
LABORATORY REPORT

September 30, 2009

Brian Baker
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

RE: 16512

Dear Brian:

Enclosed are the results of the samples submitted to our laboratory on September 2, 2009. For your reference, these analyses have been assigned our service request number P0903083.

All analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 206 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.



Kate Aguilera
Project Manager

Client: Environmental Health & Engineering, Inc.
Project: 16512

CAS Project No: P0903083

CASE NARRATIVE

The samples were received intact under chain of custody on September 2, 2009 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Aldehyde Analysis

The samples were analyzed for aldehydes according to EPA Method TO-11A using high performance liquid chromatography (HPLC).

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client: Environmental Health & Engineering, Inc.
Project: 16512

Service Request: P0903083

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
P0903083-001	103937	8/24/09	00:00
P0903083-002	103938	8/24/09	00:00
P0903083-003	103939	8/24/09	00:00
P0903083-004	103940	8/24/09	00:00
P0903083-005	103941	8/24/09	00:00
P0903083-006	103942	8/24/09	00:00

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

PO# 3083

TO: Columbia Analytical

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.
① 103937	FB Tube	Aldehydes TO-11 Full list	8-24-09 /
② 103938	S	Aldehydes TO-11 Full list	8-24-09 / 104.5
③ 103939	S	Aldehydes TO-11 Full list	8-24-09 / 103.95
④ 103940	S	Aldehydes " "	8-24-09 / 109.29
⑤ 103941	S	" " "	8-24-09 / 107.64
⑥ 103942	S	Aldehydes TO-11 Full list	8-24-09 / 107

Special instructions:

- Standard turn around time
- Fax results 781-247-4305
- RETURN SAMPLES
- Additional report recipient mfingale@ehinc.com
- Rush by _____ date/time
- Other _____
- Electronic transfer - datacoordinator@ehinc.com

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

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 9/1/09
 Received by: [Signature] of (company name) CHS Date: 9/2/09 0940
 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: _____

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Environmental Health & Engineering, Inc.

Work order: P0903083

Project: 16512

Sample(s) received on: 09/02/09

Date opened: 09/02/09

by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- | | <u>Yes</u> | <u>No</u> | <u>N/A</u> |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Container(s) supplied by CAS ? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3 Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Was a chain-of-custody provided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Was the chain-of-custody properly completed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Was sample volume received adequate for analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 Are samples within specified holding times? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9 Was proper temperature (thermal preservation) of cooler at receipt adhered to? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cooler Temperature <u>4</u> °C Blank Temperature _____ °C | | | |
| 10 Was a trip blank received? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Trip blank supplied by CAS: _____ | | | |
| 11 Were custody seals on outside of cooler/Box? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were custody seals on outside of sample container? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 12 Do containers have appropriate preservation , according to method/SOP or Client specified information? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are pH preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were VOA vials checked for presence/absence of air bubbles? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 13 Tubes: Are the tubes capped and intact? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Do they contain moisture? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 14 Badges: Are the badges properly capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0903083-001.01	Silica Gel DNPH Tube					
P0903083-002.01	Silica Gel DNPH Tube					
P0903083-003.01	Silica Gel DNPH Tube					
P0903083-004.01	Silica Gel DNPH Tube					
P0903083-005.01	Silica Gel DNPH Tube					
P0903083-006.01	Silica Gel DNPH Tube					

Explain any discrepancies: (include lab sample ID numbers): _____

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12); Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12); P0903083_Environmental Health & Engineering, Inc., 16512 - Page 1 of 1

RESULTS OF ANALYSIS

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Environmental Health & Engineering, Inc.

Client Sample ID: 103937

Client Project ID: 16512

CAS Project ID: P0903083

CAS Sample ID: P0903083-001

Test Code: EPA Method TO-11A

Instrument ID: HP1050/LC2

Analyst: Madeleine Dangazyan

Sampling Media: Silica Gel DNPH Tube

Test Notes: **BC**

Date Collected: 8/24/09

Date Received: 9/2/09

Date Analyzed: 9/10/09

Desorption Volume: 1.0 ml

Volume Sampled: NA Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected.

NA = Not applicable.

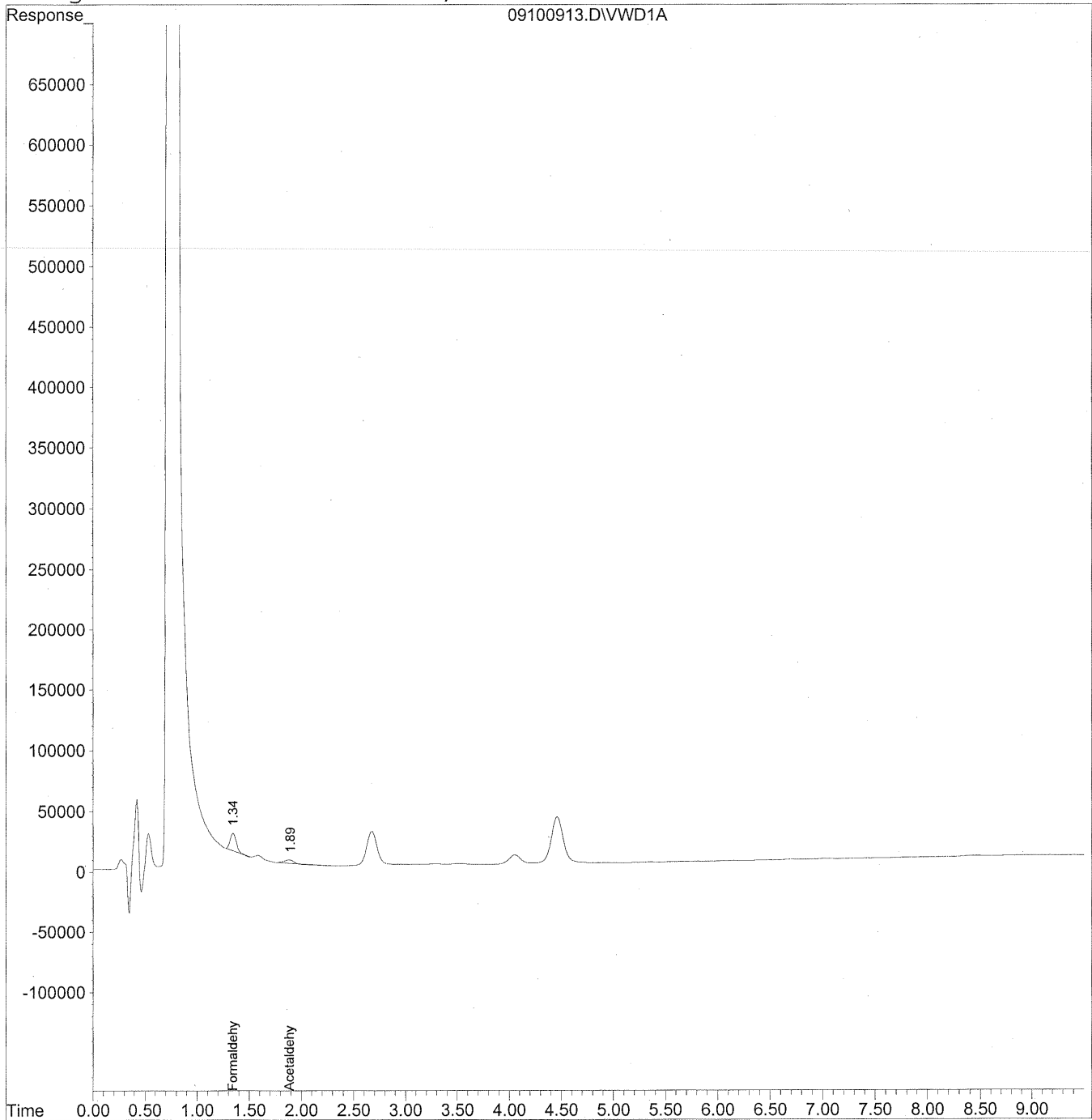
Verified By: _____ Date: 9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100913.D Vial: 101
Acq On : 10-Sep-2009, 13:41 Operator: MD
Sample : P0903083-001 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 14:16 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100913.D Vial: 101
 Acq On : 10-Sep-2009, 13:41 Operator: MD
 Sample : P0903083-001 front 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
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Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Thu Sep 10 12:03:26 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc Units

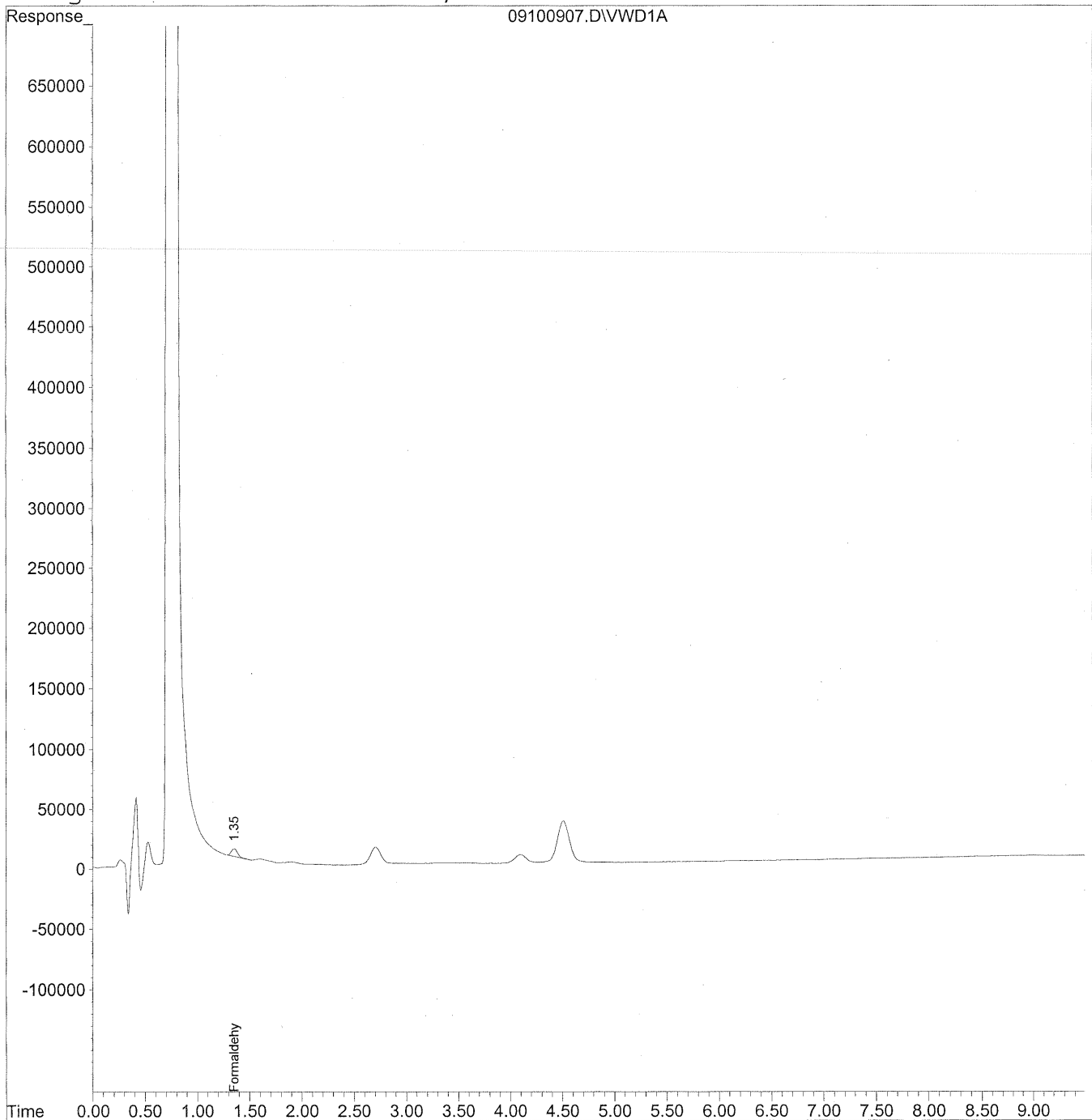
Target Compounds			
1) Formaldehyde	1.35	606702	67.899 ng/ml
2) Acetaldehyde	1.88	133953	20.606 ng/ml
3) Propionaldehyde	0.00	0	N.D. ng/ml
4) Crotonaldehyde	0.00	0	N.D. ng/ml
5) Butyraldehyde	0.00	0	N.D. ng/ml
6) Benzaldehyde	0.00	0	N.D. ng/ml
7) Isovaleraldehyde	0.00	0	N.D. ng/ml
8) Valeraldehyde	0.00	0	N.D. ng/ml
9) o-Tolualdehyde	0.00	0	N.D. ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D. ng/ml
11) Hexaldehyde	0.00	0	N.D. ng/ml
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D. ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100907.D Vial: 7
Acq On : 10-Sep-2009, 12:32 Operator: MD
Sample : P0903083-001 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:03 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100907.D Vial: 7
 Acq On : 10-Sep-2009, 12:32 Operator: MD
 Sample : P0903083-001 back 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:03 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Tue Sep 15 09:56:03 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Formaldehyde	1.35	270874	30.315	ng/ml
2) Acetaldehyde	0.00	0	N.D.	ng/ml
3) Propionaldehyde	0.00	0	N.D.	ng/ml
4) Crotonaldehyde	0.00	0	N.D.	ng/ml
5) Butyraldehyde	0.00	0	N.D.	ng/ml
6) Benzaldehyde	0.00	0	N.D.	ng/ml
7) Isovaleraldehyde	0.00	0	N.D.	ng/ml
8) Valeraldehyde	0.00	0	N.D.	ng/ml
9) o-Tolualdehyde	0.00	0	N.D.	ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11) Hexaldehyde	0.00	0	N.D.	ng/ml
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Environmental Health & Engineering, Inc.
Client Sample ID: 103938
Client Project ID: 16512

CAS Project ID: P0903083
 CAS Sample ID: P0903083-002

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: BC

Date Collected: 8/24/09
Date Received: 9/2/09
Date Analyzed: 9/10/09
Desorption Volume: 1.0 ml
Volume Sampled: 104.5 Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	3,100	30	0.96	24	0.78	
75-07-0	Acetaldehyde	2,500	24	0.96	13	0.53	BT
123-38-6	Propionaldehyde	< 100	ND	0.96	ND	0.40	
4170-30-3	Crotonaldehyde, Total	< 100	ND	0.96	ND	0.33	
123-72-8	Butyraldehyde	< 100	ND	0.96	ND	0.32	
100-52-7	Benzaldehyde	560	5.4	0.96	1.2	0.22	M
590-86-3	Isovaleraldehyde	110	1.1	0.96	0.30	0.27	
110-62-3	Valeraldehyde	770	7.4	0.96	2.1	0.27	
529-20-4	o-Tolualdehyde	< 100	ND	0.96	ND	0.19	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	1.9	ND	0.39	
66-25-1	n-Hexaldehyde	2,800	26	0.96	6.4	0.23	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	0.96	ND	0.17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected.

BT = Results indicated possible breakthrough; back section > 10% front section.

M = Matrix interference; results may be biased high.

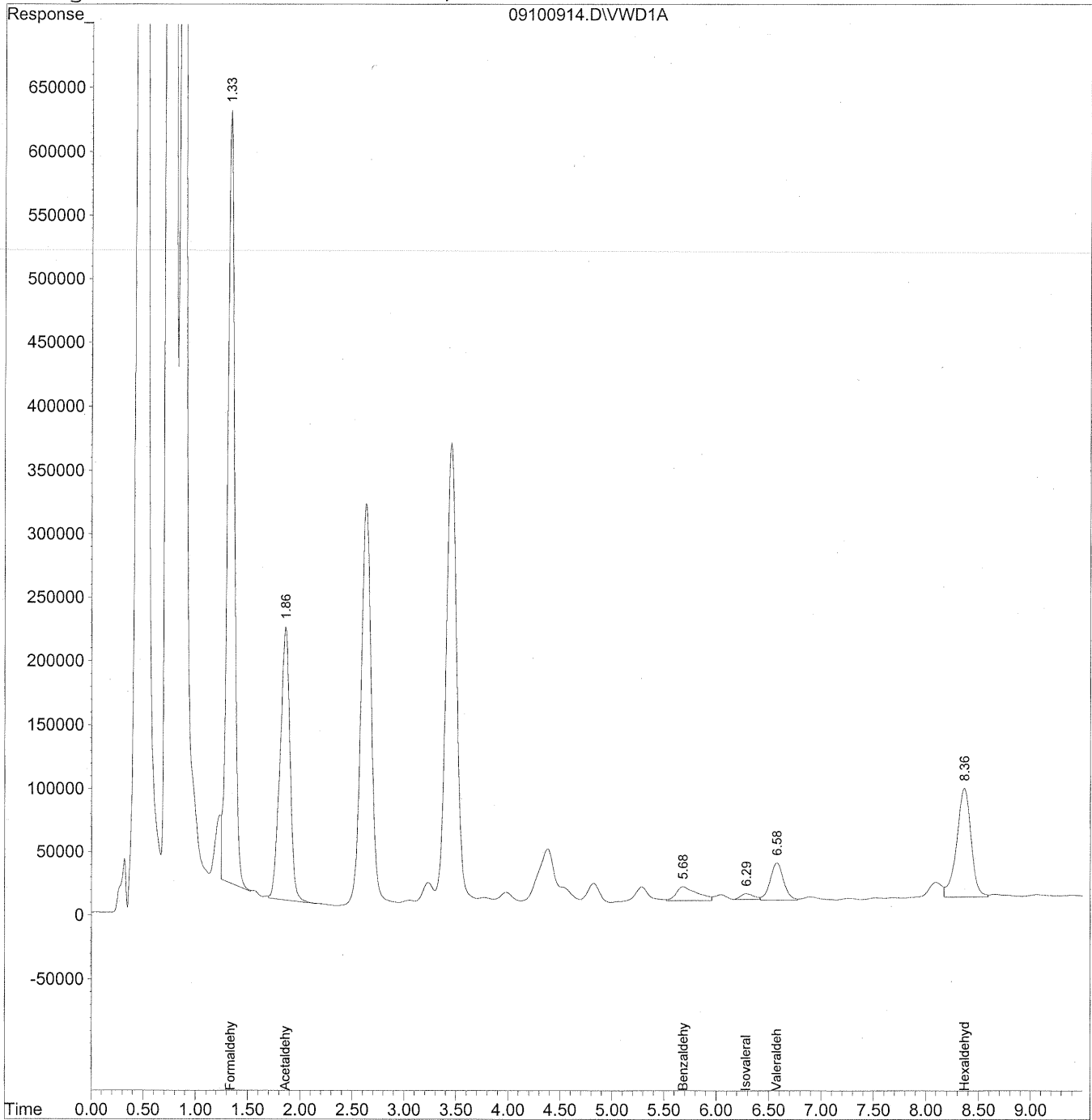
Verified By: _____ Date: 9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:11 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
 Acq On : 10-Sep-2009, 13:53 Operator: MD
 Sample : P0903083-002 front 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:11 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Thu Sep 10 12:03:26 2009
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 DataAcq Meth : TO-11A.M

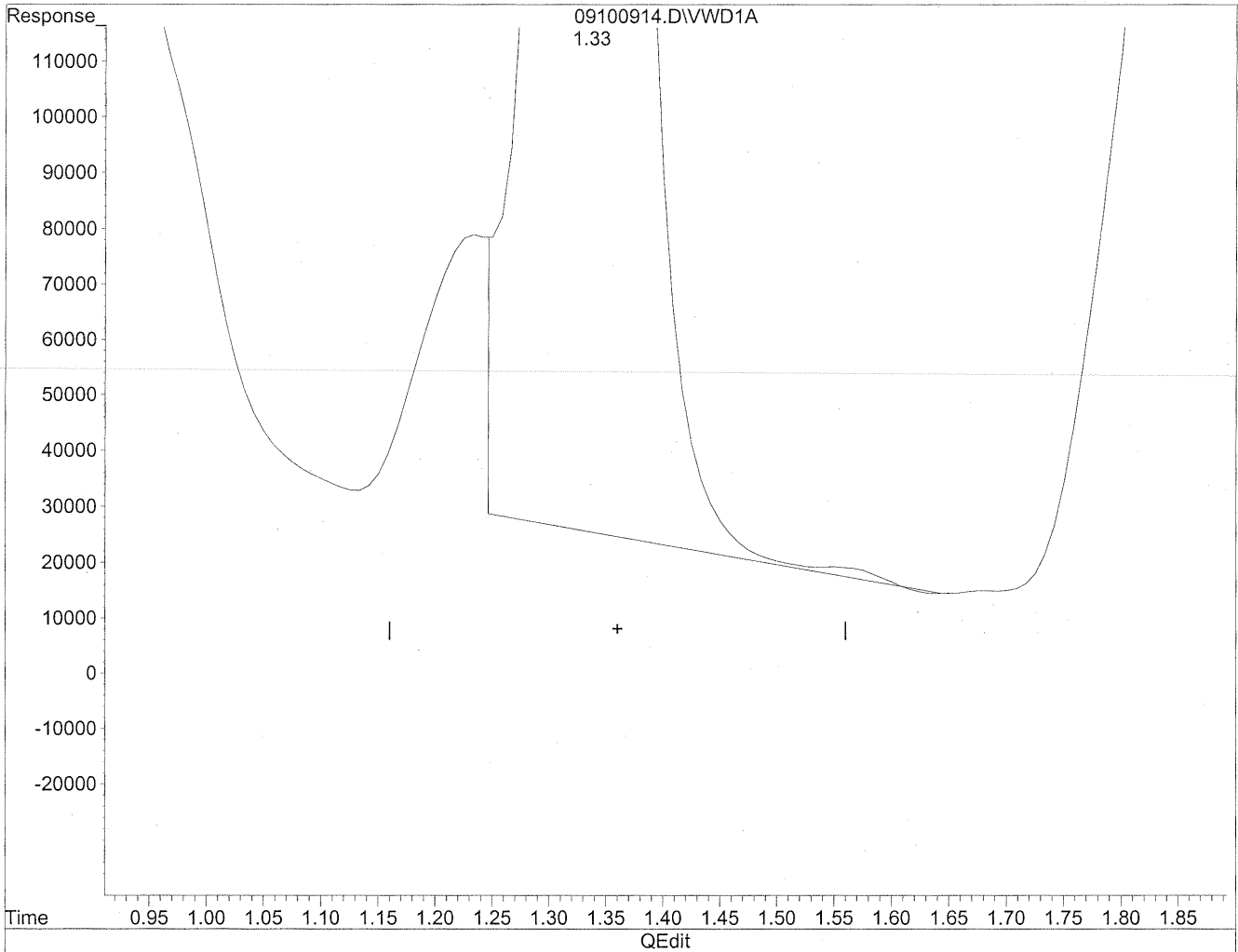
Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) Formaldehyde	1.33	28034660	3137.472	ng/mlm
2) Acetaldehyde	1.86	14221536	2187.660	ng/mlm
3) Propionaldehyde	0.00	0	N.D.	ng/ml
4) Crotonaldehyde	0.00	0	N.D.	ng/ml
5) Butyraldehyde	0.00	0	N.D.	ng/ml
6) Benzaldehyde	5.68f	1538995	564.070	ng/mlm
7) Isovaleraldehyde	6.29f	383257	111.354	ng/mlm
8) Valeraldehyde	6.58f	2631993	774.198	ng/mlm
9) o-Tolualdehyde	0.00	0	N.D.	ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11) Hexaldehyde	8.36f	8153499	2753.886	ng/mlm
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 14:17 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration

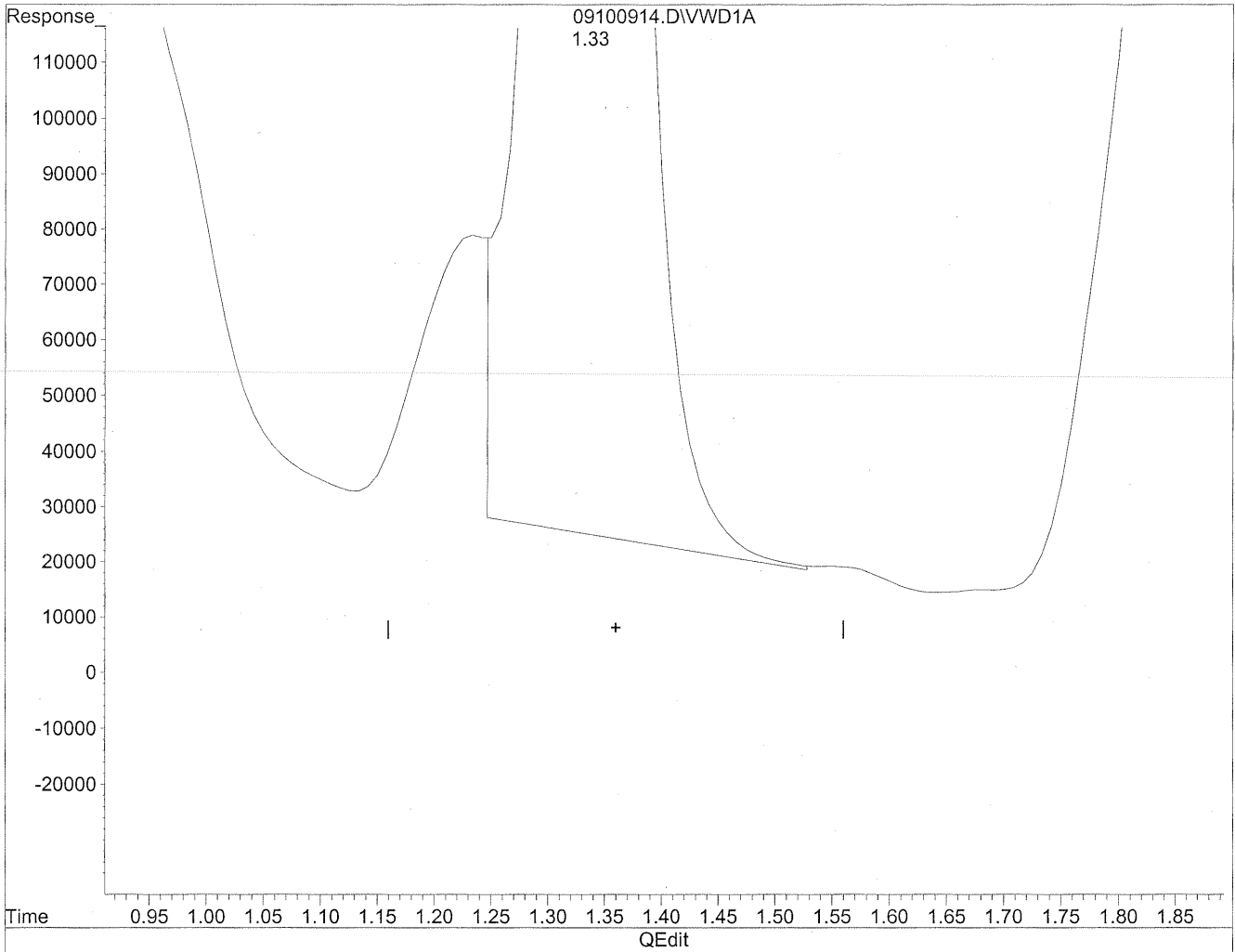


(1) Formaldehyde
1.34min 3153.943ng/ml
response 28181839

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
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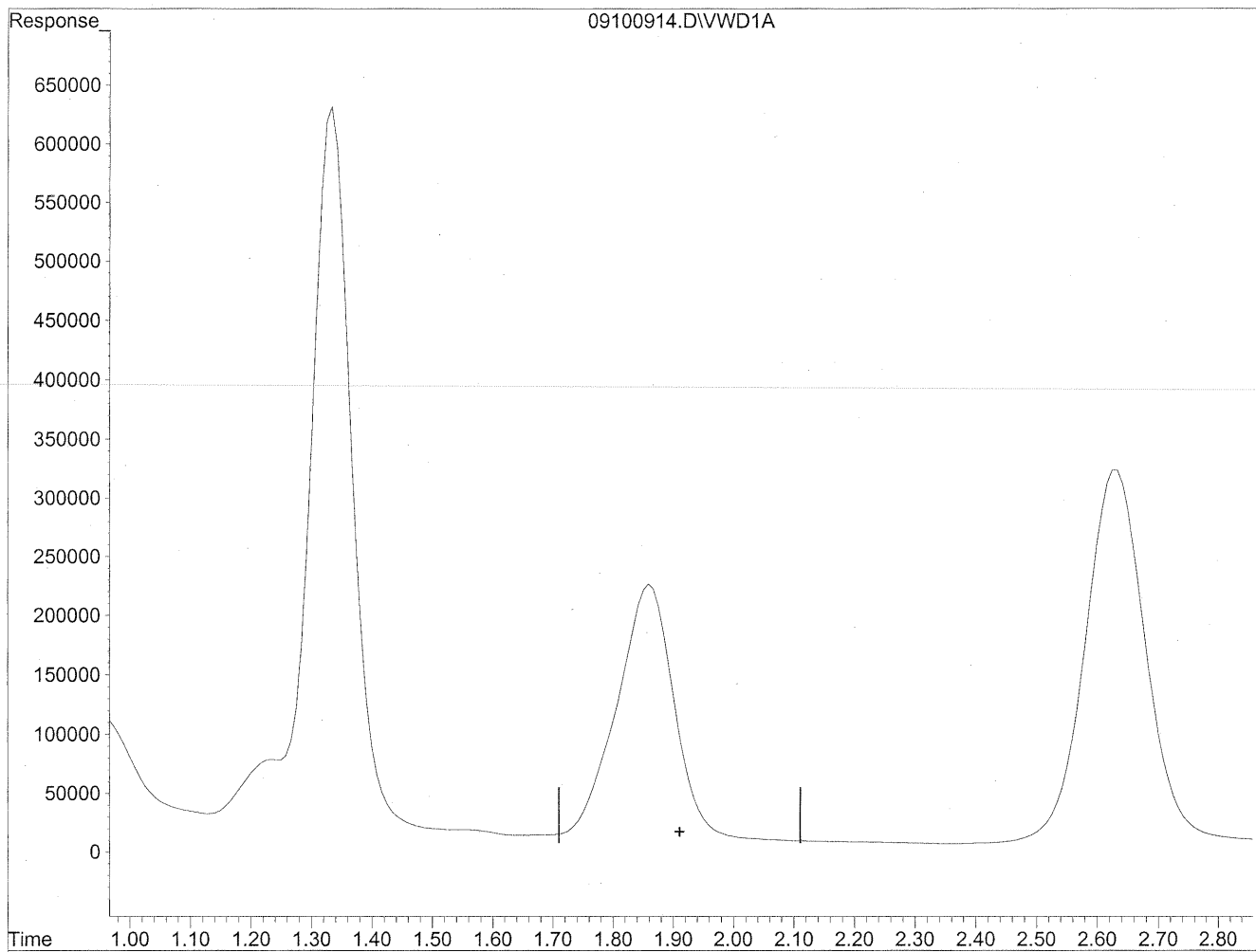
(1) Formaldehyde
1.33min 3137.472ng/ml m
response 28034660

mm
9/16/09
sh
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
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Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
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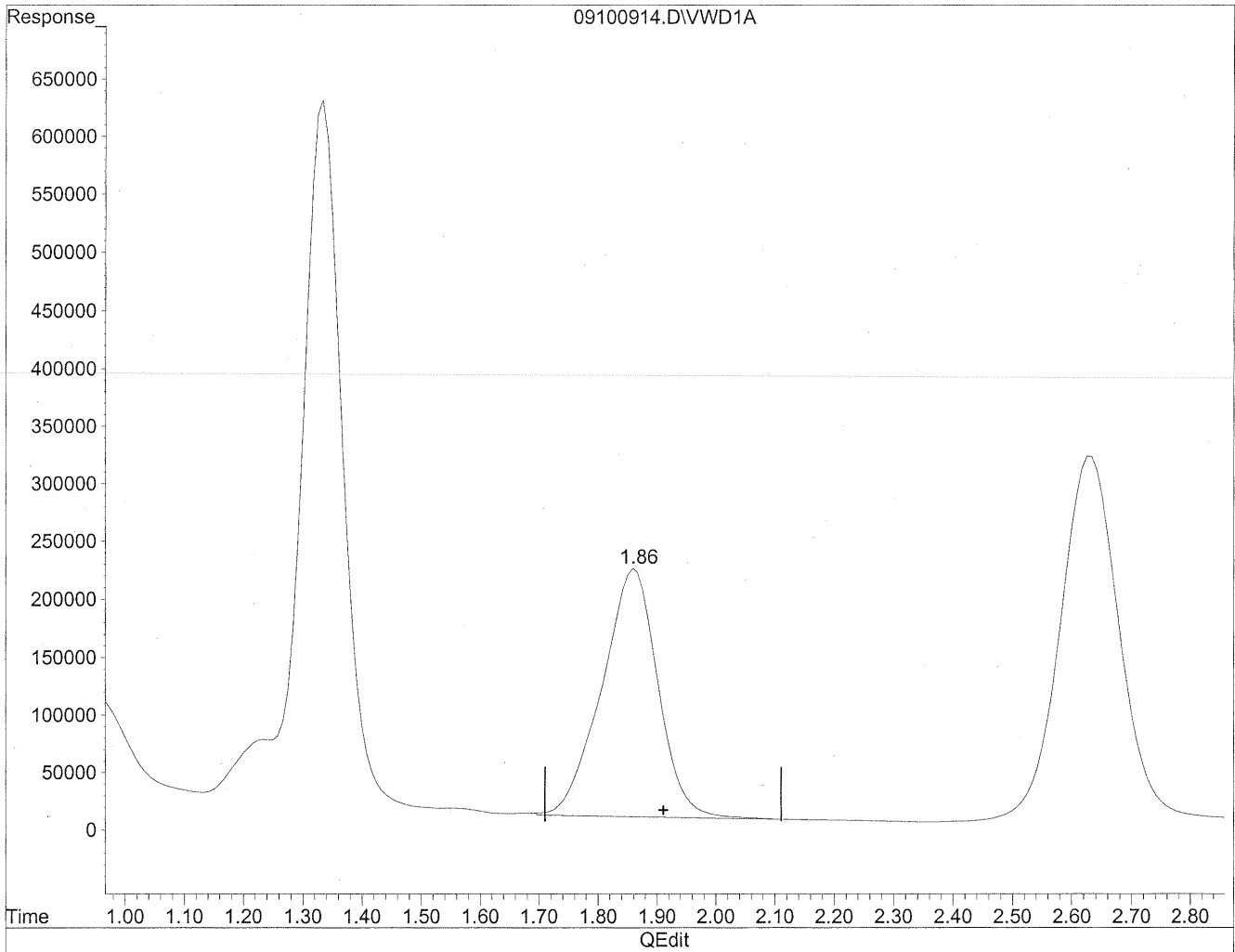


(2) Acetaldehyde
1.91min 0.000ng/ml
response 0

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
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Quant Time: Sep 10 14:17 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
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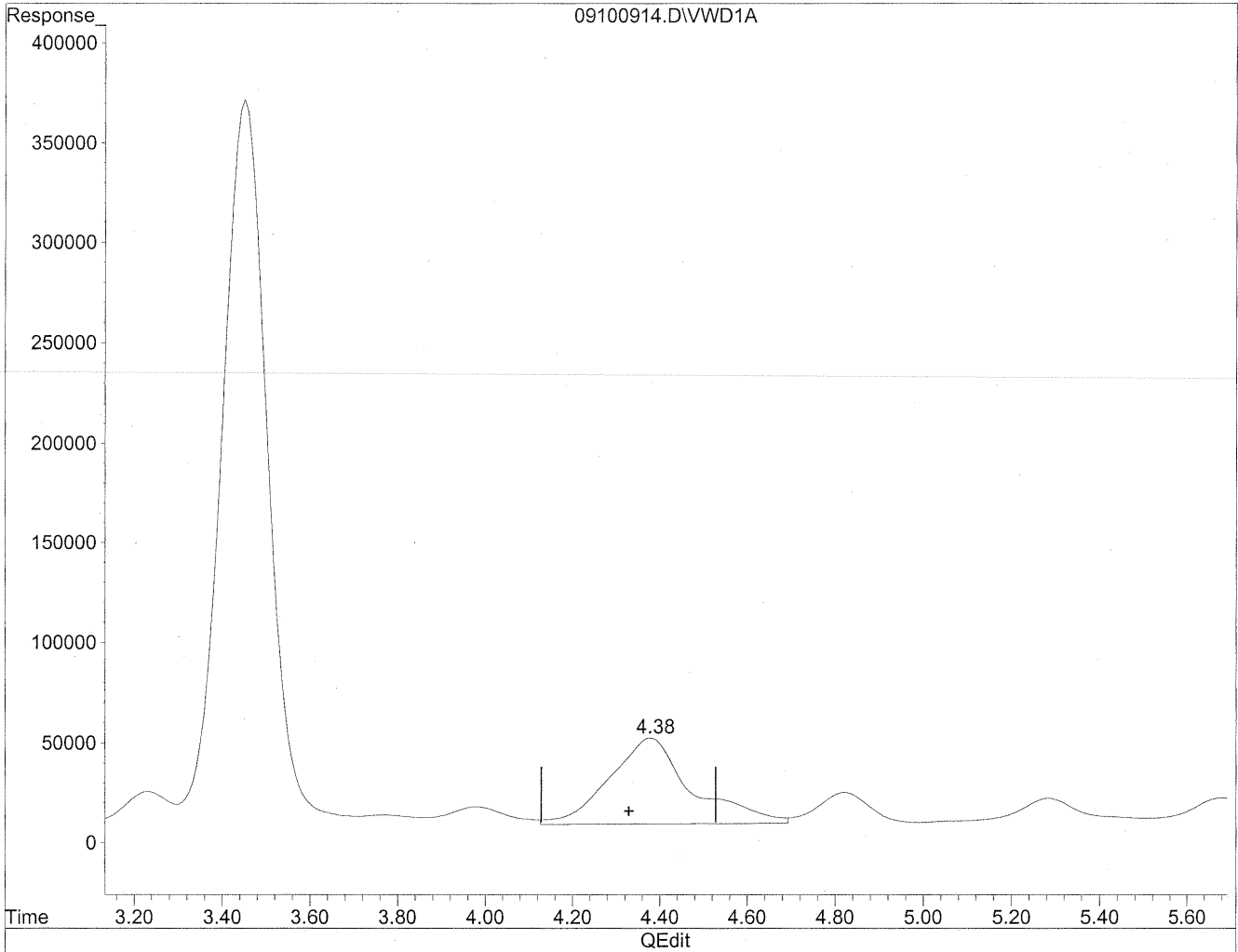
(2) Acetaldehyde
1.86min 2187.660ng/ml m
response 14221536

Handwritten notes:
HC 9/16/09
Bmi
9/16/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
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Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration

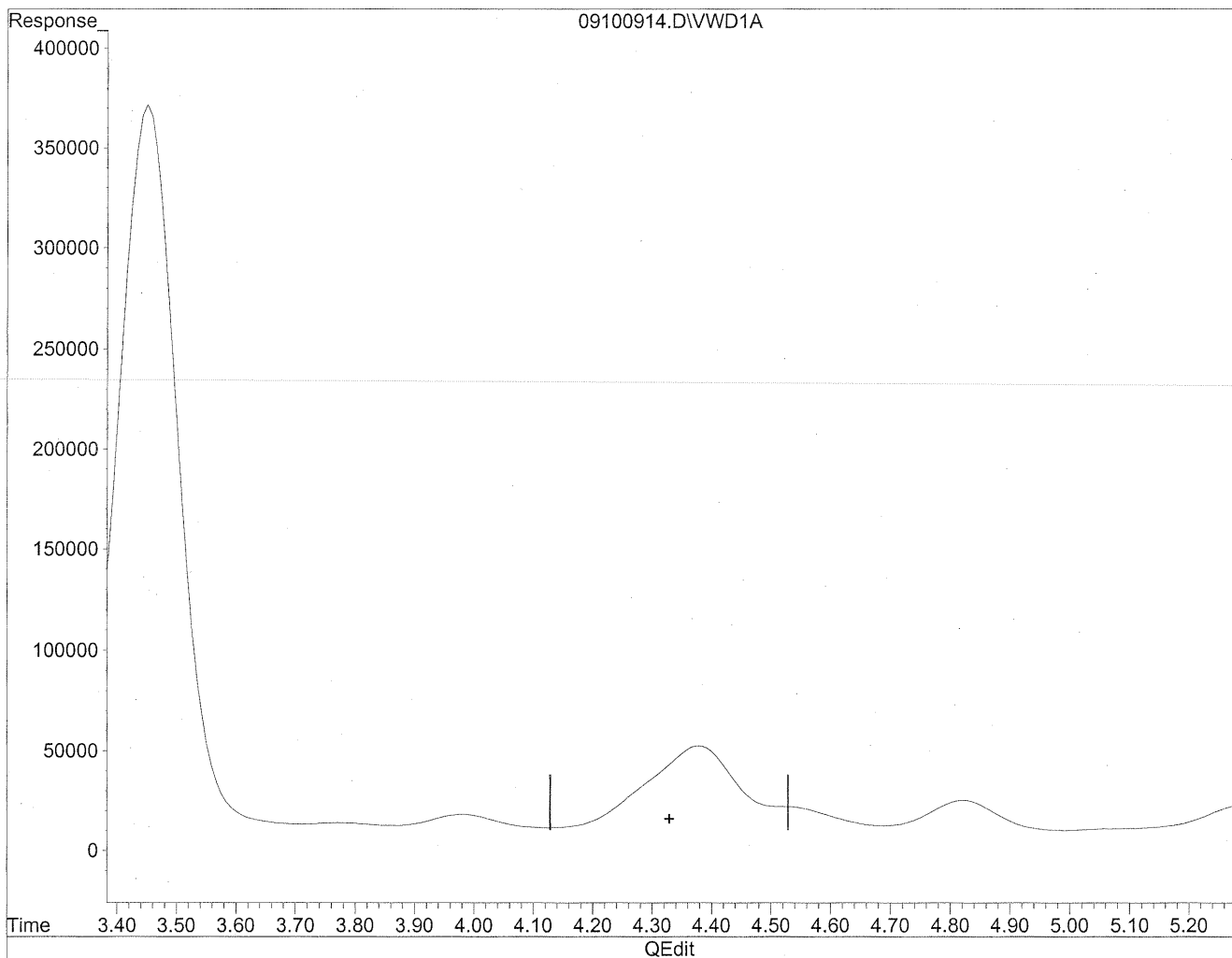


(4) Crotonaldehyde
4.38min 1388.418ng/ml
response 5636382

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 14:17 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration



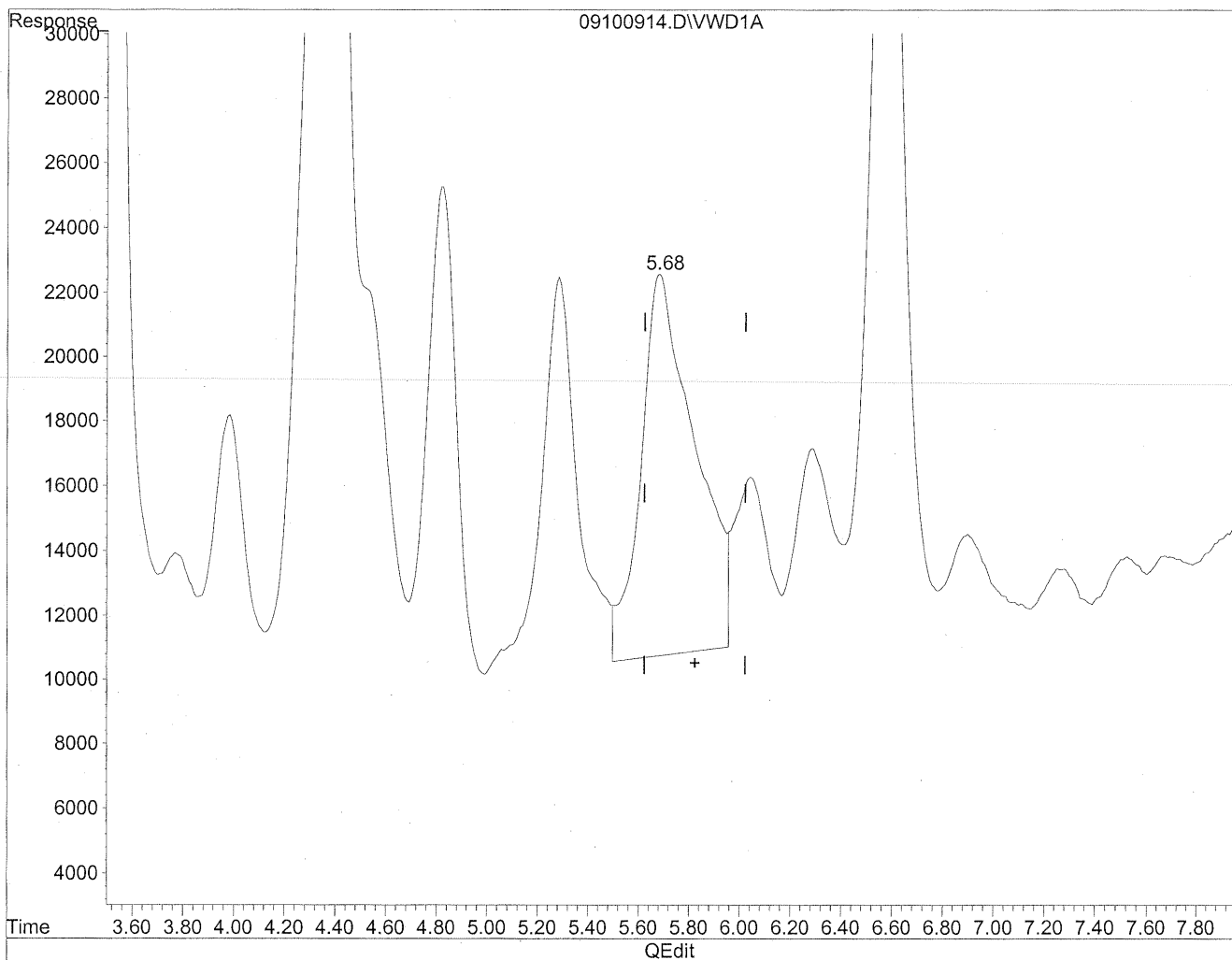
(4) Crotonaldehyde
0.00min 0.000ng/ml d
response 0

HC
9/16/09
mp, (RT)

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 14:17 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration

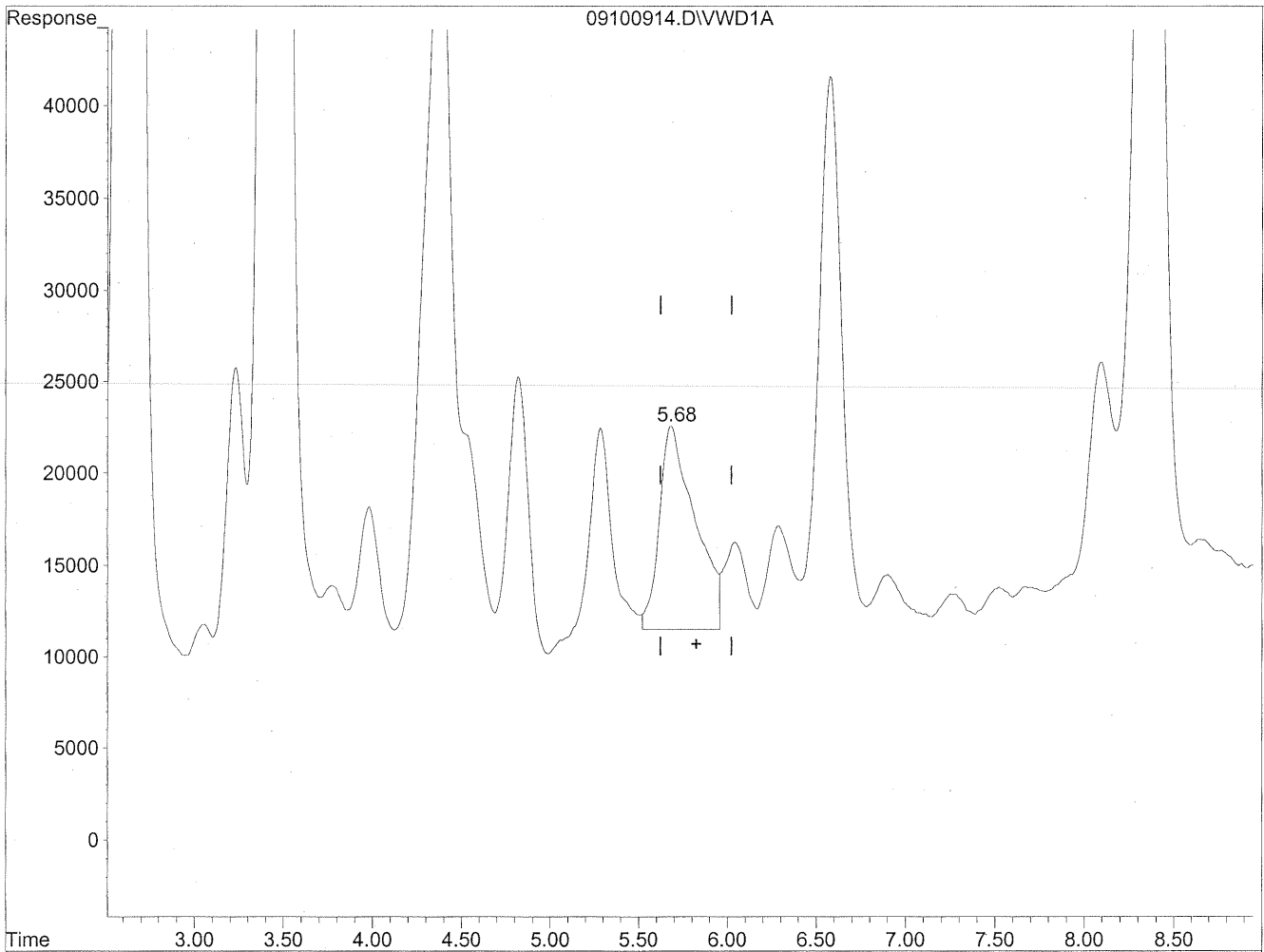


(6) Benzaldehyde
5.68min 641.652ng/ml
response 1750669

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 14:17 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration



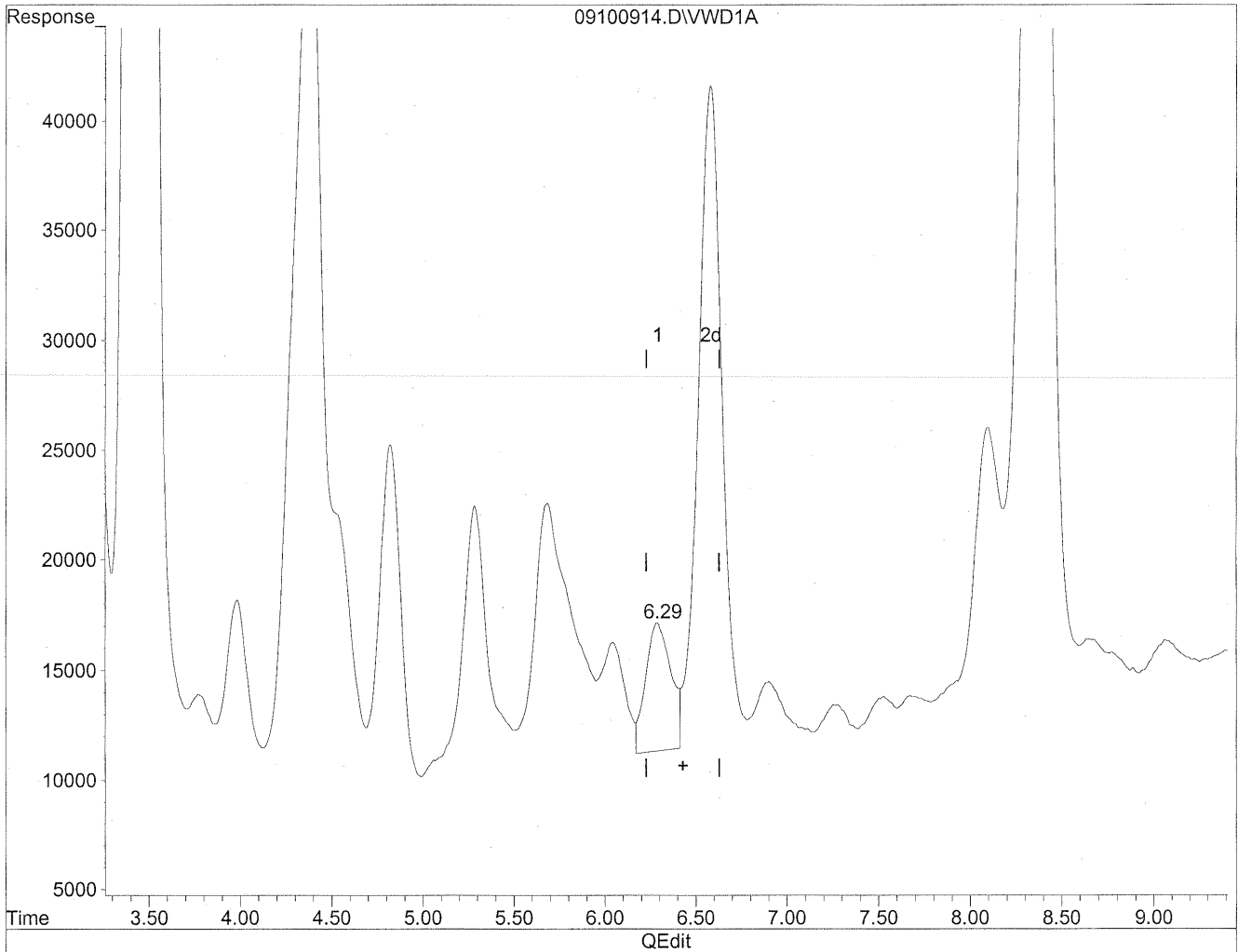
(6) Benzaldehyde
5.68min 564.070ng/ml m
response 1538995

