388319 17.2 27.5 100
F0828070.d
F0828071.d
F0828072.d
F0828073.d

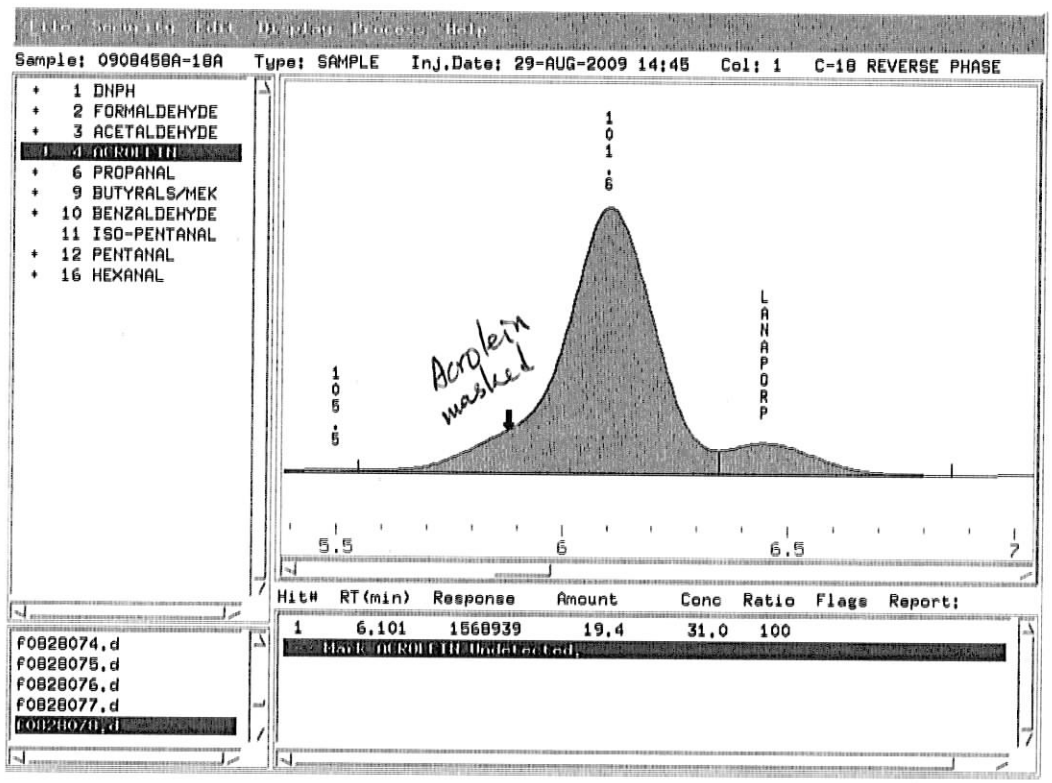
W 9/11/09


Sample: 0908458A-13A Type: SAMPLE Inj.Date: 29-AUG-2009 13:42 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
4 ACROLEIN
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
790:6
LANAPORP
Acrolein masked
5.5
6
6.5
7
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.097 1380956 17.1 27.3 100
Mark ACROLEIN Undetected
F0828074.d
F0828075.d
F0828076.d
F0828077.d
F0828078.d