MD
9/16/09
BC
(m flag)
AC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 14:17 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration

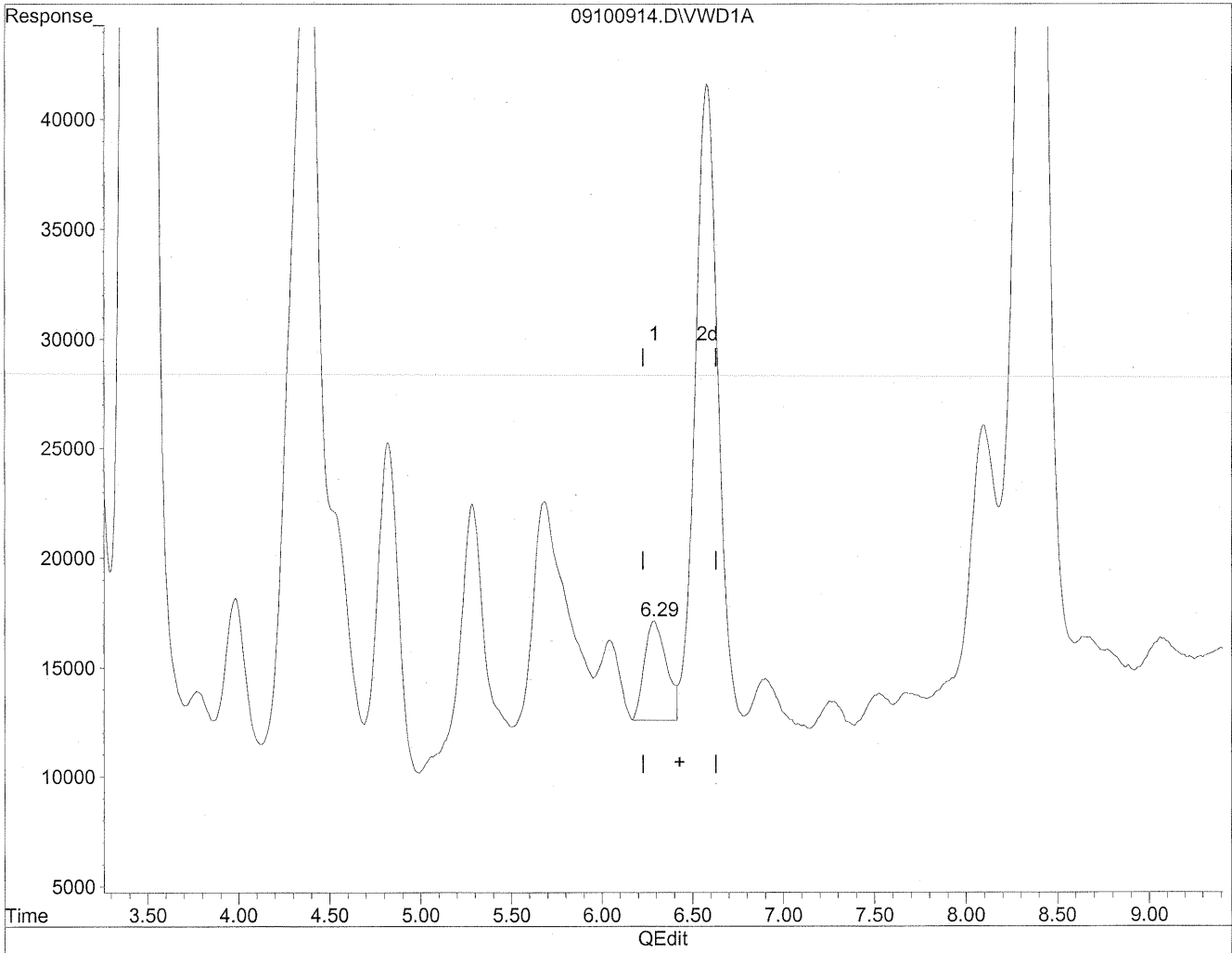


(7) Isovaleraldehyde
6.29min 163.201ng/ml
response 561702

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 14:17 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration



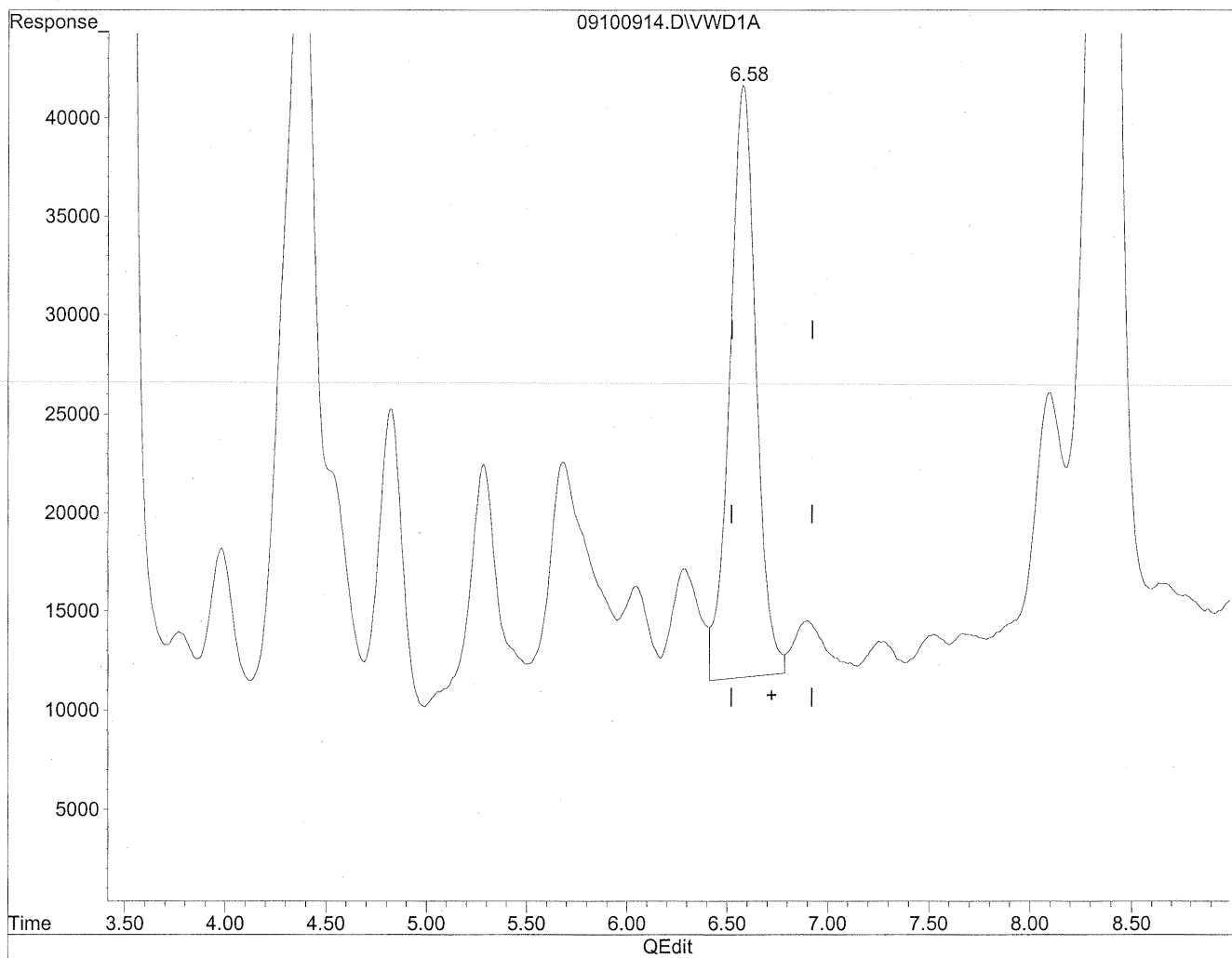
(7) Isovaleraldehyde
6.29min 111.354ng/ml m
response 383257

(Handwritten notes)
9/16/09
IZ, PC
HE
09/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 14:17 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration

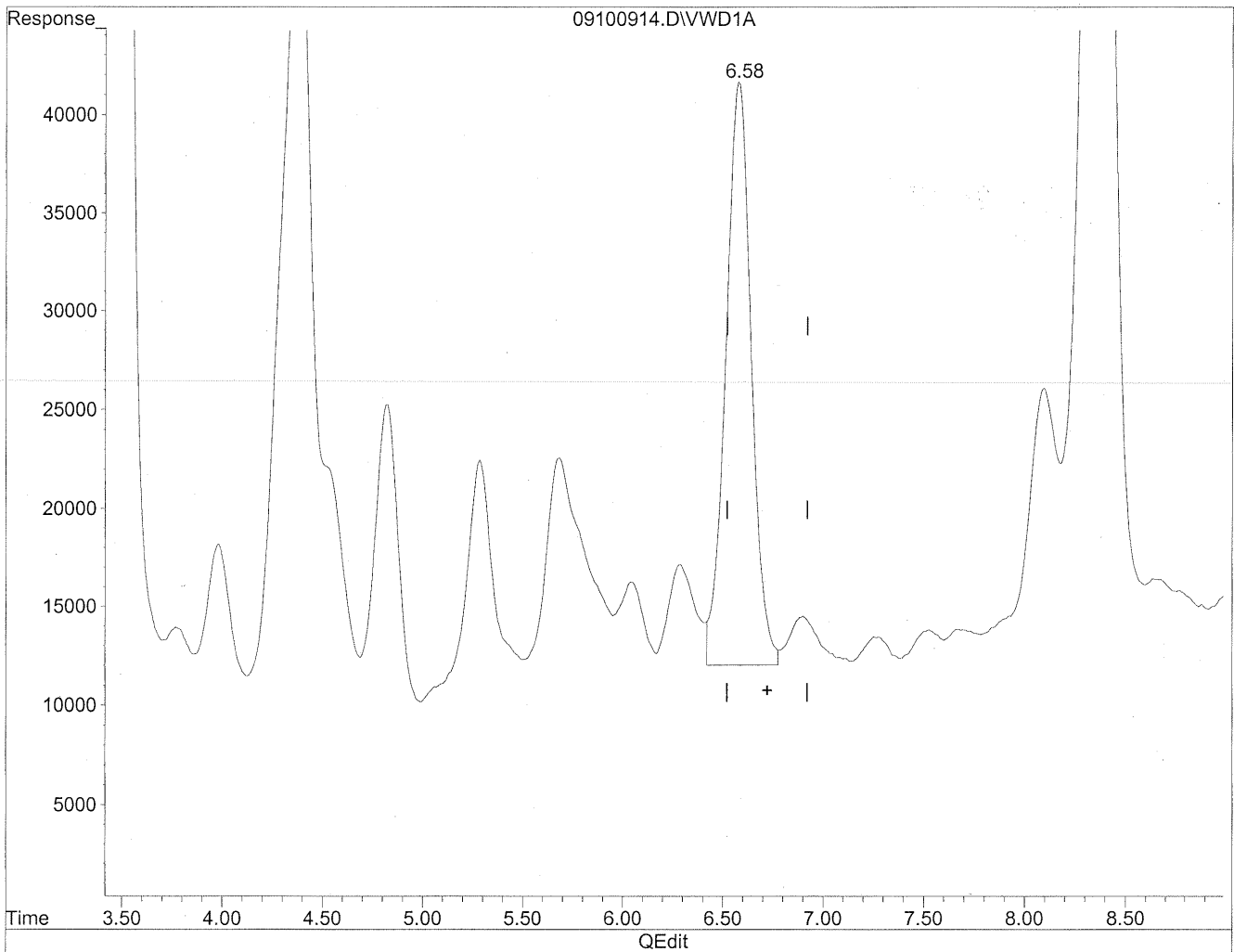


(8) Valeraldehyde
6.58min 802.523ng/ml
response 2728290

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 14:17 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration



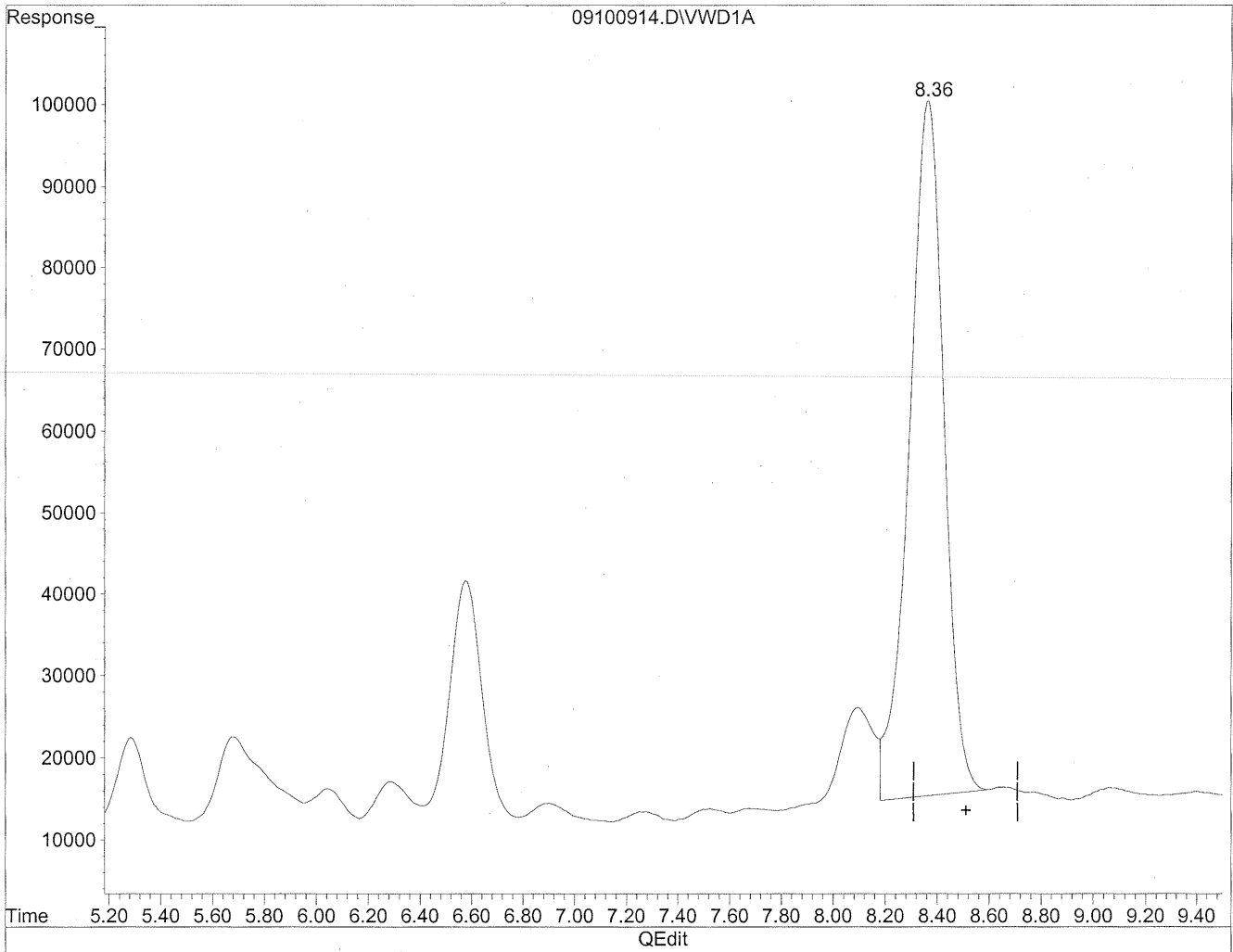
(8) Valeraldehyde
6.58min 774.198ng/ml m
response 2631993

MD
9/16/09
PC
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 14:17 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration

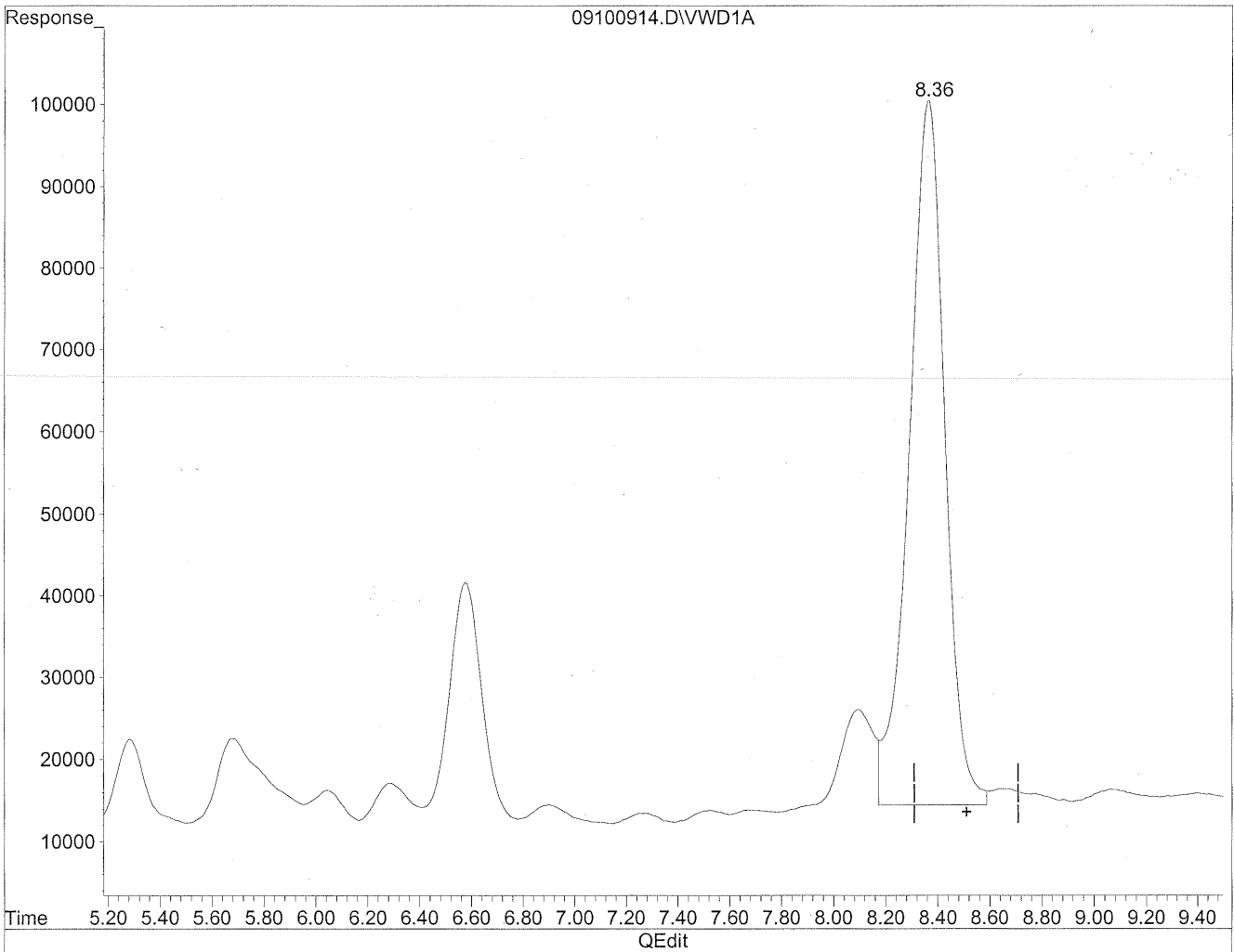


(11) Hexaldehyde
8.37min 2664.013ng/ml
response 7887407

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100914.D Vial: 102
Acq On : 10-Sep-2009, 13:53 Operator: MD
Sample : P0903083-002 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 14:17 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde
8.36min 2753.886ng/ml m
response 8153499

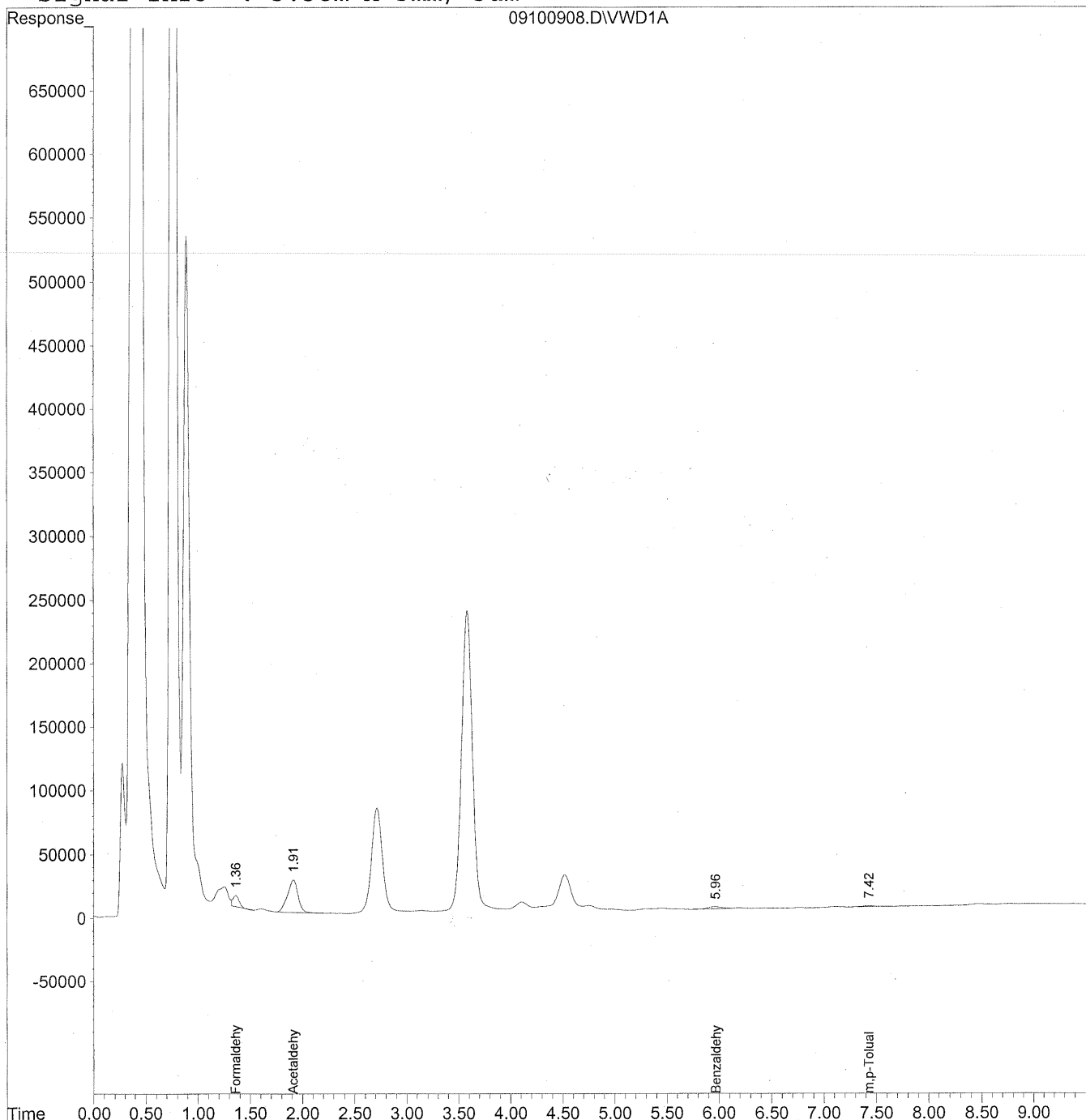
Handwritten notes:
M
9/16/09
PC
HIC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100908.D Vial: 6
Acq On : 10-Sep-2009, 12:43 Operator: MD
Sample : P0903083-002 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 13:28 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100908.D Vial: 6
 Acq On : 10-Sep-2009, 12:43 Operator: MD
 Sample : P0903083-002 back 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 13:28 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Thu Sep 10 12:03:26 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.36	358106	40.077 ng/ml
2) Acetaldehyde	1.91	1784415	274.492 ng/ml
3) Propionaldehyde	0.00	0	N.D. ng/ml
4) Crotonaldehyde	0.00	0	N.D. ng/ml
5) Butyraldehyde	0.00	0	N.D. ng/ml
6) Benzaldehyde	5.97f	116224	42.598 ng/ml
7) Isovaleraldehyde	0.00	0	N.D. ng/ml
8) Valeraldehyde	0.00	0	N.D. ng/ml
9) o-Tolualdehyde	0.00	0	N.D. ng/ml
10) m,p-Tolualdehyde	7.43	55521	24.172 ng/ml
11) Hexaldehyde	0.00	0	N.D. ng/ml
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D. ng/ml

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Environmental Health & Engineering, Inc.

Client Sample ID: 103939

Client Project ID: 16512

CAS Project ID: P0903083

CAS Sample ID: P0903083-003

Test Code: EPA Method TO-11A

Instrument ID: HP1050/LC2

Analyst: Madeleine Dangazyan

Sampling Media: Silica Gel DNPH Tube

Test Notes: BC

Date Collected: 8/24/09

Date Received: 9/2/09

Date Analyzed: 9/10/09

Desorption Volume: 1.0 ml

Volume Sampled: 103.95 Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	3,200	31	0.96	25	0.78	
75-07-0	Acetaldehyde	2,500	24	0.96	14	0.53	BT
123-38-6	Propionaldehyde	270	2.6	0.96	1.1	0.41	
4170-30-3	Crotonaldehyde, Total	< 100	ND	0.96	ND	0.34	
123-72-8	Butyraldehyde	300	2.9	0.96	0.99	0.33	
100-52-7	Benzaldehyde	650	6.2	0.96	1.4	0.22	M
590-86-3	Isovaleraldehyde	120	1.1	0.96	0.32	0.27	
110-62-3	Valeraldehyde	850	8.2	0.96	2.3	0.27	
529-20-4	o-Tolualdehyde	< 100	ND	0.96	ND	0.20	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	1.9	ND	0.39	
66-25-1	n-Hexaldehyde	3,100	30	0.96	7.2	0.23	
5779-94-2	2,5-Dimethylbenzaldehyde	130	1.3	0.96	0.23	0.18	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected.

BT = Results indicated possible breakthrough; back section > 10% front section.

M = Matrix interference; results may be biased high.

Verified By: _____

Date: _____

9/17/09

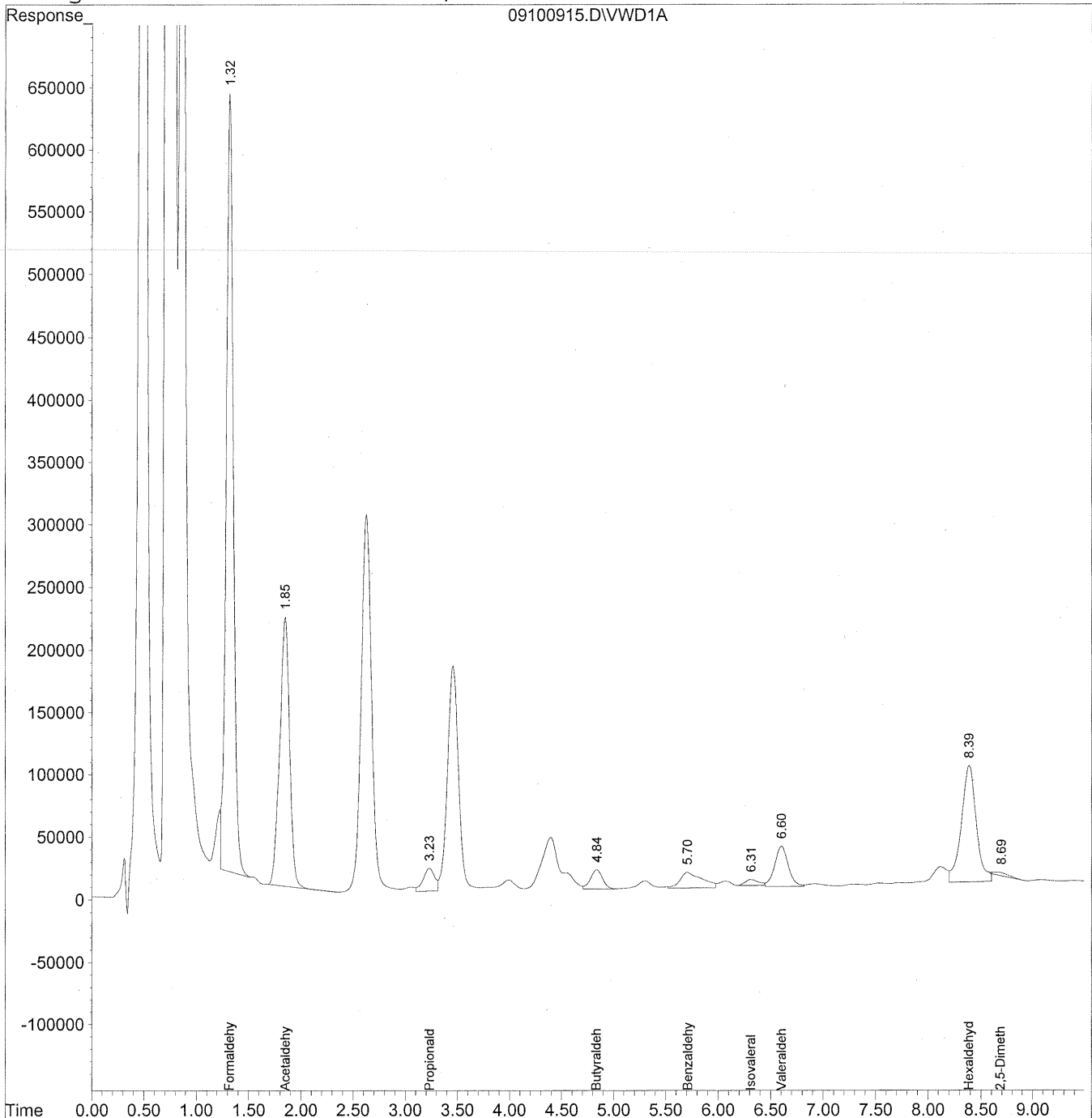
31

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
 Acq On : 10-Sep-2009, 14:05 Operator: MD
 Sample : P0903083-003 front 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 16 11:12:09 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

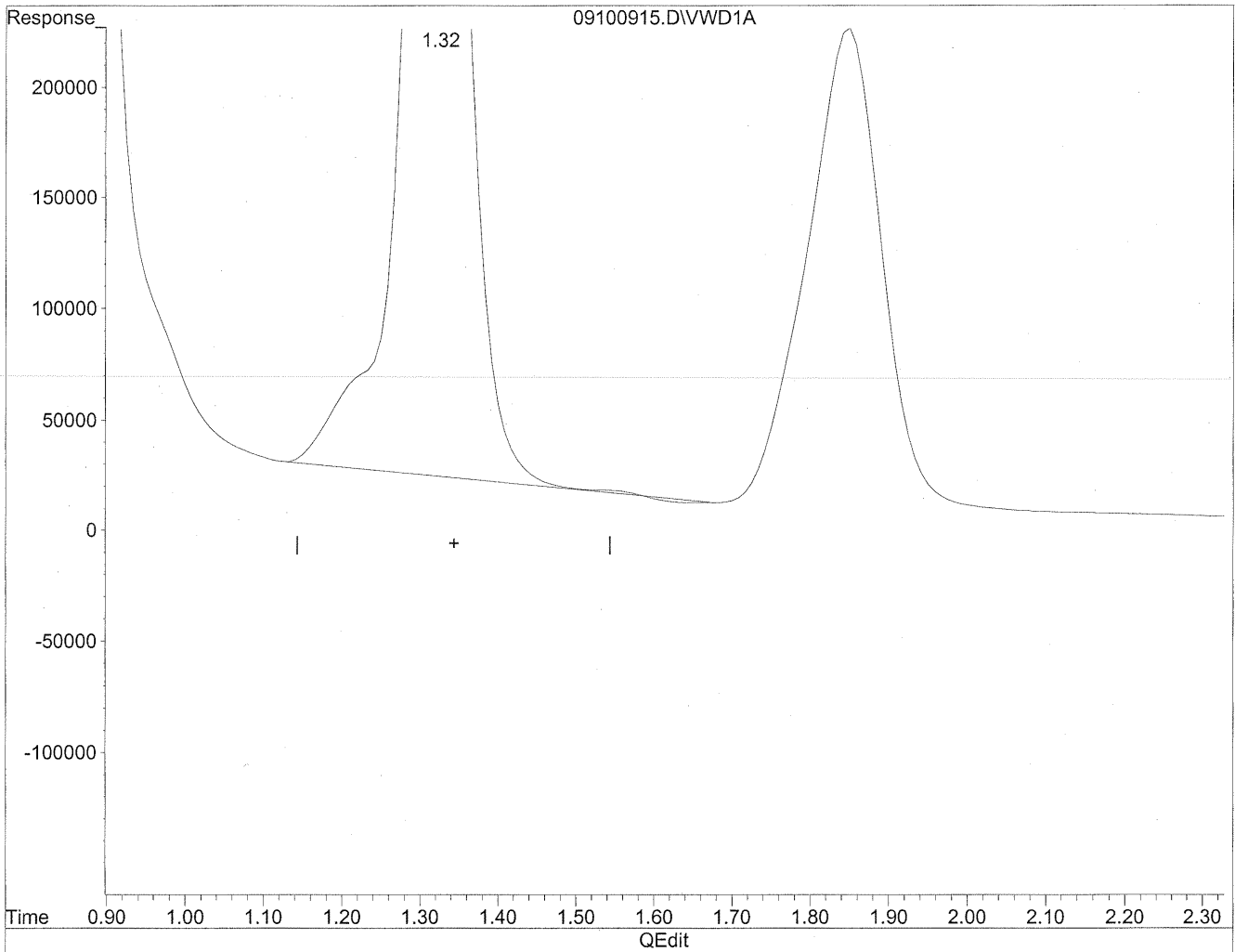
Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.32	28947375	3239.617 ng/mlm
2) Acetaldehyde	1.85	14268654	2194.908 ng/ml
3) Propionaldehyde	3.23	1378763	265.258 ng/ml
4) Crotonaldehyde	0.00	0	N.D. ng/ml
5) Butyraldehyde	4.84	1225766	302.451 ng/mlm
6) Benzaldehyde	5.70	1772103	649.508 ng/mlm
7) Isovaleraldehyde	6.31	402507	116.947 ng/mlm
8) Valeraldehyde	6.60	2889548	849.957 ng/mlm
9) o-Tolualdehyde	0.00	0	N.D. ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D. ng/ml
11) Hexaldehyde	8.39	9117846	3079.600 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.69	261162	130.876 ng/mlm

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

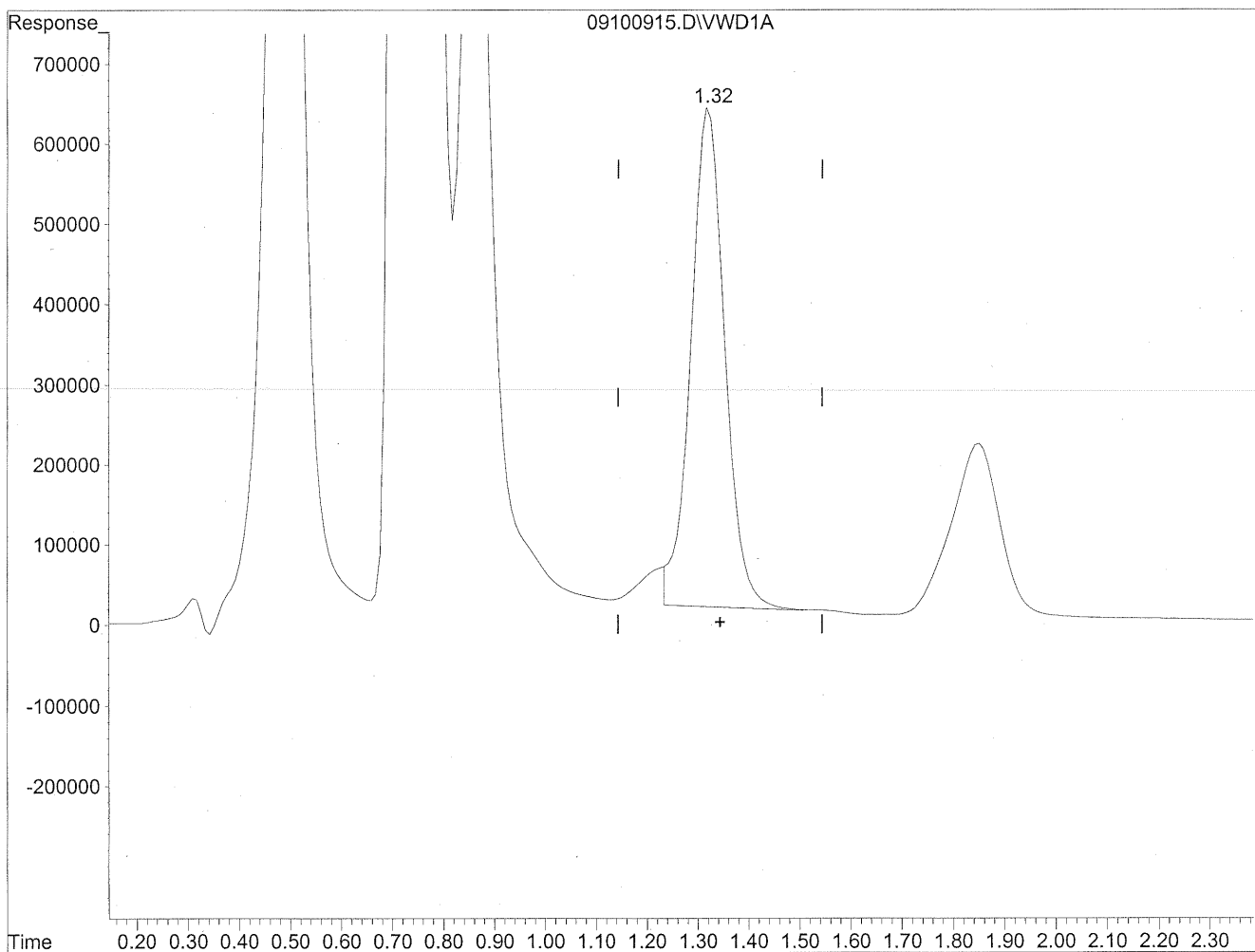


(1) Formaldehyde
1.32min 3365.491ng/ml
response 30072114

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



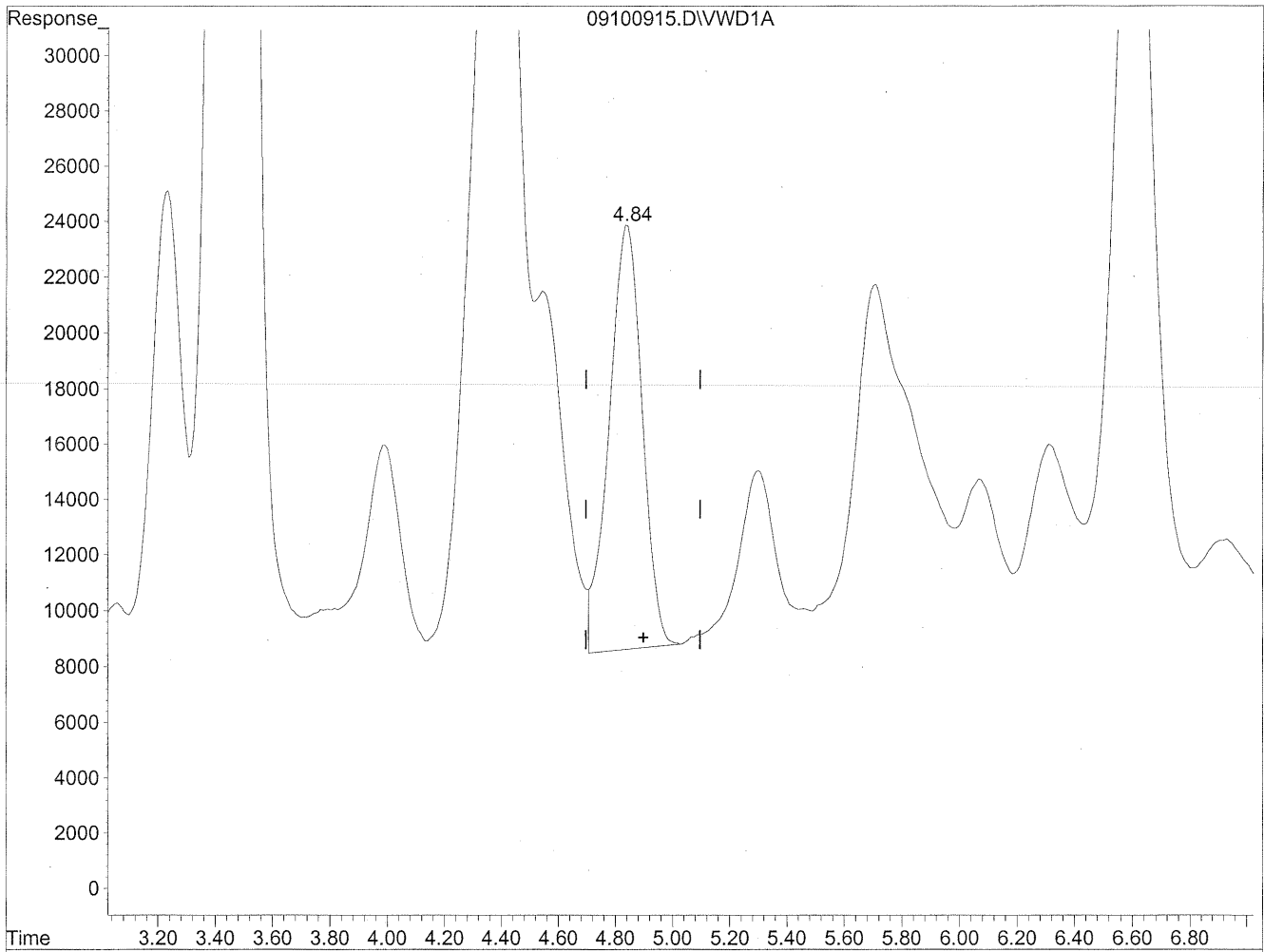
(1) Formaldehyde
1.32min 3239.617ng/ml m
response 28947375

(Handwritten signatures and dates)
MD 9/16/09
sh 9/17/09
HC 9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

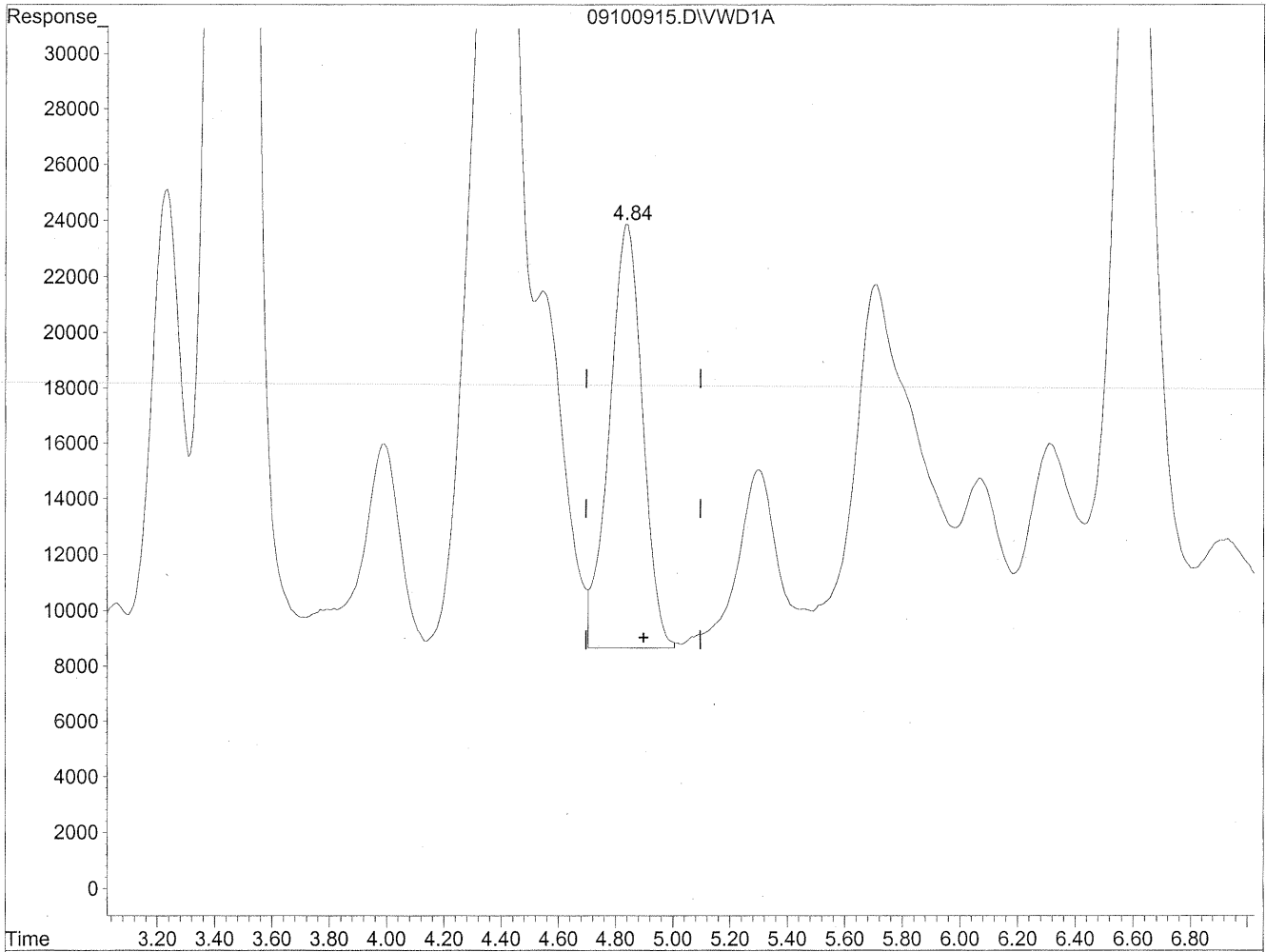


(5) Butyraldehyde
4.84min 304.567ng/ml
response 1234341

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



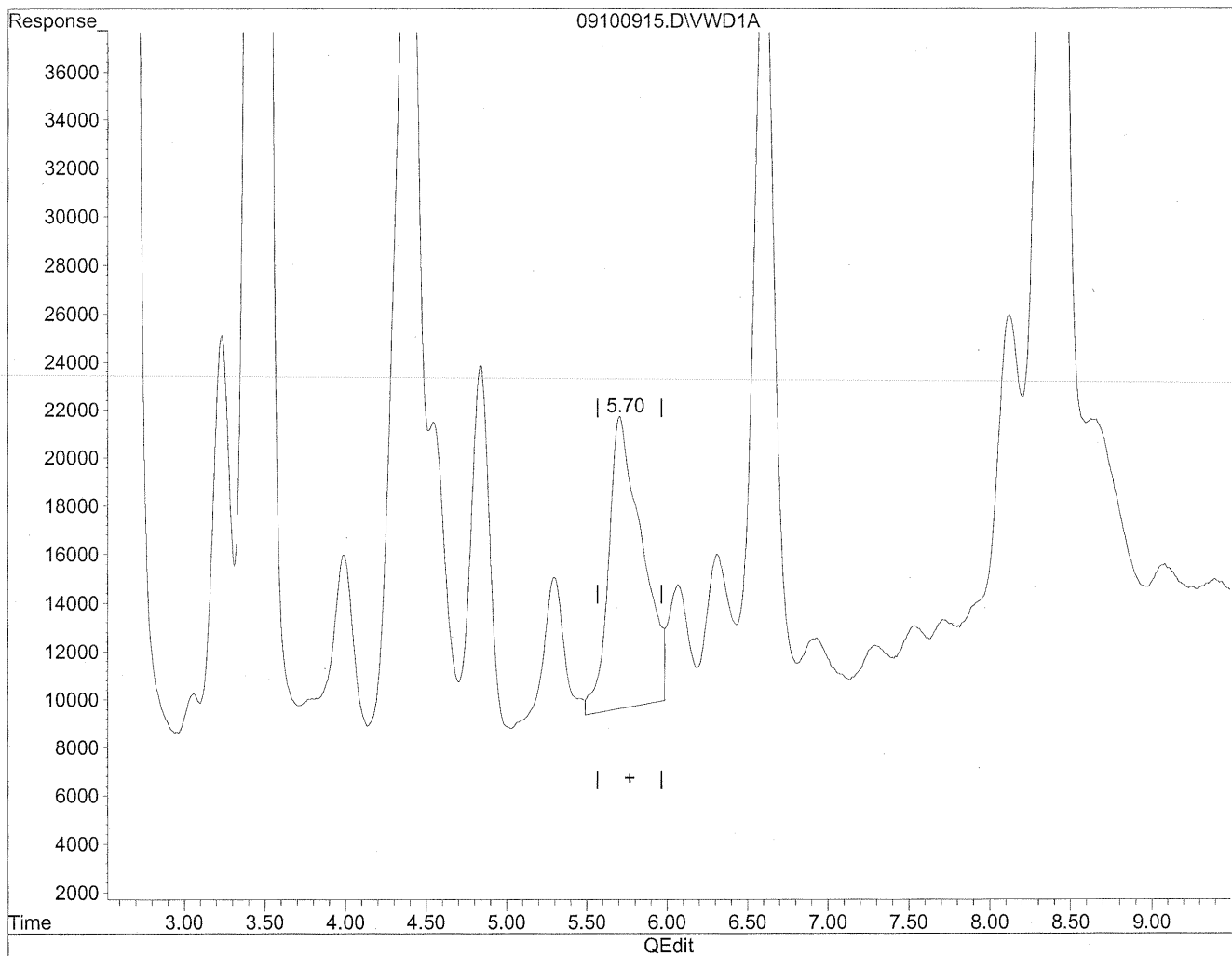
(5) Butyraldehyde
4.84min 302.451ng/ml m
response 1225766

m
9/16/09
pc
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

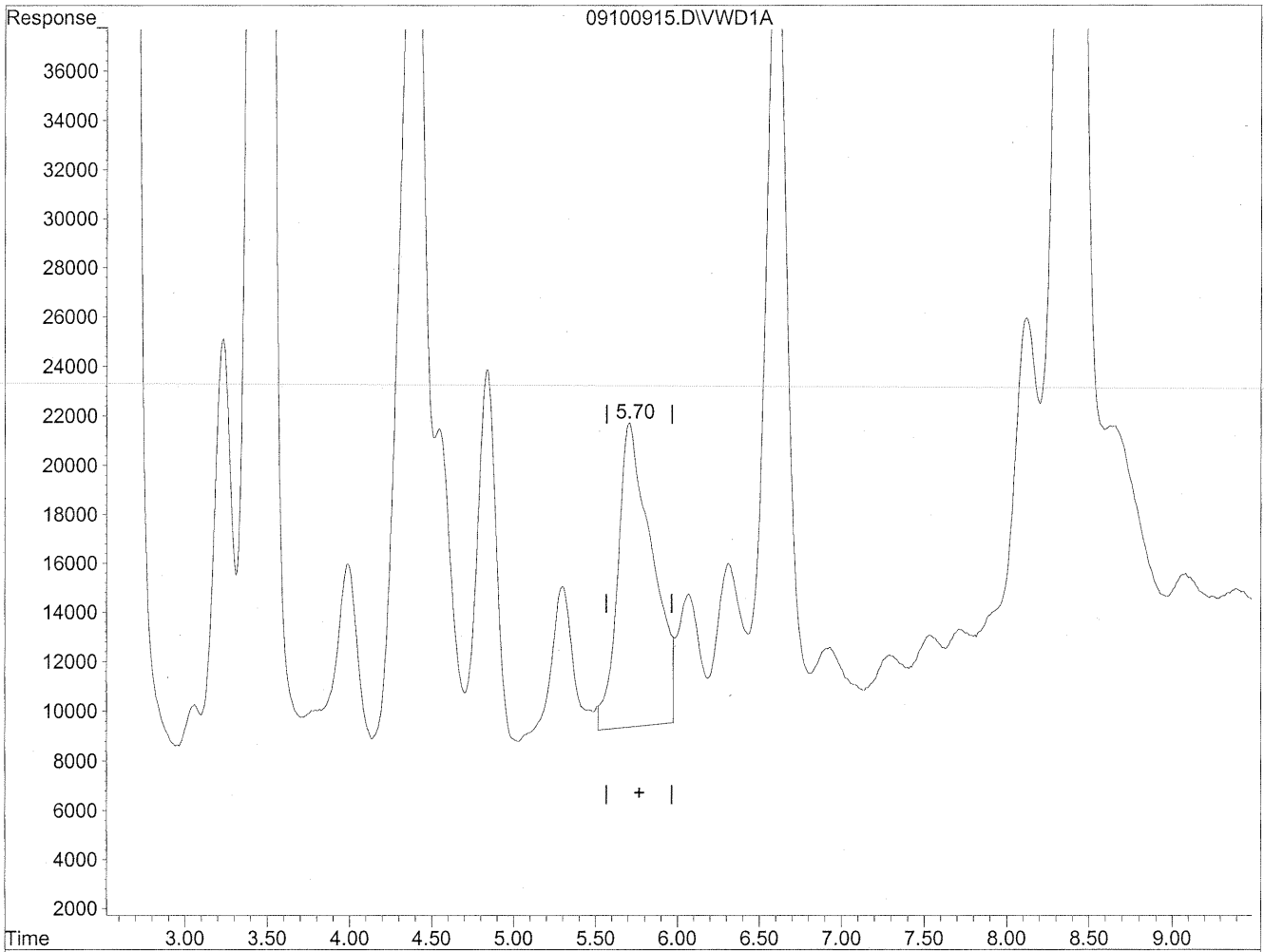


(6) Benzaldehyde
5.71min 635.129ng/ml
response 1732871

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



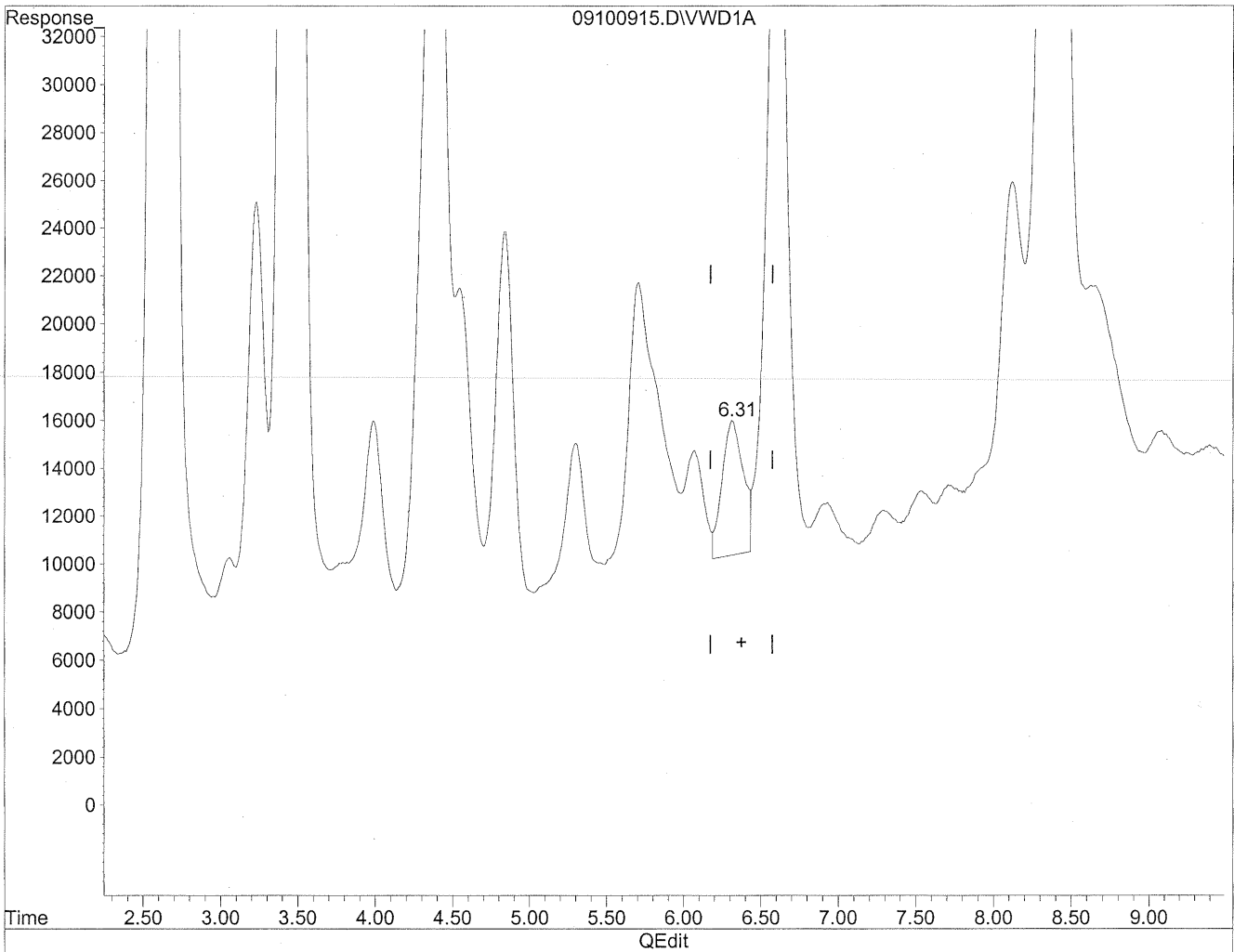
(6) Benzaldehyde
5.70min 649.508ng/ml m
response 1772103

(m)
9/16/09
PC
(m flag)
AC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

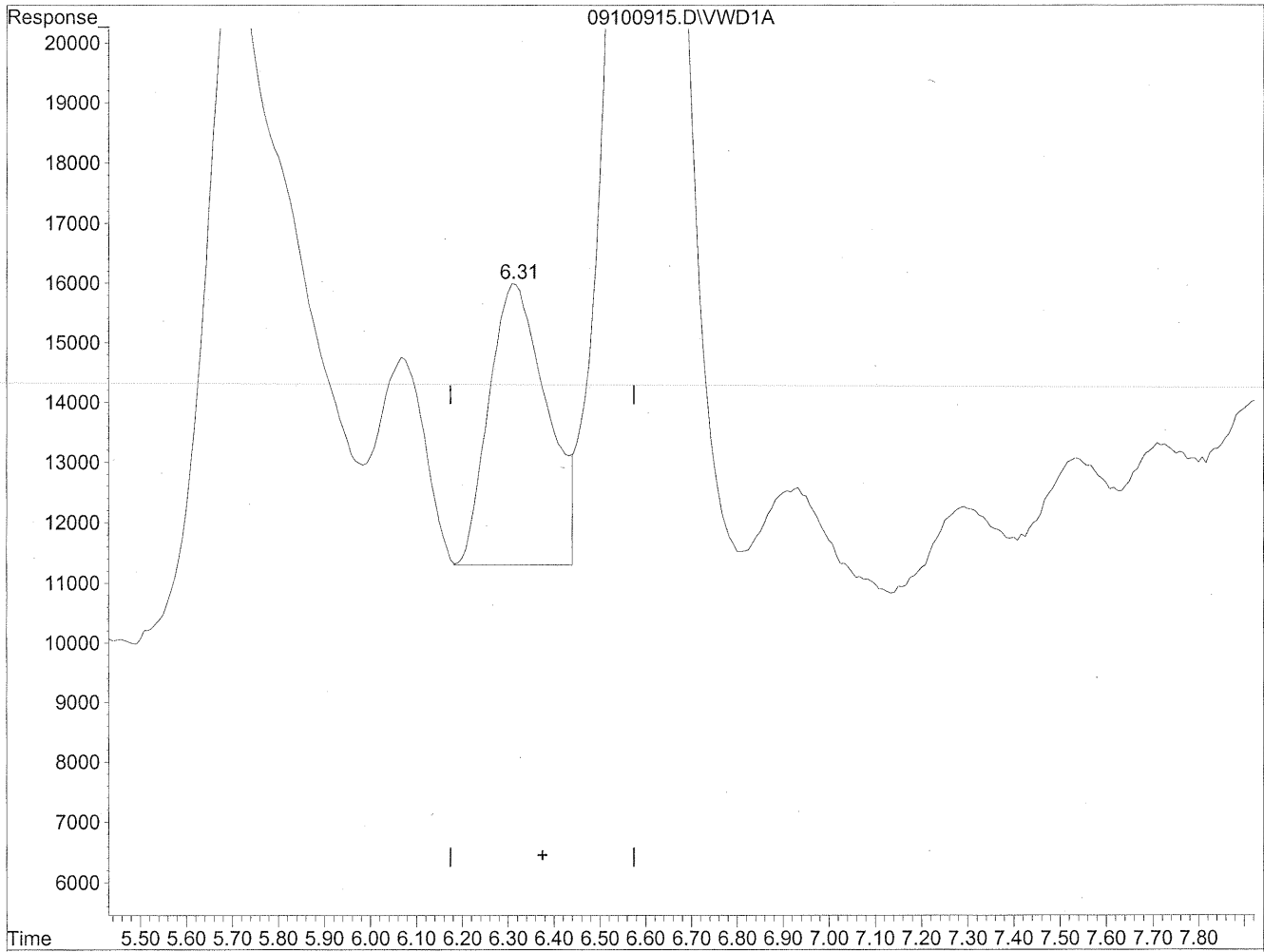


(7) Isovaleraldehyde
6.32min 155.757ng/ml
response 536084

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



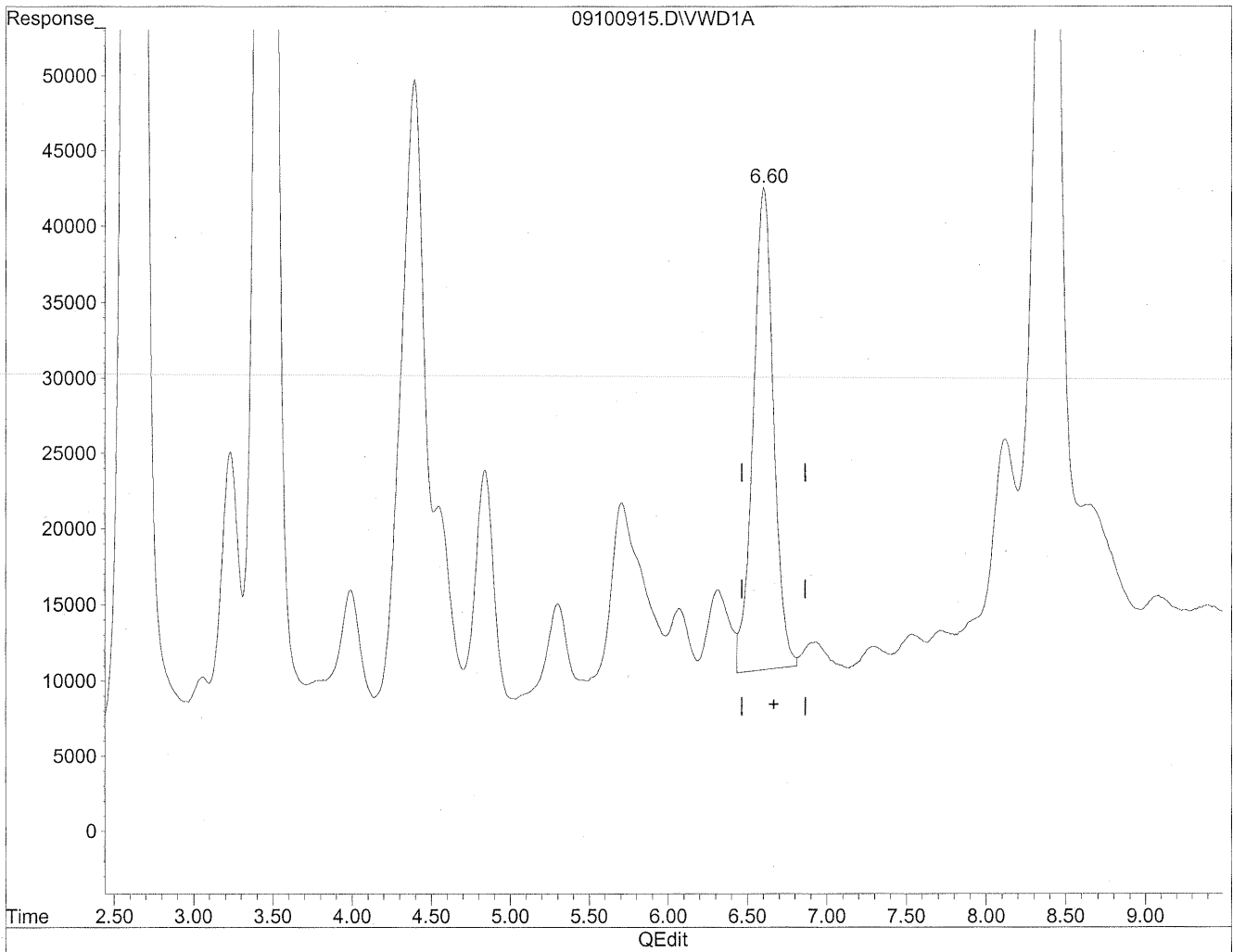
(7) Isovaleraldehyde
6.31min 116.947ng/ml m
response 402507

(Handwritten signatures and dates)
MD 9/16/09
AC 9/17/09
RZ

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

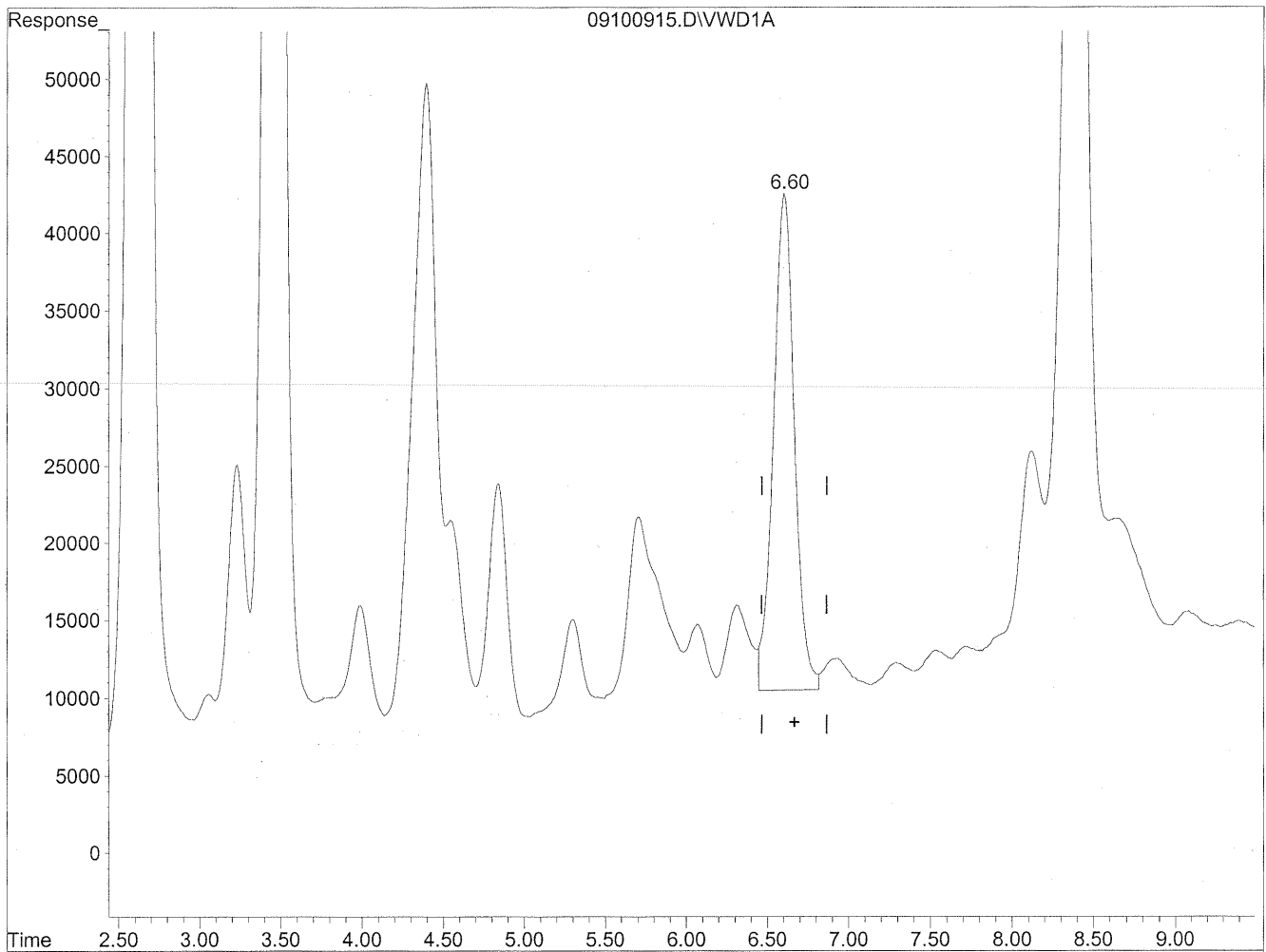


(8) Valeraldehyde
6.60min 837.532ng/ml
response 2847307

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



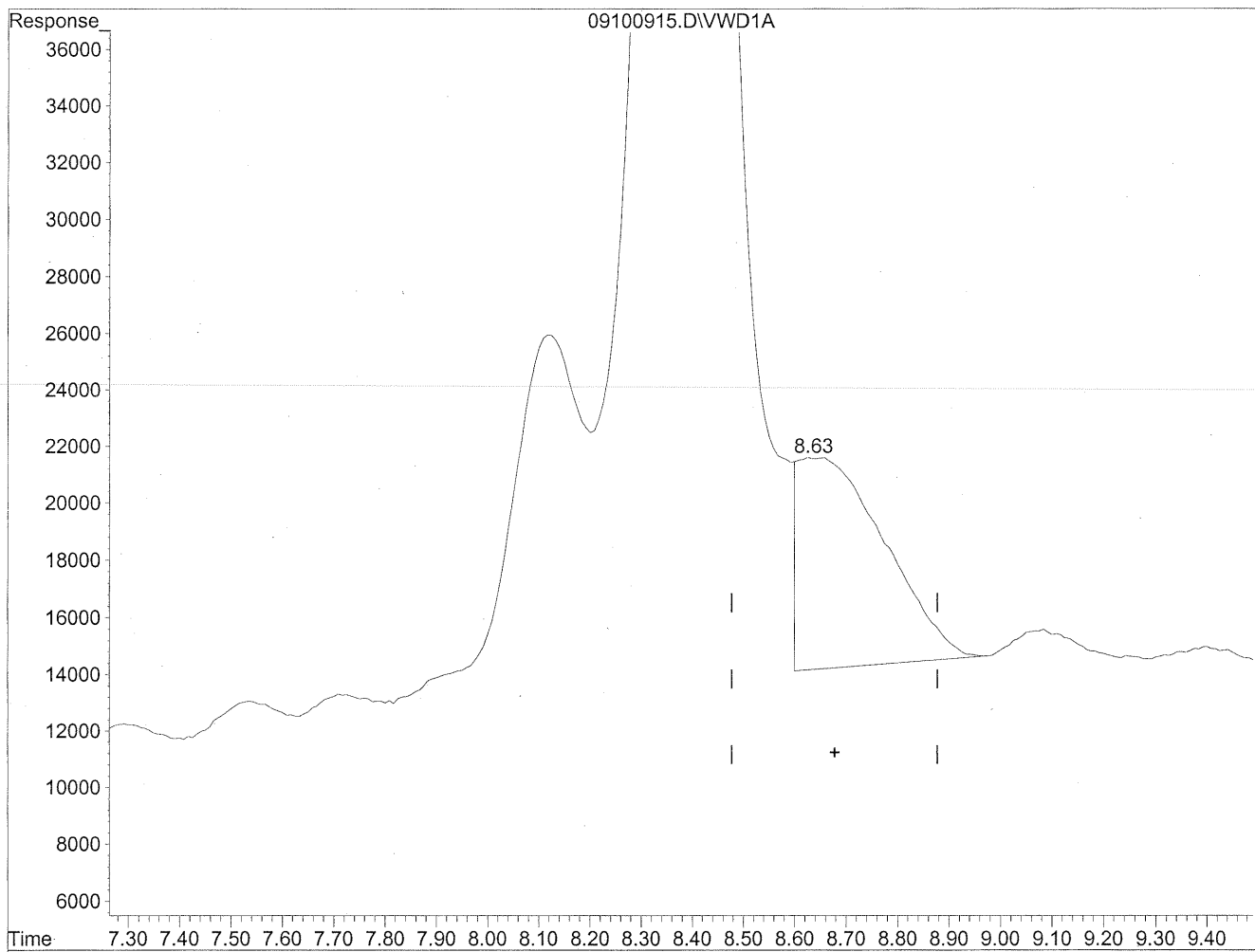
(8) Valeraldehyde
6.60min 849.957ng/ml m
response 2889548

MD
9/16/09
IC
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

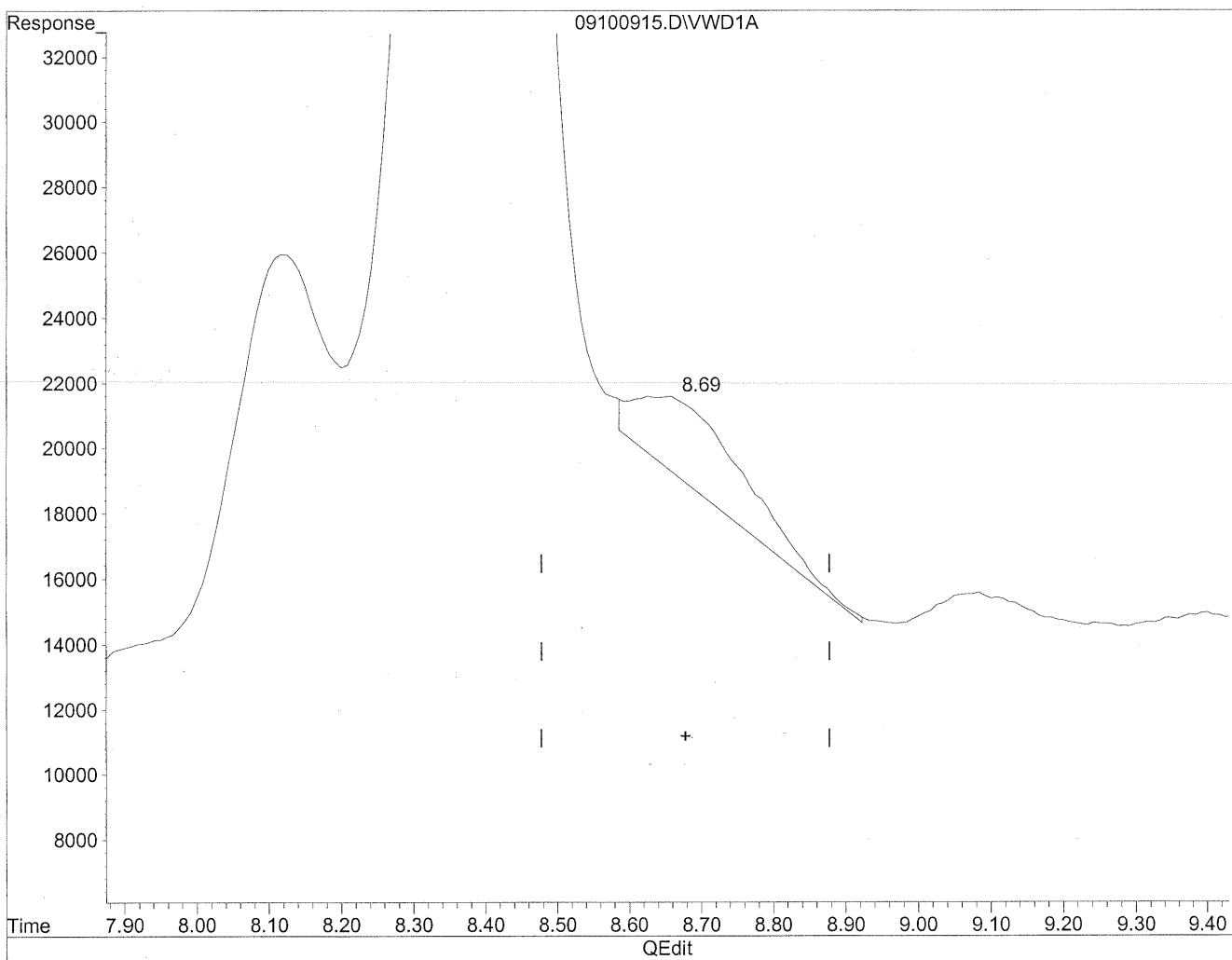
8.63min 439.130ng/ml

response 876281

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100915.D Vial: 103
Acq On : 10-Sep-2009, 14:05 Operator: MD
Sample : P0903083-003 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:12 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde
8.69min 130.876ng/ml m
response 261162

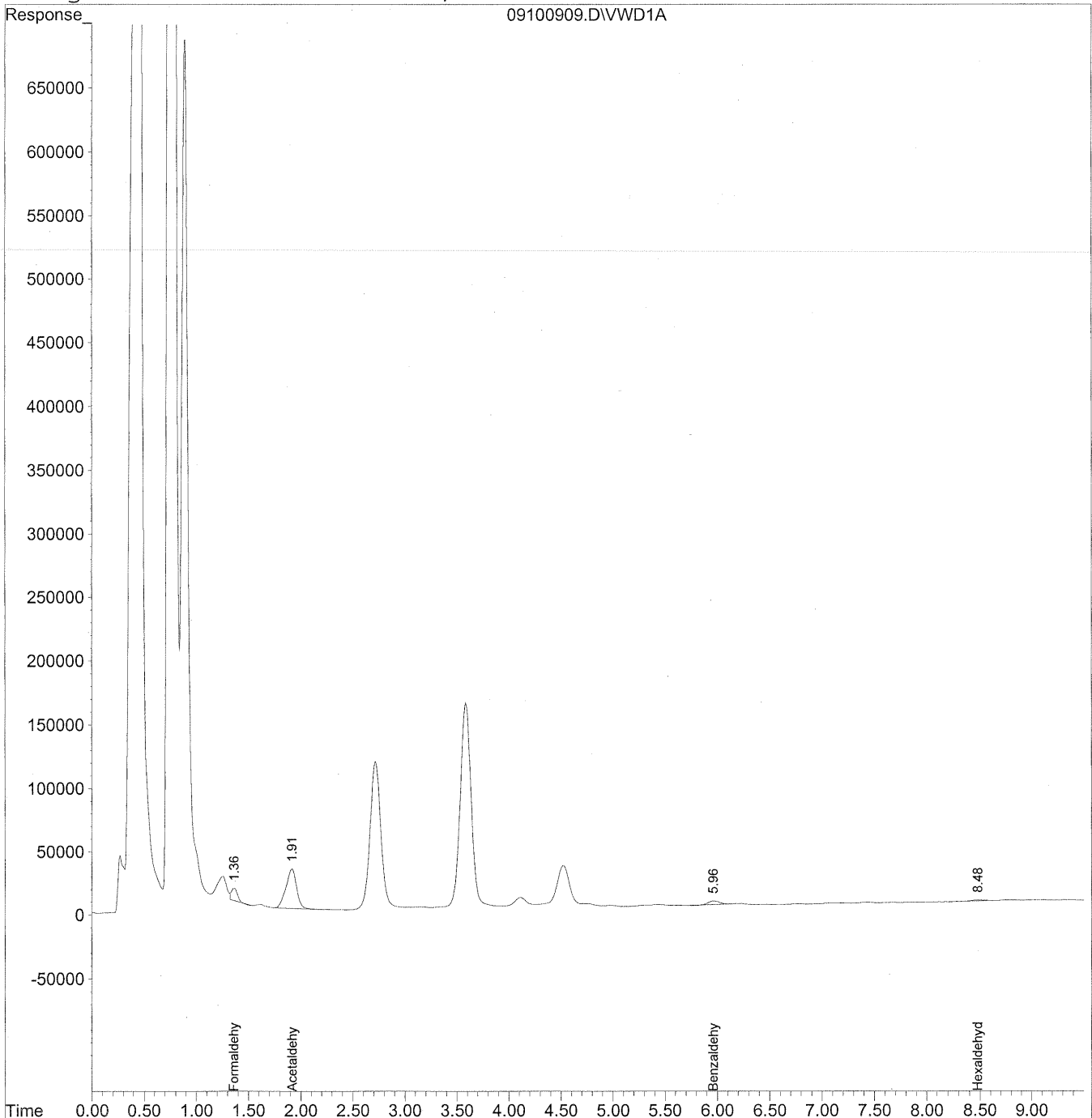
m
9/16/09
12
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100909.D Vial: 5
Acq On : 10-Sep-2009, 12:55 Operator: MD
Sample : P0903083-003 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 13:29 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100909.D Vial: 5
 Acq On : 10-Sep-2009, 12:55 Operator: MD
 Sample : P0903083-003 back 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 13:29 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Thu Sep 10 12:03:26 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.36	400879	44.864 ng/ml
2) Acetaldehyde	1.92	2192744	337.304 ng/ml
3) Propionaldehyde	0.00	0	N.D. ng/ml
4) Crotonaldehyde	0.00	0	N.D. ng/ml
5) Butyraldehyde	0.00	0	N.D. ng/ml
6) Benzaldehyde	5.96f	191708	70.264 ng/ml
7) Isovaleraldehyde	0.00	0	N.D. ng/ml
8) Valeraldehyde	0.00	0	N.D. ng/ml
9) o-Tolualdehyde	0.00	0	N.D. ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D. ng/ml
11) Hexaldehyde	8.48	72605	24.523 ng/ml
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D. ng/ml

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Environmental Health & Engineering, Inc.
Client Sample ID: 103940
Client Project ID: 16512

CAS Project ID: P0903083
 CAS Sample ID: P0903083-004

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: BC

Date Collected: 8/24/09
Date Received: 9/2/09
Date Analyzed: 9/10/09
Desorption Volume: 1.0 ml
Volume Sampled: 109.29 Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	3,700	33	0.91	27	0.75	
75-07-0	Acetaldehyde	2,600	23	0.91	13	0.51	BT
123-38-6	Propionaldehyde	220	2.0	0.91	0.83	0.39	
4170-30-3	Crotonaldehyde, Total	< 100	ND	0.91	ND	0.32	
123-72-8	Butyraldehyde	330	3.0	0.91	1.0	0.31	
100-52-7	Benzaldehyde	760	7.0	0.91	1.6	0.21	M
590-86-3	Isovaleraldehyde	110	1.0	0.91	0.29	0.26	
110-62-3	Valeraldehyde	860	7.9	0.91	2.2	0.26	
529-20-4	o-Tolualdehyde	< 100	ND	0.91	ND	0.19	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	1.8	ND	0.37	
66-25-1	n-Hexaldehyde	3,200	29	0.91	7.2	0.22	
5779-94-2	2,5-Dimethylbenzaldehyde	180	1.7	0.91	0.30	0.17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

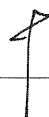
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected.

BT = Results indicated possible breakthrough; back section > 10% front section.

M = Matrix interference; results may be biased high.

Verified By: _____ Date: 9/17/09

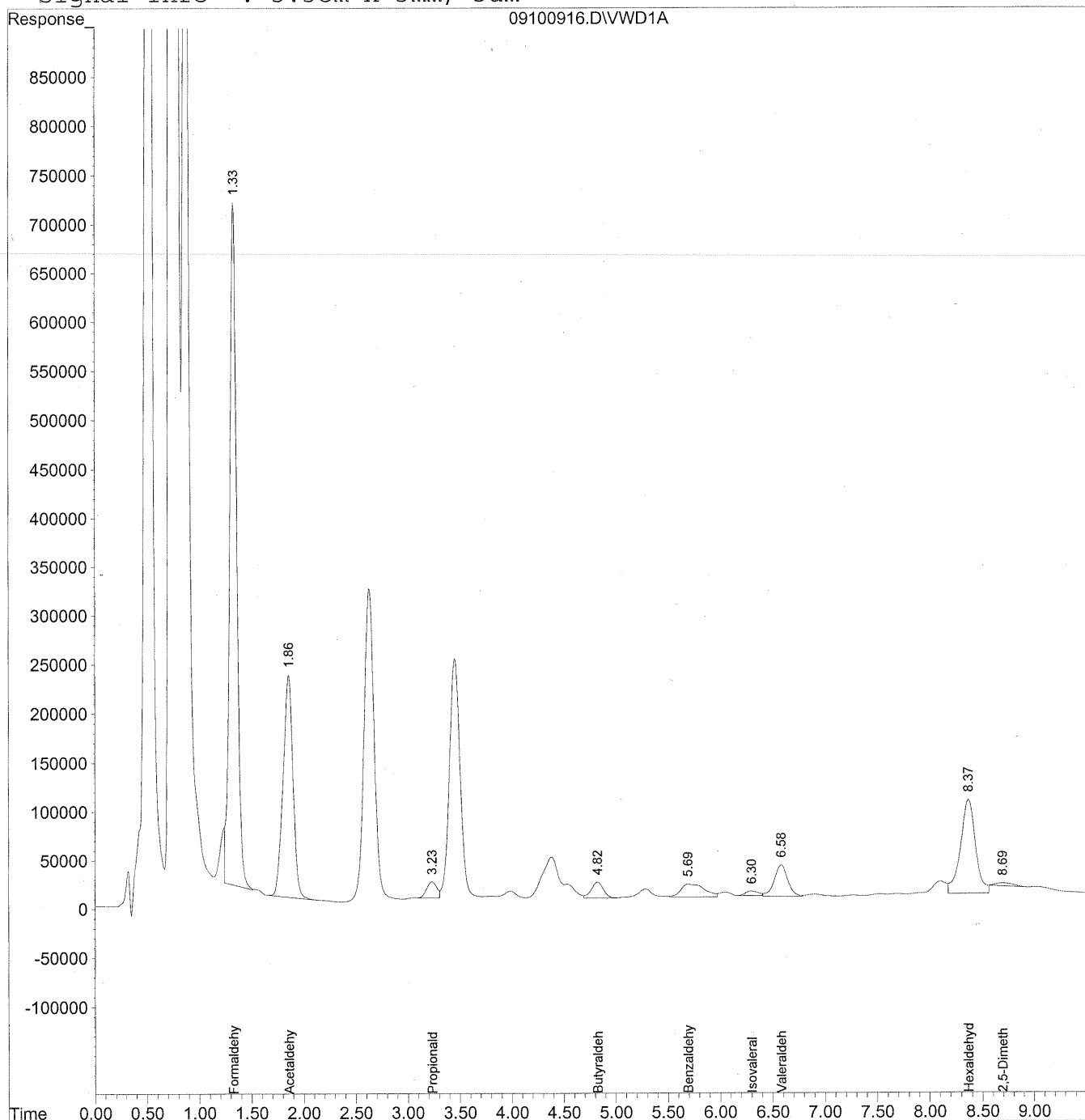


Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:19 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
 Acq On : 10-Sep-2009, 14:17 Operator: MD
 Sample : P0903083-004 front 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:19 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 16 11:12:09 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

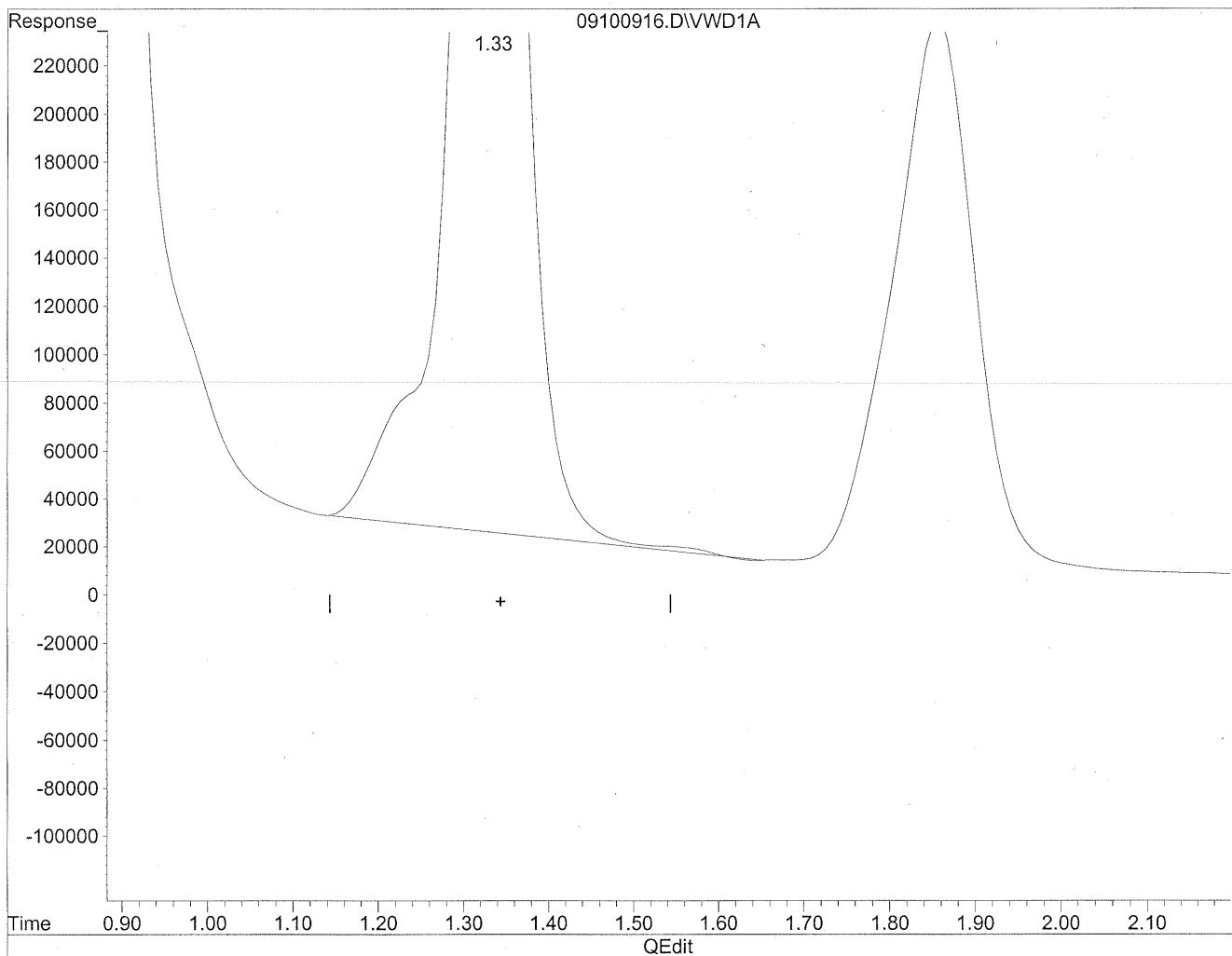
Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.33	32614759	3650.049 ng/mlm
2) Acetaldehyde	1.86	14948170	2299.436 ng/mlm
3) Propionaldehyde	3.23	1124853	216.409 ng/mlm
4) Crotonaldehyde	0.00	0	N.D. ng/ml
5) Butyraldehyde	4.82	1317948	325.197 ng/mlm
6) Benzaldehyde	5.69	2085682	764.441 ng/mlm
7) Isovaleraldehyde	6.30	385678	112.057 ng/mlm
8) Valeraldehyde	6.58	2923902	860.062 ng/mlm
9) o-Tolualdehyde	0.00	0	N.D. ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D. ng/ml
11) Hexaldehyde	8.37	9530609	3219.012 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.69	361739	181.278 ng/mlm

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

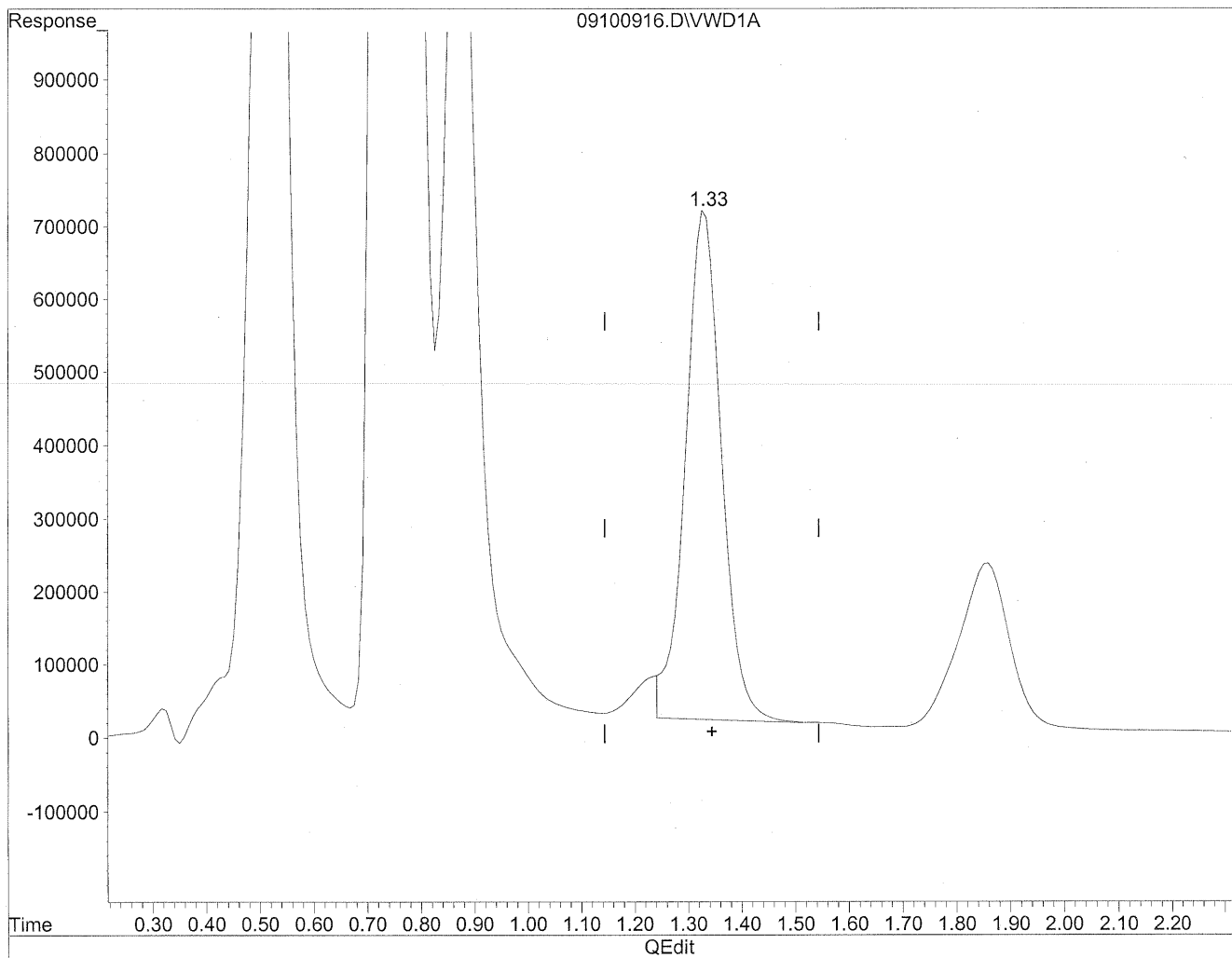


(1) Formaldehyde
1.33min 3817.082ng/ml
response 34107277

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



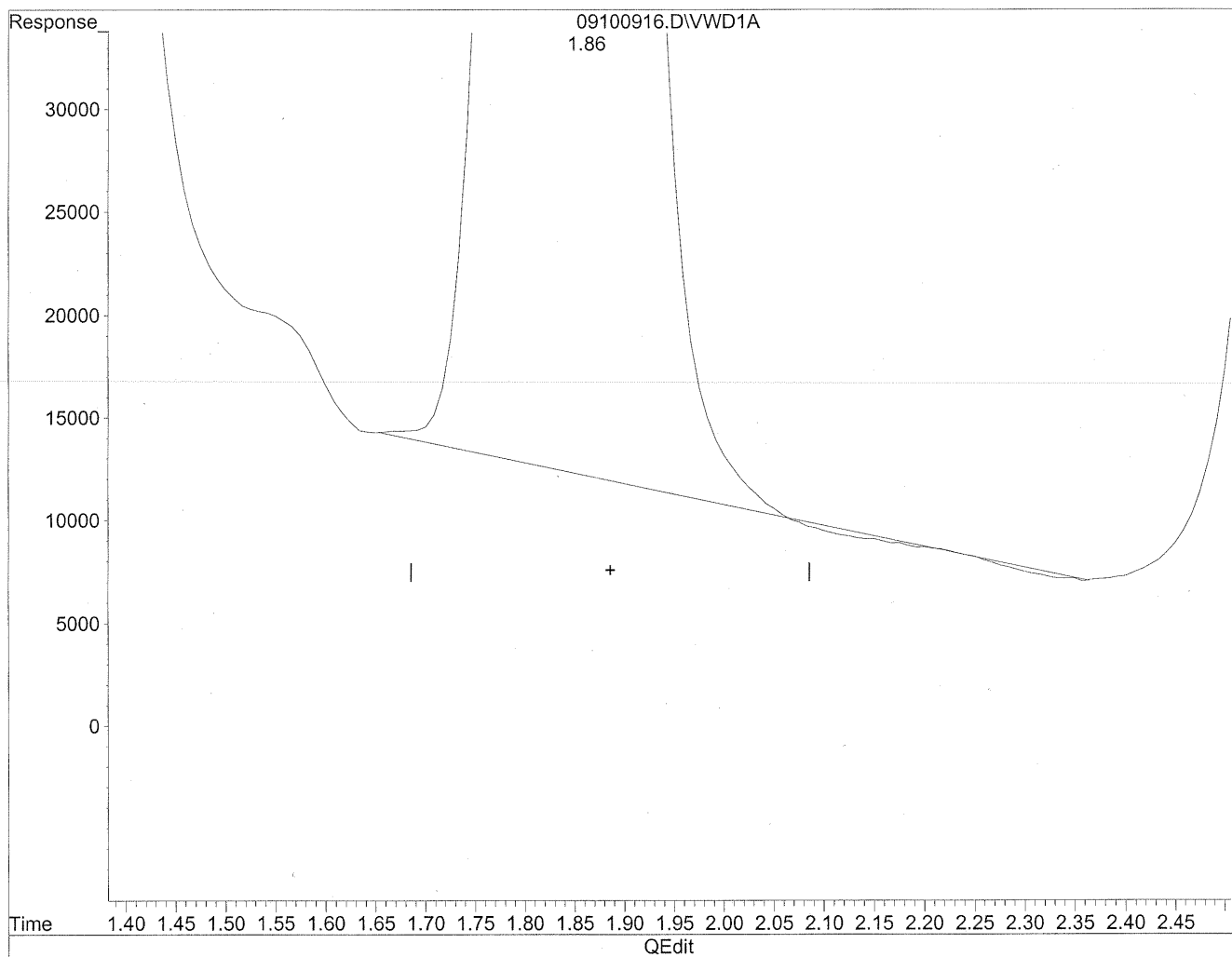
(1) Formaldehyde
1.33min 3650.049ng/ml m
response 32614759

mw
9/16/09
sh
MC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

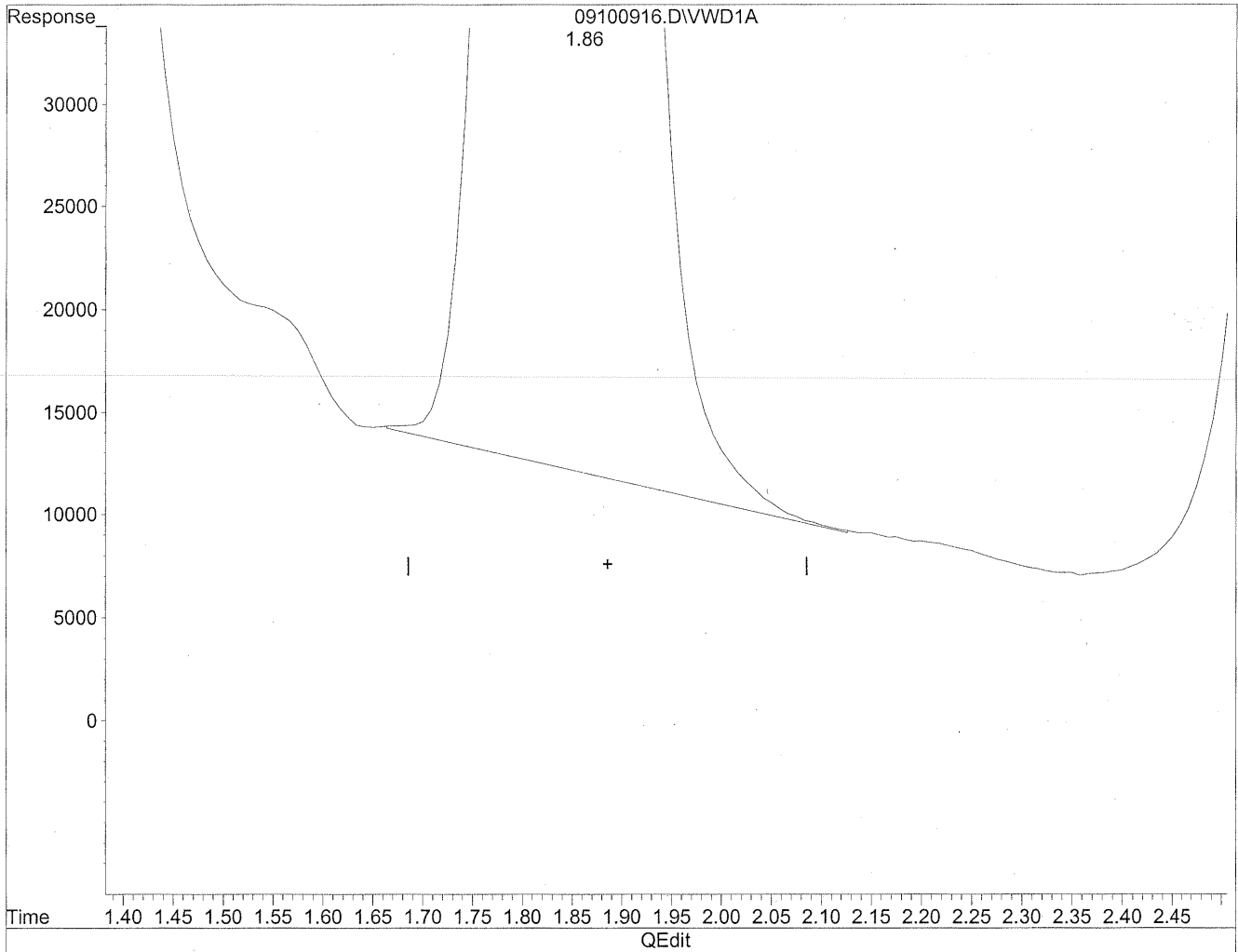


(2) Acetaldehyde
1.86min 2292.786ng/ml
response 14904936

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



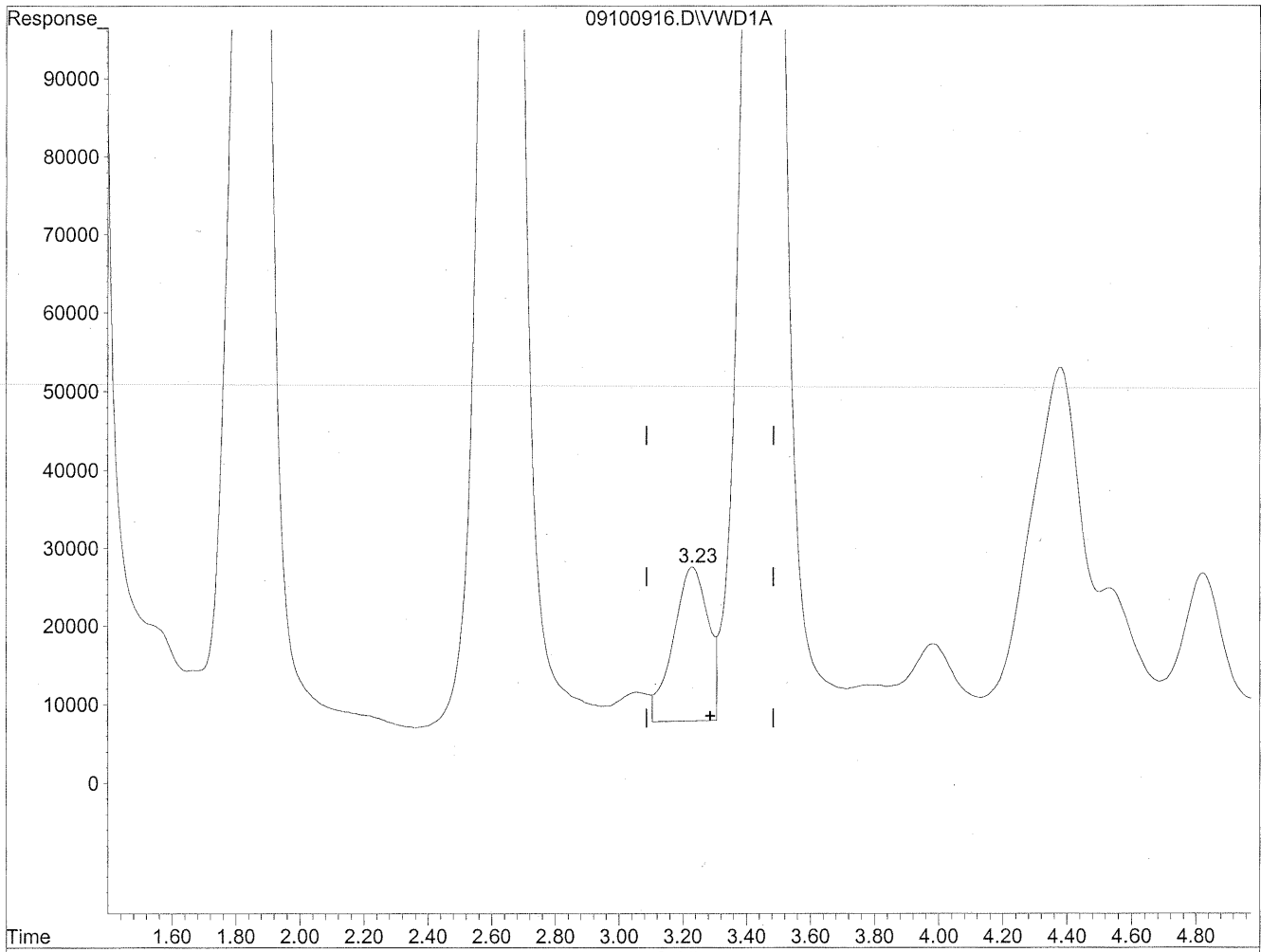
(2) Acetaldehyde
1.86min 2299.436ng/ml m
response 14948170