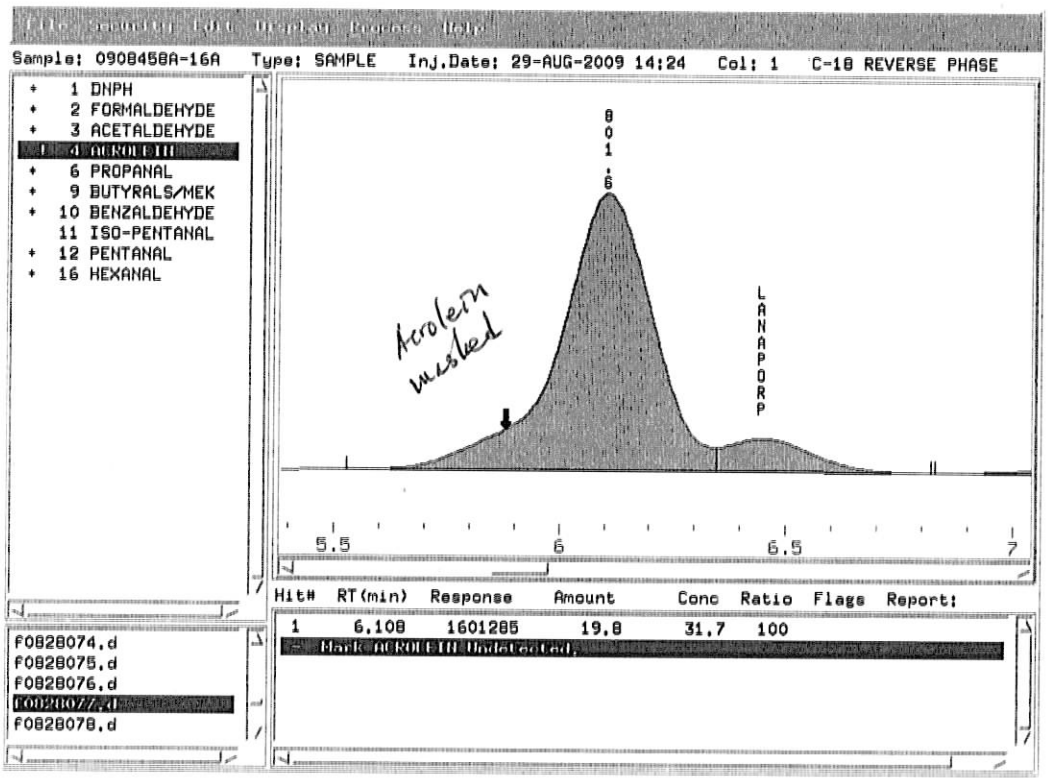
W 9/11/09


File Security Edit Display Process Help
Sample: 0908458A-15A Type: SAMPLE Inj.Date: 29-AUG-2009 14:03 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
4 ACROLEIN
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
2016
LANAPORP
9217
Acrolein masked
5.5
6
6.5
7
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.102 1392966 17.2 27.6 100
Mark ACROLEIN Undetected
F0828074.d
F0828075.d
F0828076.d
F0828077.d
F0828078.d

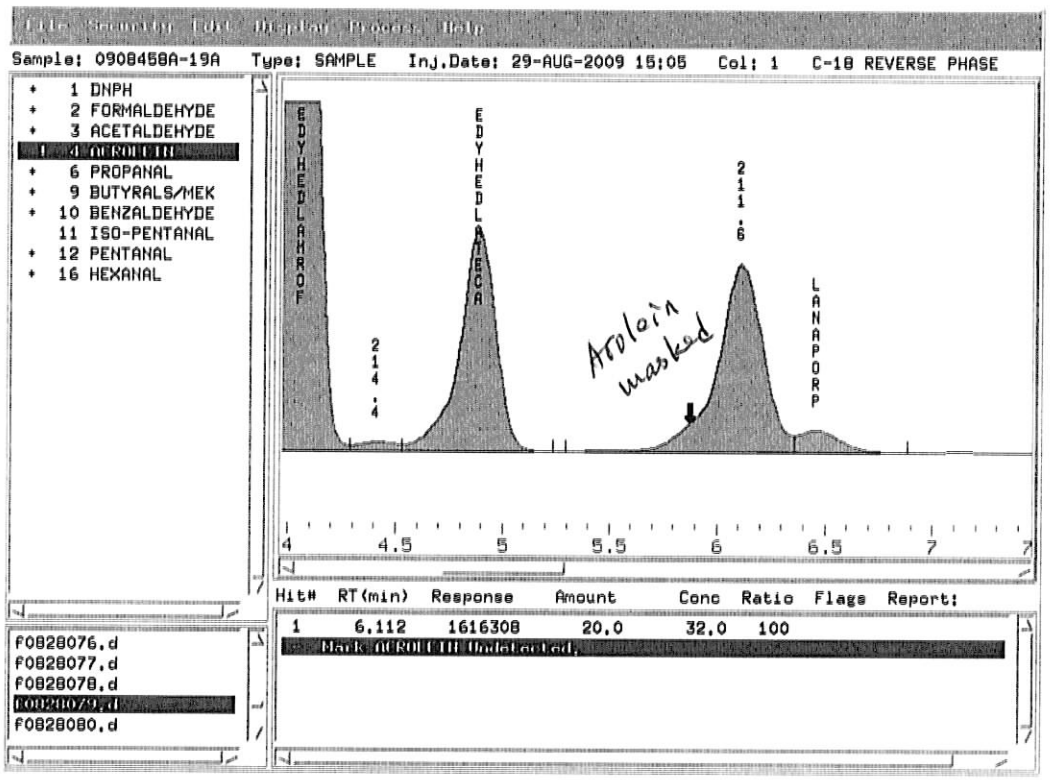
W 9111 op


Sample: 0908458A-18A Type: SAMPLE Inj.Date: 29-AUG-2009 14:45 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
101.6
105.5
LANAPORP
Acrolein masked
5.5
6
6.5
7
HitH RT(min) Response Amount Conc Ratio Flags Report:
1 6.101 1568939 19.4 31.0 100
Mark ACROLEIN Undetected
F0828074.d
F0828075.d
F0828076.d
F0828077.d
F0828078.d

W 9/11/09


Sample: 0908458A-16A Type: SAMPLE Inj.Date: 29-AUG-2009 14:24 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
4 ACROLEIN
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
Acrolein masked
LANAPORP
5.5
6
6.5
7
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.108 1601285 19.8 31.7 100
F0828074.d
F0828075.d
F0828076.d
F0828077.d
F0828078.d

w 9/11/09


Sample: 0908458A-19A Type: SAMPLE Inj.Date: 29-AUG-2009 15:05 Col: 1 C-18 REVERSE PHASE
+ 1 DNPH
+ 2 FORMALDEHYDE
+ 3 ACETALDEHYDE
+ 6 PROPANAL
+ 9 BUTYRALS/MEK
+ 10 BENZALDEHYDE
11 ISO-PENTANAL
+ 12 PENTANAL
+ 16 HEXANAL
EDYHEDLAKROF
214.4
EDYHEDLAHECA
Acrolein masked
211.6
LANAPORP
4 4.5 5 5.5 6 6.5 7
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.112 1616308 20.0 32.0 100
Mark ACROLEIN Undetected.
F0828076.d
F0828077.d
F0828078.d
F0828079.d
F0828080.d