(MD)
9/16/09
PC
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

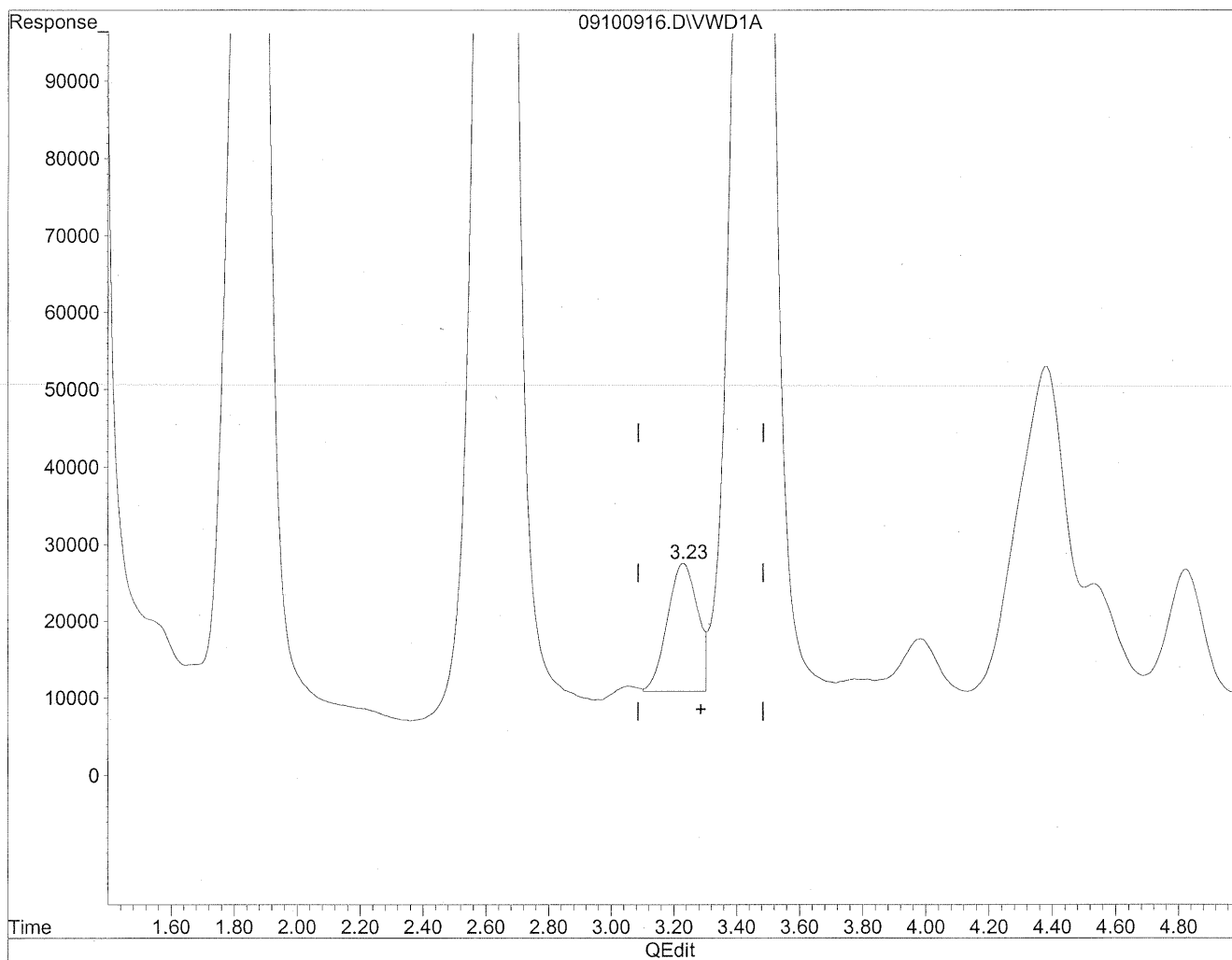


(3) Propionaldehyde
3.23min 285.111ng/ml
response 1481955

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



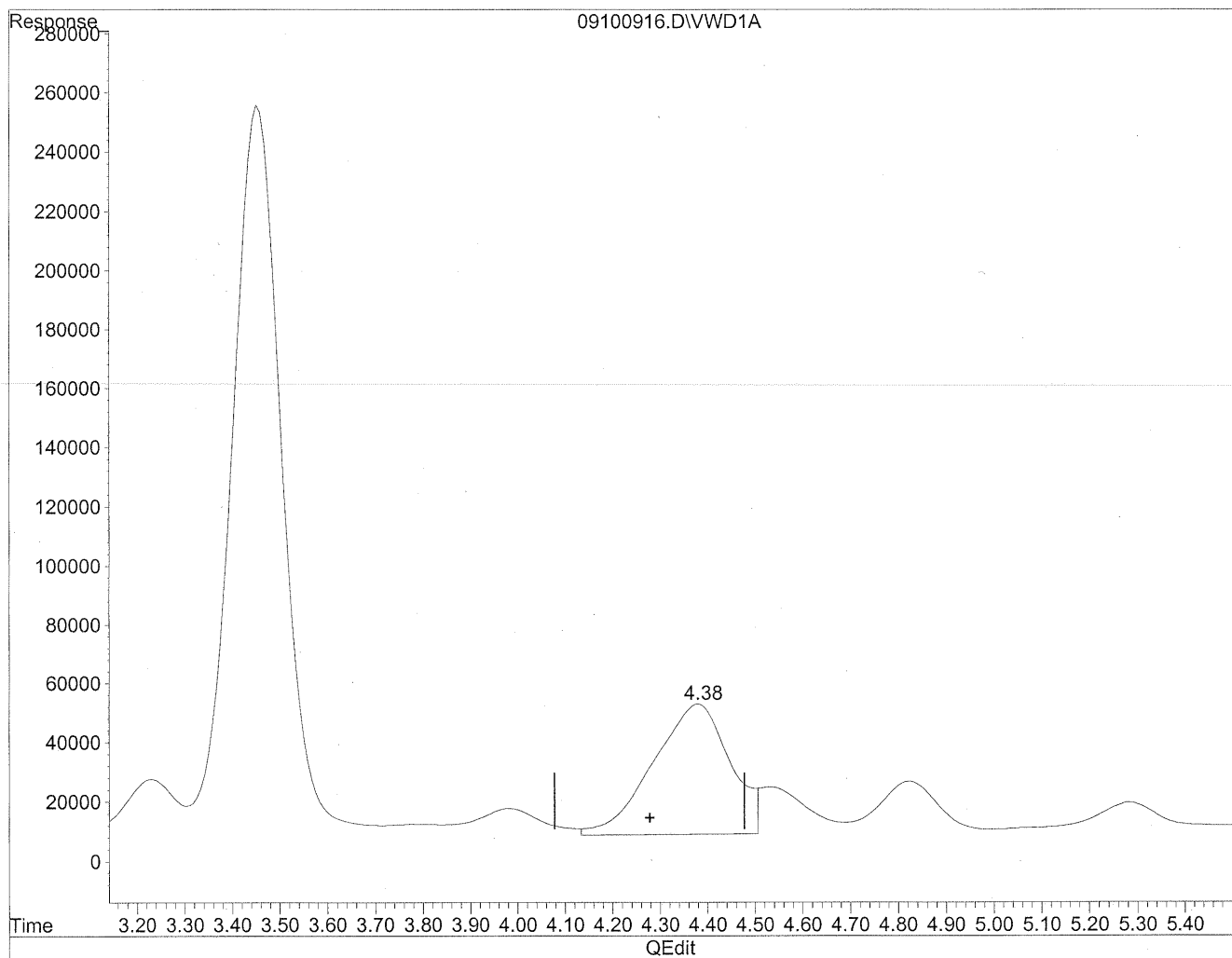
(3) Propionaldehyde
3.23min 216.409ng/ml m
response 1124853

MD
9/16/09
ic
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



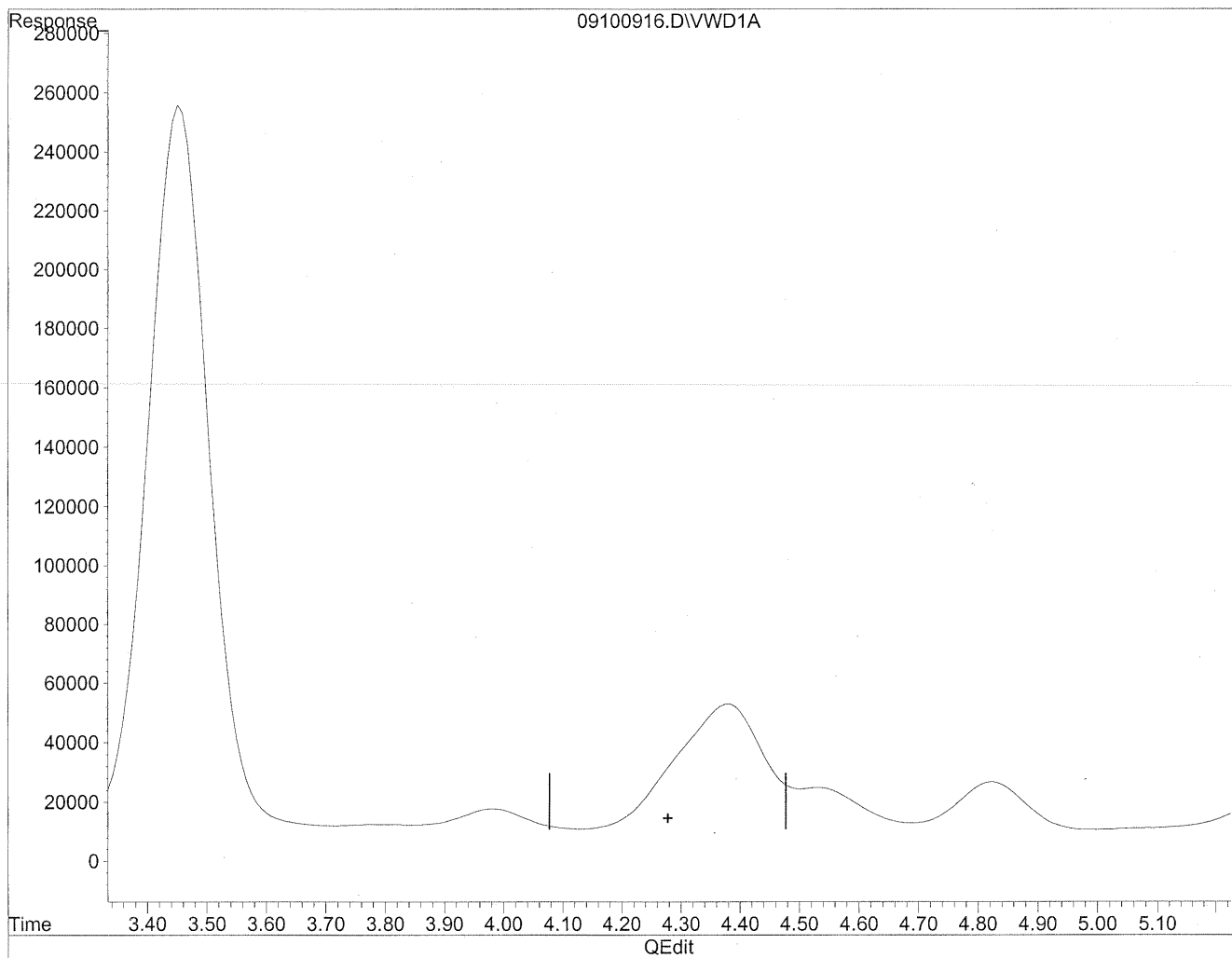
(4) Crotonaldehyde
4.38min 1205.850ng/ml
response 4895234

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



(4) Crotonaldehyde
0.00min 0.000ng/ml d
response 0

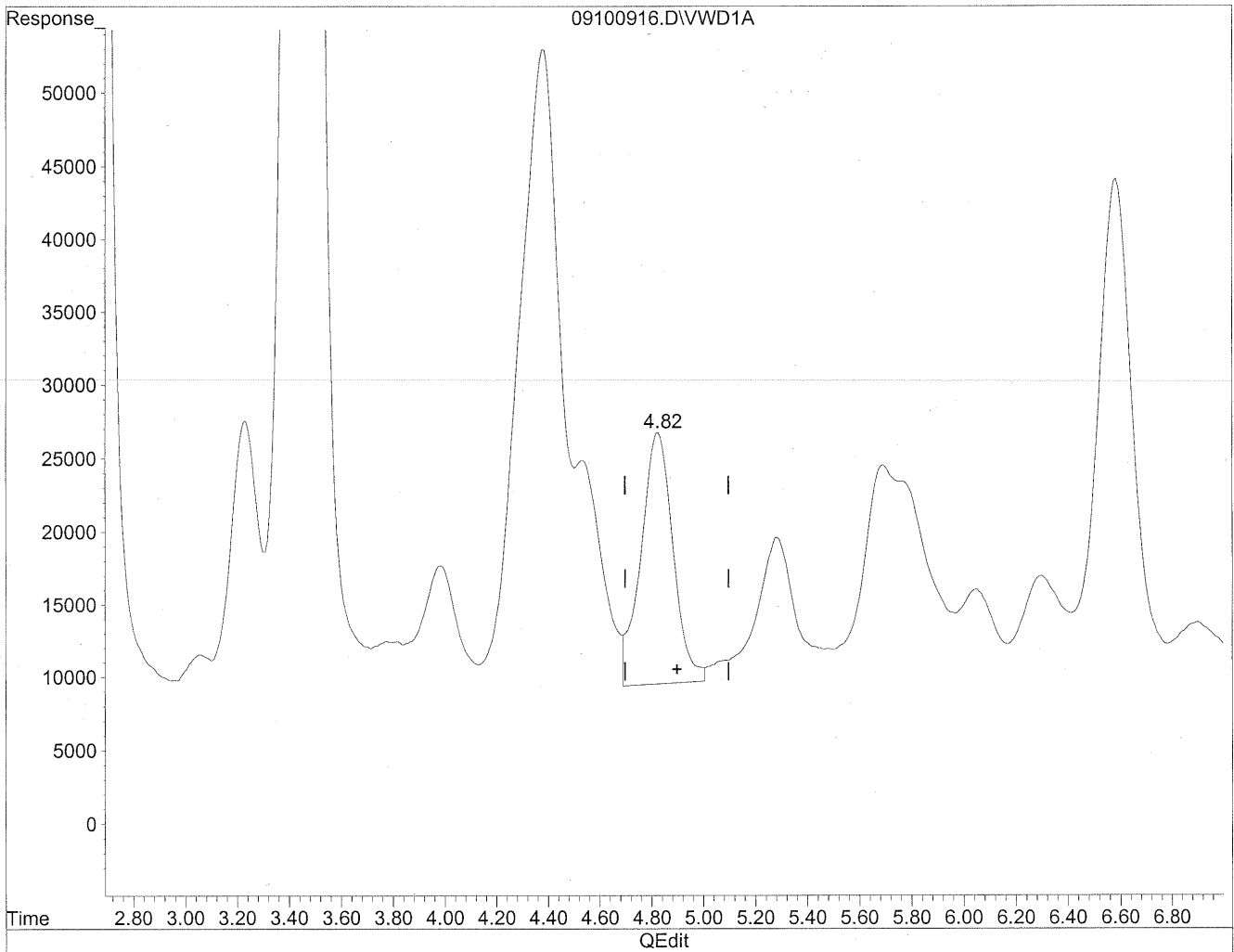
(Signature)
9/16/09
mp, (RT)

HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

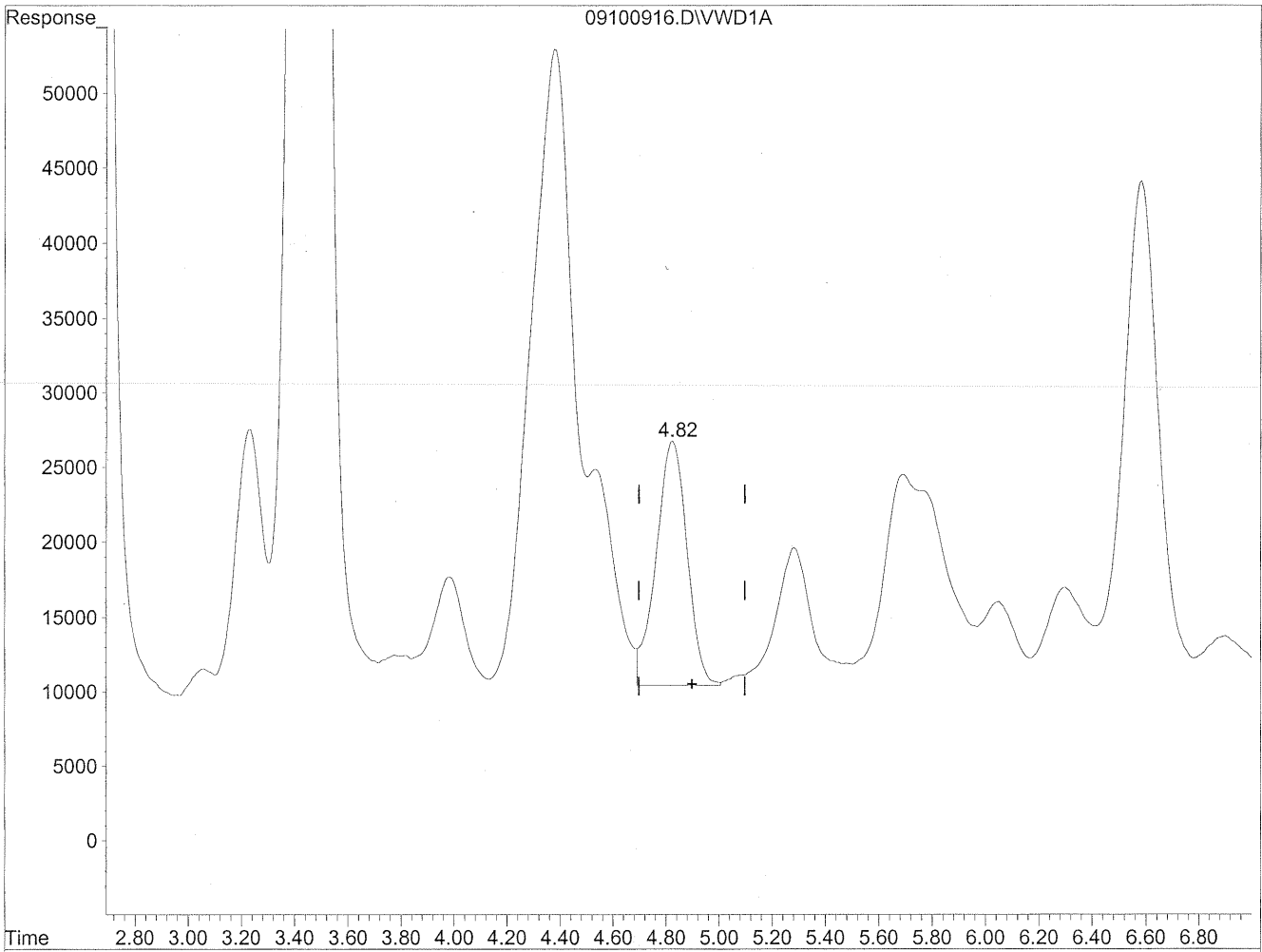


(5) Butyraldehyde
4.83min 369.216ng/ml
response 1496347

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



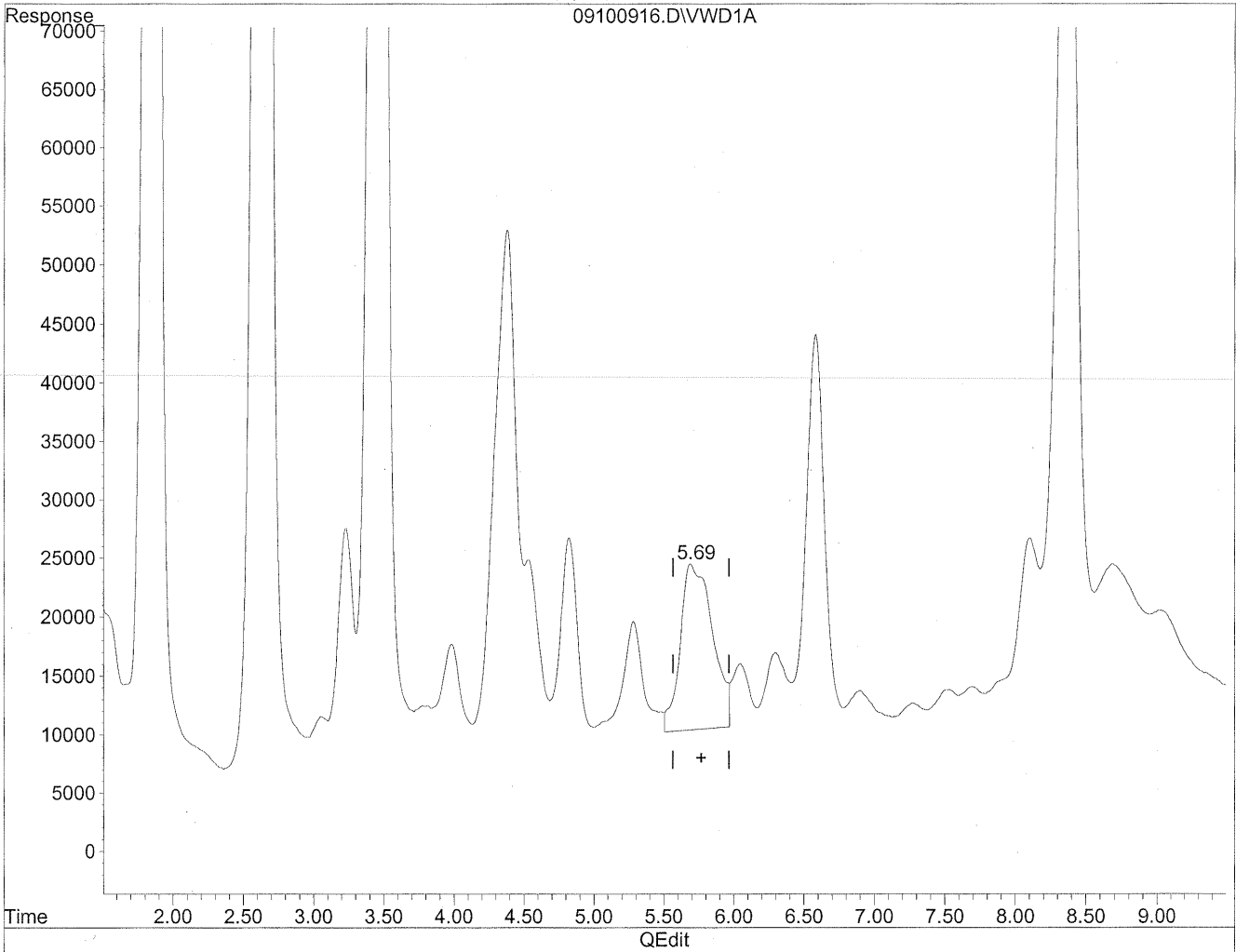
(5) Butyraldehyde
4.82min 325.197ng/ml m
response 1317948

MD
9/16/09
PC
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

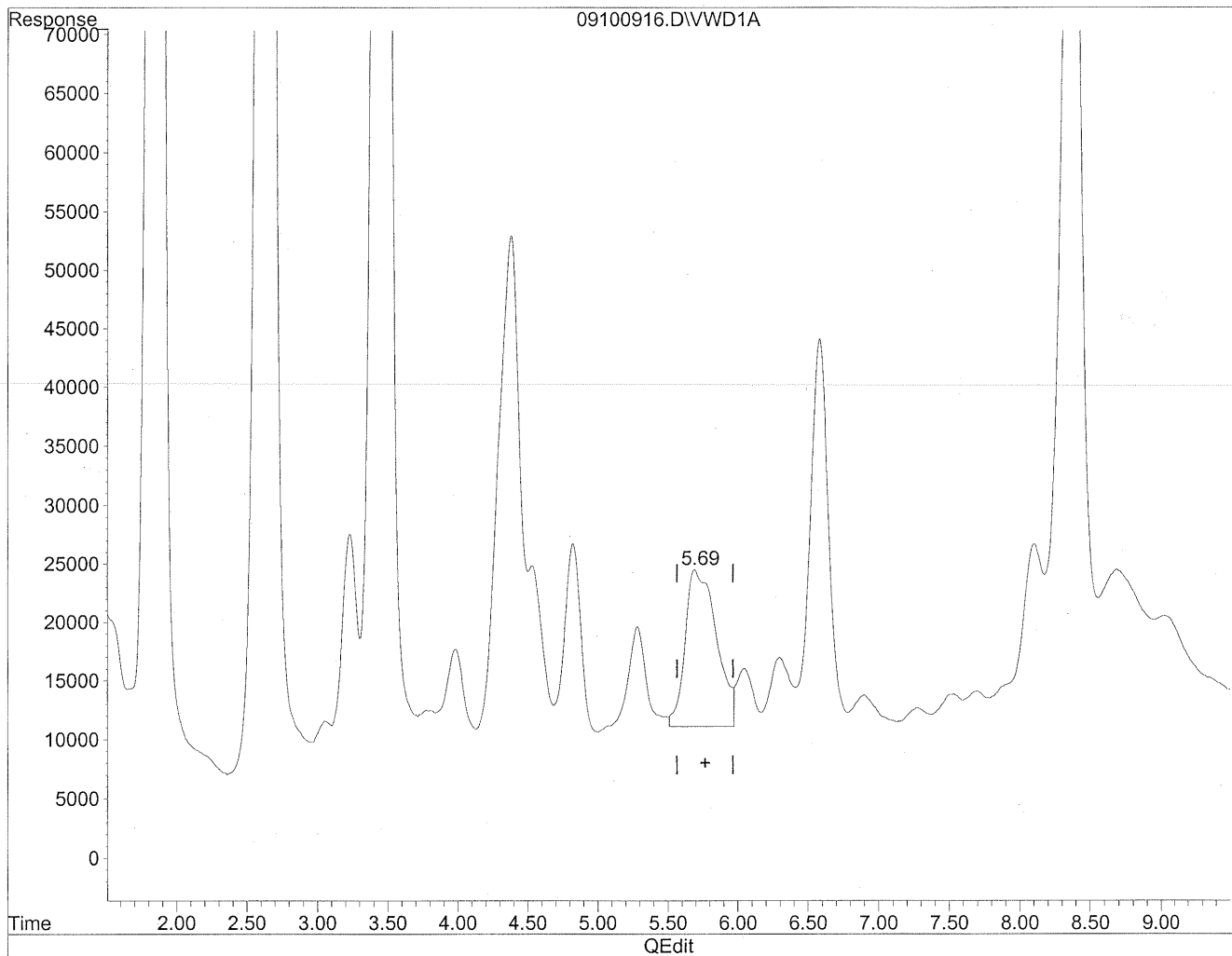


(6) Benzaldehyde
5.69min 828.610ng/ml
response 2260761

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



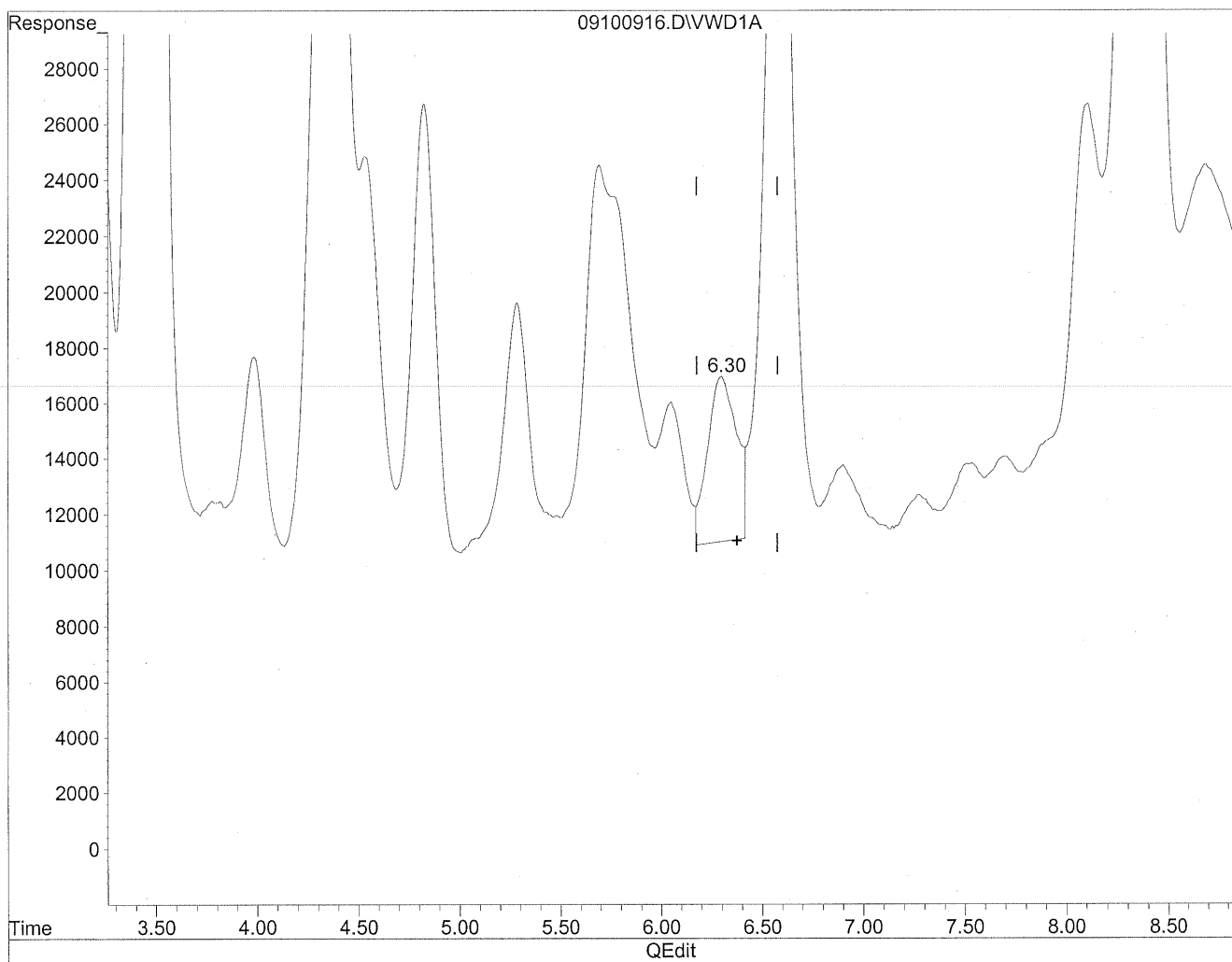
(6) Benzaldehyde
5.69min 764.441ng/ml m
response 2085682

(m)
9/16/09
PC
(m flog)
PC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

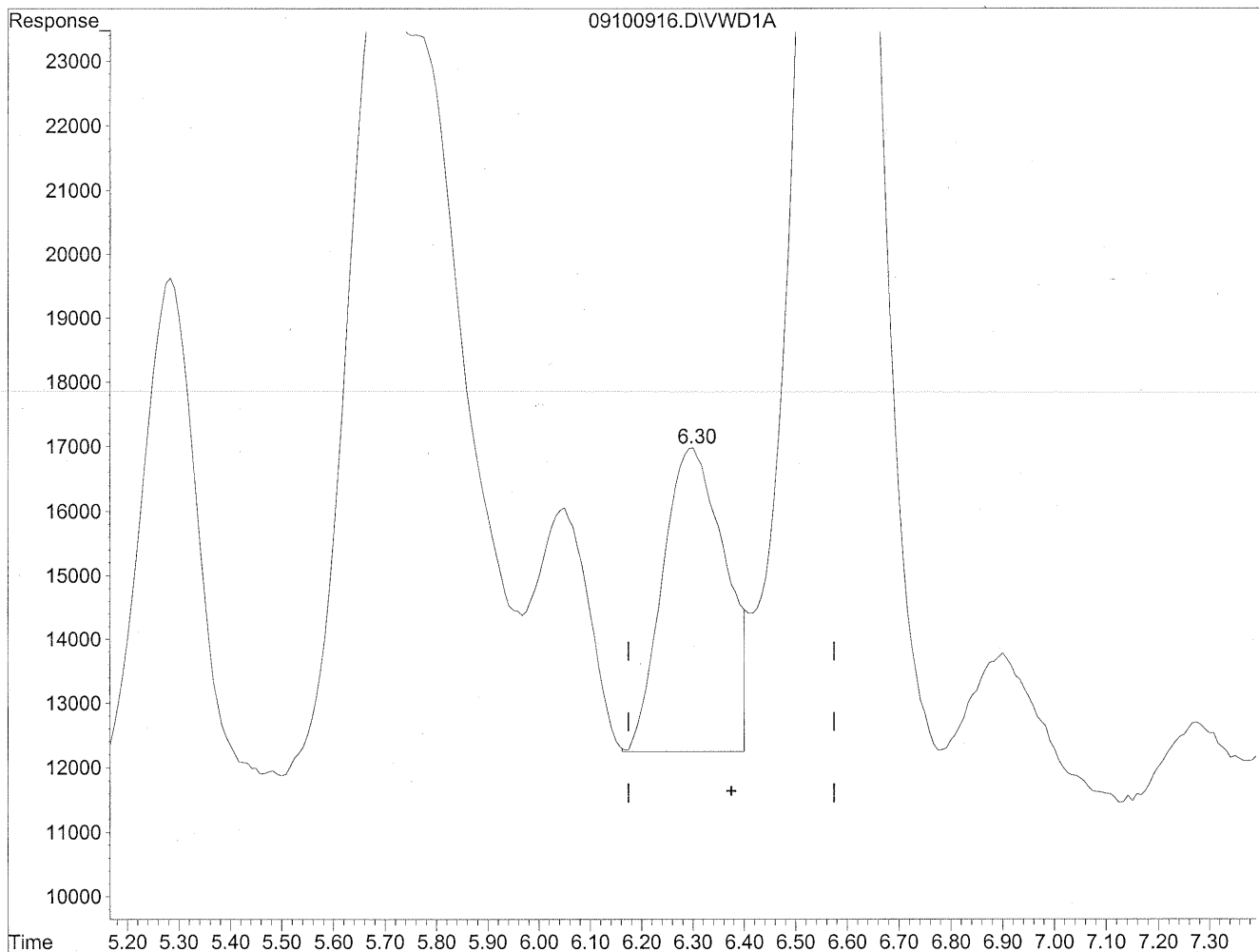


(7) Isovaleraldehyde
6.30min 172.267ng/ml
response 592908

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:19 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



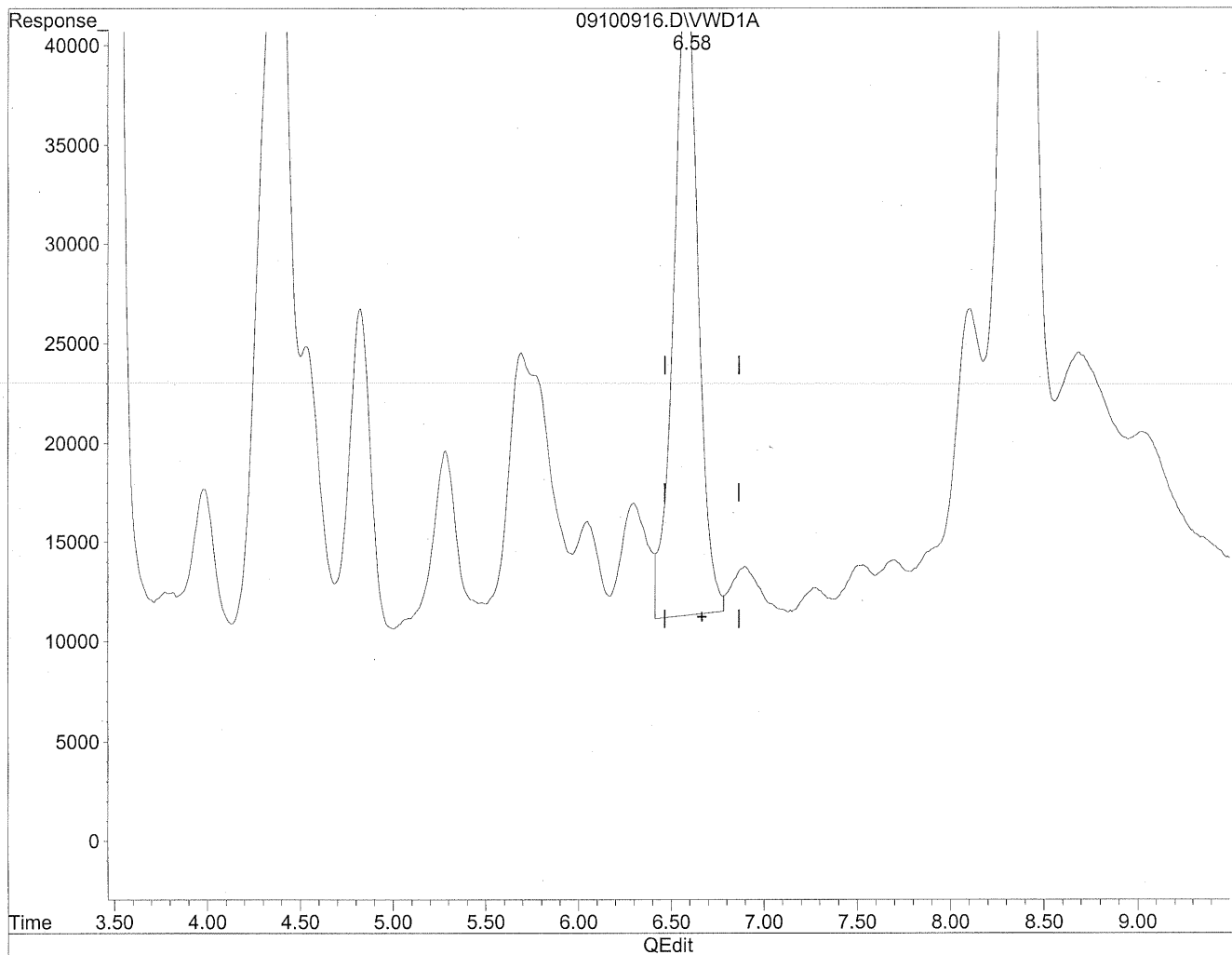
(7) Isovaleraldehyde
6.30min 112.057ng/ml m
response 385678

MD
9/16/09
BC
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

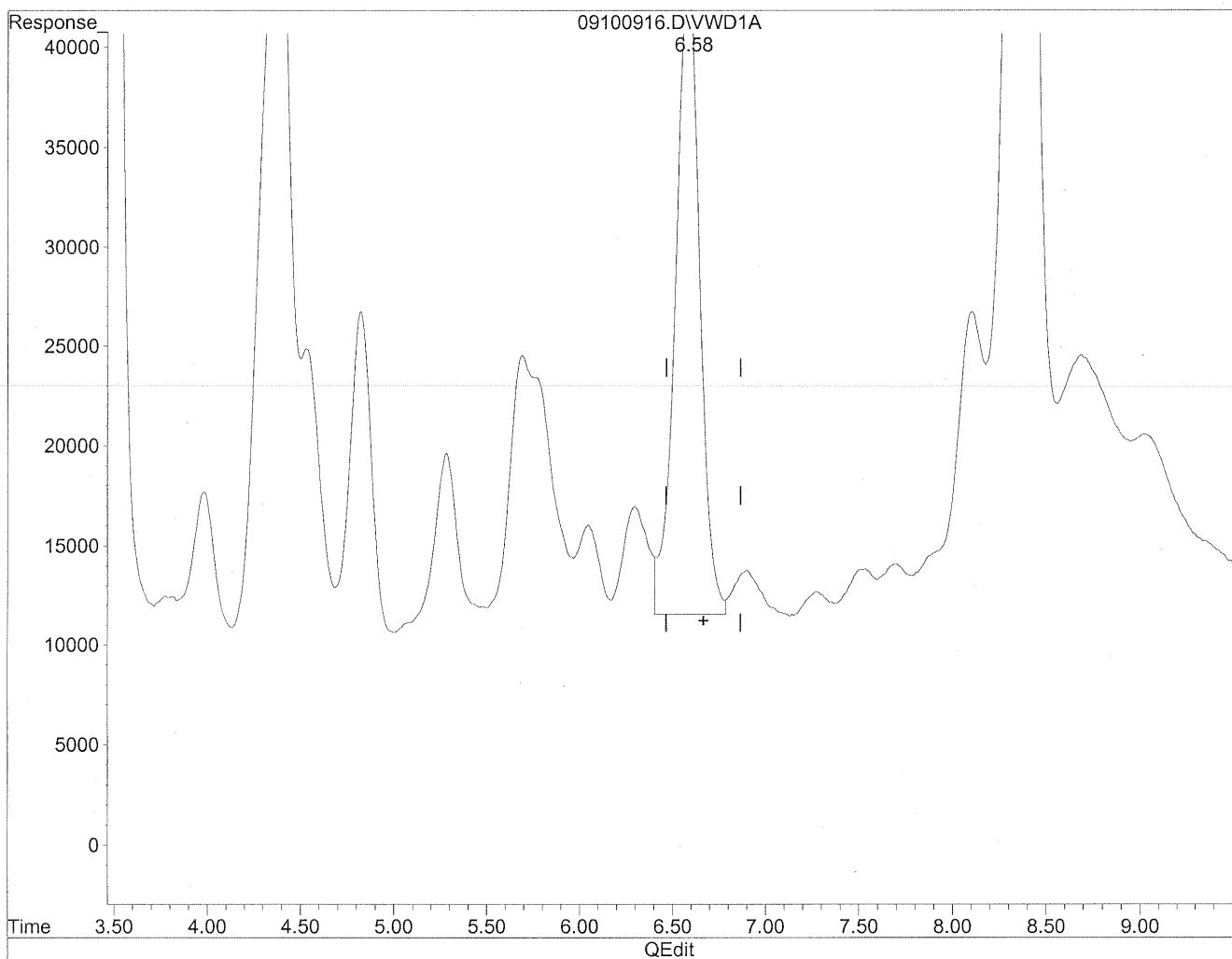


(8) Valeraldehyde
6.58min 870.932ng/ml
response 2960856

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



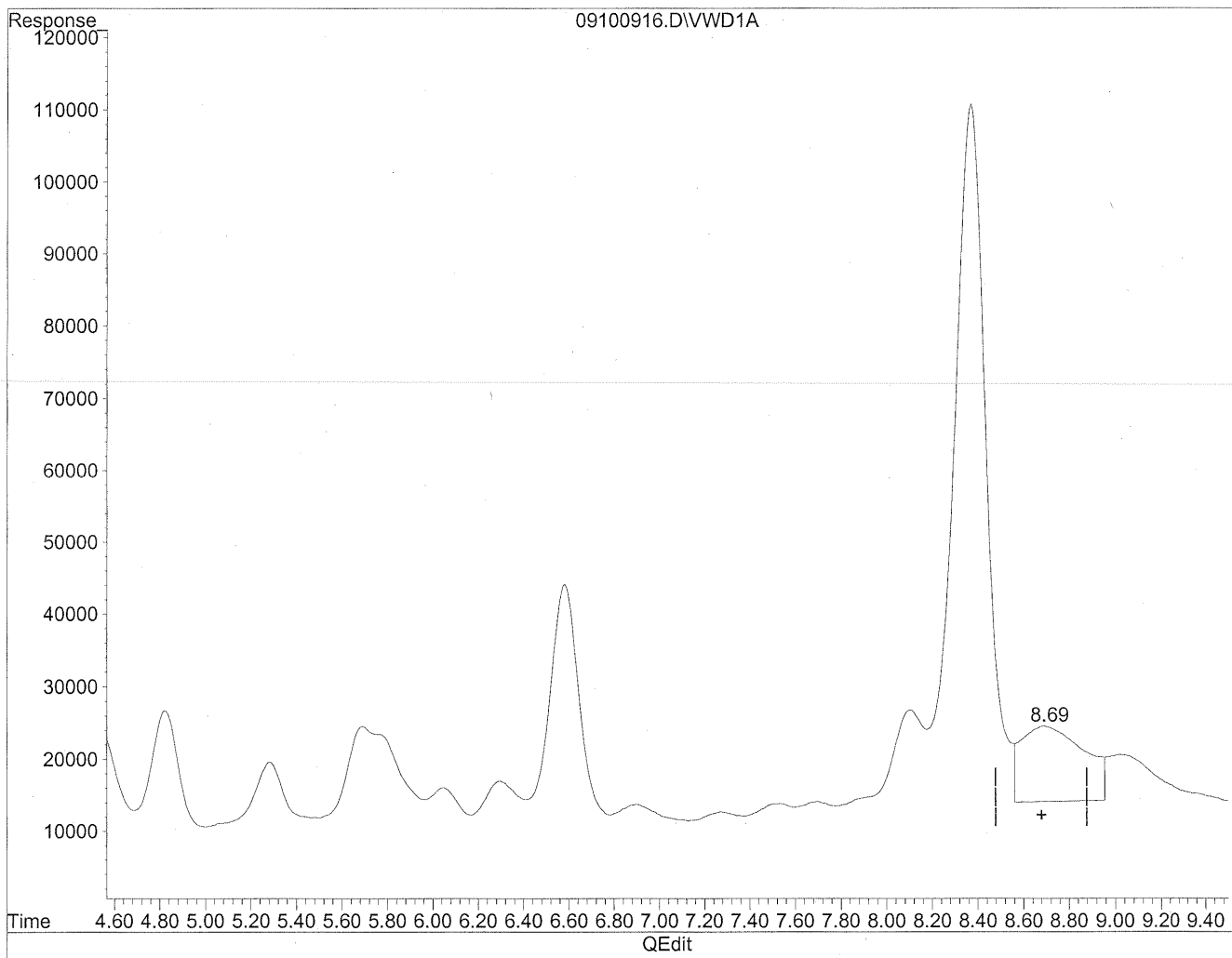
(8) Valeraldehyde
6.58min 860.062ng/ml m
response 2923902

(Handwritten notes)
m
9/16/09
pc
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

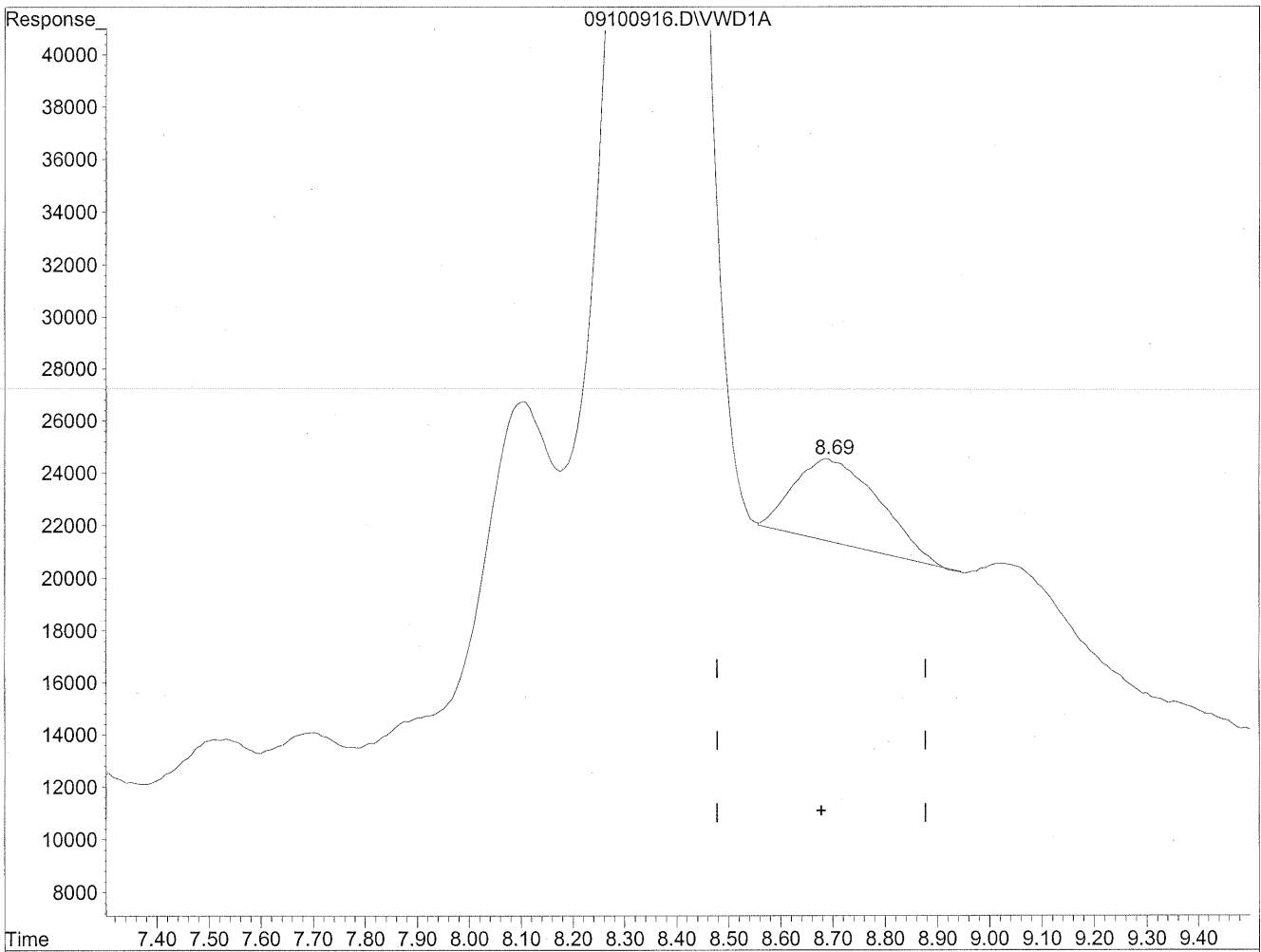
8.69min 1007.115ng/ml

response 2009690

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100916.D Vial: 104
Acq On : 10-Sep-2009, 14:17 Operator: MD
Sample : P0903083-004 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:15 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

8.69min 181.278ng/ml m

response 361739

(Handwritten signature)
9/16/09
RZ

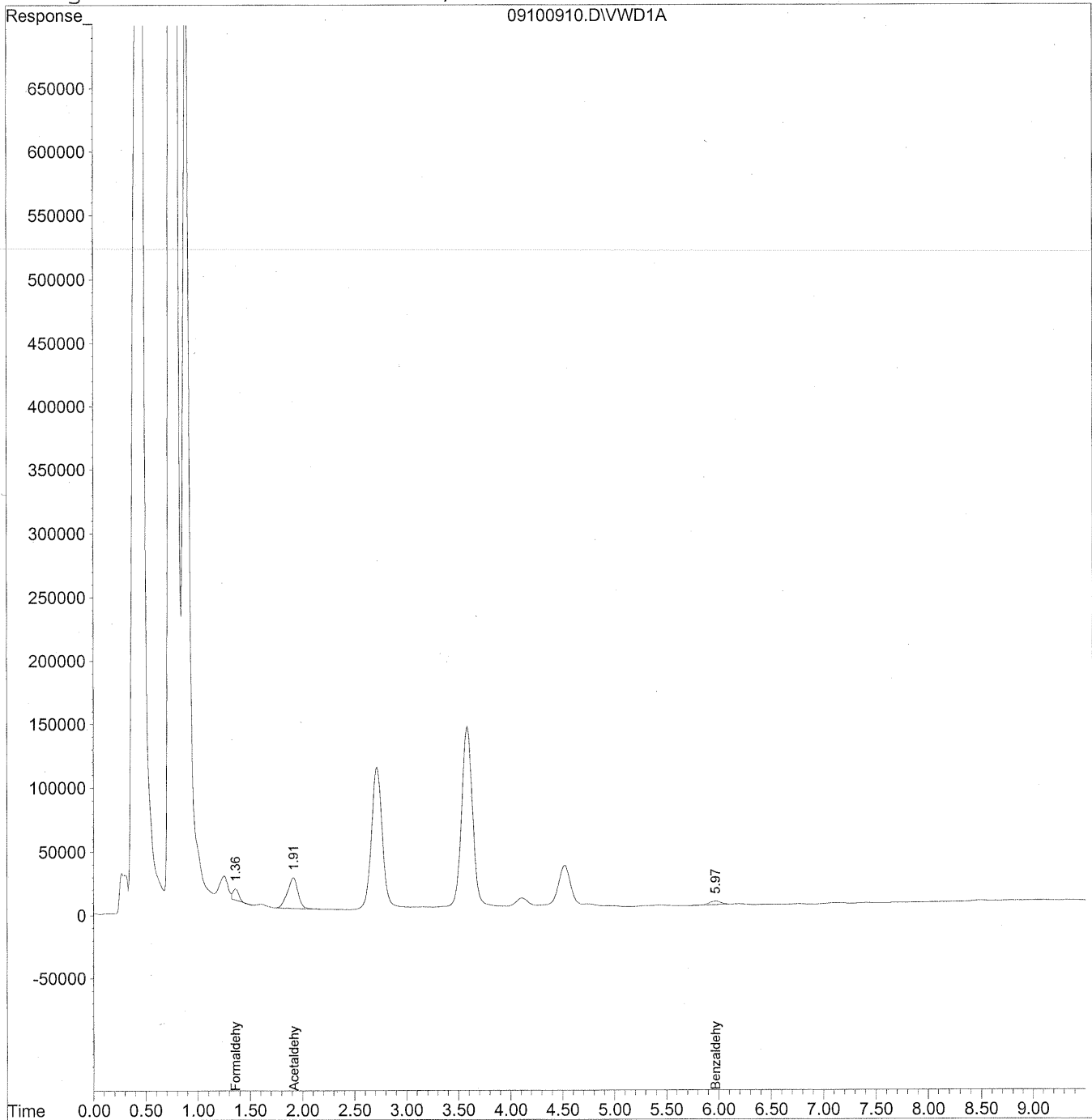
(Handwritten signature)
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100910.D Vial: 4
Acq On : 10-Sep-2009, 13:06 Operator: MD
Sample : P0903083-004 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:05 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100910.D Vial: 4
 Acq On : 10-Sep-2009, 13:06 Operator: MD
 Sample : P0903083-004 back 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:05 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Tue Sep 15 09:56:03 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.36	345080	38.619 ng/ml
2) Acetaldehyde	1.92	1691184	260.150 ng/ml
3) Propionaldehyde	0.00	0	N.D. ng/ml
4) Crotonaldehyde	0.00	0	N.D. ng/ml
5) Butyraldehyde	0.00	0	N.D. ng/ml
6) Benzaldehyde	5.97f	209252	76.695 ng/ml
7) Isovaleraldehyde	0.00	0	N.D. ng/ml
8) Valeraldehyde	0.00	0	N.D. ng/ml
9) o-Tolualdehyde	0.00	0	N.D. ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D. ng/ml
11) Hexaldehyde	0.00	0	N.D. ng/ml
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D. ng/ml

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Environmental Health & Engineering, Inc.
Client Sample ID: 103941
Client Project ID: 16512

CAS Project ID: P0903083
 CAS Sample ID: P0903083-005

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: BC

Date Collected: 8/24/09
Date Received: 9/2/09
Date Analyzed: 9/10/09
Desorption Volume: 1.0 ml
Volume Sampled: 107.64 Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	3,300	31	0.93	25	0.76	
75-07-0	Acetaldehyde	2,500	23	0.93	13	0.52	BT
123-38-6	Propionaldehyde	190	1.7	0.93	0.73	0.39	
4170-30-3	Crotonaldehyde, Total	< 100	ND	0.93	ND	0.32	
123-72-8	Butyraldehyde	300	2.8	0.93	0.94	0.32	
100-52-7	Benzaldehyde	530	5.0	0.93	1.1	0.21	M
590-86-3	Isovaleraldehyde	110	1.0	0.93	0.29	0.26	
110-62-3	Valeraldehyde	780	7.3	0.93	2.1	0.26	
529-20-4	o-Tolualdehyde	< 100	ND	0.93	ND	0.19	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	1.9	ND	0.38	
66-25-1	n-Hexaldehyde	2,700	25	0.93	6.1	0.23	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	0.93	ND	0.17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected.

BT = Results indicated possible breakthrough; back section > 10% front section.

M = Matrix interference; results may be biased high.

Verified By: _____

P

Date: _____

9/17/09

TO-11A.XLS - Page No.:

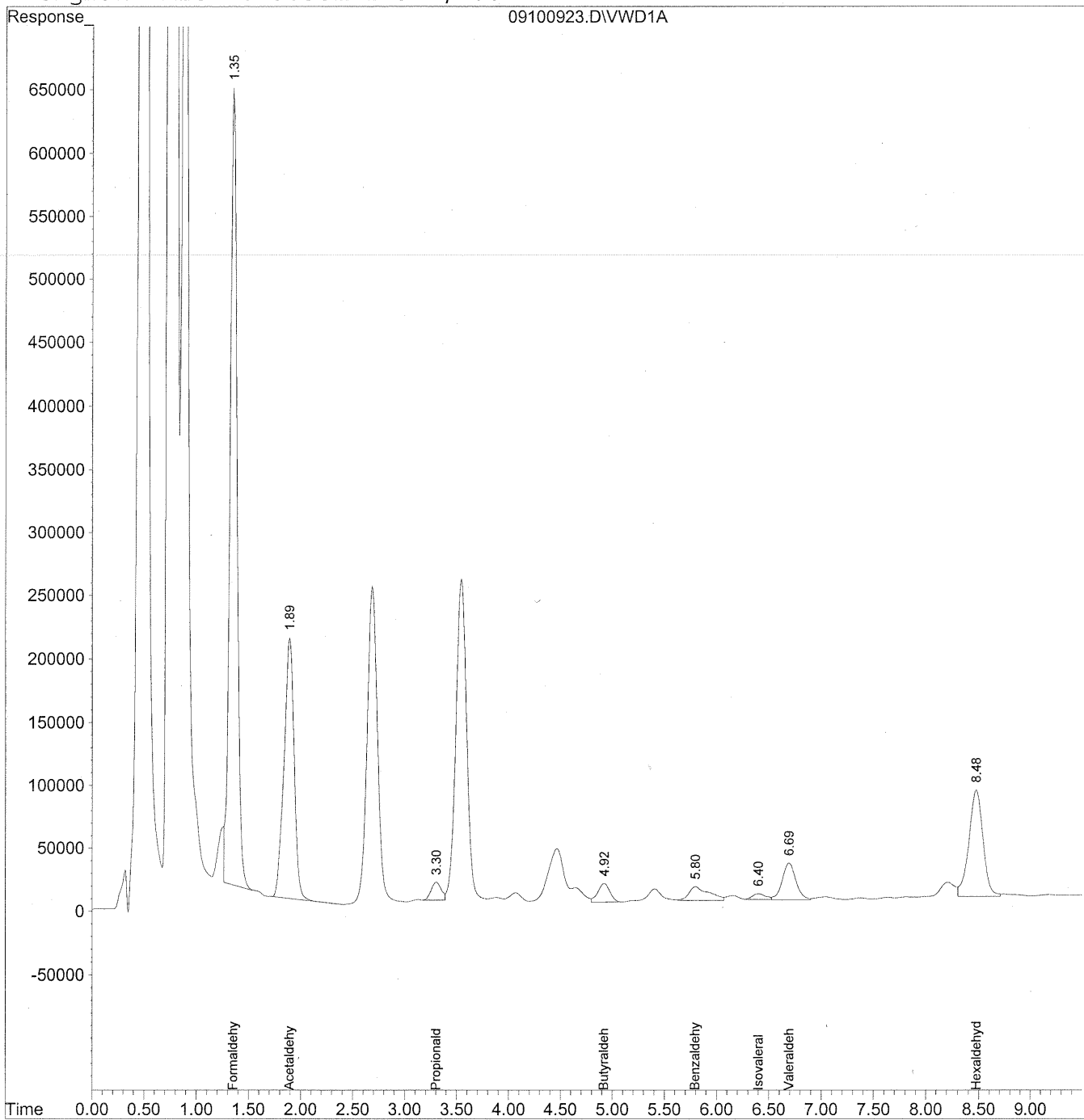
71

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:23 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
 Acq On : 10-Sep-2009, 15:39 Operator: MD
 Sample : P0903083-005 front 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:23 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 16 11:12:09 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

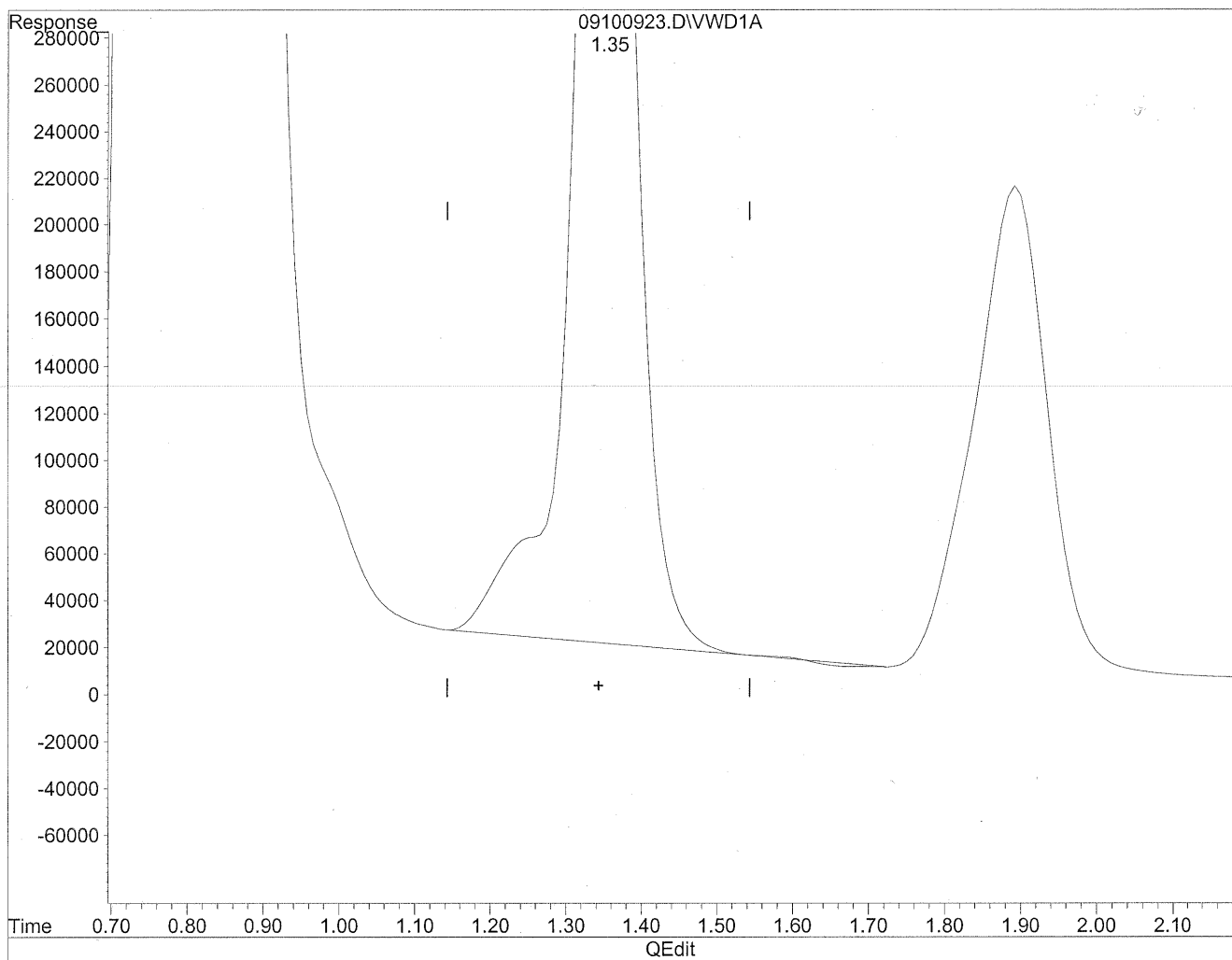
Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Formaldehyde	1.35	29494108	3300.804	ng/mlm
2) Acetaldehyde	1.90	13917777	2140.934	ng/ml
3) Propionaldehyde	3.30	964553	185.569	ng/mlm
4) Crotonaldehyde	0.00	0	N.D.	ng/ml
5) Butyraldehyde	4.92	1211115	298.837	ng/ml
6) Benzaldehyde	5.80	1455435	533.443	ng/mlm
7) Isovaleraldehyde	6.40	376094	109.273	ng/mlm
8) Valeraldehyde	6.69	2662910	783.292	ng/mlm
9) o-Tolualdehyde	0.00	0	N.D.	ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11) Hexaldehyde	8.48	7945148	2683.515	ng/mlm
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

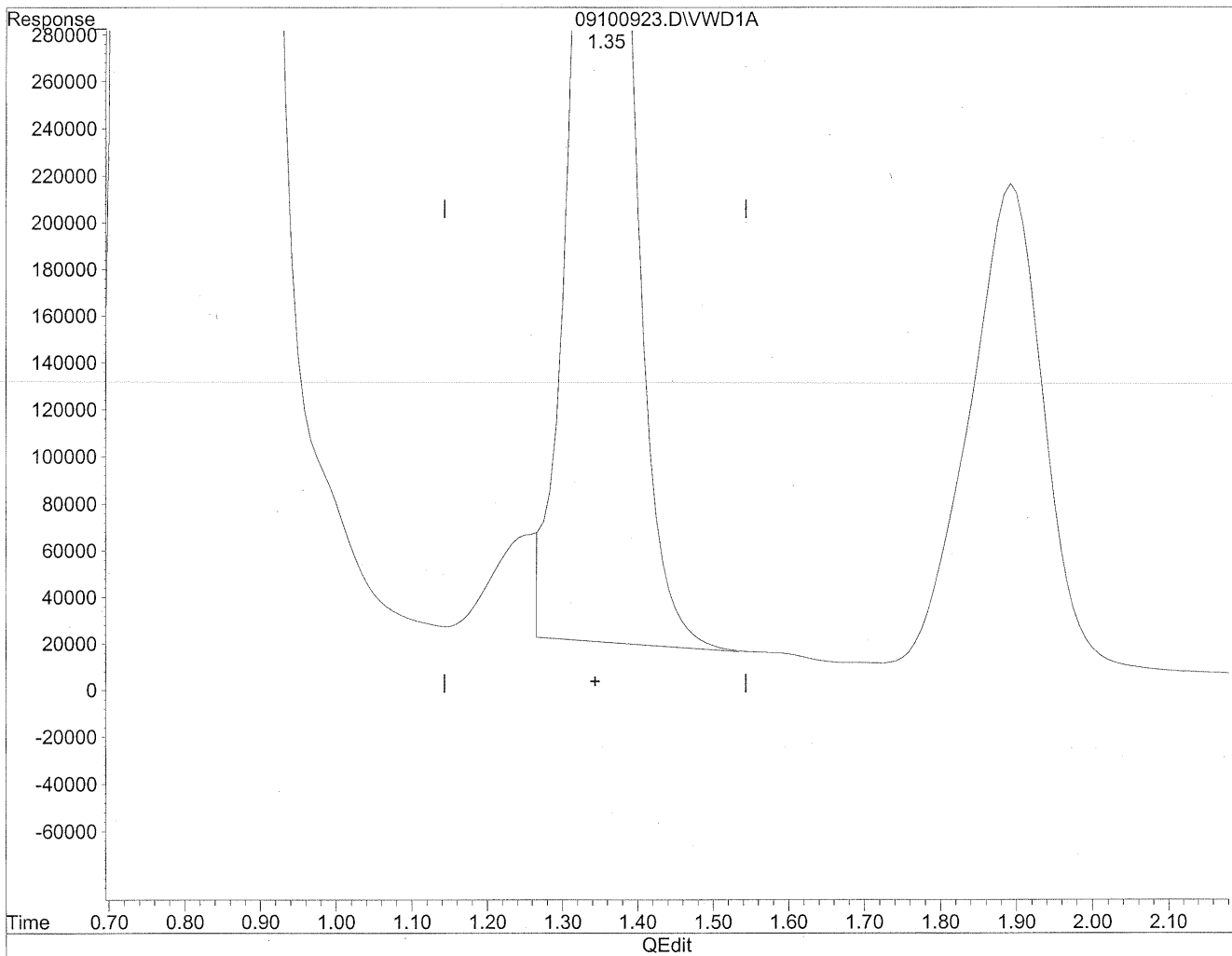


(1) Formaldehyde
1.35min 3468.786ng/ml
response 30995098

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



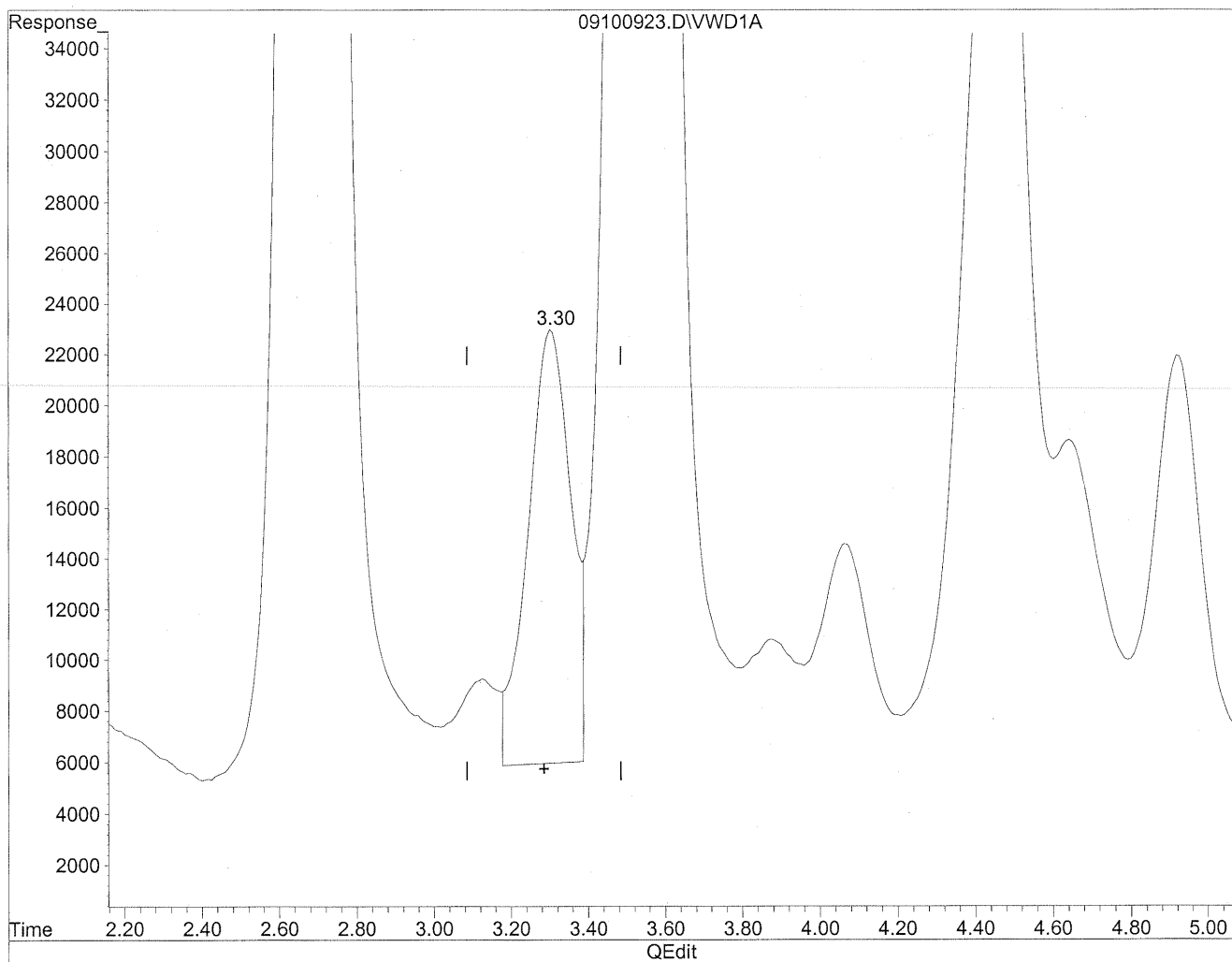
(1) Formaldehyde
1.35min 3300.804ng/ml m
response 29494108

MD
9/16/09
sh
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

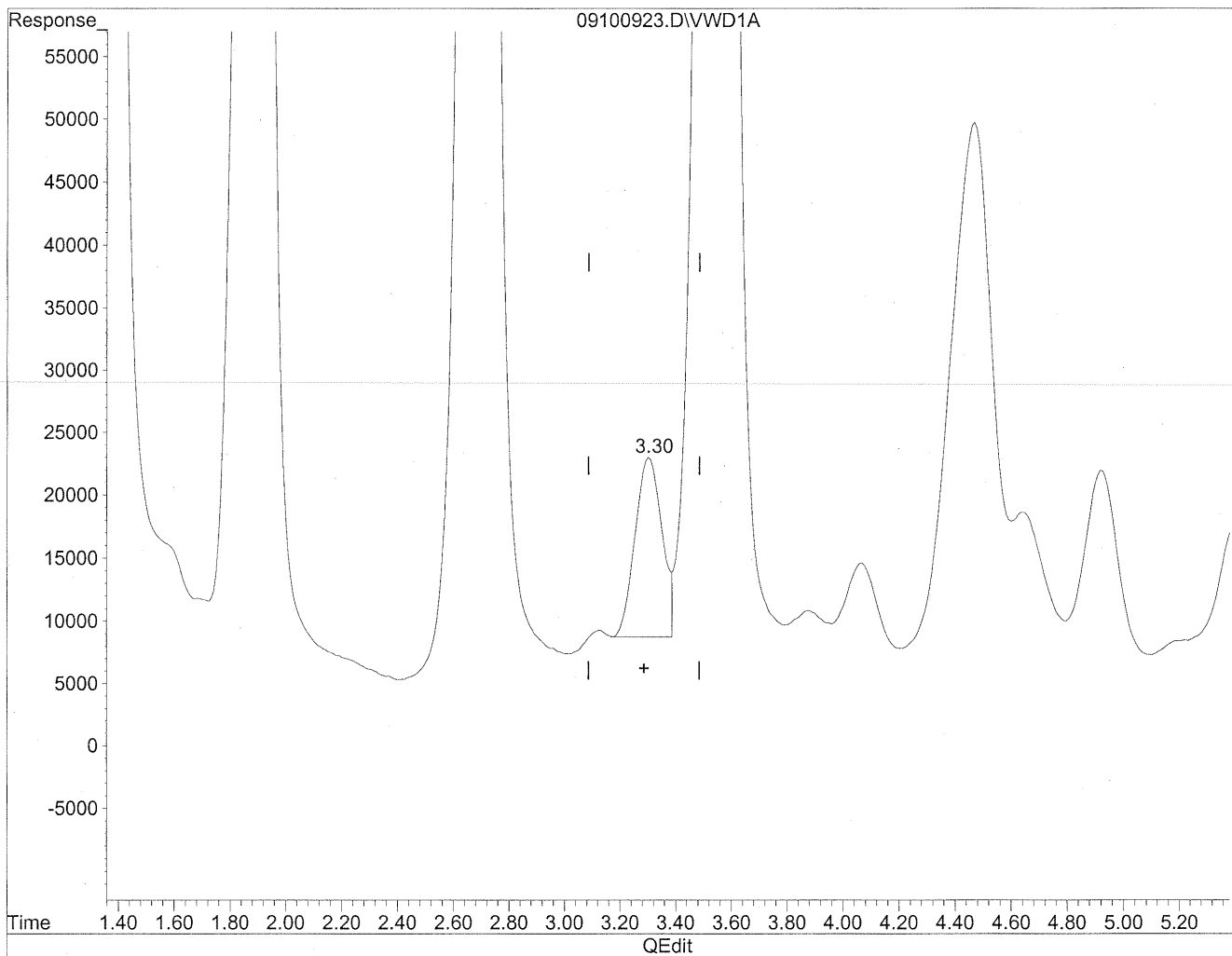


(3) Propionaldehyde
3.30min 250.602ng/ml
response 1302584

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



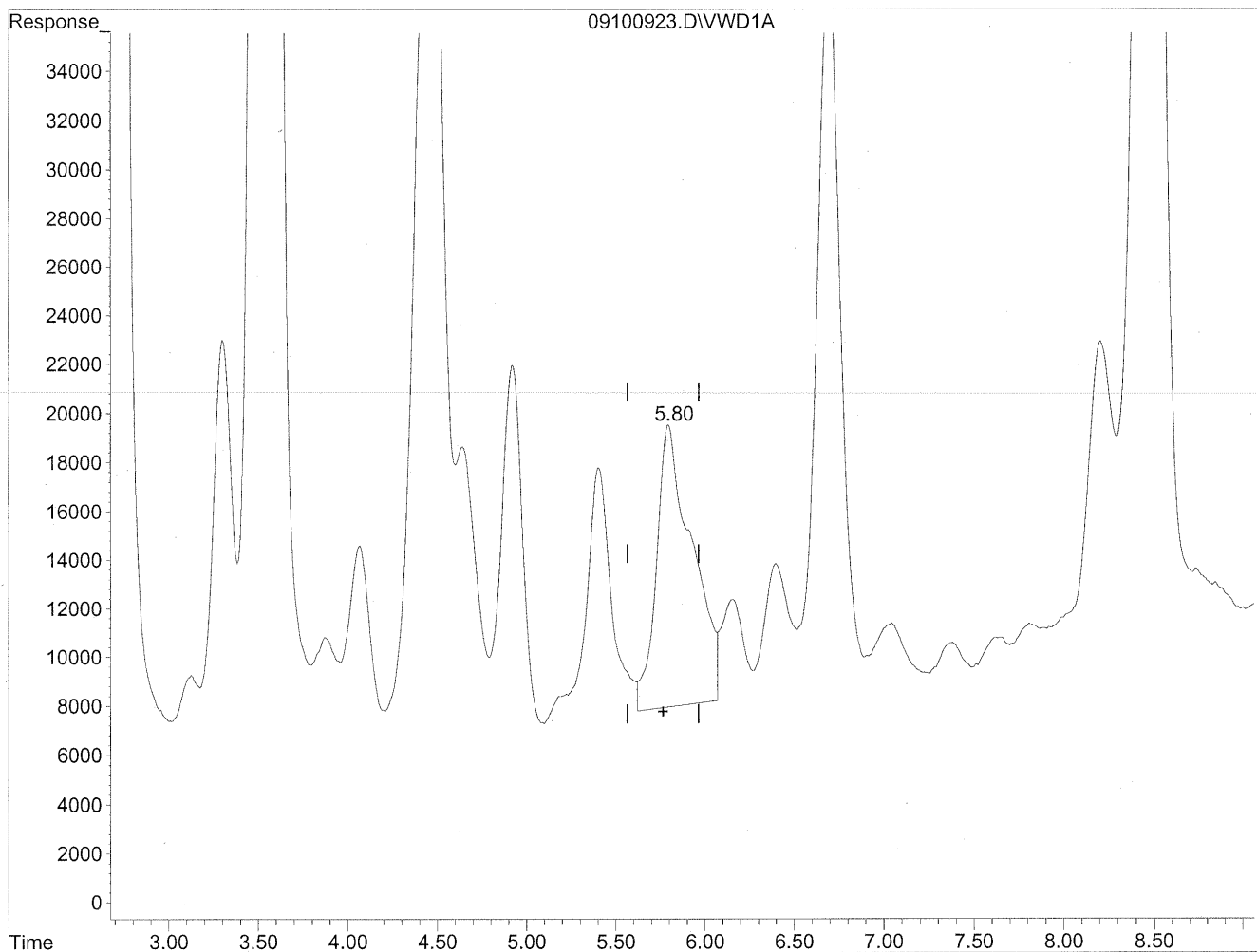
(3) Propionaldehyde
3.30min 185.569ng/ml m
response 964553

MD
9/16/09
PC
HC
9/16/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

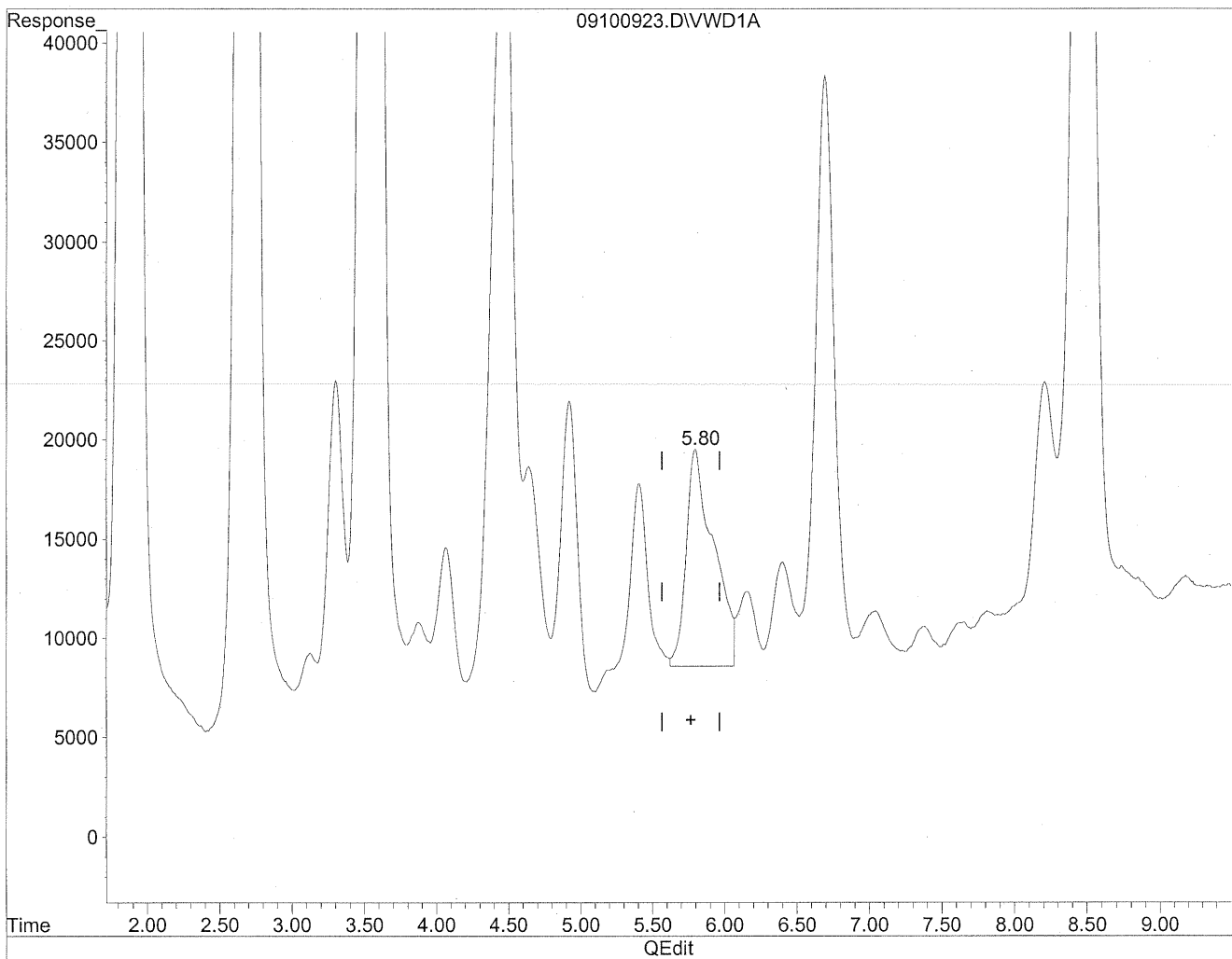


(6) Benzaldehyde
5.80min 591.460ng/ml
response 1613726

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



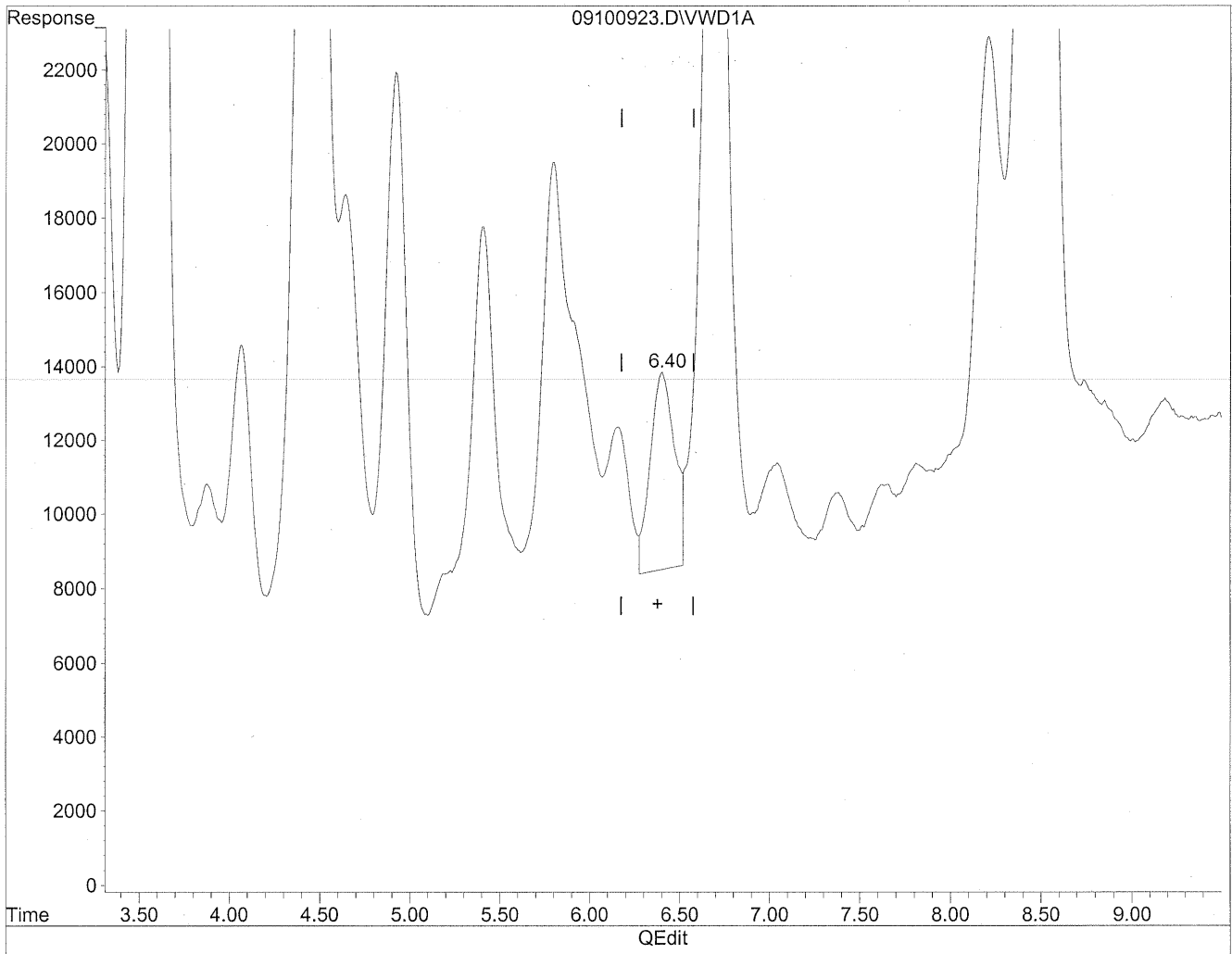
(6) Benzaldehyde
5.80min 533.443ng/ml m
response 1455435

(m)
9/16/09
BC
(m flag)
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

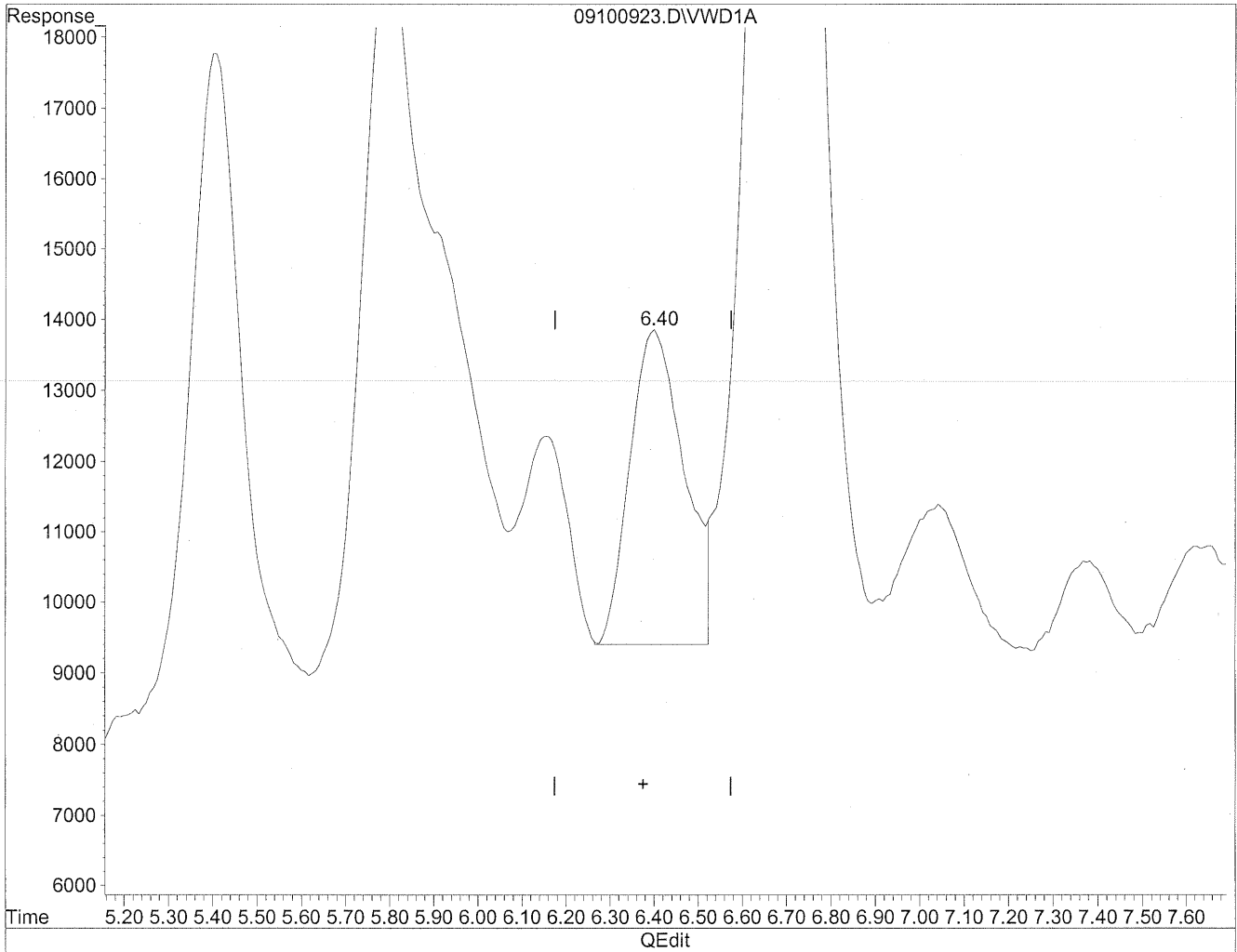


(7) Isovaleraldehyde
6.40min 146.395ng/ml
response 503861

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



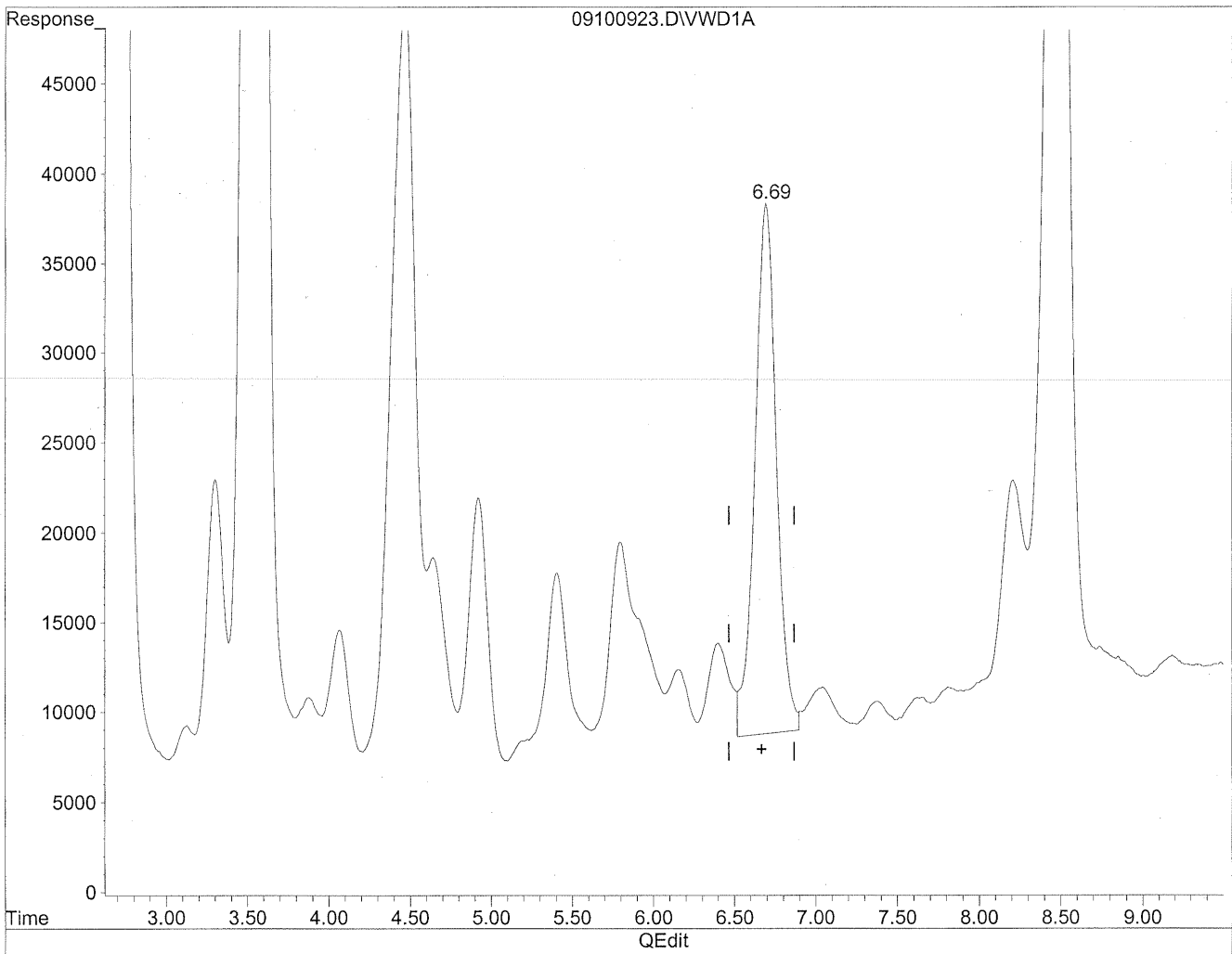
(7) Isovaleraldehyde
6.40min 109.273ng/ml m
response 376094

m
9/16/09
12
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

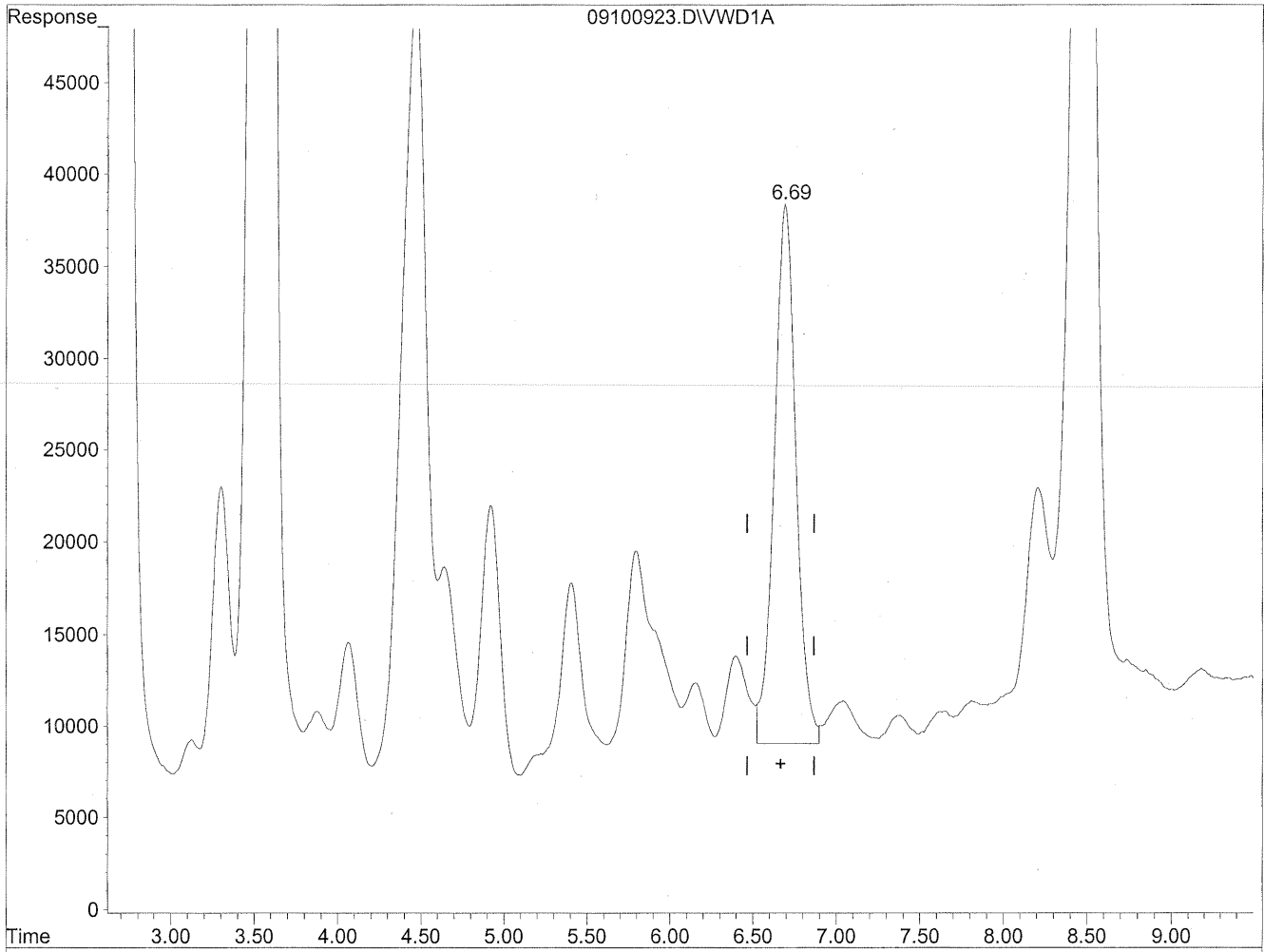


(8) Valeraldehyde
6.70min 802.279ng/ml
response 2727459

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



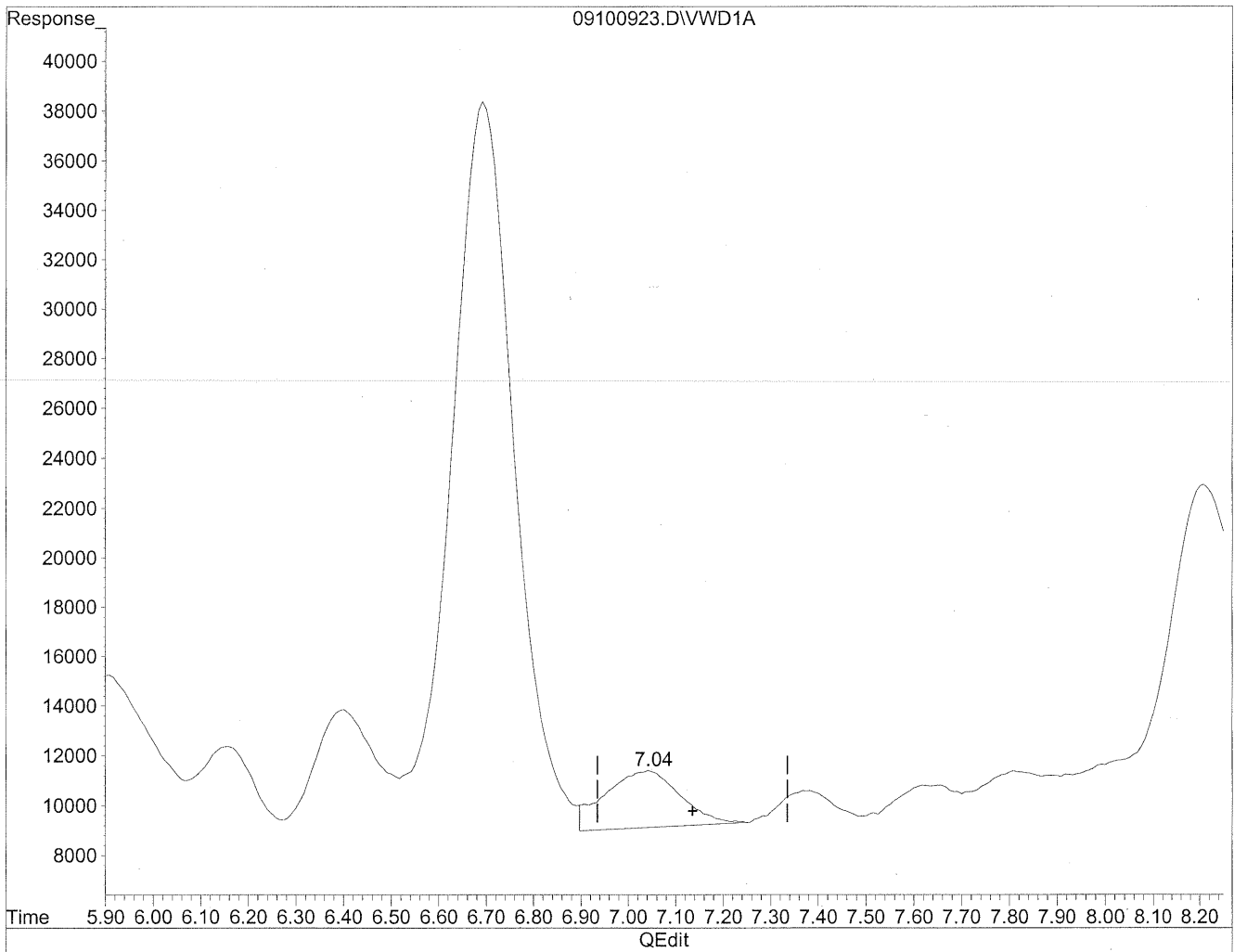
(8) Valeraldehyde
6.69min 783.292ng/ml m
response 2662910

Handwritten notes:
9/16/09
Poc
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