W-9/11/09

WO 0908458A

Sample ID	Duration	Duration in min.
01A	14days 16hr 20min	21140
01AA	14days 16hr 20min	21140
02A	14days 16hr 20min	21140
02AA	14days 16hr 20min	21140
03A	14days 16hr 20min	21140
04A	14days 16hr 20min	21140
05A	14days 16hr 20min	21140
06A		21483
07A	14days 22hr 3min	21483
08A	14days 22hr 3min	21483
09A	14days 22hr 3min	21483
10A	14days 22hr 3min	21483
11A	14days 22hr 3min	21483
12A	13days 23hr 25min	20125
13A	13days 23hr 25min	20125
14A	13days 23hr 25min	20125
15A	13days 23hr 25min	20125
16A	13days 23hr 25min	20125
17A		21483
18A	11days	15840
19A	11days	15840
20A	11days	15840

WO 0908458A

Sample ID	Duration	Duration in min.
01A	14days 16hr 20min	21140
01AA	14days 16hr 20min	21140
02A	14days 16hr 20min	21140
02AA	14days 16hr 20min	21140
03A	14days 16hr 20min	21140
04A	14days 16hr 20min	21140
05A	14days 16hr 20min	21140
06A		21483
07A	14days 22hr 3min	21483
08A	14days 22hr 3min	21483
09A	14days 22hr 3min	21483
10A	14days 22hr 3min	21483
11A	14days 22hr 3min	21483
12A	13days 23hr 25min	20125
13A	13days 23hr 25min	20125
14A	13days 23hr 25min	20125
15A	13days 23hr 25min	20125
16A	13days 23hr 25min	20125
17A		21483
18A	11days	15840
19A	11days	15840
20A	11days	15840

WO 0908458A

Sample ID ***0908458A-01A*** Duration(min)=21140 Dilution factor =4
File Name **f0827059.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	4.0	100	99	21140	0.48	1.9	48
75-07-0	Acetaldehyde	0.5	2.0	27	84	21140	0.28	1.1	15
123-38-6	Propanal	0.25	1.0	3.4	39	21140	0.30	1.2	4.1
123-72-8	Butanal (*, M)	0.25	1.0	7.0	11	21140	1.08	4.3	30
100-52-7	Benzaldehyde	0.25	1.0	3.3	92	21140	0.13	0.51	1.7
110-62-3	Pentanal	0.25	1.0	10	27	21140	0.44	1.8	18
590-86-3	Isopentanal	0.25	1.0	Not Detected	61	21140	0.19	0.78	Not Detected
66-25-1	Hexanal	0.25	1.0	30	18	21140	0.66	2.6	79
107-02-8	Acrolein (M)	0.25	1.0	Not Detected	33	21140	0.36	1.4	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
M Reported value may be biased due to apparent matrix interferences.

Sample ID ***0908458A-01AA*** Duration(min)=21140 Dilution factor =4
File Name **f0827060.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	4.0	100	99	21140	0.48	1.9	48
75-07-0	Acetaldehyde	0.5	2.0	27	84	21140	0.28	1.1	15
123-38-6	Propanal	0.25	1.0	3.2	39	21140	0.30	1.2	3.9
123-72-8	Butanal (*, M)	0.25	1.0	6.8	11	21140	1.08	4.3	29
100-52-7	Benzaldehyde	0.25	1.0	3.7	92	21140	0.13	0.51	1.9
110-62-3	Pentanal	0.25	1.0	8.3	27	21140	0.44	1.8	15
590-86-3	Isopentanal	0.25	1.0	Not Detected	61	21140	0.19	0.78	Not Detected
66-25-1	Hexanal	0.25	1.0	30	18	21140	0.66	2.6	79
107-02-8	Acrolein (M)	0.25	1.0	Not Detected	33	21140	0.36	1.4	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
M Reported value may be biased due to apparent matrix interferences.

Sample ID *0908458A-02A* Duration(min)=21140 Dilution factor =4
File Name f0827061.d

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	4.0	100	99	21140	0.48	1.9	48
75-07-0	Acetaldehyde	0.5	2.0	26	84	21140	0.28	1.1	15
123-38-6	Propanal	0.25	1.0	3.1	39	21140	0.30	1.2	3.8
123-72-8	Butanal (*, M)	0.25	1.0	6.4	11	21140	1.08	4.3	28
100-52-7	Benzaldehyde	0.25	1.0	3.4	92	21140	0.13	0.51	1.7
110-62-3	Pentanal	0.25	1.0	7.8	27	21140	0.44	1.8	14
590-86-3	Isopentanal	0.25	1.0	Not Detected	61	21140	0.19	0.78	Not Detected
66-25-1	Hexanal	0.25	1.0	26	18	21140	0.66	2.6	68
107-02-8	Acrolein (M)	0.25	1.0	Not Detected	33	21140	0.36	1.4	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
M Reported value may be biased due to apparent matrix interferences.