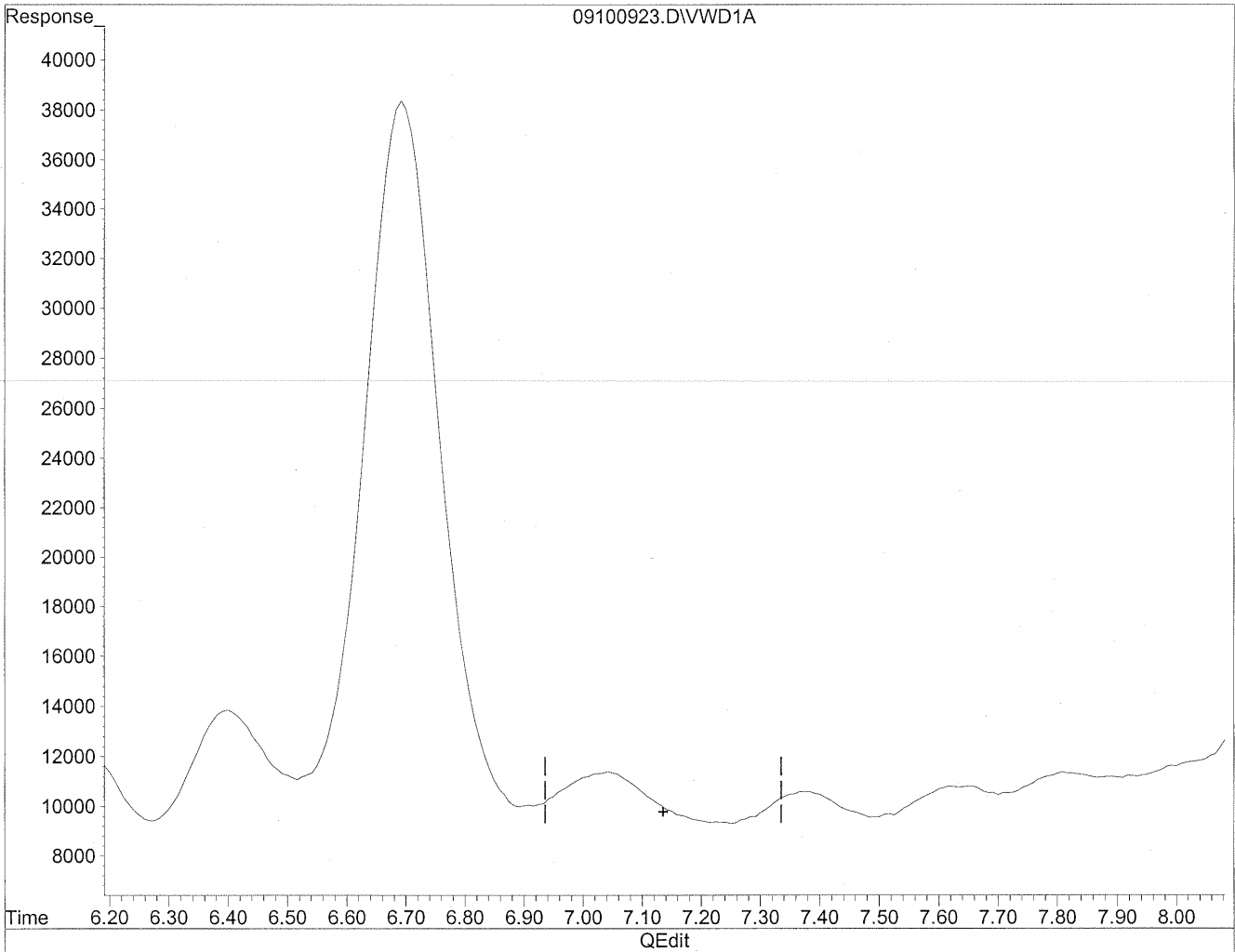


(9) o-Tolualdehyde
7.05min 114.584ng/ml
response 251462

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



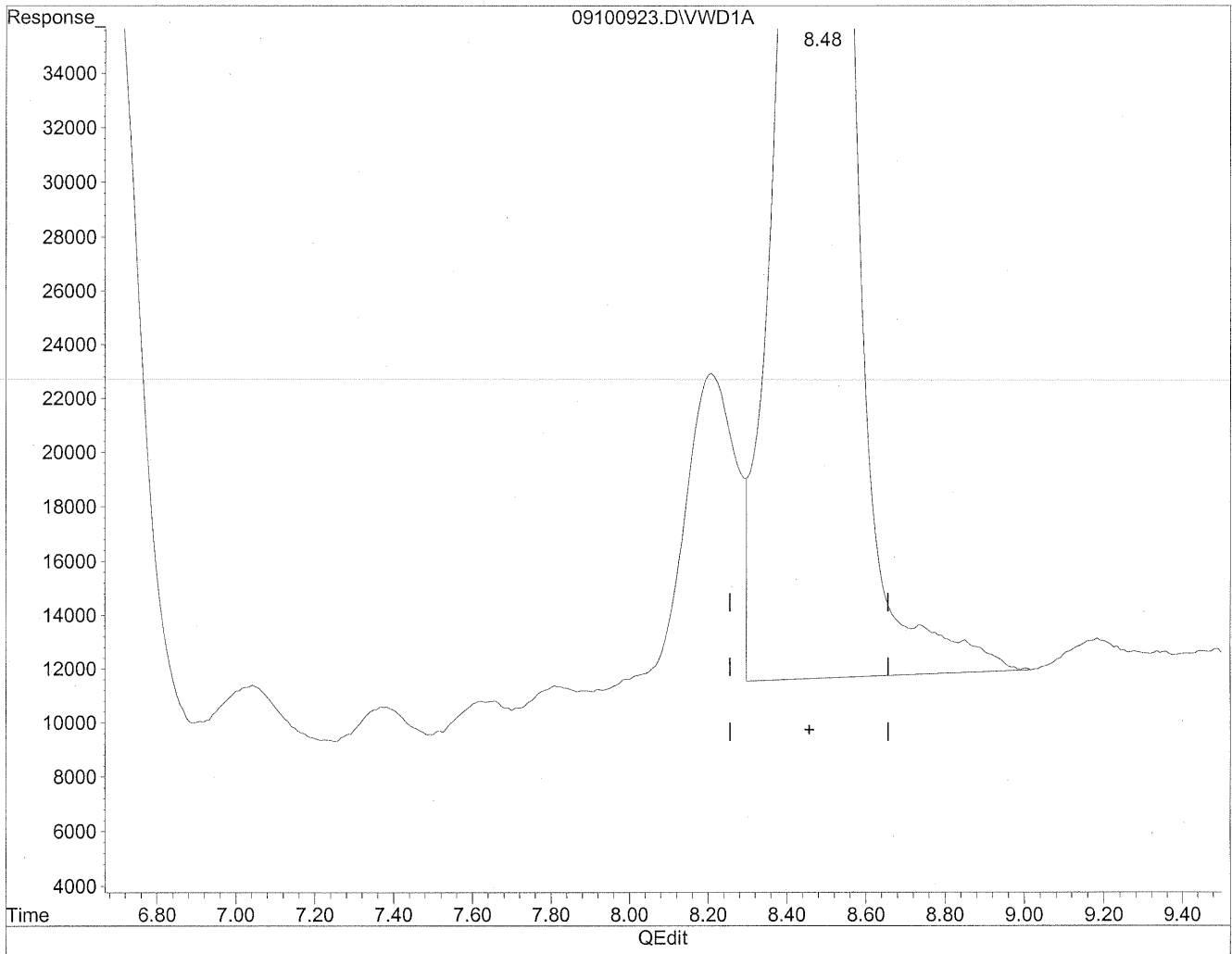
(9) o-Tolualdehyde
0.00min 0.000ng/ml d
response 0

(Handwritten notes)
MP
9/16/09
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

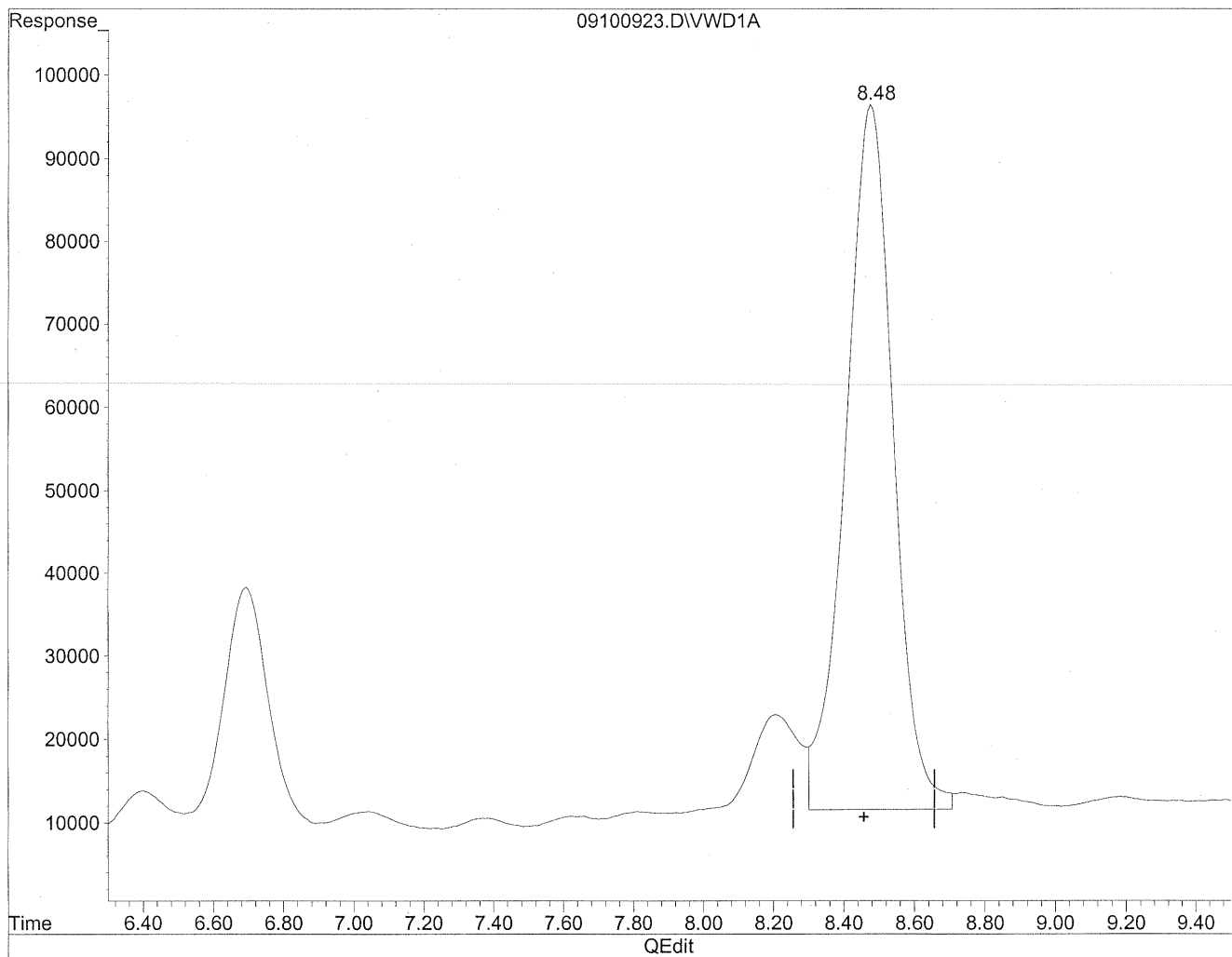


(11) Hexaldehyde
8.48min 2749.921ng/ml
response 8141759

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



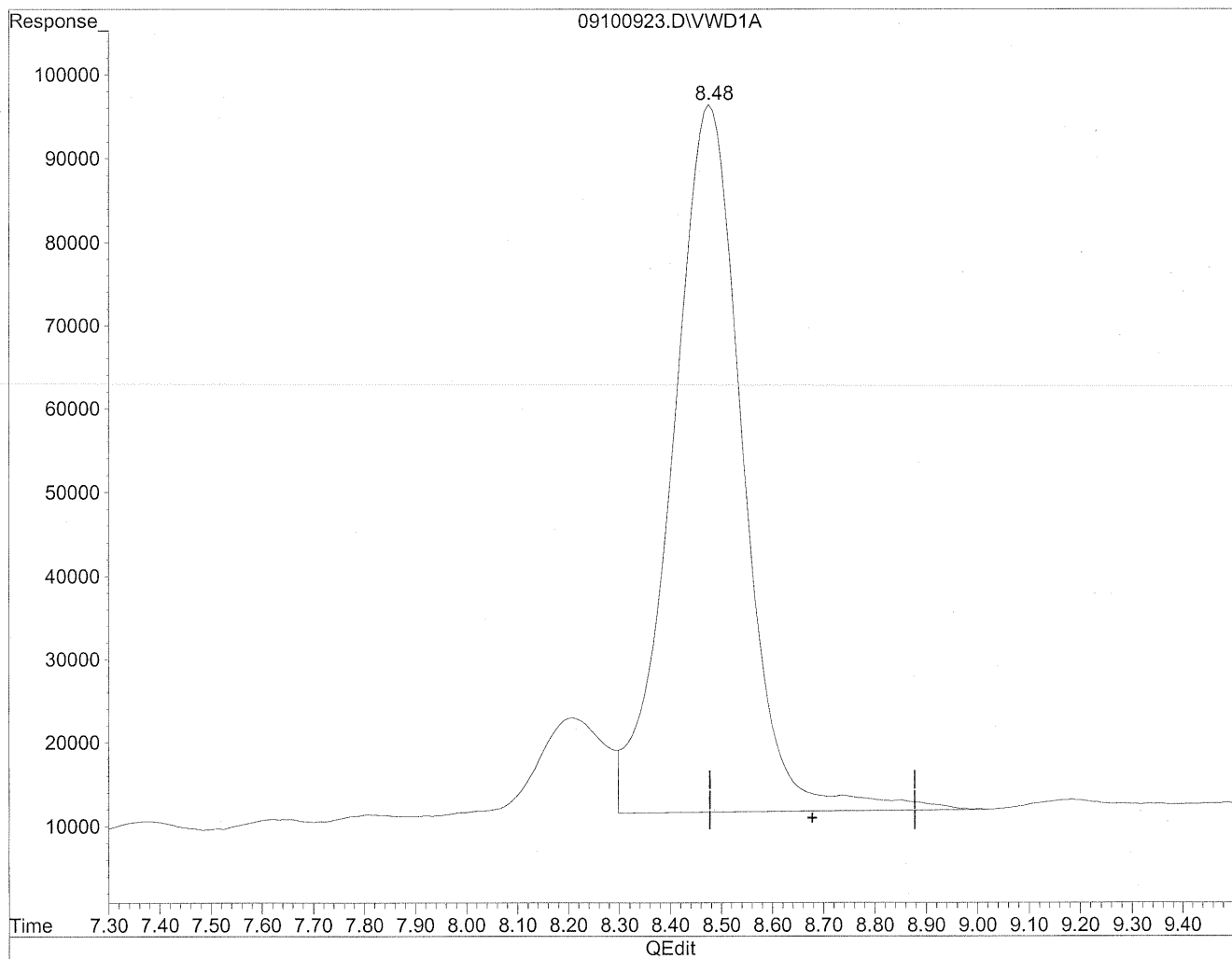
(11) Hexaldehyde
8.48min 2683.515ng/ml m
response 7945148

(m)
9/16/09
sh
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

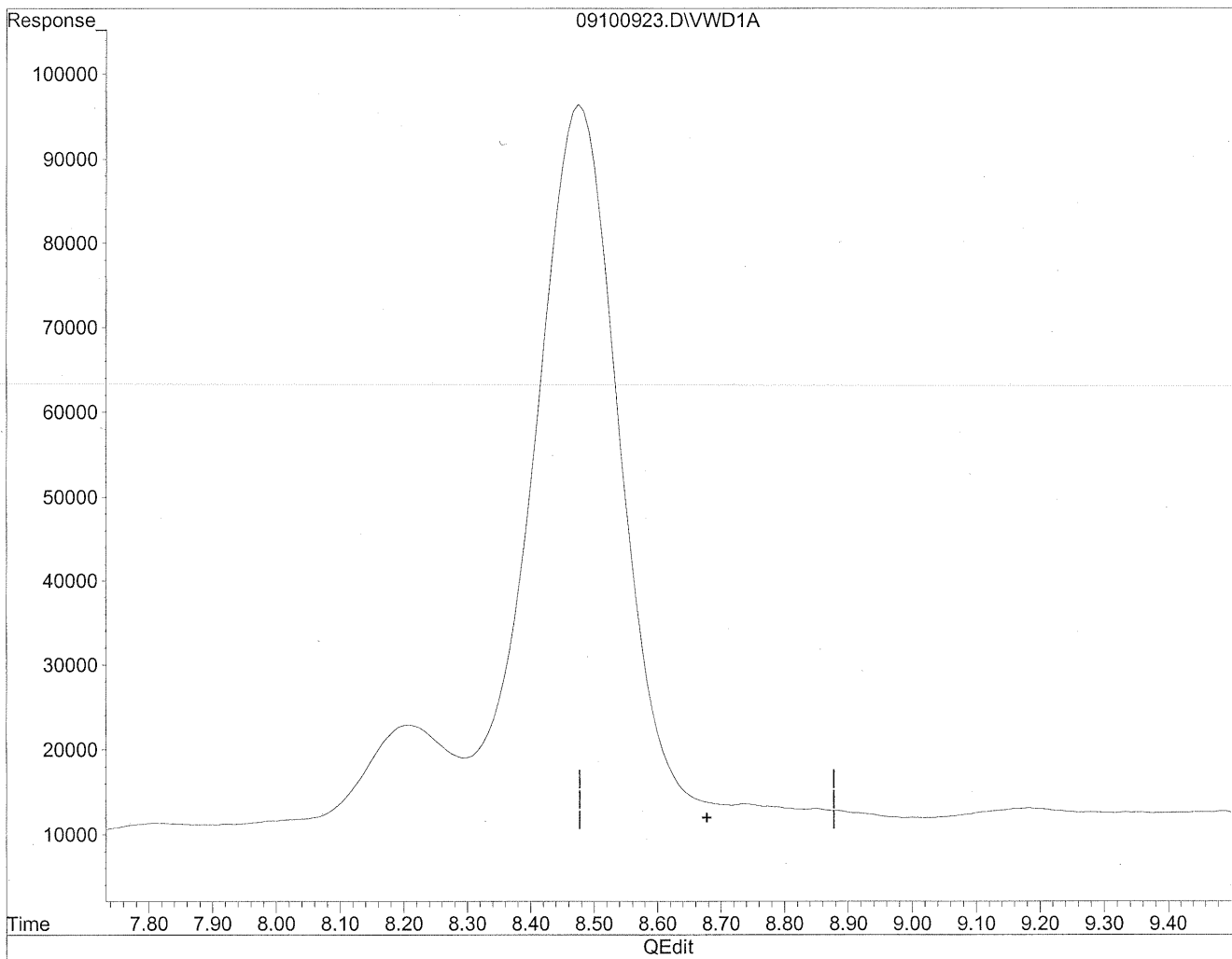


(12) 2,5-Dimethylbenzaldehyde
8.48min 4080.076ng/ml
response 8141759

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100923.D Vial: 105
Acq On : 10-Sep-2009, 15:39 Operator: MD
Sample : P0903083-005 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:20 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde
0.00min 0.000ng/ml d
response 0

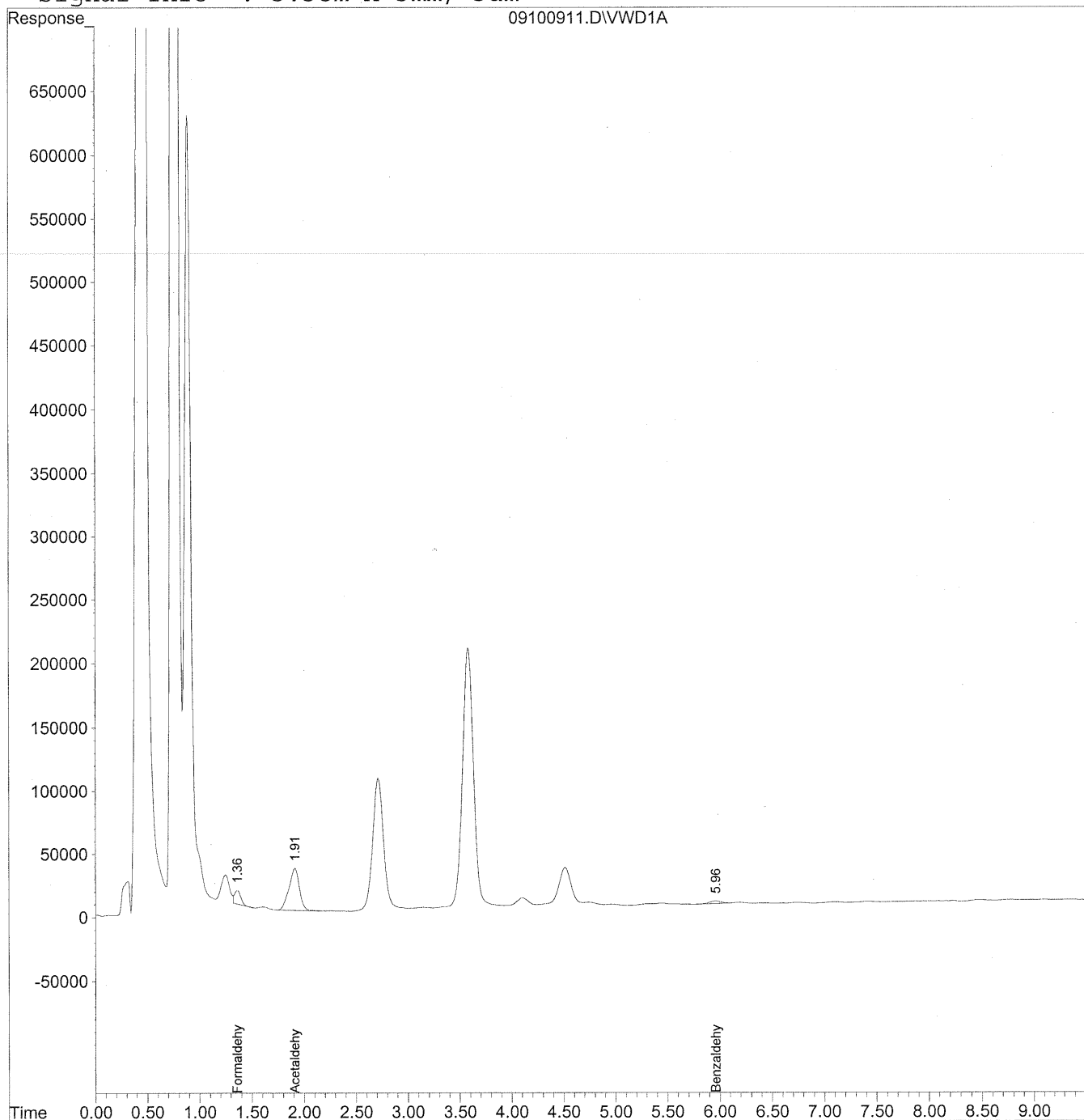
Handwritten notes:
m
9/16/09
mp
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100911.D Vial: 3
Acq On : 10-Sep-2009, 13:17 Operator: MD
Sample : P0903083-005 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:06 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100911.D Vial: 3
 Acq On : 10-Sep-2009, 13:17 Operator: MD
 Sample : P0903083-005 back 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:06 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Tue Sep 15 09:56:03 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.36	463615	51.885 ng/ml
2) Acetaldehyde	1.91	2317429	356.484 ng/ml
3) Propionaldehyde	0.00	0	N.D. ng/ml
4) Crotonaldehyde	0.00	0	N.D. ng/ml
5) Butyraldehyde	0.00	0	N.D. ng/ml
6) Benzaldehyde	5.96	143973	52.769 ng/ml
7) Isovaleraldehyde	0.00	0	N.D. ng/ml
8) Valeraldehyde	0.00	0	N.D. ng/ml
9) o-Tolualdehyde	0.00	0	N.D. ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D. ng/ml
11) Hexaldehyde	0.00	0	N.D. ng/ml
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D. ng/ml

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Environmental Health & Engineering, Inc.
Client Sample ID: 103942
Client Project ID: 16512

CAS Project ID: P0903083
 CAS Sample ID: P0903083-006

Test Code: EPA Method TO-11A
Instrument ID: HP1050/LC2
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel DNPH Tube
Test Notes: BC

Date Collected: 8/24/09
Date Received: 9/2/09
Date Analyzed: 9/10/09
Desorption Volume: 1.0 ml
Volume Sampled: 107 Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	480	4.5	0.93	3.6	0.76	
75-07-0	Acetaldehyde	170	1.6	0.93	0.89	0.52	
123-38-6	Propionaldehyde	< 100	ND	0.93	ND	0.39	
4170-30-3	Crotonaldehyde, Total	< 100	ND	0.93	ND	0.33	
123-72-8	Butyraldehyde	< 100	ND	0.93	ND	0.32	
100-52-7	Benzaldehyde	< 100	ND	0.93	ND	0.22	
590-86-3	Isovaleraldehyde	< 100	ND	0.93	ND	0.27	
110-62-3	Valeraldehyde	< 100	ND	0.93	ND	0.27	
529-20-4	o-Tolualdehyde	< 100	ND	0.93	ND	0.19	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	1.9	ND	0.38	
66-25-1	n-Hexaldehyde	< 100	ND	0.93	ND	0.23	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	0.93	ND	0.17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected.

Verified By: _____



Date: _____

9/17/09

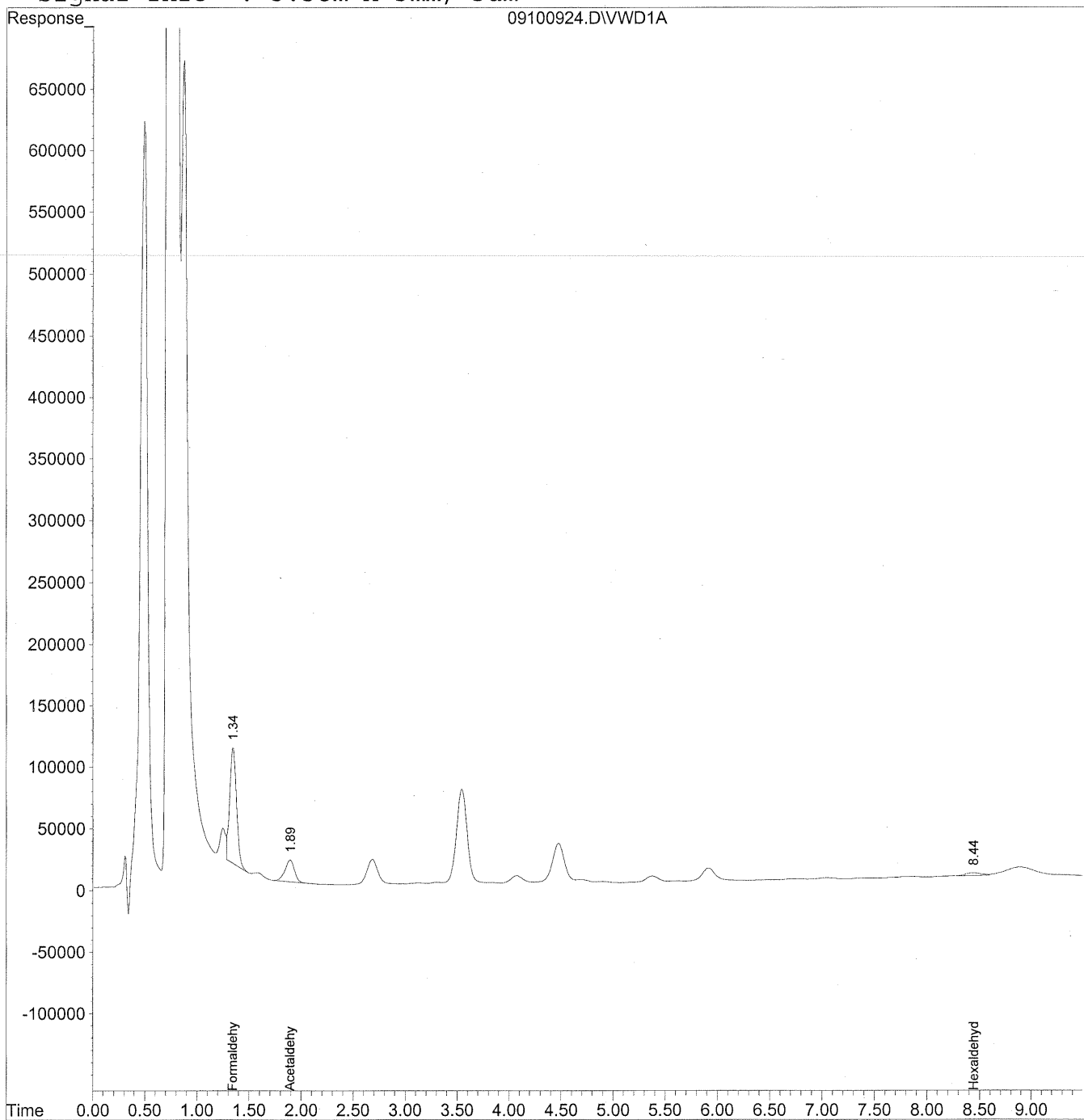
TO-11A.XLS - Page No.:

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100924.D Vial: 106
Acq On : 10-Sep-2009, 15:52 Operator: MD
Sample : P0903083-006 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:24 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100924.D Vial: 106
 Acq On : 10-Sep-2009, 15:52 Operator: MD
 Sample : P0903083-006 front 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:24 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 16 11:12:09 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

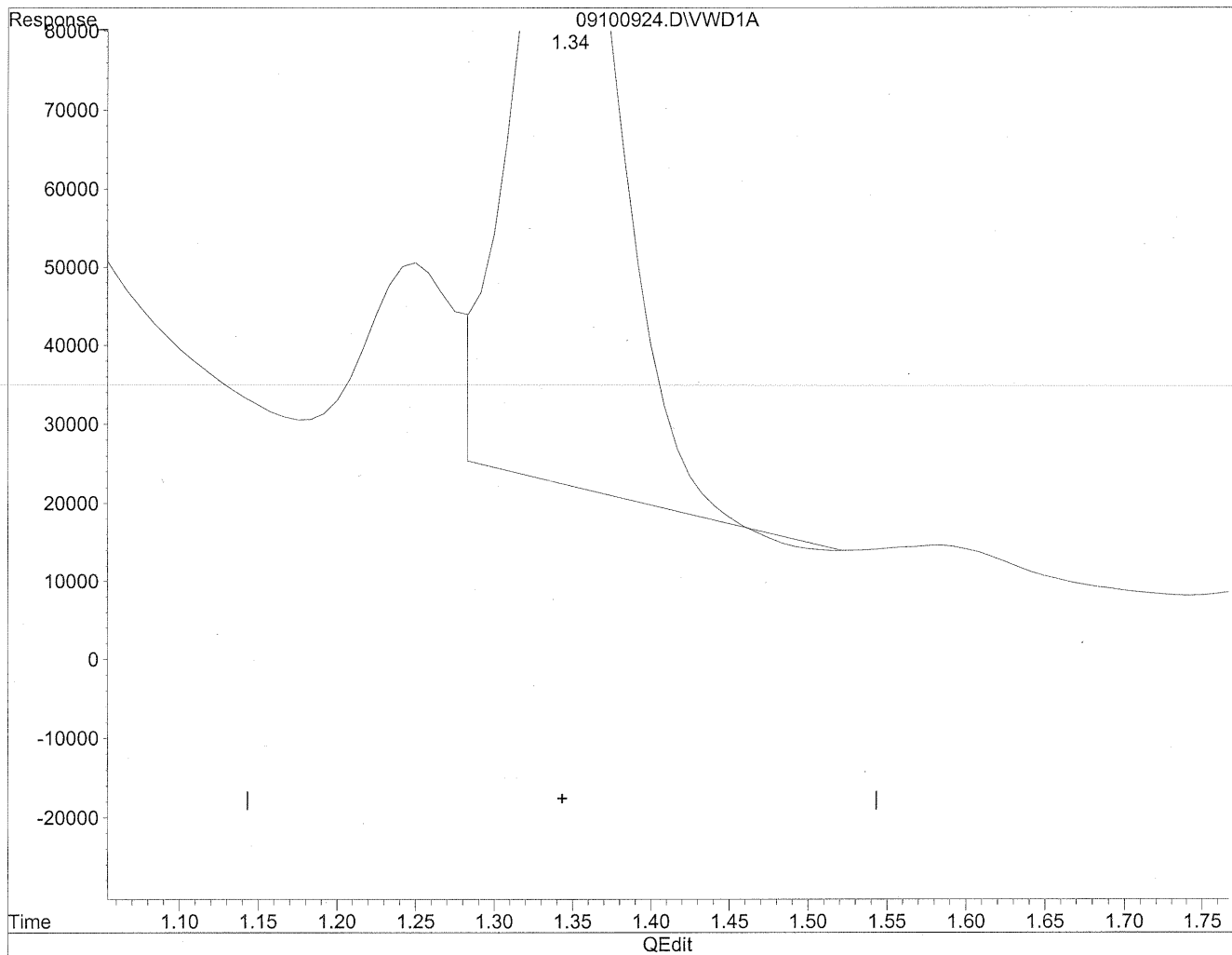
Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.34	4265537	477.373 ng/mlm
2) Acetaldehyde	1.90	1115881	171.653 ng/ml
3) Propionaldehyde	0.00	0	N.D. ng/ml
4) Crotonaldehyde	0.00	0	N.D. ng/ml
5) Butyraldehyde	0.00	0	N.D. ng/ml
6) Benzaldehyde	0.00	0	N.D. ng/ml
7) Isovaleraldehyde	0.00	0	N.D. ng/ml
8) Valeraldehyde	0.00	0	N.D. ng/ml
9) o-Tolualdehyde	0.00	0	N.D. ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D. ng/ml
11) Hexaldehyde	8.44	231844	78.307 ng/mlm
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D. ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100924.D Vial: 106
Acq On : 10-Sep-2009, 15:52 Operator: MD
Sample : P0903083-006 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:23 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

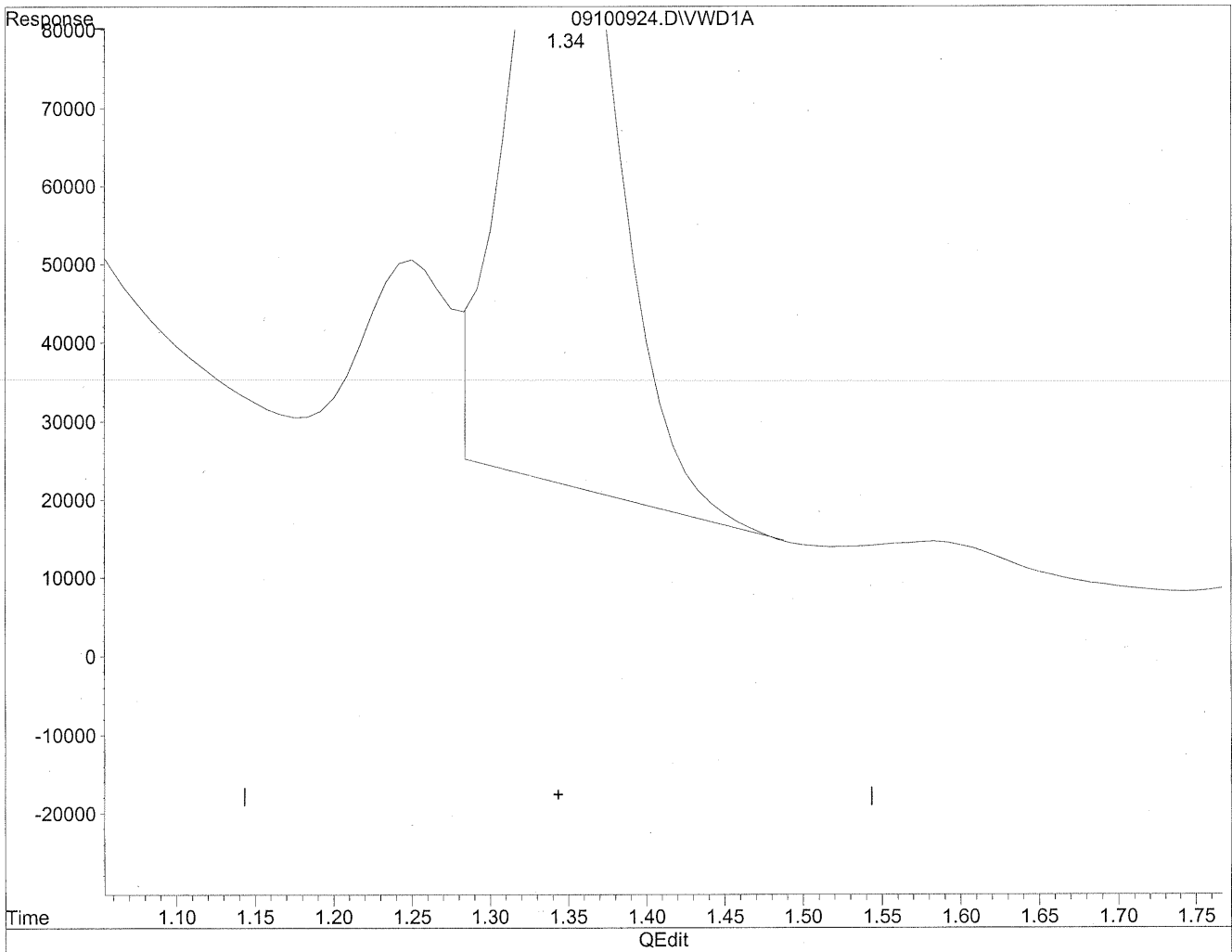


(1) Formaldehyde
1.35min 478.562ng/ml
response 4276159

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100924.D Vial: 106
Acq On : 10-Sep-2009, 15:52 Operator: MD
Sample : P0903083-006 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:23 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



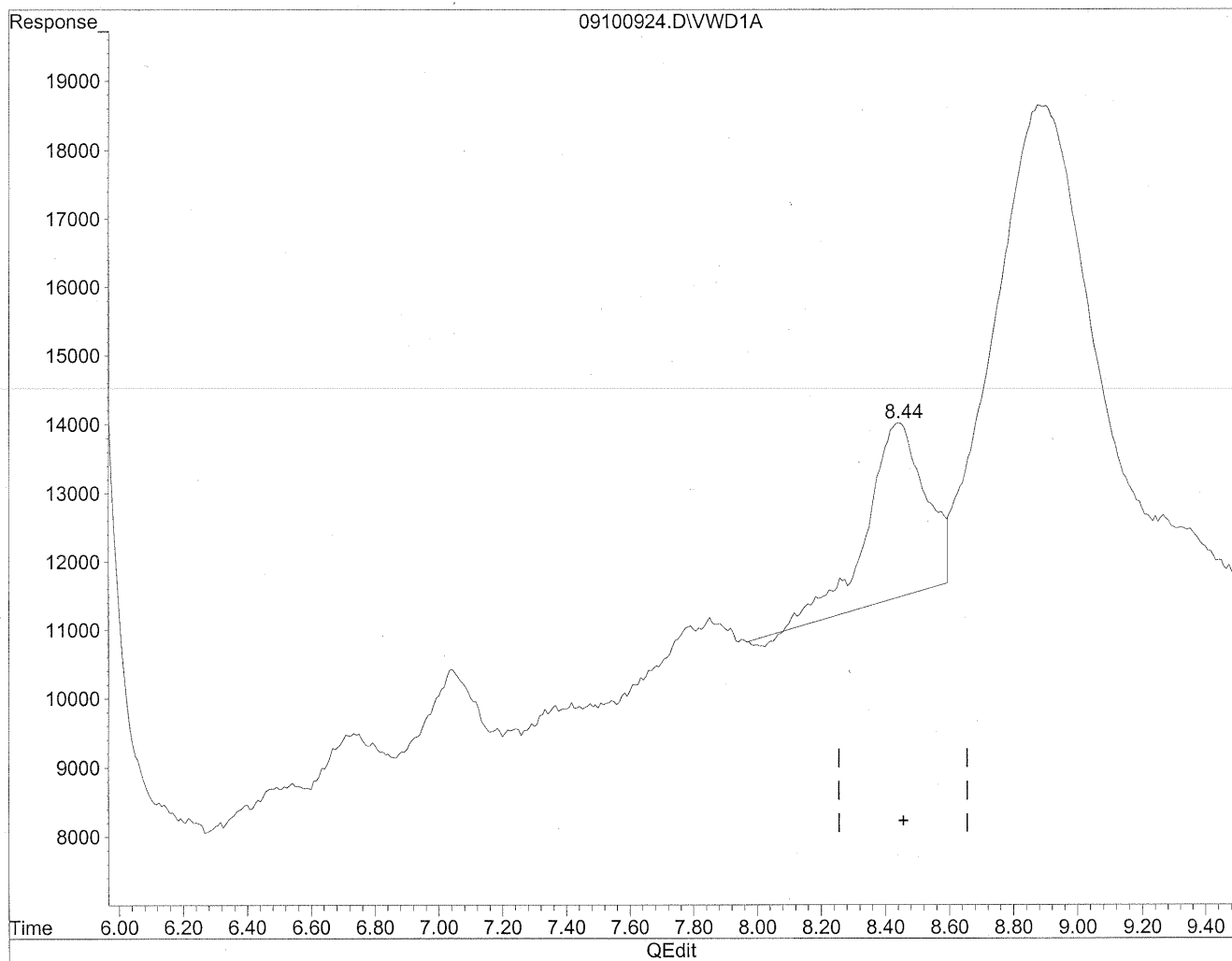
(1) Formaldehyde
1.34min 477.373ng/ml m
response 4265537

(Handwritten notes)
9/16/09
12
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100924.D Vial: 106
Acq On : 10-Sep-2009, 15:52 Operator: MD
Sample : P0903083-006 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:23 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration

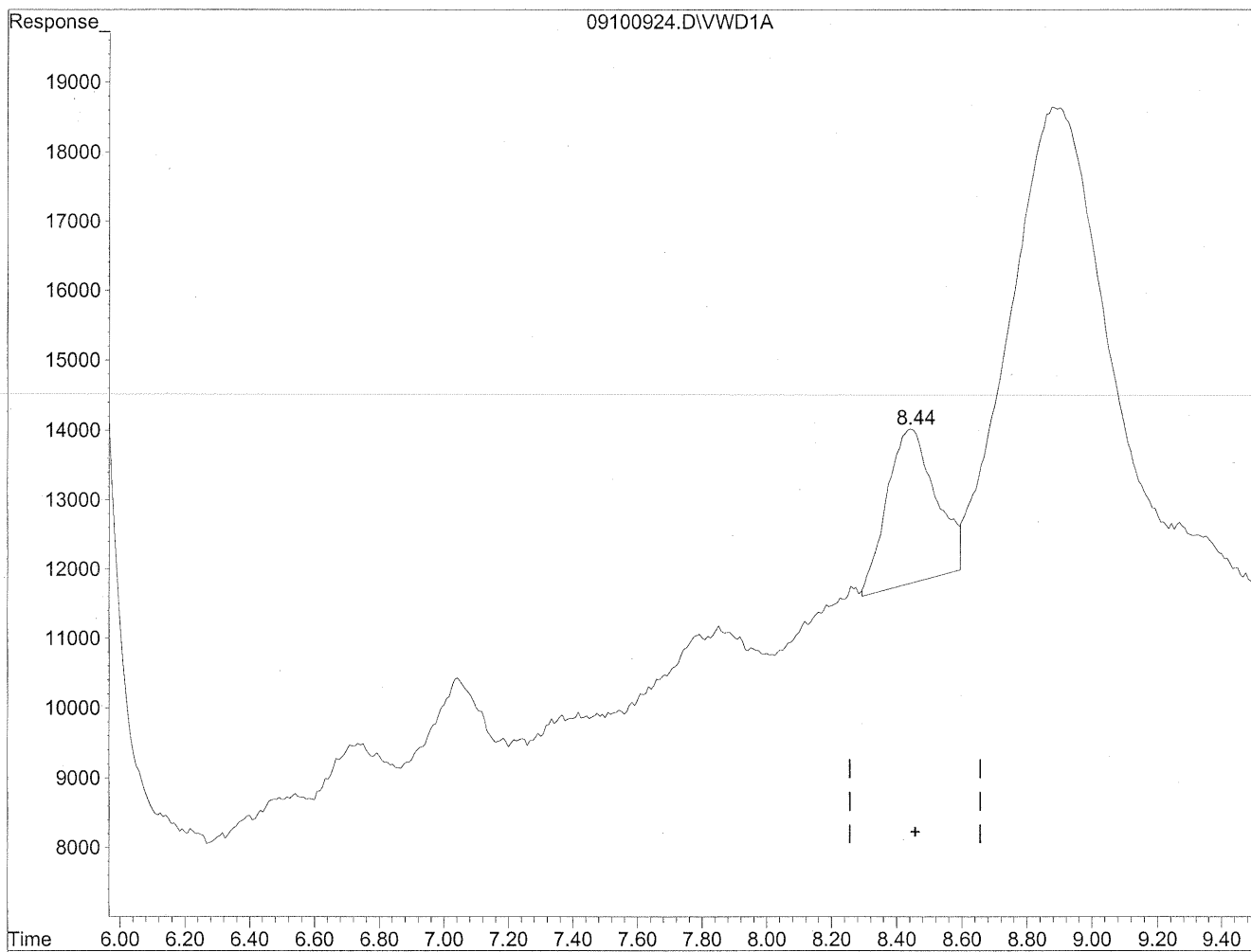


(11) Hexaldehyde
8.44min 107.588ng/ml
response 318537

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100924.D Vial: 106
Acq On : 10-Sep-2009, 15:52 Operator: MD
Sample : P0903083-006 front 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:23 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 16 11:12:09 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde

8.44min 78.307ng/ml m

response 231844

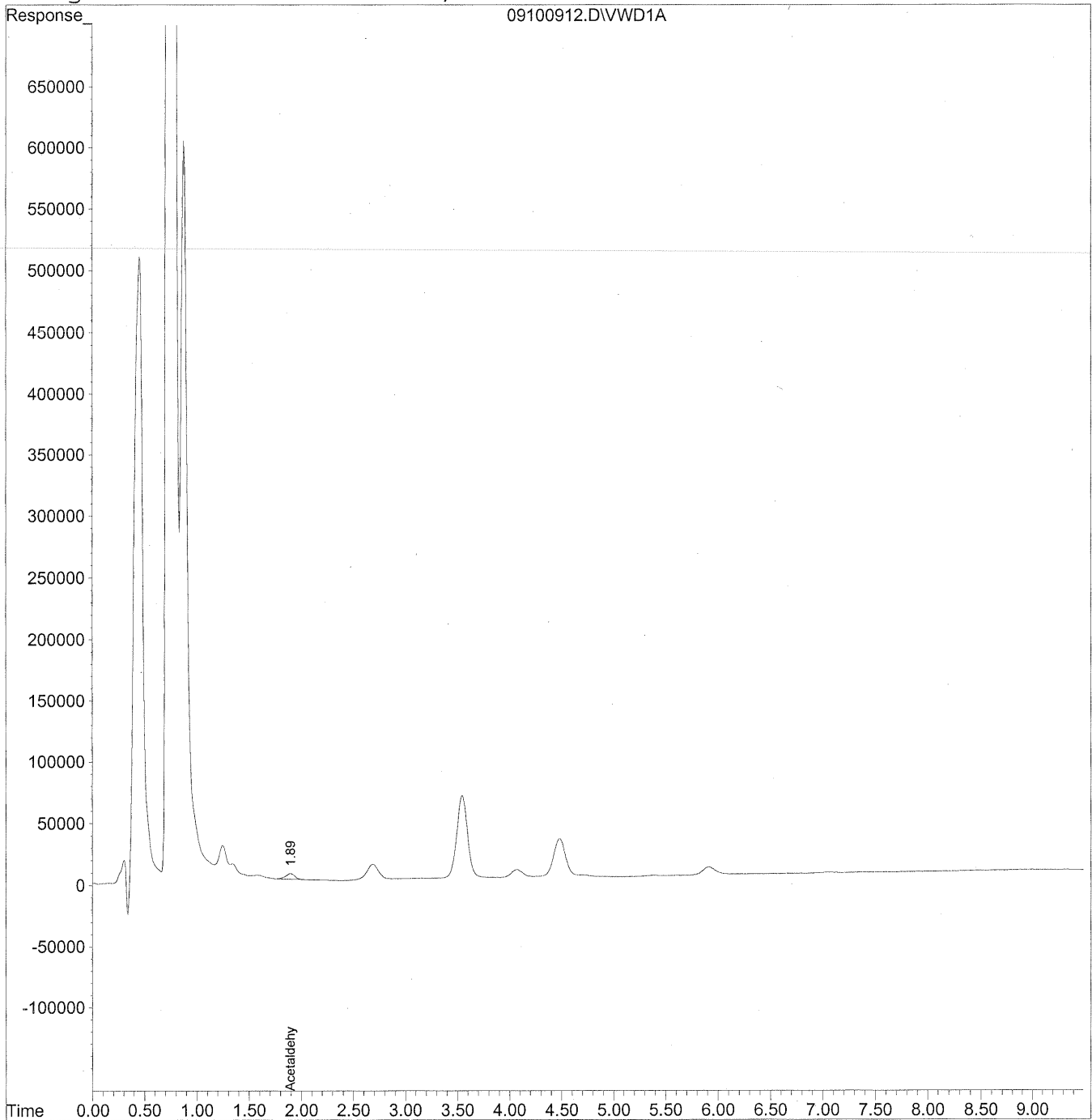
MO
9/16/09
12
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100912.D Vial: 2
Acq On : 10-Sep-2009, 13:29 Operator: MD
Sample : P0903083-006 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:06 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100912.D Vial: 2
 Acq On : 10-Sep-2009, 13:29 Operator: MD
 Sample : P0903083-006 back 1.0ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:06 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Tue Sep 15 09:56:03 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

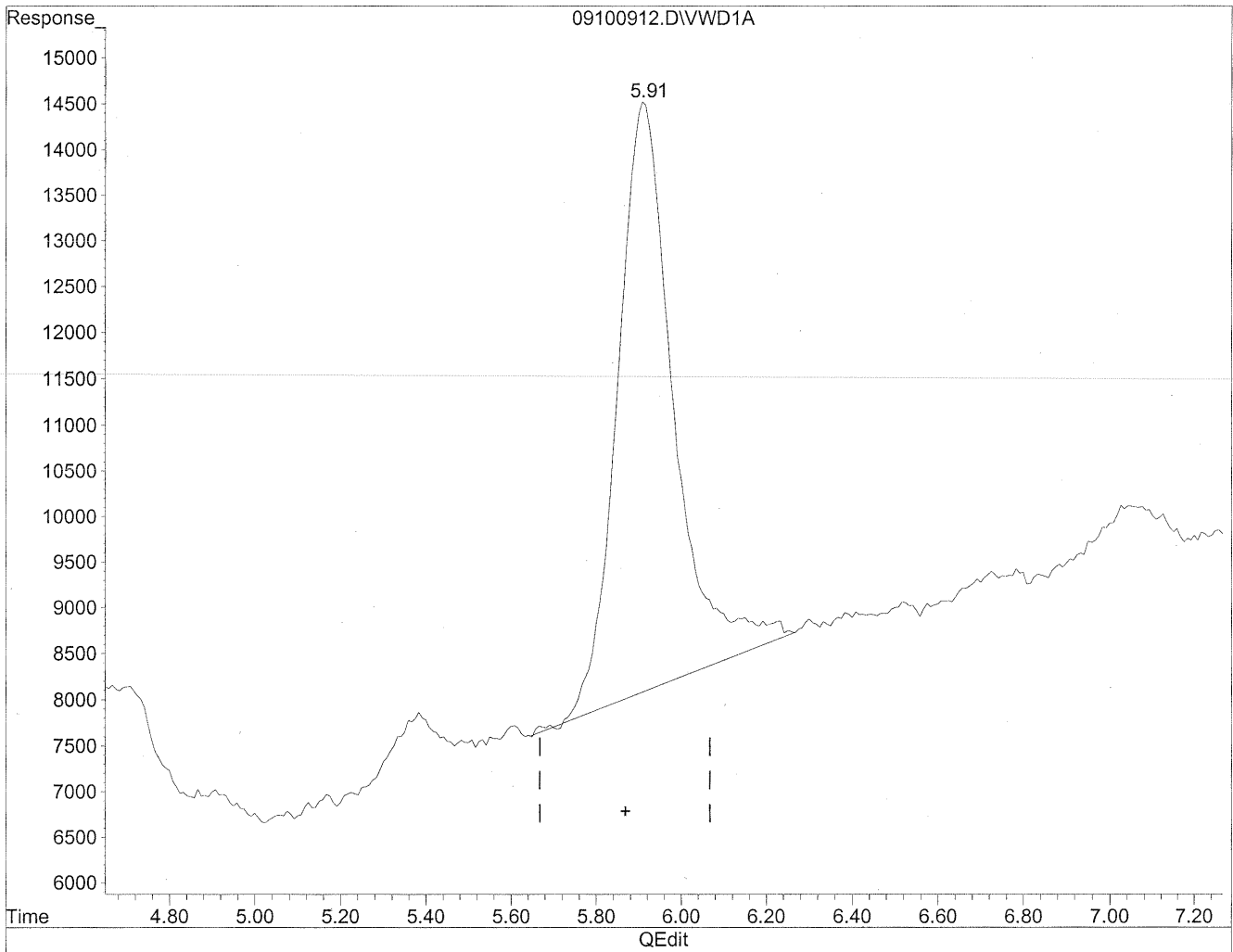
Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) Formaldehyde	0.00	0	N.D.	ng/ml
2) Acetaldehyde	1.90	270169	41.559	ng/ml
3) Propionaldehyde	0.00	0	N.D.	ng/ml
4) Crotonaldehyde	0.00	0	N.D.	ng/ml
5) Butyraldehyde	0.00	0	N.D.	ng/ml
6) Benzaldehyde	0.00	0	N.D.	ng/ml
7) Isovaleraldehyde	0.00	0	N.D.	ng/ml
8) Valeraldehyde	0.00	0	N.D.	ng/ml
9) o-Tolualdehyde	0.00	0	N.D.	ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11) Hexaldehyde	0.00	0	N.D.	ng/ml
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100912.D Vial: 2
Acq On : 10-Sep-2009, 13:29 Operator: MD
Sample : P0903083-006 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:06 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration

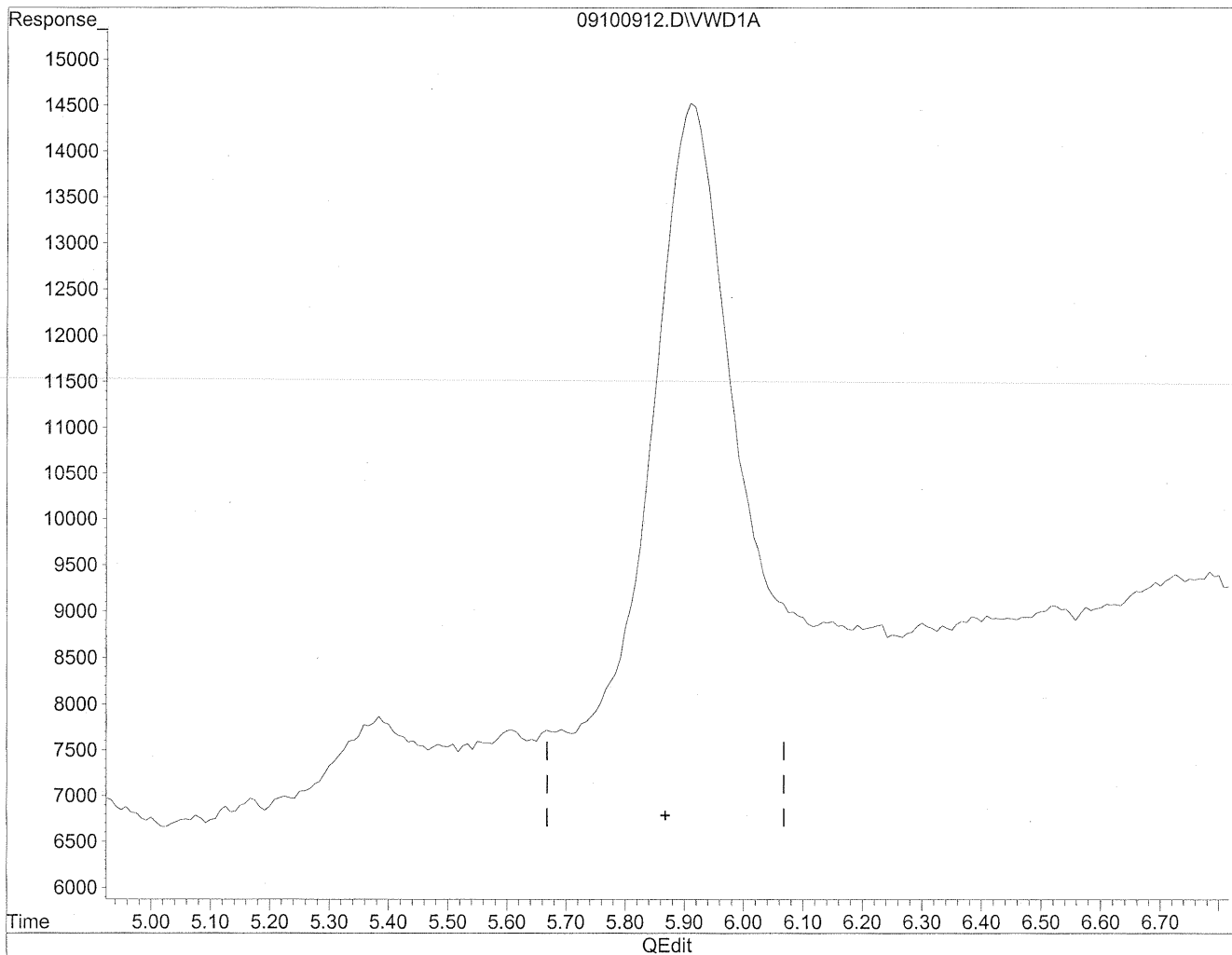


(6) Benzaldehyde
5.91min 216.123ng/ml
response 589664

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100912.D Vial: 2
Acq On : 10-Sep-2009, 13:29 Operator: MD
Sample : P0903083-006 back 1.0ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:06 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration



(6) Benzaldehyde
0.00min 0.000ng/ml d
response 0

MD
9/16/09
MP (RT) *AC*
9/17/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Environmental Health & Engineering, Inc.
 Client Sample ID: Method Blank
 Client Project ID: 16512

CAS Project ID: P0903083
 CAS Sample ID: P090910-MB

Test Code: EPA Method TO-11A
 Instrument ID: HP1050/LC2
 Analyst: Madeleine Dangazyan
 Sampling Media: Silica Gel DNPH Tube
 Test Notes: BC

Date Collected: NA
 Date Received: NA
 Date Analyzed: 09/10/09
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liter(s)

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected.