Sample ID *0908458A-02AA* Duration(min)=21140 Dilution factor =4
File Name f0827062.d

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	4.0	100	99	21140	0.48	1.9	48
75-07-0	Acetaldehyde	0.5	2.0	26	84	21140	0.28	1.1	15
123-38-6	Propanal	0.25	1.0	3.1	39	21140	0.30	1.2	3.8
123-72-8	Butanal (*, M)	0.25	1.0	6.4	11	21140	1.08	4.3	28
100-52-7	Benzaldehyde	0.25	1.0	3.4	92	21140	0.13	0.51	1.7
110-62-3	Pentanal	0.25	1.0	7.8	27	21140	0.44	1.8	14
590-86-3	Isopentanal	0.25	1.0	Not Detected	61	21140	0.19	0.78	Not Detected
66-25-1	Hexanal	0.25	1.0	26	18	21140	0.66	2.6	68
107-02-8	Acrolein (M)	0.25	1.0	Not Detected	33	21140	0.36	1.4	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
M Reported value may be biased due to apparent matrix interferences.

Sample ID ***0908458A-03A*** Duration(min)=21140 Dilution factor =1
File Name **f0827042.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1	1	5.4	99	21140	0.48	0.48	2.6
75-07-0	Acetaldehyde	0.5	0.5	2.0	84	21140	0.28	0.28	1.1
123-38-6	Propanal	0.25	0.25	0.40	39	21140	0.30	0.30	0.49
123-72-8	Butanal(*)	0.25	0.25	0.48	11	21140	1.08	1.1	2.1
100-52-7	Benzaldehyde	0.25	0.25	Not Detected	92	21140	0.13	0.13	Not Detected
110-62-3	Pentanal	0.25	0.25	0.34	27	21140	0.44	0.44	0.60
590-86-3	Isopentanal	0.25	0.25	Not Detected	61	21140	0.19	0.19	Not Detected
66-25-1	Hexanal	0.25	0.25	0.60	18	21140	0.66	0.66	1.6
107-02-8	Acrolein	0.25	0.25	Not Detected	33	21140	0.36	0.36	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.

Sample ID ***0908458A-04A*** Duration(min)=21140 Dilution factor =5
File Name **f0828064.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	5.0	100	99	21140	0.48	2.4	48
75-07-0	Acetaldehyde	0.50	2.5	21	84	21140	0.28	1.4	12
123-38-6	Propanal	0.25	1.2	2.6	39	21140	0.30	1.5	3.2
123-72-8	Butanal(*)	0.25	1.2	5.6	11	21140	1.08	5.2	24
100-52-7	Benzaldehyde	0.25	1.2	3.5	92	21140	0.13	0.62	1.8
110-62-3	Pentanal	0.25	1.2	7.4	27	21140	0.44	2.1	13
590-86-3	Isopentanal	0.25	1.2	Not Detected	61	21140	0.19	0.93	Not Detected
66-25-1	Hexanal	0.25	1.2	26	18	21140	0.66	3.2	68
107-02-8	Acrolein (M)	0.25	1.2	Not Detected	33	21140	0.36	1.7	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.

M Reported value may be biased due to apparent matrix interferences.

Sample ID *0908458A-05A* Duration(min)=21140 Dilution factor =5
File Name f0828065.d

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	5.0	100	99	21140	0.48	2.4	48
75-07-0	Acetaldehyde	0.50	2.5	21	84	21140	0.28	1.4	12
123-38-6	Propanal	0.25	1.2	2.2	39	21140	0.30	1.5	2.7
123-72-8	Butanal(*)	0.25	1.2	4.5	11	21140	1.08	5.2	19
100-52-7	Benzaldehyde	0.25	1.2	2.9	92	21140	0.13	0.62	1.5
110-62-3	Pentanal	0.25	1.2	7.2	27	21140	0.44	2.1	13
590-86-3	Isopentanal	0.25	1.2	Not Detected	61	21140	0.19	0.93	Not Detected
66-25-1	Hexanal	0.25	1.2	25	18	21140	0.66	3.2	66
107-02-8	Acrolein (M)	0.25	1.2	Not Detected	33	21140	0.36	1.7	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
M Reported value may be biased due to apparent matrix interferences.

Sample ID *0908458A-06A* Duration(min)=21483 Dilution factor =1
File Name f0827043.d

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	1.0	Not Detected	99	21483	0.47	0.47	Not Detected
75-07-0	Acetaldehyde	0.50	0.50	Not Detected	84	21483	0.28	0.28	Not Detected
123-38-6	Propanal	0.25	0.25	Not Detected	39	21483	0.30	0.30	Not Detected
123-72-8	Butanal(*)	0.25	0.25	Not Detected	11	21483	1.06	1.1	Not Detected
100-52-7	Benzaldehyde	0.25	0.25	Not Detected	92	21483	0.13	0.13	Not Detected
110-62-3	Pentanal	0.25	0.25	Not Detected	27	21483	0.43	0.43	Not Detected
590-86-3	Isopentanal	0.25	0.25	Not Detected	61	21483	0.19	0.19	Not Detected
66-25-1	Hexanal	0.25	0.25	Not Detected	18	21483	0.65	0.65	Not Detected
107-02-8	Acrolein	0.25	0.25	Not Detected	33	21483	0.35	0.35	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.

Sample ID ***0908458A-07A*** Duration(min)=21483 Dilution factor =5
File Name **f0828070.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	5.0	110	99	21483	0.47	2.4	52
75-07-0	Acetaldehyde	0.50	2.5	20	84	21483	0.28	1.4	11
123-38-6	Propanal	0.25	1.2	3.3	39	21483	0.30	1.4	3.9
123-72-8	Butanal(*)	0.25	1.2	7.8	11	21483	1.06	5.1	33
100-52-7	Benzaldehyde	0.25	1.2	4.0	92	21483	0.13	0.61	2.0
110-62-3	Pentanal	0.25	1.2	17	27	21483	0.43	2.1	29
590-86-3	Isopentanal	0.25	1.2	Not Detected	61	21483	0.19	0.92	Not Detected
66-25-1	Hexanal	0.25	1.2	56	18	21483	0.65	3.1	145
107-02-8	Acrolein (M)	0.25	1.2	Not Detected	33	21483	0.35	1.7	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
(M) Reported value may be biased due to apparent matrix interferences.

Sample ID ***0908458A-08A*** Duration(min)=21483 Dilution factor =5
File Name **f0828071.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	5.0	120	99	21483	0.47	2.4	56
75-07-0	Acetaldehyde	0.50	2.5	20	84	21483	0.28	1.4	11
123-38-6	Propanal	0.25	1.2	3.1	39	21483	0.30	1.4	3.7
123-72-8	Butanal(*)	0.25	1.2	7.7	11	21483	1.06	5.1	33
100-52-7	Benzaldehyde	0.25	1.2	4.4	92	21483	0.13	0.61	2.2
110-62-3	Pentanal	0.25	1.2	16	27	21483	0.43	2.1	28
590-86-3	Isopentanal	0.25	1.2	Not Detected	61	21483	0.19	0.92	Not Detected
66-25-1	Hexanal	0.25	1.2	56	18	21483	0.65	3.1	145
107-02-8	Acrolein (M)	0.25	1.2	Not Detected	33	21483	0.35	1.7	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
(M) Reported value may be biased due to apparent matrix interferences.

Sample ID ***0908458A-09A*** Duration(min)=21483 Dilution factor =5
File Name **f0828072.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	5.0	120	99	21483	0.47	2.4	56
75-07-0	Acetaldehyde	0.50	2.5	21	84	21483	0.28	1.4	12
123-38-6	Propanal	0.25	1.2	3.3	39	21483	0.30	1.4	3.9
123-72-8	Butanal(*)	0.25	1.2	8.3	11	21483	1.06	5.1	35
100-52-7	Benzaldehyde	0.25	1.2	4.9	92	21483	0.13	0.61	2.5
110-62-3	Pentanal	0.25	1.2	16	27	21483	0.43	2.1	28
590-86-3	Isopentanal	0.25	1.2	Not Detected	61	21483	0.19	0.92	Not Detected
66-25-1	Hexanal	0.25	1.2	59	18	21483	0.65	3.1	153
107-02-8	Acrolein (M)	0.25	1.2	Not Detected	33	21483	0.35	1.7	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
M Reported value may be biased due to apparent matrix interferences.

Sample ID ***0908458A-10A*** Duration(min)=21483 Dilution factor =1
File Name **f0827044.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	1.0	5.7	99	21483	0.47	0.47	2.7
75-07-0	Acetaldehyde	0.50	0.50	1.4	84	21483	0.28	0.28	0.78
123-38-6	Propanal	0.25	0.25	0.25	39	21483	0.30	0.30	0.30
123-72-8	Butanal(*)	0.25	0.25	0.36	11	21483	1.06	1.1	1.5
100-52-7	Benzaldehyde	0.25	0.25	Not Detected	92	21483	0.13	0.13	Not Detected
110-62-3	Pentanal	0.25	0.25	0.31	27	21483	0.43	0.43	0.53
590-86-3	Isopentanal	0.25	0.25	Not Detected	61	21483	0.19	0.19	Not Detected
66-25-1	Hexanal	0.25	0.25	0.74	18	21483	0.65	0.65	1.9
107-02-8	Acrolein	0.25	0.25	Not Detected	33	21483	0.35	0.35	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.