NA = Not applicable.

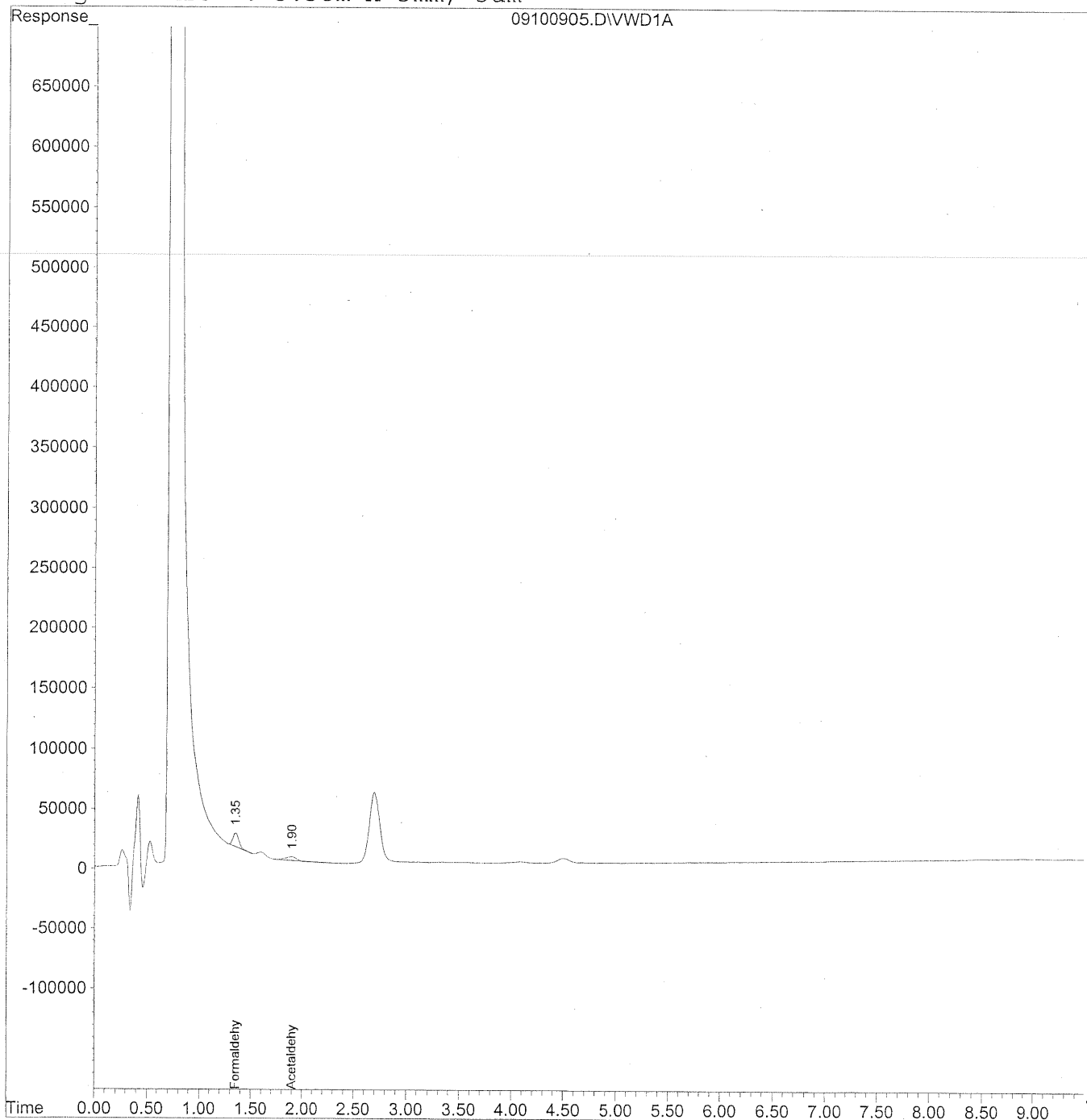
Verified By: _____ Date: 9/17/09 **103**

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100905.D Vial: 9
Acq On : 10-Sep-2009, 12:09 Operator: MD
Sample : MB front 1.0ml lot 5855/5994 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:00 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100905.D Vial: 9
 Acq On : 10-Sep-2009, 12:09 Operator: MD
 Sample : MB front 1.0ml lot 5855/5994 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:00 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Tue Sep 15 09:56:03 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc Units

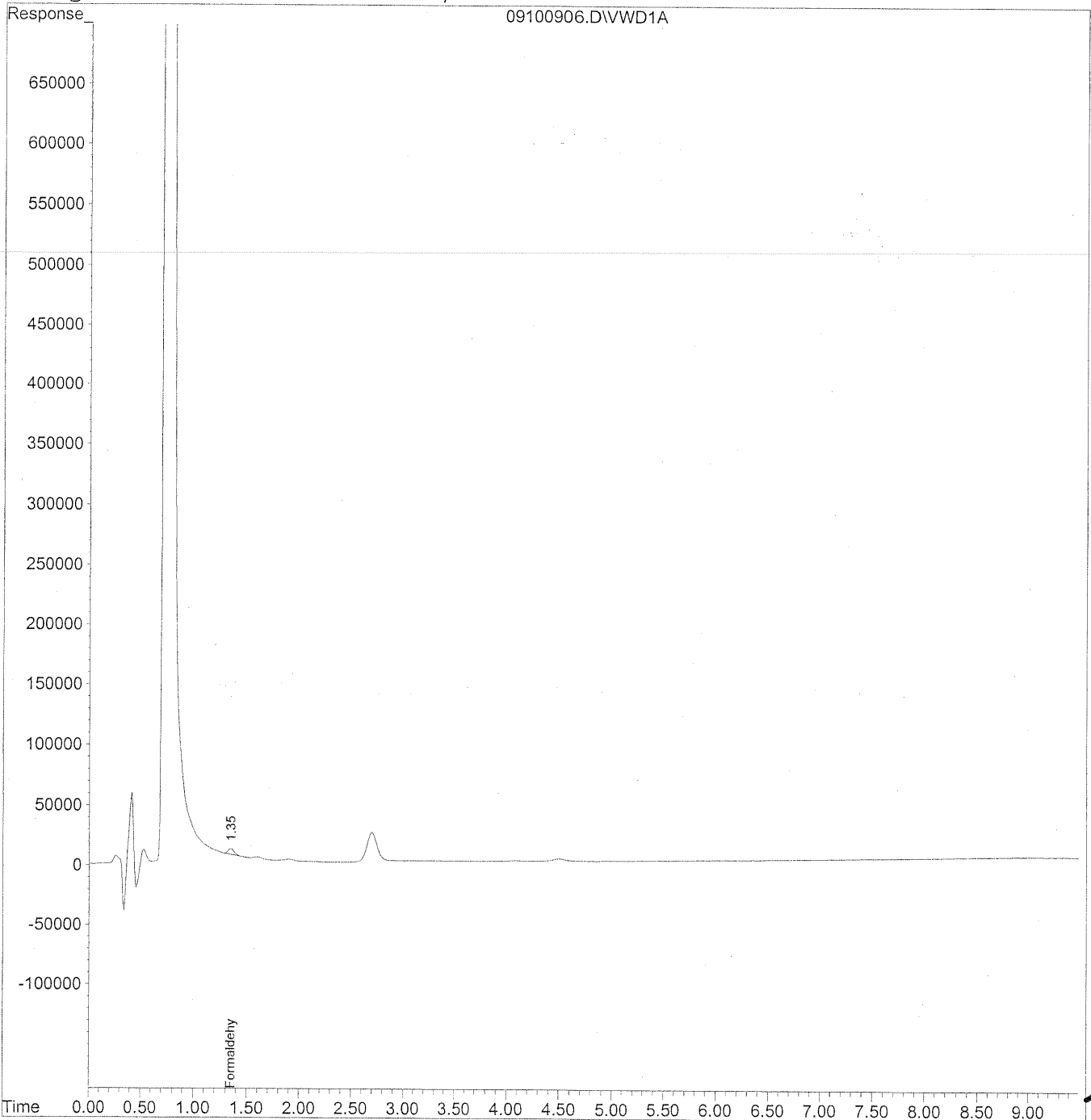
Target Compounds			
1) Formaldehyde	1.35	488505	54.671 ng/ml
2) Acetaldehyde	1.90	180819	27.815 ng/ml
3) Propionaldehyde	0.00	0	N.D. ng/ml
4) Crotonaldehyde	0.00	0	N.D. ng/ml
5) Butyraldehyde	0.00	0	N.D. ng/ml
6) Benzaldehyde	0.00	0	N.D. ng/ml
7) Isovaleraldehyde	0.00	0	N.D. ng/ml
8) Valeraldehyde	0.00	0	N.D. ng/ml
9) o-Tolualdehyde	0.00	0	N.D. ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D. ng/ml
11) Hexaldehyde	0.00	0	N.D. ng/ml
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D. ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100906.D Vial: 8
Acq On : 10-Sep-2009, 12:20 Operator: MD
Sample : MB back 1.0ml lot 5855/5994 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:00 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100906.D Vial: 8
 Acq On : 10-Sep-2009, 12:20 Operator: MD
 Sample : MB back 1.0ml lot 5855/5994 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:00 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Tue Sep 15 09:56:03 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Formaldehyde	1.35	191940	21.481	ng/ml
2) Acetaldehyde	0.00	0	N.D.	ng/ml
3) Propionaldehyde	0.00	0	N.D.	ng/ml
4) Crotonaldehyde	0.00	0	N.D.	ng/ml
5) Butyraldehyde	0.00	0	N.D.	ng/ml
6) Benzaldehyde	0.00	0	N.D.	ng/ml
7) Isovaleraldehyde	0.00	0	N.D.	ng/ml
8) Valeraldehyde	0.00	0	N.D.	ng/ml
9) o-Tolualdehyde	0.00	0	N.D.	ng/ml
10) m,p-Tolualdehyde	0.00	0	N.D.	ng/ml
11) Hexaldehyde	0.00	0	N.D.	ng/ml
12) 2,5-Dimethylbenzaldehyde	0.00	0	N.D.	ng/ml

INITIAL CALIBRATION STANDARDS

Response Factor Report VWD

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Thu Sep 11 13:54:46 2008

Calibration Files

50 =09090910.D 100 =09090913.D 500 =09090916.D
 1500 =09090919.D 5000 =09090922.D 10 =09090925.D

Compound	50	100	500	1500	5000	10	Avg	%RSD
1) Formaldehyde	9.033	8.595	8.515	9.020	9.302	9.148	8.935	E3 3.50
2) Acetaldehyde	6.537	6.232	6.129	6.593	6.799	6.715	6.501	E3 4.10
3) Propionaldehyde	5.378	4.996	5.013	5.195	5.337	5.268	5.198	E3 3.13
4) Crotonaldehyde	3.974	3.795	3.909	4.099	4.319	4.261	4.060	E3 5.04
5) Butyraldehyde	4.071	3.828	3.819	4.080	4.290	4.229	4.053	E3 4.86
6) Benzaldehyde	2.793	2.509	2.569	2.745	2.894	2.860	2.728	E3 5.74
7) Isovaleraldehyde	3.594	3.260	3.257	3.437	3.577	3.525	3.442	E3 4.42
8) Valeraldehyde	3.385	3.277	3.176	3.434	3.588	3.539	3.400	E3 4.58
9) o-Tolualdehyde	2.114	1.981	2.037	2.249	2.401	2.386	2.195	E3 8.13
10) m,p-Tolualdehyde	2.187	2.029	2.198	2.391	2.507	2.470	2.297	E3 8.18
11) Hexaldehyde	2.976	2.854	2.845	2.973	3.086	3.031	2.961	E3 3.24
12) 2,5-Dimethylbenzald	1.800	1.761	1.922	2.067	2.228	2.194	1.995	E3 9.95

Calibration Status Report VWD

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	50	50.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090910.D
2	100	100.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090913.D
3	500	500.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090916.D
4	1500	1500.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090919.D
5	5000	5000.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090922.D
6	10	10000.00	0.00	J:\LC02\DATA\TO11A\2009_09\09\09090924.D

#	ID	Update Time	Quant Time	Acquisition Time
1	50	Sep 10 08:49 2009	Sep 10 08:49 19109	09-Sep-2009, 15:43
2	100	Sep 10 09:03 2009	Sep 10 09:02 19109	09-Sep-2009, 16:17
3	500	Sep 10 08:54 2009	Sep 10 08:54 19109	09-Sep-2009, 16:51
4	1500	Sep 10 08:56 2009	Sep 10 08:56 19109	09-Sep-2009, 17:26
5	5000	Sep 10 08:58 2009	Sep 10 08:58 19109	09-Sep-2009, 18:00
6	10	Sep 10 08:59 2009	Sep 10 08:59 19109	09-Sep-2009, 18:23

TO110909.M

Thu Sep 10 10:45:40 2009

Edit Integration Events [X]

POSSIBLE EVENTS: [Dropdown]

EVENT:	VALUE	TIME:
Initial Area Reject	5000	Initial
Initial Area Reject	5000	Initial ▲
Initial Peak Width	0.010	Initial ▲
Shoulder Detection	OFF	Initial
Initial Threshold	12.0	Initial
Integrator OFF		0.001
Integrator ON		0.950 ▼

Edit Integration Events [X]

POSSIBLE EVENTS: [Dropdown]

EVENT:	VALUE	TIME:
Initial Area Reject	5000	Initial
Initial Peak Width	0.010	Initial ▲
Shoulder Detection	OFF	Initial
Initial Threshold	12.0	Initial
Integrator OFF		0.001
Integrator ON		0.950
Baseline Now		7.800 ▼

TO-11A Aldehyde-DNPH Stock Solution Standard S21-06300801

Source: AccuStandard Inc.
 Catalog No: M-8315-R2-DNPH
 Lot: B8060121
 Solvent: ACN
 Expiration Date: 06/12/11

	MW	Aldehyde-DNPH MW*	Manufacturer Prepared Concentration as Aldehyde-DNPH (ug/mL)	Calculated Concentration as Aldehyde (ug/mL)	ICV S21-07270907 (nominal ng/mL)	ICV S21-07270907 (Actual, ng/mL)	% Diff
Formaldehyde	30.03	210.03	100	14.30	1430	1453.52	1.64%
Acetaldehyde	44.05	224.05	100.2	19.70	1970	2007.42	1.90%
Acetone	58.08	238.08	100.2	24.44	2444	not reported	
Acrolein	56.06	236.06	103.1	24.48	2448	not reported	
Propionaldehyde	58.08	238.08	100.2	24.44	2444	2388.13	2.29%
Crotonaldehyde	70.09	250.09	100.2	28.08	2808	2879.18	2.53%
Butyraldehyde	72.11	252.11	100	28.60	2860	2877.59	0.61%
Benzaldehyde	106.12	286.12	100	37.09	3709	3693.25	0.42%
Isovaleraldehyde	86.13	266.13	100.2	32.43	3243	3227.07	0.49%
Valeraldehyde	86.13	266.13	100.1	32.40	3240	3280.39	1.25%
o-Tolualdehyde	120.15	300.15	100.1	40.07	4007	4053.17	1.15%
m,p-Tolualdehyde	120.15	300.15	100.3	80.30	8030	8394.52	4.54%
Hexaldehyde	100.16	280.16	100.3	35.86	3586	3443.52	3.97%
2,5-Dimethylbenzaldehyde	134.18	314.18	100.3	42.84	4284	4423.49	3.26%

(* MW of DNPH is 198g/mol. The result of a nucleophilic reaction of aldehyde & DNPH is a hydrazone derivative with the loss of H2O, 18g/mol)

COLUMBIA ANALYTICAL SERVICES, INC.

Method: TO-11A

Printed : 09/10/09

Analyst: MD

Instrument : LC#02

Date Analysis : 09/09/09

Detector : UV-VIS 360

Sample Amount : 3ul

CALIBRATION RESPONSE FACTOR SUMMARY

Calibration Level	Form-Aldehyde	% rpd	Acet-Aldehyde	% rpd	Propion-Aldehyde	% rpd	Croton-Aldehyde	% rpd	Butyr-Aldehyde	% rpd	Benz-Aldehyde	% rpd
50ng/ml TO-11A S2	443088	1.89%	311721	4.62%	257497	4.24%	205520	3.43%	199284	2.09%	136041	2.60%
50ng/ml TO-11A S2	447251	0.97%	327663	0.25%	268082	0.31%	200887	1.10%	217482	6.85%	140658	0.71%
50ng/ml TO-11A S2	464552	2.86%	341116	4.37%	281140	4.55%	189710	4.53%	193856	4.76%	142307	1.89%
100ng/ml TO-11A S	857936	0.18%	602866	3.27%	495705	0.77%	389577	2.65%	390139	1.92%	249897	0.42%
100ng/ml TO-11A S	856527	0.34%	664731	6.66%	489979	1.92%	375407	1.09%	399611	4.39%	241433	3.79%
100ng/ml TO-11A S	864000	0.53%	602096	3.39%	512978	2.69%	373596	1.56%	358623	6.31%	261486	4.20%
4290125	4290125	0.77%	3109621	1.47%	2494796	0.47%	1900371	2.76%	1886701	1.19%	1323186	3.01%
4242920	4242920	0.34%	2996333	2.23%	2520033	0.54%	1968873	0.75%	1894865	0.76%	1238947	3.54%
4239441	4239441	0.42%	3088021	0.76%	2504937	0.07%	1993623	2.01%	1946571	1.95%	1291253	0.53%
13461963	13461963	0.50%	9836721	0.53%	7740242	0.67%	6180043	0.51%	6161274	0.67%	4059200	1.43%
13578339	13578339	0.36%	9942887	0.54%	7876607	1.08%	6053894	1.54%	6038847	1.33%	4163474	1.11%
13548320	13548320	0.14%	9888425	0.01%	7759817	0.42%	6211709	1.03%	6160753	0.66%	4131112	0.32%
46422998	46422998	0.19%	33949113	0.13%	26460164	0.85%	21469148	0.59%	21371531	0.37%	14455457	0.09%
46464064	46464064	0.10%	33977292	0.05%	26758092	0.27%	21604348	0.03%	21444271	0.03%	14435192	0.23%
46648983	46648983	0.29%	34054104	0.18%	26843474	0.59%	21717189	0.56%	21538832	0.41%	14515721	0.32%
91542792	91542792	0.07%	67198566	0.07%	52731710	0.10%	42623472	0.03%	42304249	0.04%	28602353	0.02%
91301664	91301664	0.20%	67004053	0.22%	52551284	0.24%	42531897	0.18%	42207282	0.19%	28552063	0.15%
91595894	91595894	0.13%	67244158	0.14%	52752024	0.14%	42676337	0.15%	42347195	0.14%	28631645	0.13%

COLUMBIA ANALYTICAL SERVICES, INC.

Method: TO-11A
 Analyst:
 Printed : 09/10/09
 Instrument : LC#02
 Date Analysis : 09/09/09
 Detector : UV-VIS 360
 Sample Amount : 3ul

CALIBRATION RESPONSE FACTOR SUMMARY

Calibration Level	Isovaler- Aldehyde	Valer- Aldehyde	o-Tolu- Aldehyde	m,p-Tolu- Aldehyde	Hex- Aldehyde	2,5-Dimethyl benz- Aldehyde	% rpd
50ng/ml TO-11A S2	186226	166401	109996	216426	145487	84766	5.84%
50ng/ml TO-11A S2	175760	171974	93386	227448	145697	96663	7.37%
50ng/ml TO-11A S2	177082	169317	113786	212270	155285	88645	1.53%
100ng/ml TO-11A S	323665	320426	207105	397976	282439	170783	3.03%
100ng/ml TO-11A S	313564	335005	188768	416110	285615	182724	3.75%
100ng/ml TO-11A S	340775	327561	198353	403186	288074	174836	0.73%
500ng/ml TO-11A S	1631123	1598180	1023918	2205841	1425262	964881	0.39%
500ng/ml TO-11A S	1614213	1593172	1018615	2181093	1423115	956005	0.53%
500ng/ml TO-11A S	1639714	1572954	1012283	2206747	1418487	962409	0.14%
1500ng/ml TO-11A	5115478	5104937	3347391	7133126	4465907	3088612	0.37%
1500ng/ml TO-11A	5182178	5176264	3396097	7179077	4448983	3056583	1.41%
1500ng/ml TO-11A	5170579	5170597	3376687	7206393	4462344	3155386	1.78%
5000ng/ml TO-11A	17854488	17905508	11990582	25039167	15466841	11107870	0.29%
5000ng/ml TO-11A	17875029	17921465	11986554	25032033	15380456	11113181	0.24%
5000ng/ml TO-11A	17932725	17988106	12035186	25134428	15437631	11198210	0.52%
10000ng/ml TO-11A	35277028	35412579	23892692	49431359	30345892	21989696	0.21%
10000ng/ml TO-11A	35194712	35338059	23813504	49315533	30246038	21823086	0.55%
10000ng/ml TO-11A	35288997	35418570	23869930	49446486	30343150	22018475	0.34%

AVERAGE RESPONSE FACTOR

	Form- Aldehyde	Acet- Aldehyde	Propion- Aldehyde	Croton- Aldehyde	Butyr- Aldehyde	Benz- Aldehyde
50ng/ml TO-11A S:	451630	326833	268906	198706	203541	139669
100ng/ml TO-11A :	859488	623231	499554	379527	382791	250939
500ng/ml TO-11A :	4257495	3064658	2506589	1954289	1909379	1284462
1500ng/ml TO-11A	13529541	9889344	7792222	6148549	6120291	4117929
5000ng/ml TO-11A	46512015	33993503	26687243	21596895	21451545	14468790
10000ng/ml TO-11	91480117	67148926	52678339	42610569	42286242	28595354

AVERAGE RESPONSE FACTOR

	Isovaler- Aldehyde	Valer- Aldehyde	o-Tolu- Aldehyde	m,p-Tolu- Aldehyde	Hex- Aldehyde	2,5-Dimethyl benz- Aldehyde
50ng/ml TO-11A S:	179689	169231	105723	218715	148823	90025
100ng/ml TO-11A:	326001	327664	198075	405757	285376	176114
500ng/ml TO-11A:	1628350	1588102	1018272	2197894	1422288	961098
1500ng/ml TO-11A	5156078	5150599	3373392	7172865	4459078	3100194
5000ng/ml TO-11A	17887414	17938360	12004107	25068543	15428309	11139754
10000ng/ml TO-11	35253579	35389736	23858709	49397793	30311693	21943752

%RSD

COMPOUND	50	100	500	1500	5000	10000	AVERAGE	SD	%RSD
Formaldehyde	9.033E+03	8.595E+03	8.515E+03	9.020E+03	9.302E+03	9.148E+03	8.935E+03	3.13E+02	3.50%
Acetaldehyde	6.537E+03	6.232E+03	6.129E+03	6.593E+03	6.799E+03	6.715E+03	6.501E+03	2.66E+02	4.10%
Propionaldehyde	5.378E+03	4.996E+03	5.013E+03	5.195E+03	5.337E+03	5.268E+03	5.198E+03	1.62E+02	3.13%
Crotonaldehyde	3.974E+03	3.795E+03	3.909E+03	4.099E+03	4.319E+03	4.261E+03	4.060E+03	2.05E+02	5.04%
Butyraldehyde	4.071E+03	3.828E+03	3.819E+03	4.080E+03	4.290E+03	4.229E+03	4.053E+03	1.97E+02	4.86%
Benzaldehyde	2.793E+03	2.509E+03	2.569E+03	2.745E+03	2.894E+03	2.860E+03	2.728E+03	1.56E+02	5.74%
Isovaleraldehyde	3.594E+03	3.260E+03	3.257E+03	3.437E+03	3.577E+03	3.525E+03	3.442E+03	1.52E+02	4.42%
Valeraldehyde	3.385E+03	3.277E+03	3.176E+03	3.434E+03	3.588E+03	3.539E+03	3.400E+03	1.56E+02	4.58%
o-Tolualdehyde	2.114E+03	1.981E+03	2.037E+03	2.249E+03	2.401E+03	2.386E+03	2.195E+03	1.78E+02	8.13%
m,p-Tolualdehyde	2.187E+03	2.029E+03	2.198E+03	2.391E+03	2.507E+03	2.470E+03	2.297E+03	1.88E+02	8.18%
Hexaldehyde	2.976E+03	2.854E+03	2.845E+03	2.973E+03	3.086E+03	3.031E+03	2.961E+03	9.58E+01	3.24%
2,5-Dimethylbenzaldehyde	1.800E+03	1.761E+03	1.922E+03	2.067E+03	2.228E+03	2.194E+03	1.995E+03	1.98E+02	9.95%

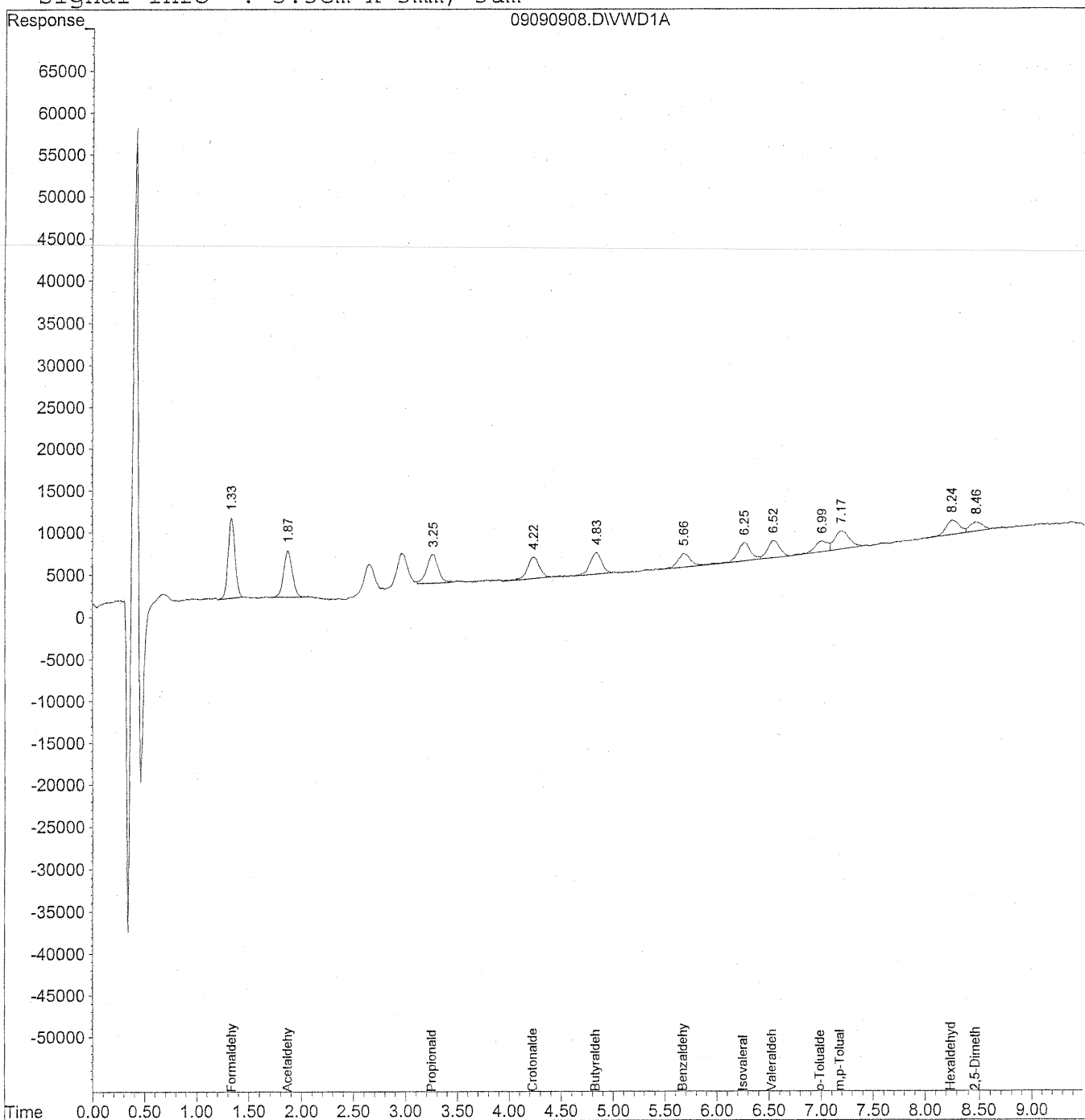
TO-11A CALIBRATION STANDARDS LIST							
50ng/ml	TO-11A	S21-09080905					
100ng/ml	TO-11A	S21-09080904					
500ng/ml	TO-11A	S21-09080903					
1500ng/ml	TO-11A	S21-09090903					
5000ng/ml	TO-11A	S21-09080902					
10000ng/ml	TO-11A	S21-09080901					

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090908.D Vial: 9
Acq On : 09-Sep-2009, 15:20 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



119

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090908.D Vial: 9
 Acq On : 09-Sep-2009, 15:20 Operator: MD
 Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

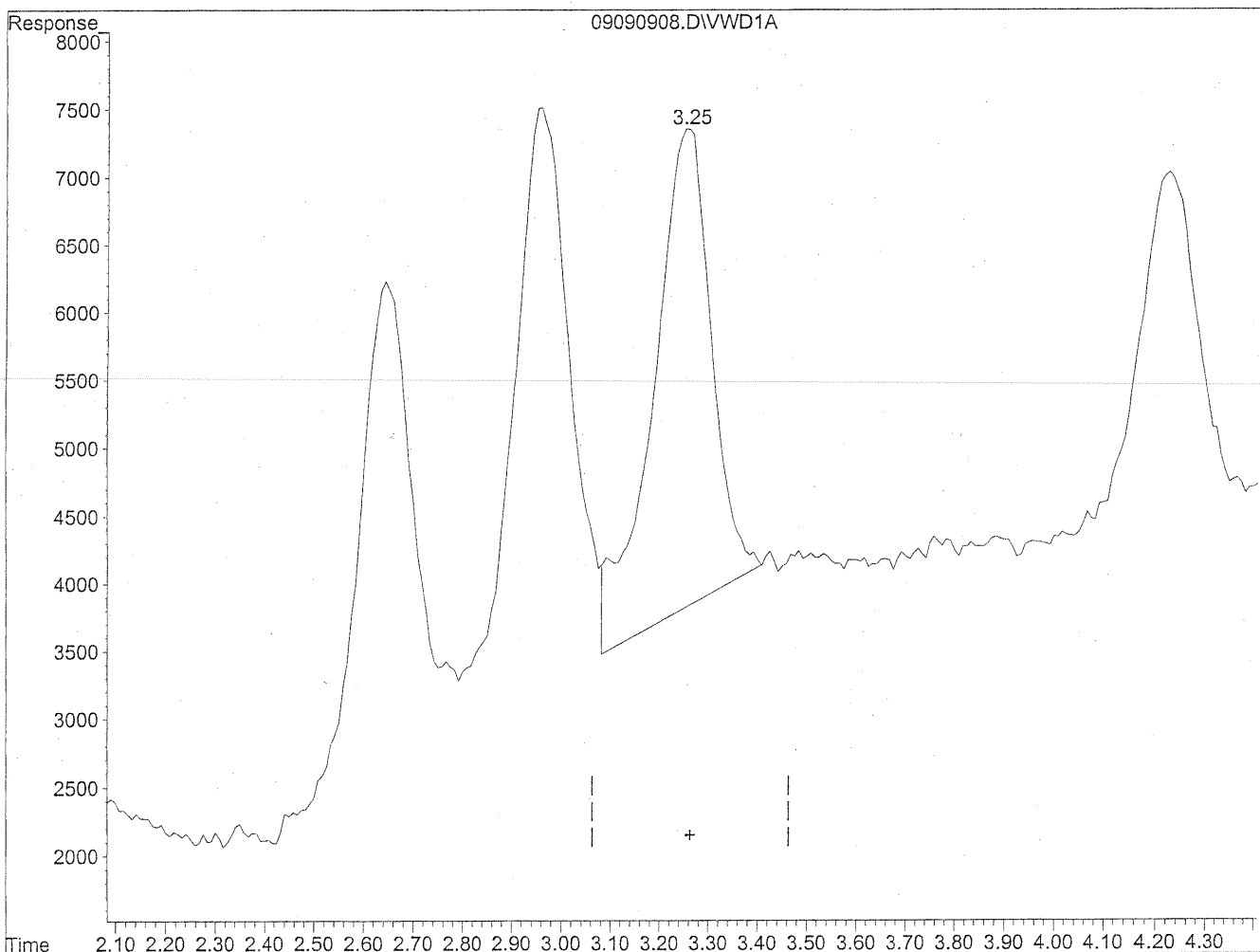
Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.33	443088	48.300 ng/ml
2) Acetaldehyde	1.87	311721	47.262 ng/ml
3) Propionaldehyde	3.25	257497	49.595 ng/mlm
4) Crotonaldehyde	4.23	205520	50.553 ng/ml
5) Butyraldehyde	4.83	199284	48.165 ng/ml
6) Benzaldehyde	5.67	136041	50.640 ng/ml
7) Isovaleraldehyde	6.25	186226	53.155 ng/ml
8) Valeraldehyde	6.53	166401	50.588 ng/ml
9) o-Tolualdehyde	6.99	109996	48.007 ng/ml
10) m,p-Tolualdehyde	7.18	216426	93.961 ng/ml
11) Hexaldehyde	8.24	145487	51.040 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.46	84766	42.867 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090908.D Vial: 9
Acq On : 09-Sep-2009, 15:20 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:45 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



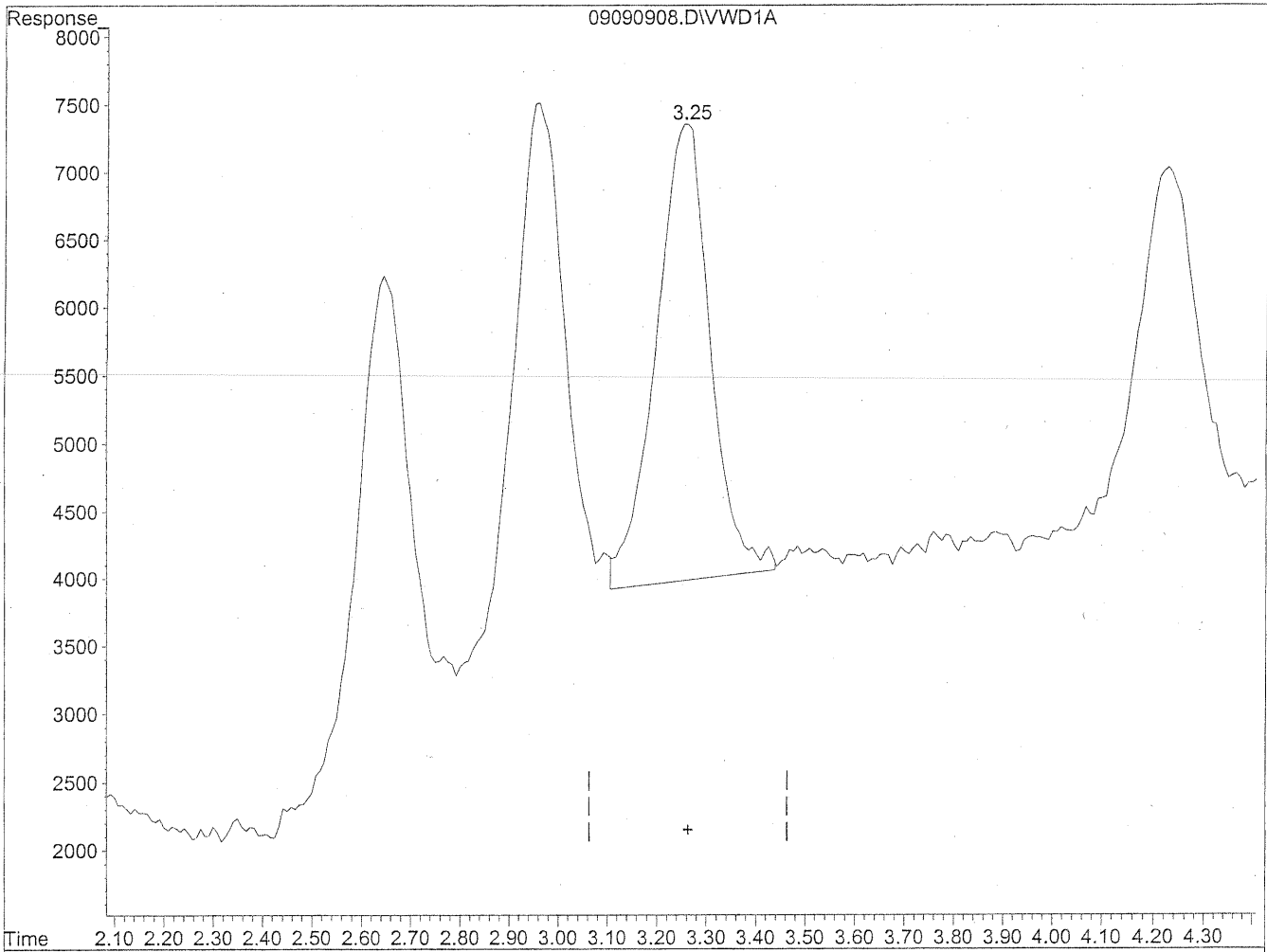
(3) Propionaldehyde
3.26min 56.431ng/ml
response 292995

(+) = Expected Retention Time

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090908.D Vial: 9
Acq On : 09-Sep-2009, 15:20 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:45 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(3) Propionaldehyde
3.25min 49.595ng/ml m
response 257497

(MA)
9/10/09
BZ

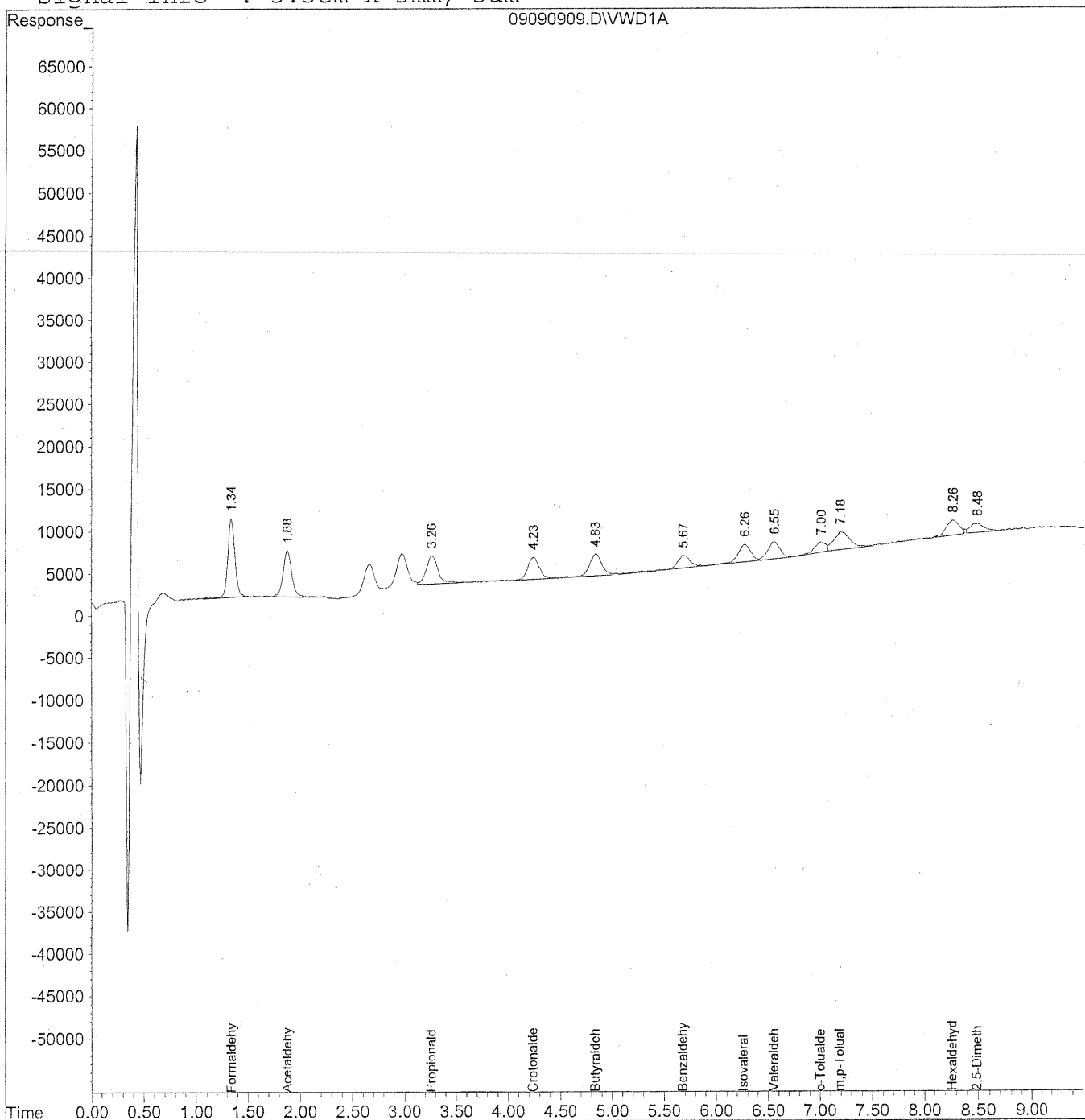
KE 9/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
 Acq On : 09-Sep-2009, 15:31 Operator: MD
 Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

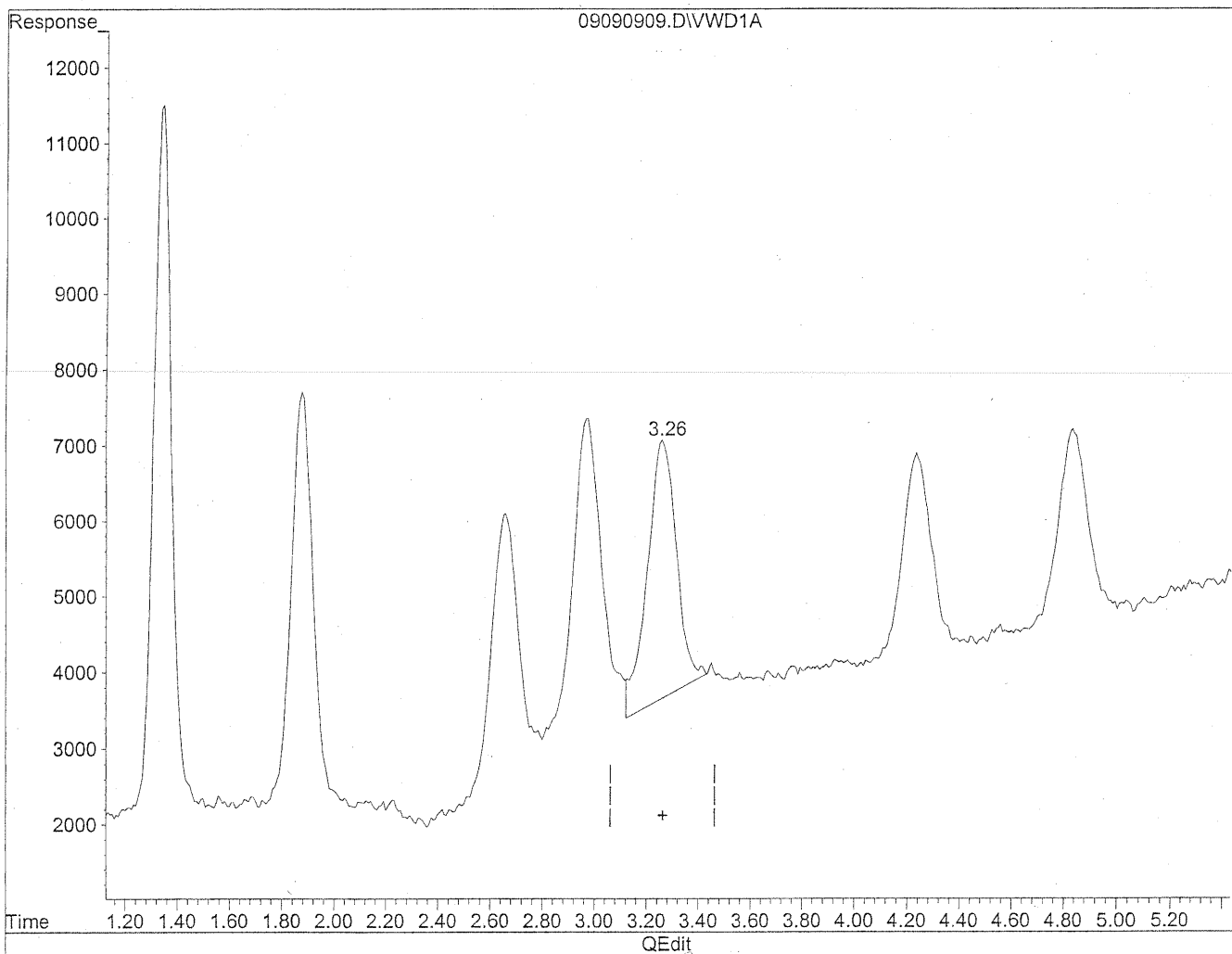
Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.34	447251	48.810 ng/ml
2) Acetaldehyde	1.88	327663	49.697 ng/ml
3) Propionaldehyde	3.26	268082	51.767 ng/mlm
4) Crotonaldehyde	4.24	200887	48.943 ng/ml
5) Butyraldehyde	4.84	217482	52.896 ng/ml
6) Benzaldehyde	5.68	140658	52.629 ng/ml
7) Isovaleraldehyde	6.27	175760	49.313 ng/ml
8) Valeraldehyde	6.55	171974	52.000 ng/ml
9) o-Tolualdehyde	7.01	93386	40.816 ng/ml
10) m,p-Tolualdehyde	7.18	227448	98.156 ng/mlm
11) Hexaldehyde	8.26	145697	49.945 ng/mlm
12) 2,5-Dimethylbenzaldehyde	8.48	96663	49.614 ng/mlm

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

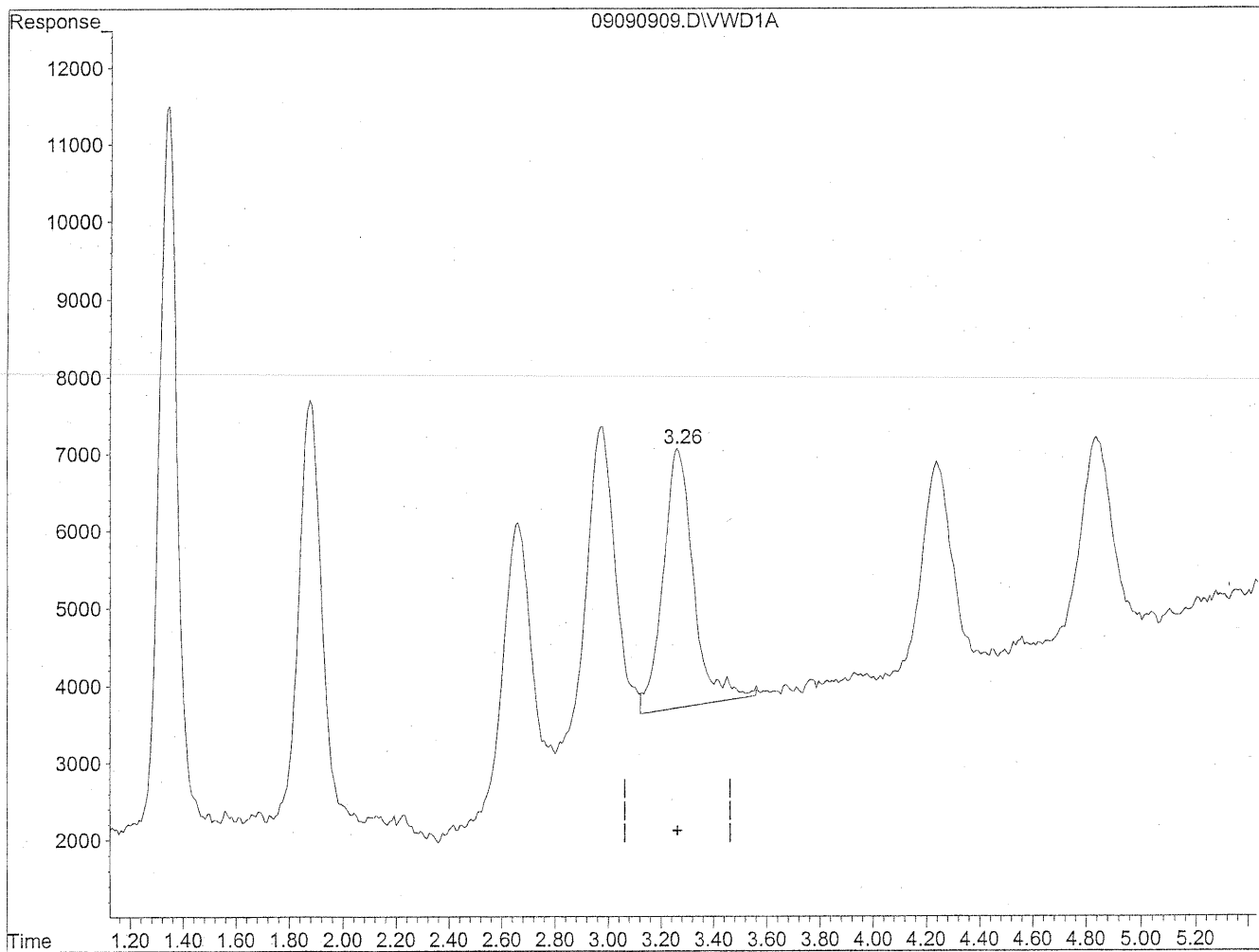


(3) Propionaldehyde
3.26min 51.274ng/ml
response 265532

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(3) Propionaldehyde
3.26min 51.767ng/ml m
response 268082