Sample ID ***0908458A-11A*** Duration(min)=21483 Dilution factor =5
File Name **f0828073.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	5.0	110	99	21483	0.47	2.4	52
75-07-0	Acetaldehyde	0.50	2.5	16	84	21483	0.28	1.4	9
123-38-6	Propanal	0.25	1.2	2.6	39	21483	0.30	1.4	3.1
123-72-8	Butanal(*)	0.25	1.2	6.3	11	21483	1.06	5.1	27
100-52-7	Benzaldehyde	0.25	1.2	4.2	92	21483	0.13	0.61	2.1
110-62-3	Pentanal	0.25	1.2	14	27	21483	0.43	2.1	24
590-86-3	Isopentanal	0.25	1.2	Not Detected	61	21483	0.19	0.92	Not Detected
66-25-1	Hexanal	0.25	1.2	51	18	21483	0.65	3.1	132
107-02-8	Acrolein (M)	0.25	1.2	Not Detected	33	21483	0.35	1.7	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
[M] Reported value may be biased due to apparent matrix interferences.

Sample ID ***0908458A-12A*** Duration(min)=20125 Dilution factor =4
File Name **f0828074.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	4.0	79	99	20125	0.50	2.0	40
75-07-0	Acetaldehyde	0.5	2.0	26	84	20125	0.30	1.2	15
123-38-6	Propanal	0.25	1.0	4.2	39	20125	0.32	1.3	5.4
123-72-8	Butanal(*)	0.25	1.0	4.8	11	20125	1.13	4.5	22
100-52-7	Benzaldehyde	0.25	1.0	2.6	92	20125	0.14	0.54	1.4
110-62-3	Pentanal	0.25	1.0	5.8	27	20125	0.46	1.8	11
590-86-3	Isopentanal	0.25	1.0	Not Detected	61	20125	0.20	0.81	Not Detected
66-25-1	Hexanal	0.25	1.0	21	18	20125	0.69	2.8	58
107-02-8	Acrolein (M)	0.25	1.0	Not Detected	33	20125	0.38	1.5	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
[M] Reported value may be biased due to apparent matrix interferences.

Sample ID ***0908458A-13A*** Duration(min)=20125 Dilution factor =4
File Name **f0828075.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	4.0	78	99	20125	0.50	2.0	39
75-07-0	Acetaldehyde	0.5	2.0	26	84	20125	0.30	1.2	15
123-38-6	Propanal	0.25	1.0	4.2	39	20125	0.32	1.3	5.4
123-72-8	Butanal(*)	0.25	1.0	4.8	11	20125	1.13	4.5	22
100-52-7	Benzaldehyde	0.25	1.0	2.9	92	20125	0.14	0.54	1.6
110-62-3	Pentanal	0.25	1.0	6.2	27	20125	0.46	1.8	11
590-86-3	Isopentanal	0.25	1.0	Not Detected	61	20125	0.20	0.81	Not Detected
66-25-1	Hexanal	0.25	1.0	21	18	20125	0.69	2.8	58
107-02-8	Acrolein (M)	0.25	1.0	Not Detected	33	20125	0.38	1.5	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
M Reported value may be biased due to apparent matrix interferences.

Sample ID ***0908458A-14A*** Duration(min)=20125 Dilution factor =1
File Name **f0827045.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	1.0	5.6	99	20125	0.50	0.50	2.8
75-07-0	Acetaldehyde	0.50	0.50	2.3	84	20125	0.30	0.30	1.4
123-38-6	Propanal	0.25	0.25	0.43	39	20125	0.32	0.32	0.55
123-72-8	Butanal(*)	0.25	0.25	0.44	11	20125	1.13	1.1	2.0
100-52-7	Benzaldehyde	0.25	0.25	Not Detected	92	20125	0.14	0.14	Not Detected
110-62-3	Pentanal	0.25	0.25	0.33	27	20125	0.46	0.46	0.61
590-86-3	Isopentanal	0.25	0.25	Not Detected	61	20125	0.20	0.20	Not Detected
66-25-1	Hexanal	0.25	0.25	0.71	18	20125	0.69	0.69	2.0
107-02-8	Acrolein	0.25	0.25	Not Detected	33	20125	0.38	0.38	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.

Sample ID *0908458A-15A* Duration(min)=20125 Dilution factor =4
File Name f0828076.d

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	4.0	78	99	20125	0.50	2.0	39
75-07-0	Acetaldehyde	0.50	2.0	26	84	20125	0.30	1.2	15
123-38-6	Propanal	0.25	1.0	4.1	39	20125	0.32	1.3	5.2
123-72-8	Butanal(*)	0.25	1.0	4.7	11	20125	1.13	4.5	21
100-52-7	Benzaldehyde	0.25	1.0	2.6	92	20125	0.14	0.54	1.4
110-62-3	Pentanal	0.25	1.0	6.1	27	20125	0.46	1.8	11
590-86-3	Isopentanal	0.25	1.0	Not Detected	61	20125	0.20	0.81	Not Detected
66-25-1	Hexanal	0.25	1.0	20	18	20125	0.69	2.8	55
107-02-8	Acrolein (M)	0.25	1.0	Not Detected	33	20125	0.38	1.5	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
M Reported value may be biased due to apparent matrix interferences.

Sample ID *0908458A-16A* Duration(min)=20125 Dilution factor =4
File Name f0828077.d

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	4.0	73	99	20125	0.50	2.0	37
75-07-0	Acetaldehyde	0.50	2.0	26	84	20125	0.30	1.2	15
123-38-6	Propanal	0.25	1.0	4.2	39	20125	0.32	1.3	5.4
123-72-8	Butanal(*)	0.25	1.0	5.0	11	20125	1.13	4.5	23
100-52-7	Benzaldehyde	0.25	1.0	2.8	92	20125	0.14	0.54	1.5
110-62-3	Pentanal	0.25	1.0	6.4	27	20125	0.46	1.8	12
590-86-3	Isopentanal	0.25	1.0	Not Detected	61	20125	0.20	0.81	Not Detected
66-25-1	Hexanal	0.25	1.0	21	18	20125	0.69	2.8	58
107-02-8	Acrolein (M)	0.25	1.0	Not Detected	33	20125	0.38	1.5	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
M Reported value may be biased due to apparent matrix interferences.

Sample ID *0908458A-17A* Duration(min)=21483 Dilution factor =1
File Name f0827046.d

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	1.0	Not Detected	99	21483	0.47	0.47	Not Detected
75-07-0	Acetaldehyde	0.50	0.50	Not Detected	84	21483	0.28	0.28	Not Detected
123-38-6	Propanal	0.25	0.25	Not Detected	39	21483	0.30	0.30	Not Detected
123-72-8	Butanal(*)	0.25	0.25	Not Detected	11	21483	1.06	1.1	Not Detected
100-52-7	Benzaldehyde	0.25	0.25	Not Detected	92	21483	0.13	0.13	Not Detected
110-62-3	Pentanal	0.25	0.25	Not Detected	27	21483	0.43	0.43	Not Detected
590-86-3	Isopentanal	0.25	0.25	Not Detected	61	21483	0.19	0.19	Not Detected
66-25-1	Hexanal	0.25	0.25	Not Detected	18	21483	0.65	0.65	Not Detected
107-02-8	Acrolein	0.25	0.25	Not Detected	33	21483	0.35	0.35	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.

Sample ID *0908458A-18A* Duration(min)=15840 Dilution factor =4
File Name f0828078.d

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	4.0	77	99	15840	0.64	2.6	49
75-07-0	Acetaldehyde	0.50	2.0	28	84	15840	0.38	1.5	21
123-38-6	Propanal	0.25	1.0	4.1	39	15840	0.40	1.6	6.6
123-72-8	Butanal (*, M)	0.25	1.0	9.9	11	15840	1.43	5.7	57
100-52-7	Benzaldehyde	0.25	1.0	4.2	92	15840	0.17	0.69	2.9
110-62-3	Pentanal	0.25	1.0	10	27	15840	0.58	2.3	23
590-86-3	Isopentanal	0.25	1.0	Not Detected	61	15840	0.26	1.03	Not Detected
66-25-1	Hexanal	0.25	1.0	26	18	15840	0.88	3.5	91
107-02-8	Acrolein (M)	0.25	1.0	Not Detected	33	15840	0.48	1.9	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.

M Reported value may be biased due to apparent matrix interferences.

Sample ID ***0908458A-19A*** Duration(min)=15840 Dilution factor =4
File Name **f0828079.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	4.0	79	99	15840	0.64	2.6	50
75-07-0	Acetaldehyde	0.50	2.0	28	84	15840	0.38	1.5	21
123-38-6	Propanal	0.25	1.0	4.2	39	15840	0.40	1.6	6.8
123-72-8	Butanal (*, M)	0.25	1.0	10	11	15840	1.43	5.7	57
100-52-7	Benzaldehyde	0.25	1.0	3.9	92	15840	0.17	0.69	2.7
110-62-3	Pentanal	0.25	1.0	10	27	15840	0.58	2.3	23
590-86-3	Isopentanal	0.25	1.0	Not Detected	61	15840	0.26	1.03	Not Detected
66-25-1	Hexanal	0.25	1.0	27	18	15840	0.88	3.5	95
107-02-8	Acrolein (M)	0.25	1.0	Not Detected	33	15840	0.48	1.9	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.
M Reported value may be biased due to apparent matrix interferences.

Sample ID ***0908458A-20A*** Duration(min)=15840 Dilution factor =1
File Name **f0827047.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	1.0	4.0	99	15840	0.64	0.64	3
75-07-0	Acetaldehyde	0.50	0.50	1.3	84	15840	0.38	0.38	1
123-38-6	Propanal	0.25	0.25	0.28	39	15840	0.40	0.40	0.5
123-72-8	Butanal(*)	0.25	0.25	0.39	11	15840	1.43	1.4	2
100-52-7	Benzaldehyde	0.25	0.25	Not Detected	92	15840	0.17	0.17	Not Detected
110-62-3	Pentanal	0.25	0.25	0.25	27	15840	0.58	0.58	1
590-86-3	Isopentanal	0.25	0.25	Not Detected	61	15840	0.26	0.26	Not Detected
66-25-1	Hexanal	0.25	0.25	0.34	18	15840	0.88	0.88	1
107-02-8	Acrolein	0.25	0.25	Not Detected	33	15840	0.48	0.48	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.

Sample ID ***0908458A-Lab Blank*** Duration(min)=21483 Dilution factor =1
File Name **f0825022.d**

CAS #	Analyte	Detection Limit (uG)	Reporting Limit (uG)	Amount (uG)	Sampling Rate (mL/min)	Exposure Time (min)	Detection Limit (uG/M^3)	Reporting Limit (uG/M^3)	Amount (uG/M^3)
50-00-0	Formaldehyde	1.0	1.0	Not Detected	99	21483	0.47	0.47	Not Detected
75-07-0	Acetaldehyde	0.50	0.50	Not Detected	84	21483	0.28	0.28	Not Detected
123-38-6	Propanal	0.25	0.25	Not Detected	39	21483	0.30	0.30	Not Detected
123-72-8	Butanal(*)	0.25	0.25	Not Detected	11	21483	1.06	1.1	Not Detected
100-52-7	Benzaldehyde	0.25	0.25	Not Detected	92	21483	0.13	0.13	Not Detected
110-62-3	Pentanal	0.25	0.25	Not Detected	27	21483	0.43	0.43	Not Detected
590-86-3	Isopentanal	0.25	0.25	Not Detected	61	21483	0.19	0.19	Not Detected
66-25-1	Hexanal	0.25	0.25	Not Detected	18	21483	0.65	0.65	Not Detected
107-02-8	Acrolein	0.25	0.25	Not Detected	33	21483	0.35	0.35	Not Detected

* Butanal coelutes with Isobutanal and Methyl Ethyl Ketone. The corresponding peak is reported as Butanal.

Compound Listing

Modified TO-11A Passive-Radiello 165 (Full list) (ug)

CAS Number	Compound	Detection Limit ug	Type
50-00-0	Formaldehyde	1.0	
75-07-0	Acetaldehyde	0.50	
123-38-6	Propanal	0.25	
9999-9999-007	Methyl Ethyl Ketone/Butyraldehydes	0.25	
100-52-7	Benzaldehyde	0.25	
110-62-3	Pentanal	0.25	
590-86-3	Isopentanal	0.25	
66-25-1	Hexanal	0.25	
107-02-8	Acrolein	0.25	

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DATA REVIEW CHECKLIST

Work Order #: 0908458A

A_1	A_2	R	T	M	Q	
☐	☐	☑	☐	☑	☐	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		☑	☐	☑	☐	The final report has the correct reporting list, special units, and header info.
		☑	☐	☑	☐	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		☑	☐	☑	☐	Sample Discrepancy Report (SDR) is completed
☐	☐	☑	☐	☑	☐	Corrective Action issued - #
☐	☐	☑	☐	☑	☐	Unusual circumstances have been documented in the notes section below

LUMEN *validation report present and initialed* ***CIRCLE (YES / NO)***

☐	☐	☑	☐	☑	☐	Lab Blank, CCV, LCS and DUP met QC criteria
☐	☐	☑	☐	☑	☐	Hold time is met for all samples
		☑	☐	☑	☐	Appropriate data qualifier flags are applied
		☑	☐	☑	☐	Manual integrations for samples and QC are properly documented
☐	☐	☑	☐		☐	Samples analyzed within the project or method specific clock
		☑	☐			Retention times have been verified
☐	☐	☑	☐		☐	Appropriate ICAL(s) included
		☑	☐	☑	☐	At least one result per sample is verified against the target quant sheets/raw data
☐	☐	☑	☐		☐	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
☐	☐	☑	☐			Correct amount of sample analyzed (i.e. sample not over-diluted)
		☑	☐			Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		☐	☐			TICs resemble reference spectra
		☐	☐			TICs between duplicate samples are consistent
☐	☐	☑	☐	☑	☐	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
☐	☐	☑	☐			Data for multiple analyses of sample(s) has been evaluated for comparability of results
		☑		☑		Special units for all samples in the final report are correctly calculated
		☑	☐	☑		Manually entered results checked (i.e. TPH/NMOC)
☐	☐	☑				Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		☑				Chain of Custody scanned correctly
					☐	Verify sample id's vs. chain of custody
		☑				Date MDL(s) performed per instrument(s) 8/21/09
☐	☐	☑				Samples pressurized w/ appropriate gas (N_2 or He) ☐ Other (i.e. Tedlar bag, cartridge, sorbent)
☐	☐	☐				Final pressure consistent with canister size (6L vs. 1L) Radiello 165
☐	☐	☐				Verify receipt pressures
☐	☐	☐				Verify canister ID #'s
		☑		☑		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
				☑		MDL date(s) present for all instruments utilized
		☑	☐	☑	☐	Client LUMEN report reviewed for accuracy and completeness

Notes: *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

A/R: 01A Dup (Analytical) i 02A Dup (Analytical).

Acrolein ~~detection~~ detection was masked in Samples 01A, 02A, 04A, 05A, 07A, 08A, 09A, 11A, 12A, 13A, ~~14~~ 15A, 16A, 18A and 19A.

Butyral co-elutes with MEK

M/Q: Sampling Duration exceeded the method recommended 7 days.

Report in ug and ug/m³.

A_1/A_2 (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A_1:	R: 9/1/09	9/8/09	
A_2:	T: 9/8/09		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply. Rev. 02/20/09

Note (2): Management reviewer and reporting reviewer must be separate individuals.

Not Applicable