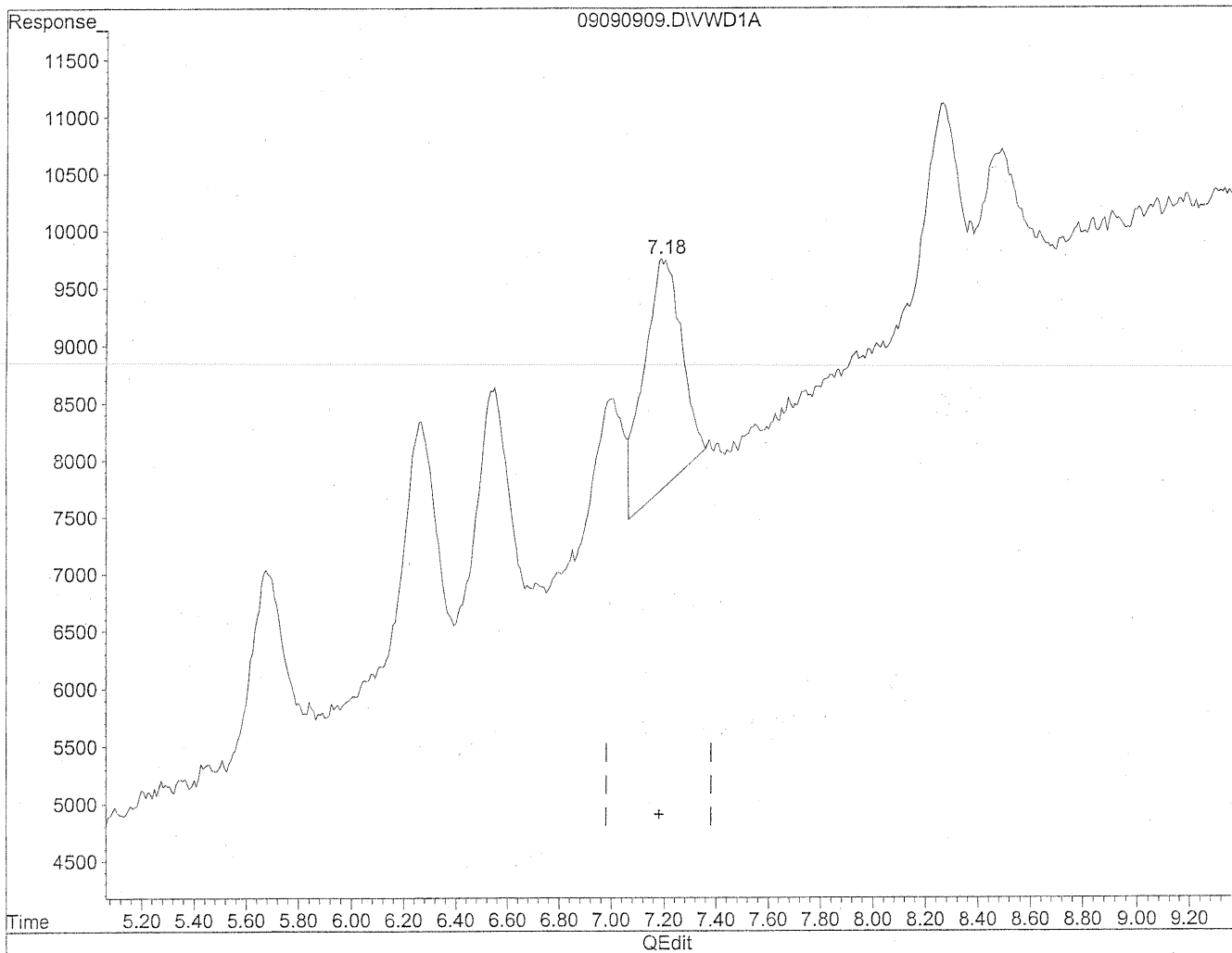
MD
9/10/09
PC

PC 9/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

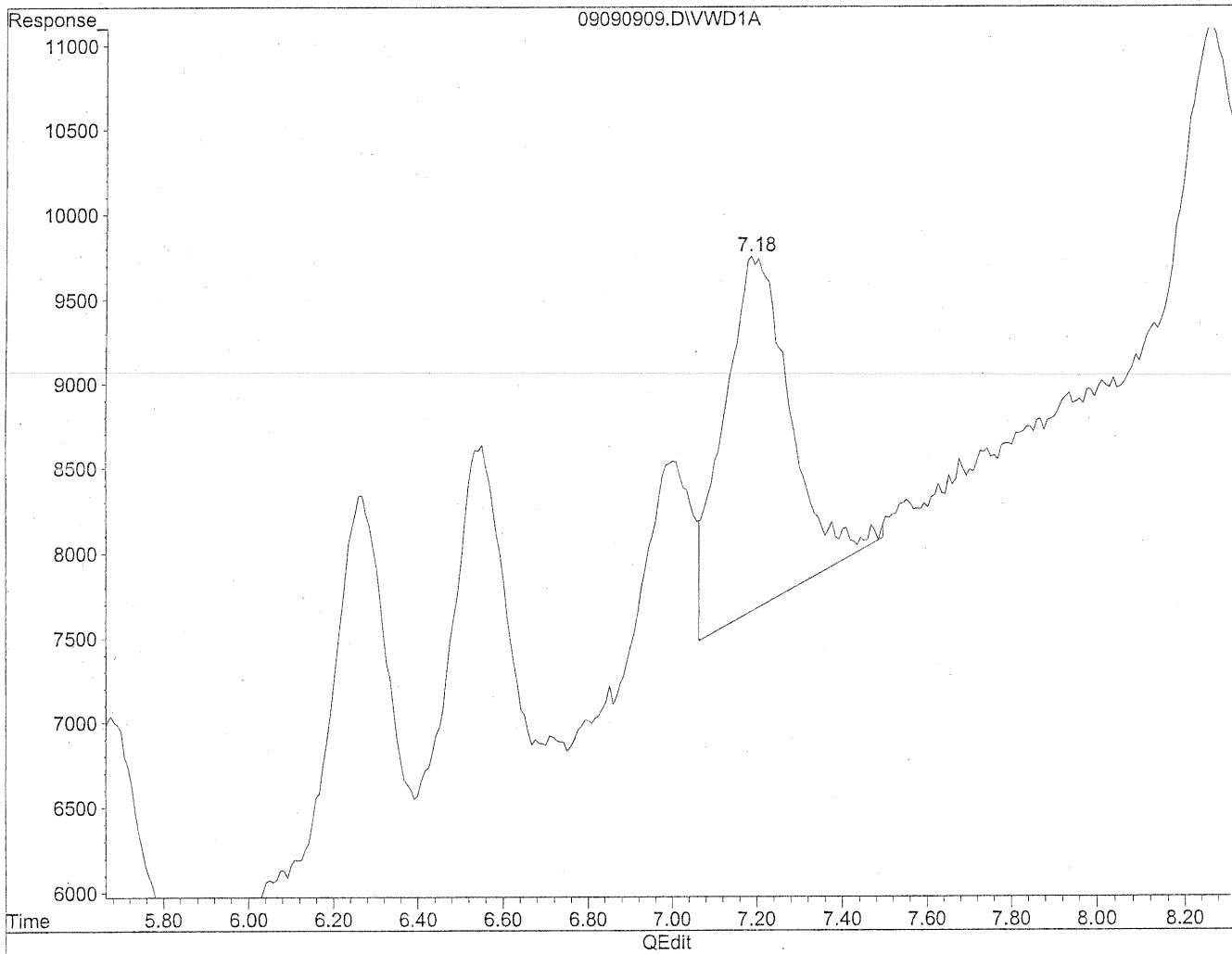


(10) m,p-Tolualdehyde
7.19min 86.656ng/ml
response 200799

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(10) m,p-Tolualdehyde
7.18min 98.156ng/ml m
response 227448

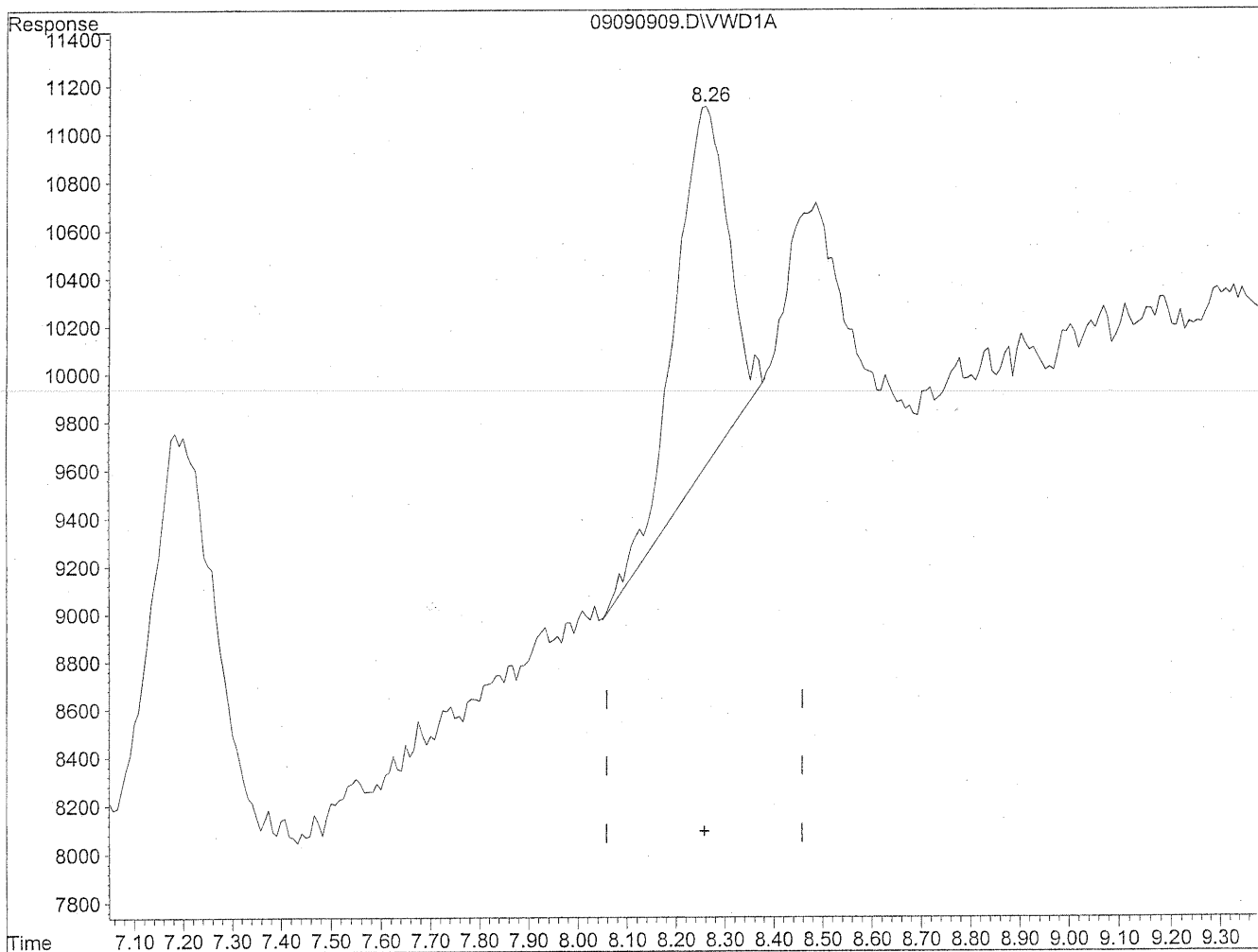
MD
9/10/09
bc

9/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

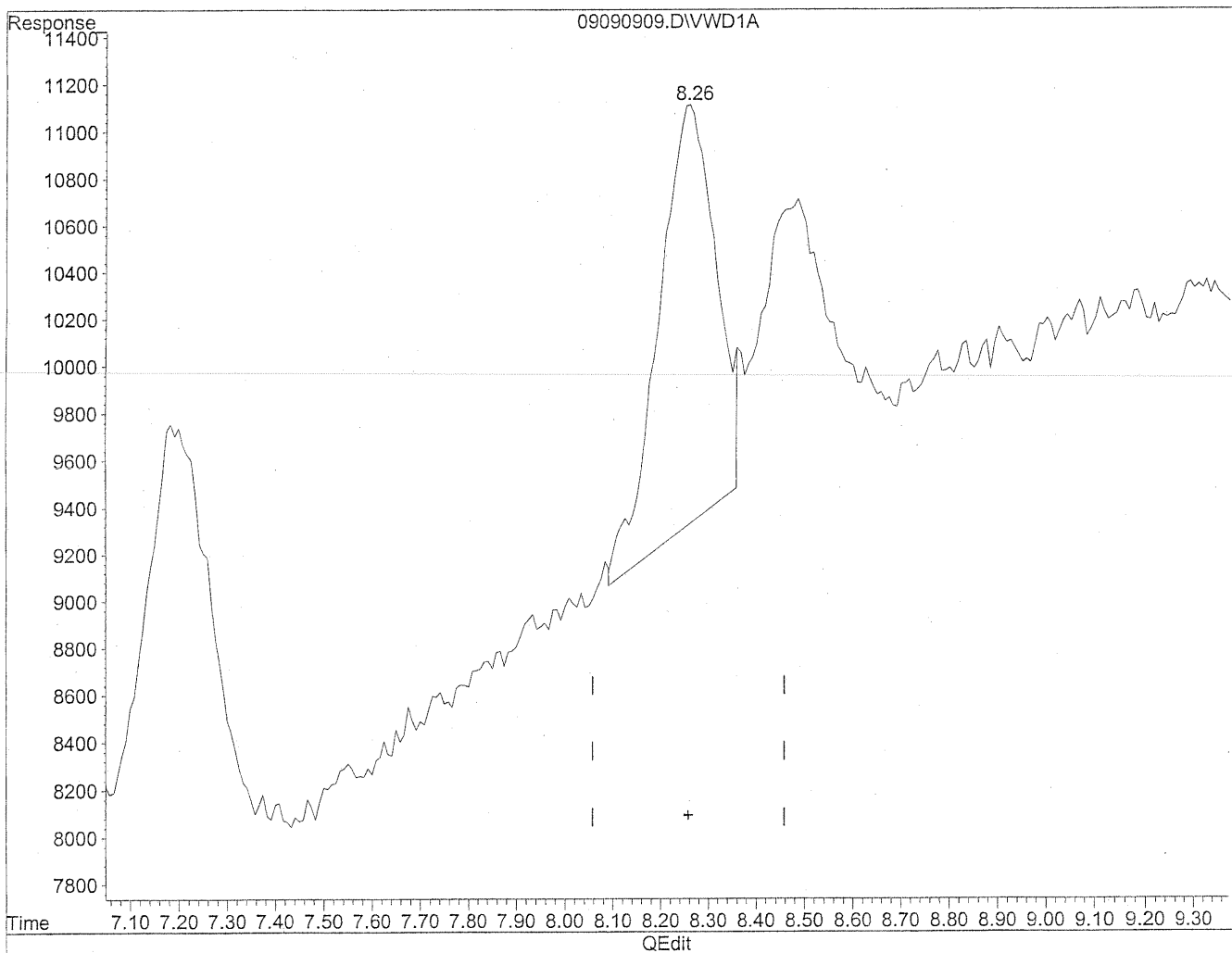


(11) Hexaldehyde
8.26min 38.176ng/ml
response 111365

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde
8.26min 49.945ng/ml m
response 145697

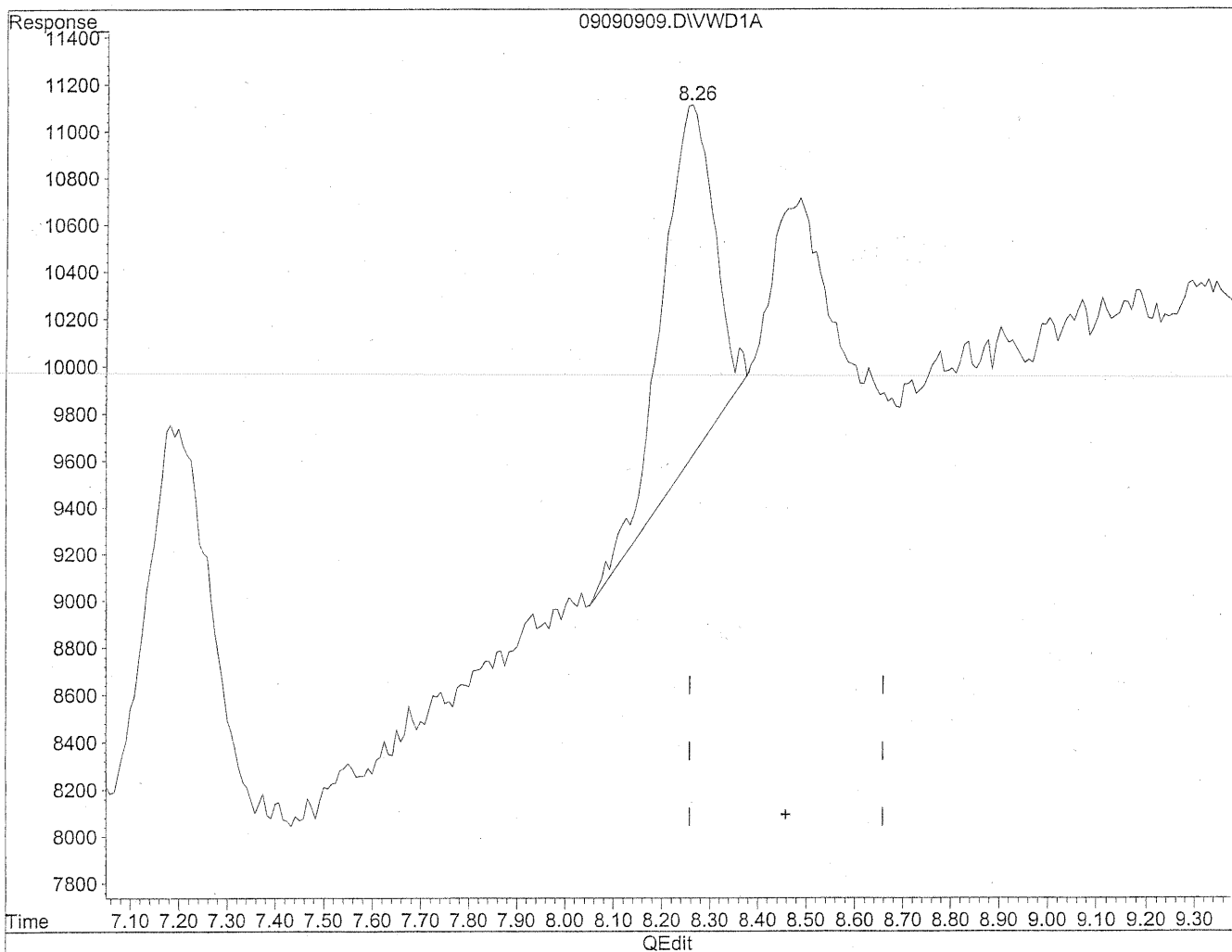
MD
9/10/09
pc

KE 9/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:46 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

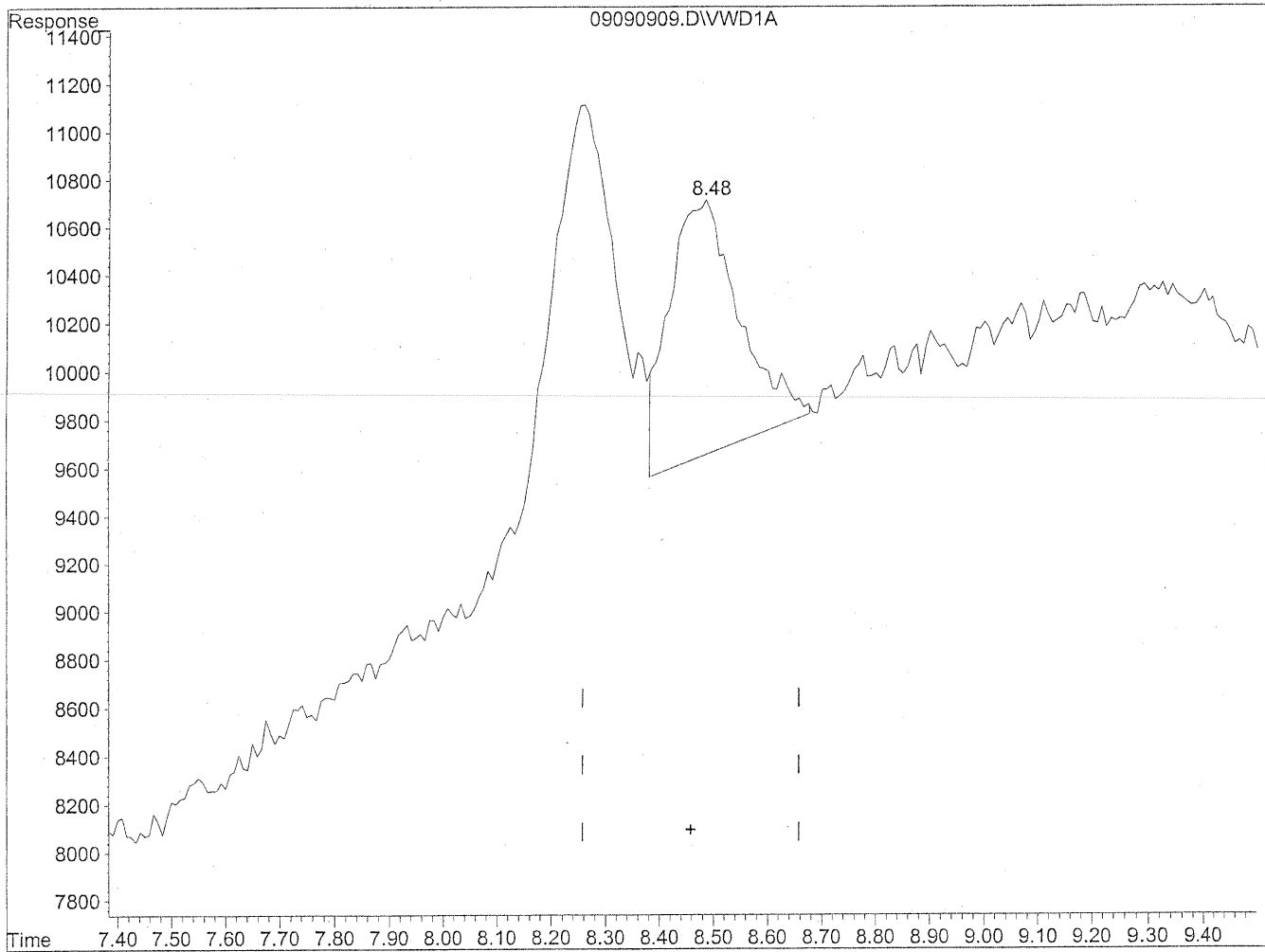
8.26min 57.160ng/ml

response 111365

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090909.D Vial: 9
Acq On : 09-Sep-2009, 15:31 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 11 13:54:46 2008
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

8.48min 49.614ng/ml m

response 96663

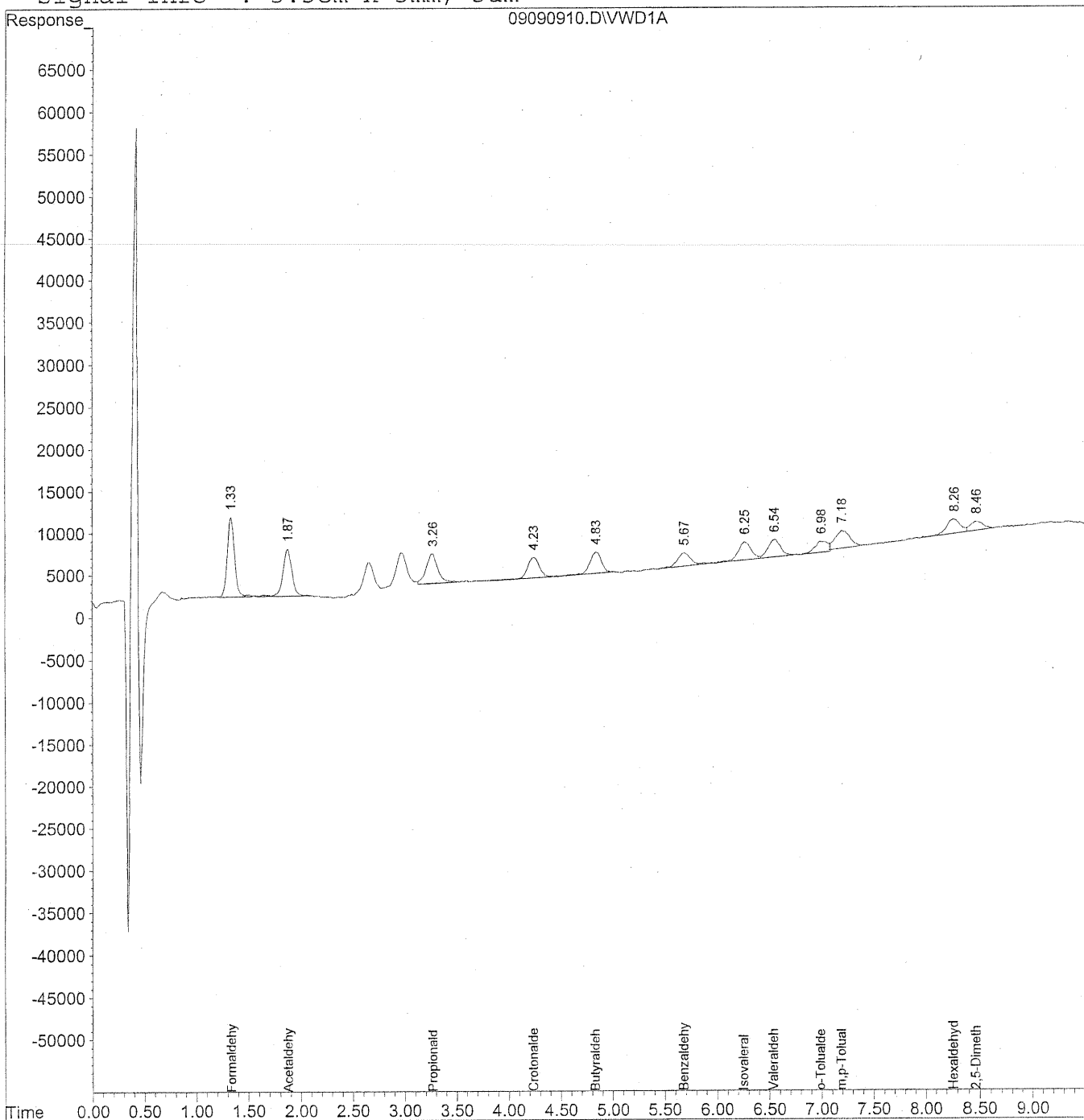
(Handwritten notes)
9/10/09
JE mp
KAG/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:49 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



133

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
 Acq On : 09-Sep-2009, 15:43 Operator: MD
 Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:49 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

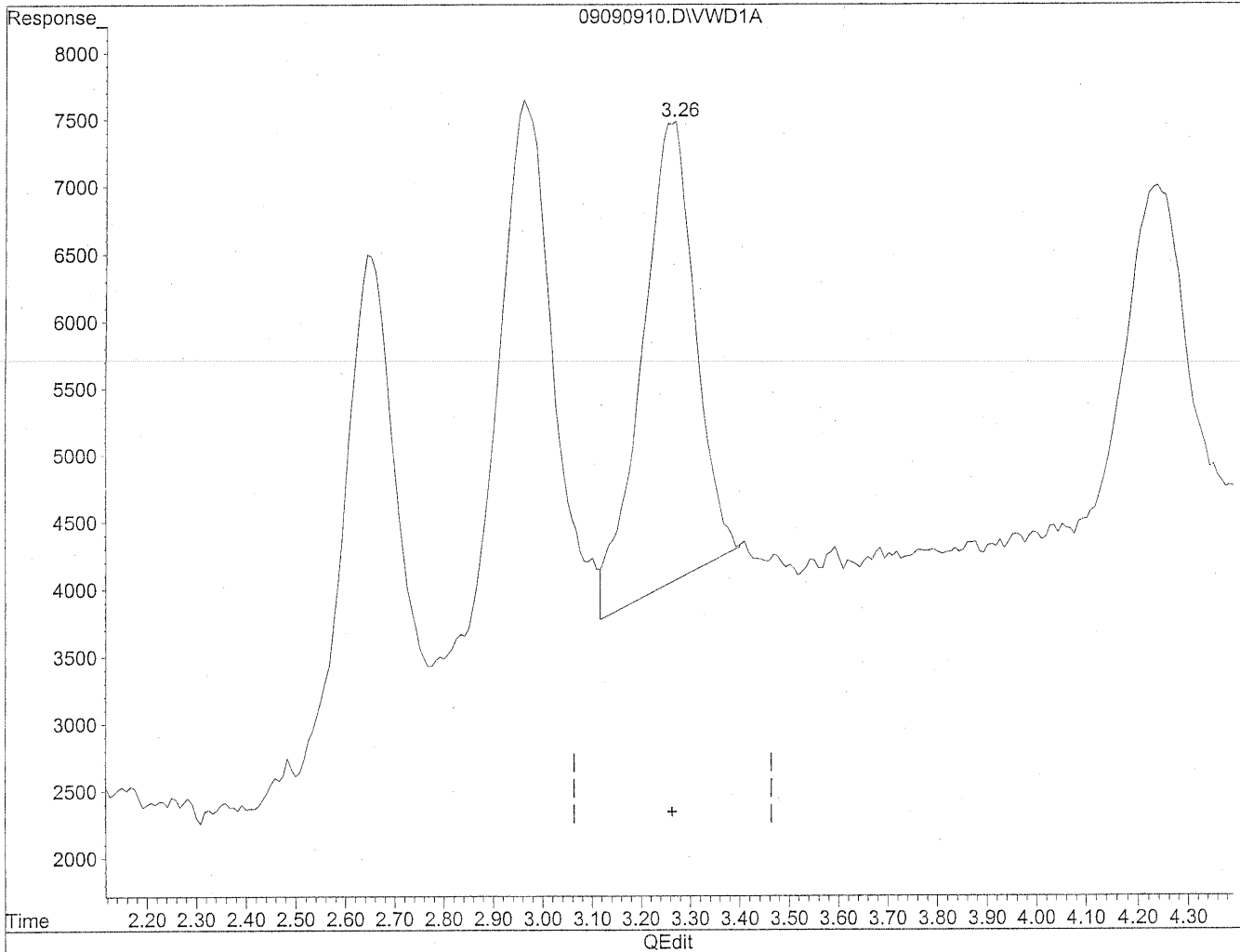
Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.33	464552	50.660 ng/ml
2) Acetaldehyde	1.87	341116	51.530 ng/ml
3) Propionaldehyde	3.26	281140	54.104 ng/mlm
4) Crotonaldehyde	4.23	189710	46.307 ng/ml
5) Butyraldehyde	4.83	193856	46.804 ng/ml
6) Benzaldehyde	5.67	142307	53.093 ng/mlm
7) Isovaleraldehyde	6.26	177082	49.928 ng/ml
8) Valeraldehyde	6.54	169317	51.053 ng/ml
9) o-Tolualdehyde	6.98	113786	50.342 ng/mlm
10) m,p-Tolualdehyde	7.19	212270	91.245 ng/ml
11) Hexaldehyde	8.26	155285	53.226 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.46	88645	45.040 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

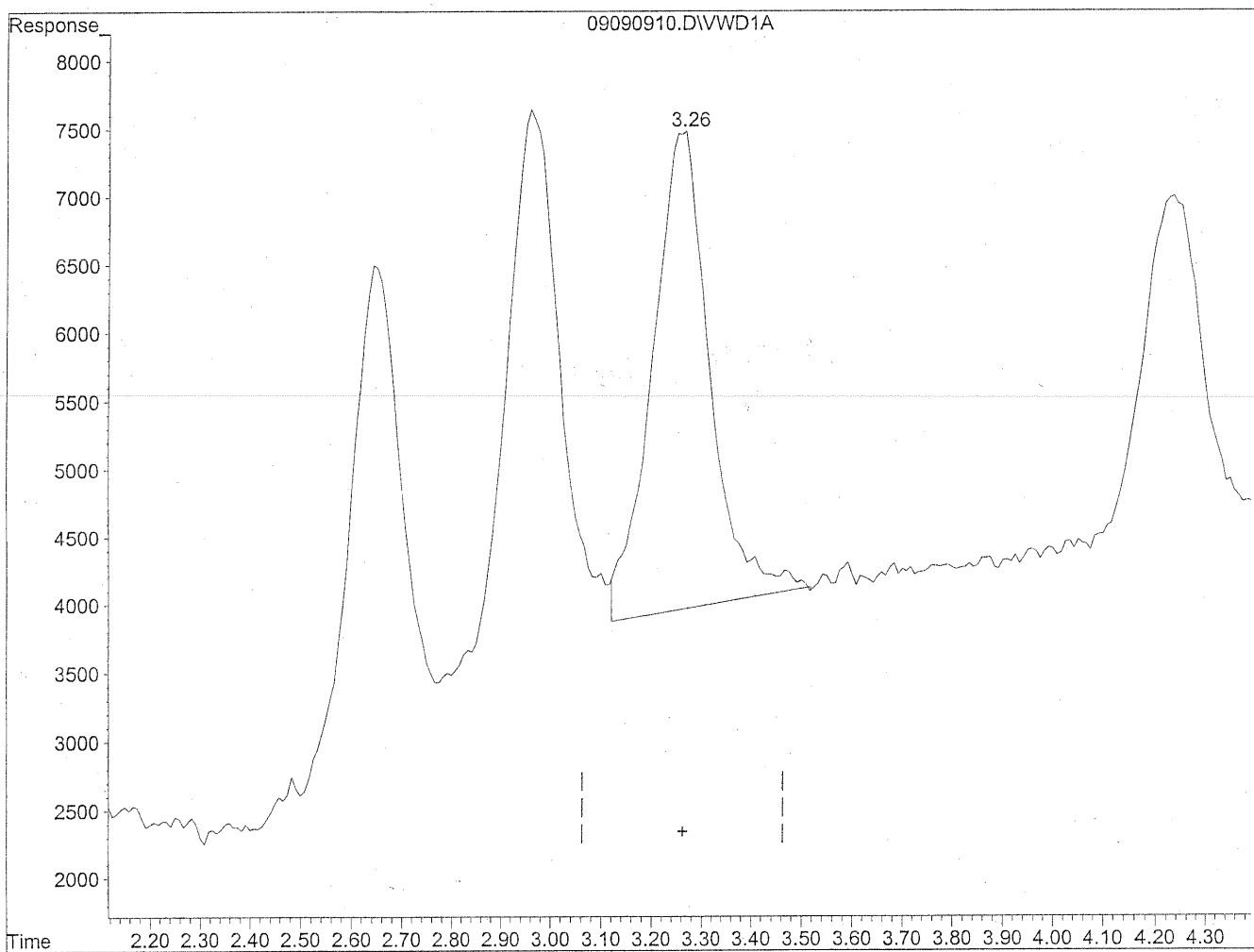


(3) Propionaldehyde
3.26min 49.837ng/ml
response 258964

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(3) Propionaldehyde
3.26min 54.104ng/ml m
response 281140

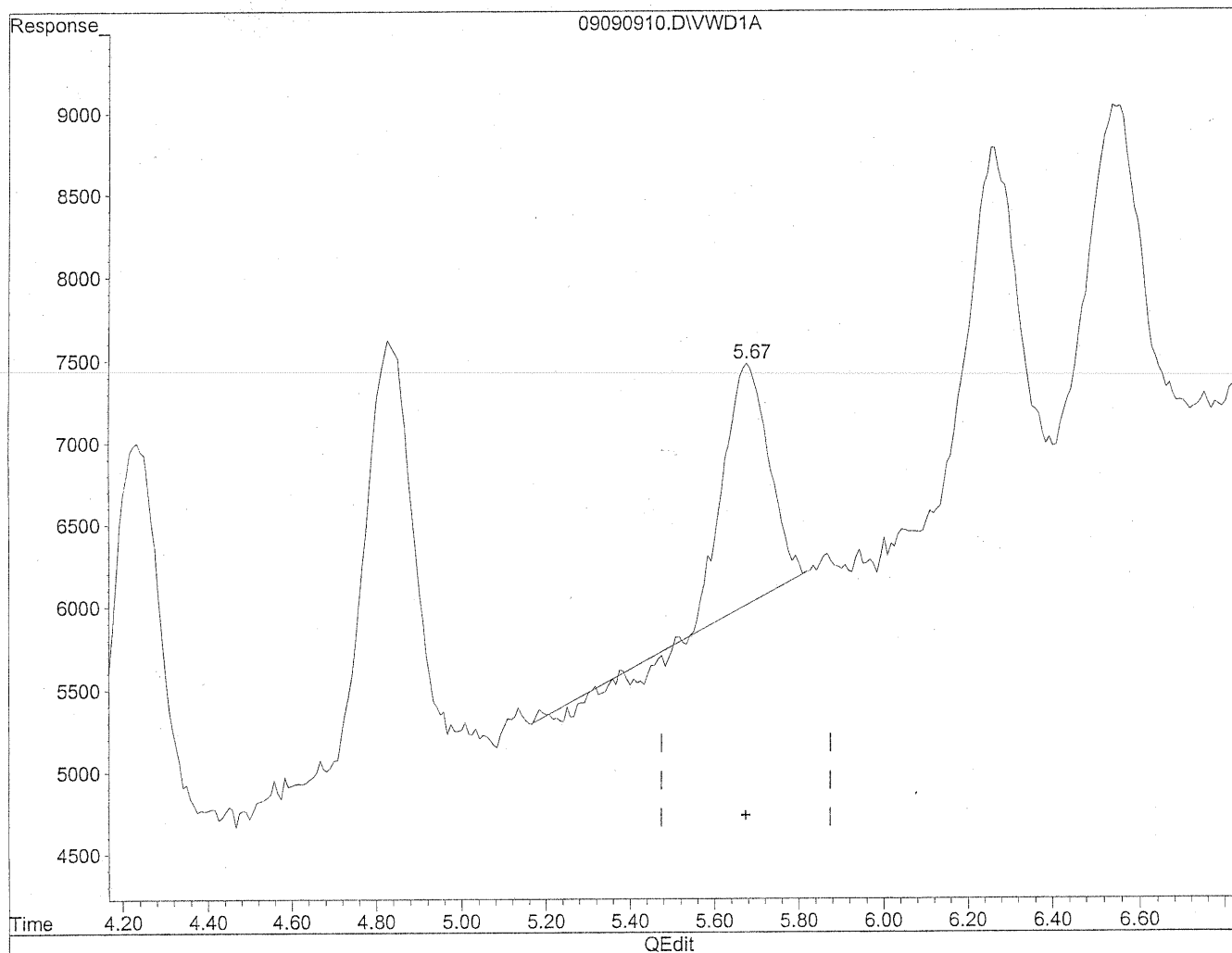
MD
9/10/09
pa

kgg/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

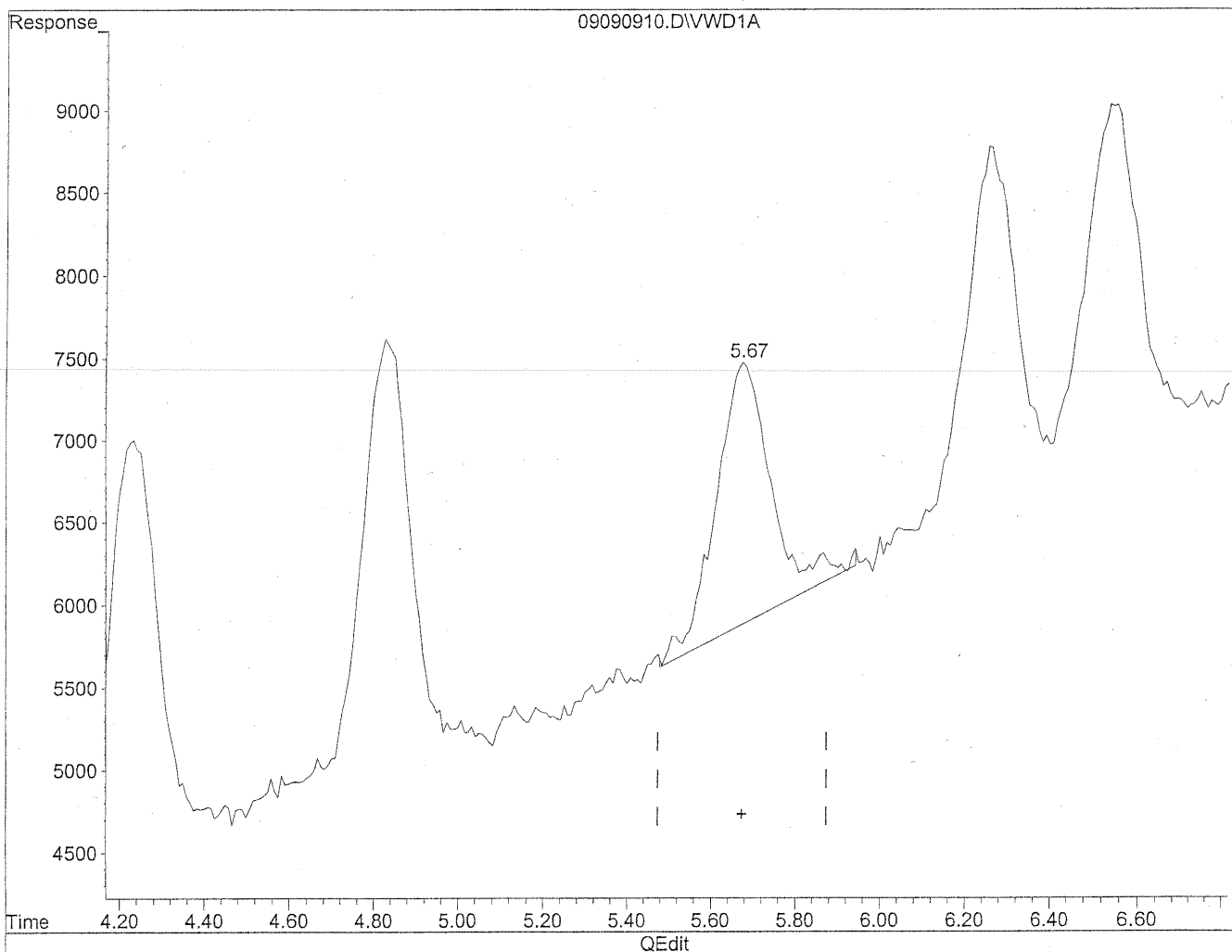


(6) Benzaldehyde
5.68min 37.890ng/ml
response 101557

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



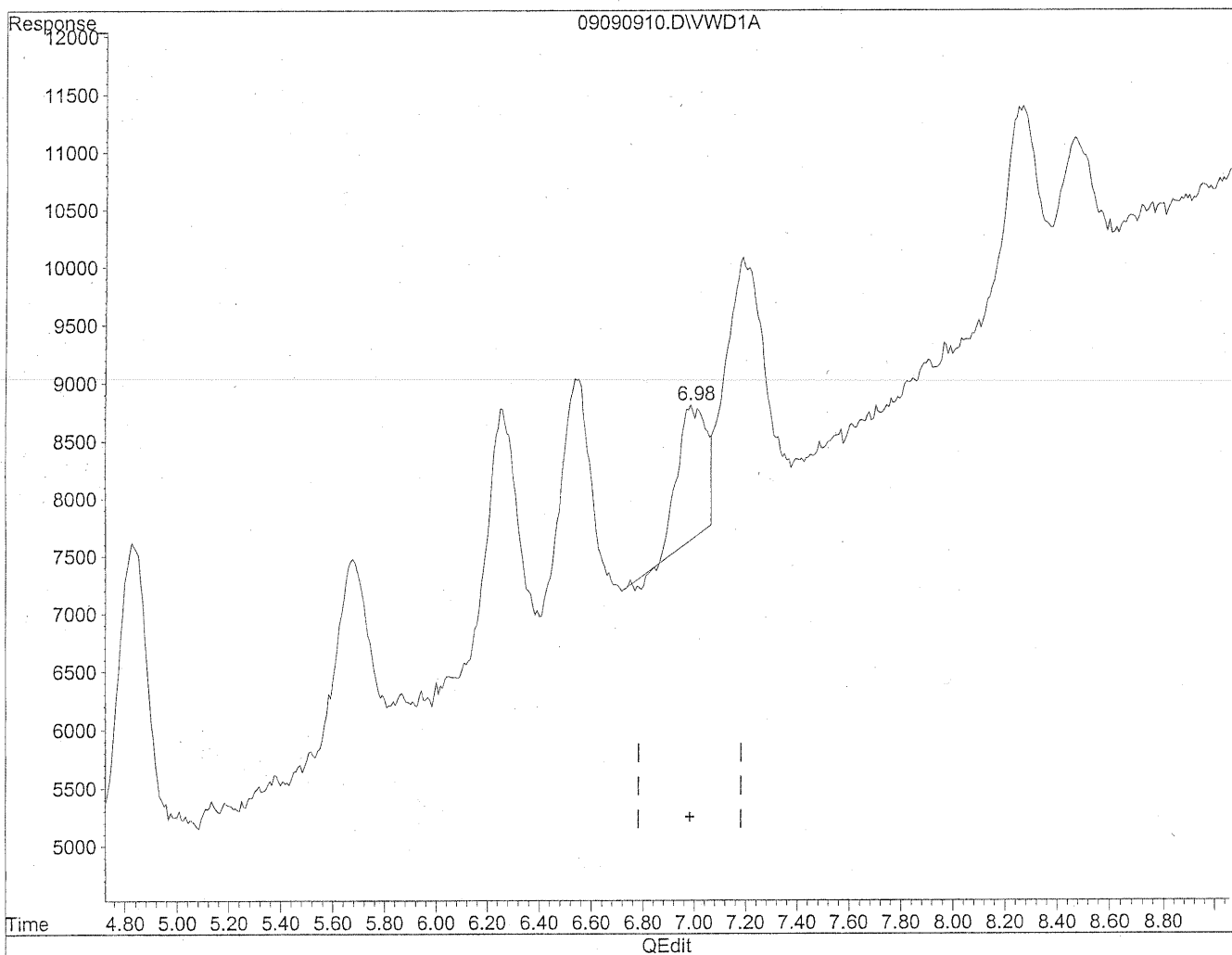
(6) Benzaldehyde
5.67min 53.093ng/ml m
response 142307

MD
9/10/09
12
149/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

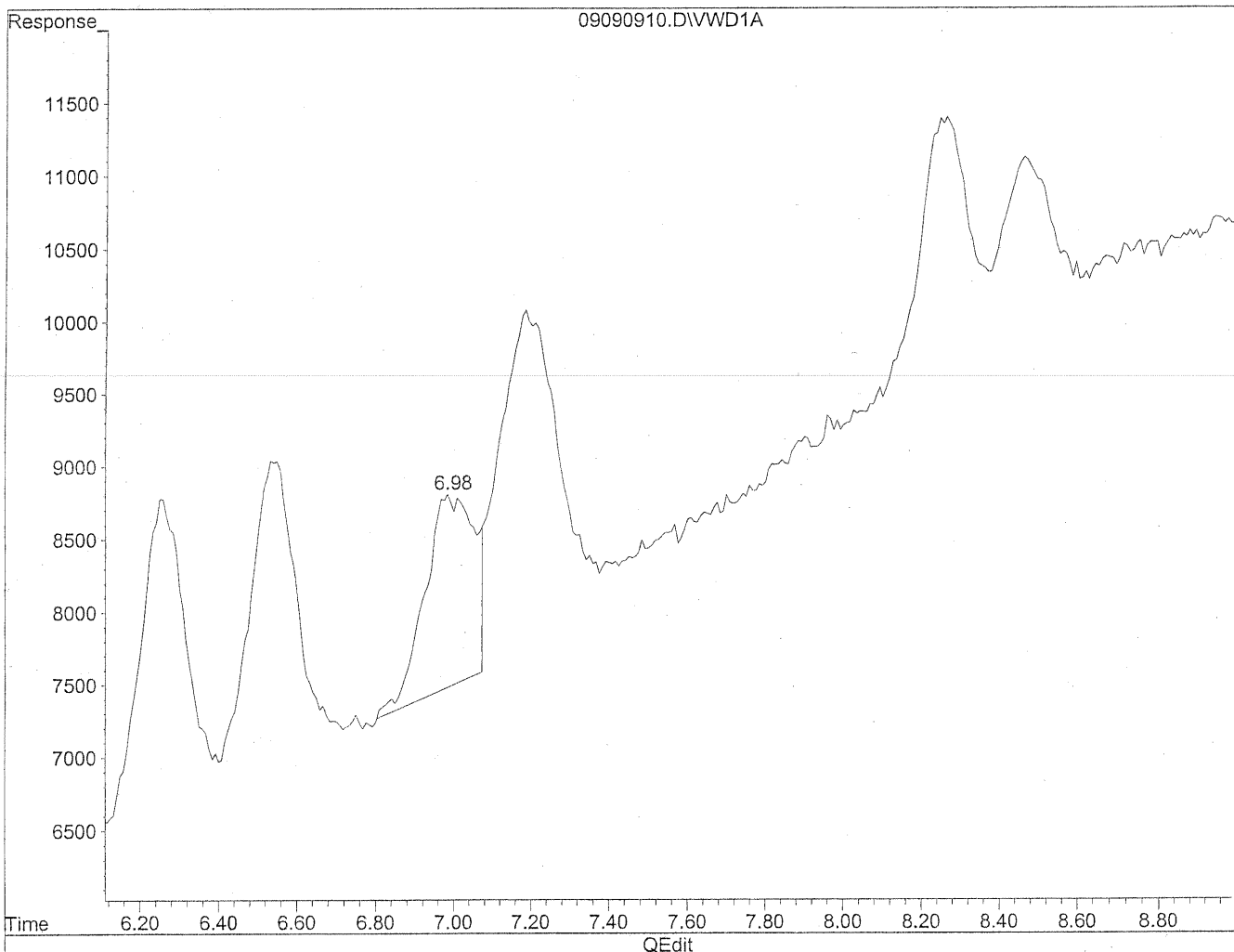


(9) o-Tolualdehyde
6.99min 38.054ng/ml
response 86012

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090910.D Vial: 9
Acq On : 09-Sep-2009, 15:43 Operator: MD
Sample : 50ng/ml TO-11A S21-09080905 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:48 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(9) o-Tolualdehyde
6.98min 50.342ng/ml m
response 113786

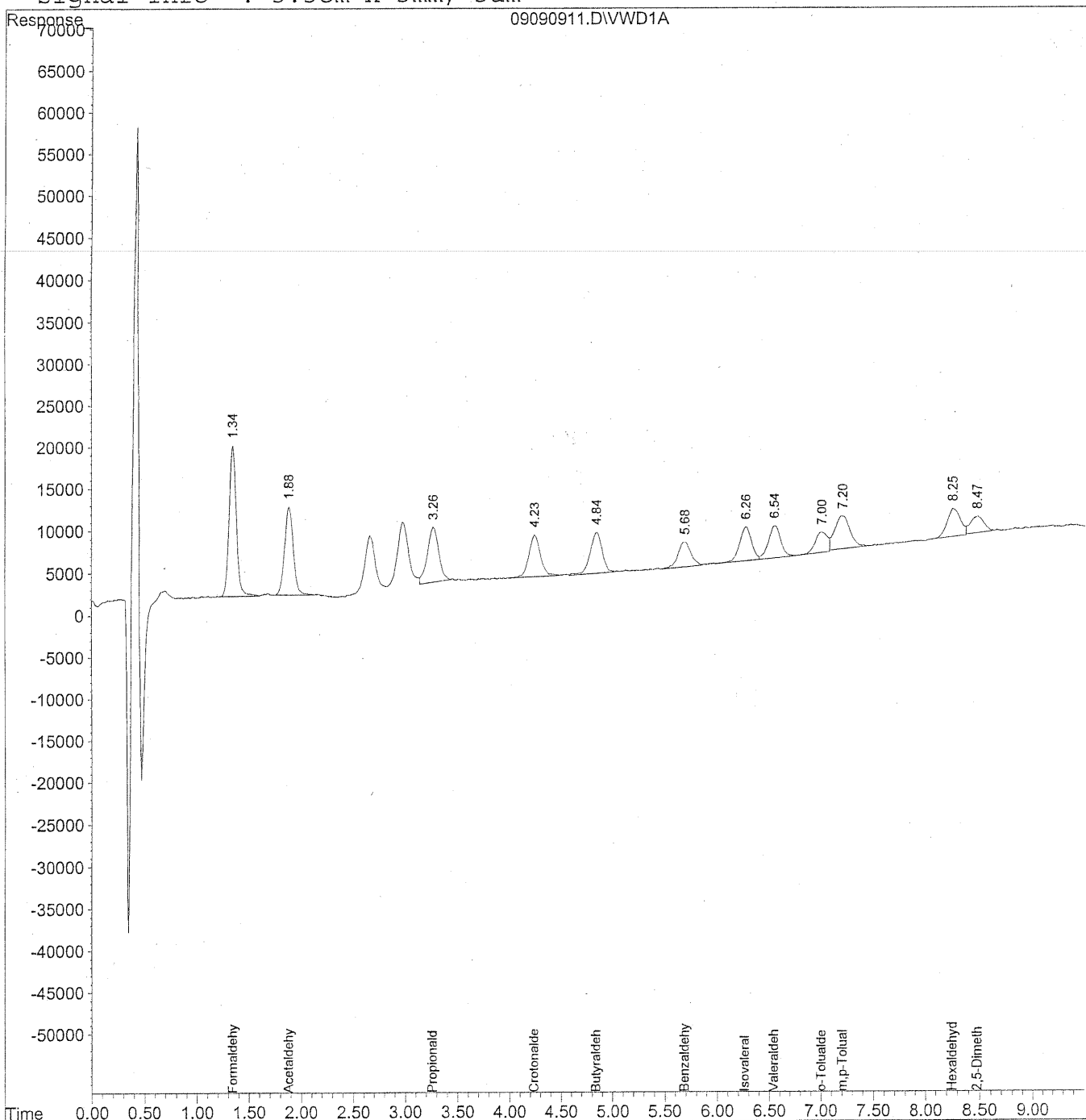
(MD)
9/10/09
12
K29/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 9:02 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
 Acq On : 09-Sep-2009, 15:54 Operator: MD
 Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 9:02 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

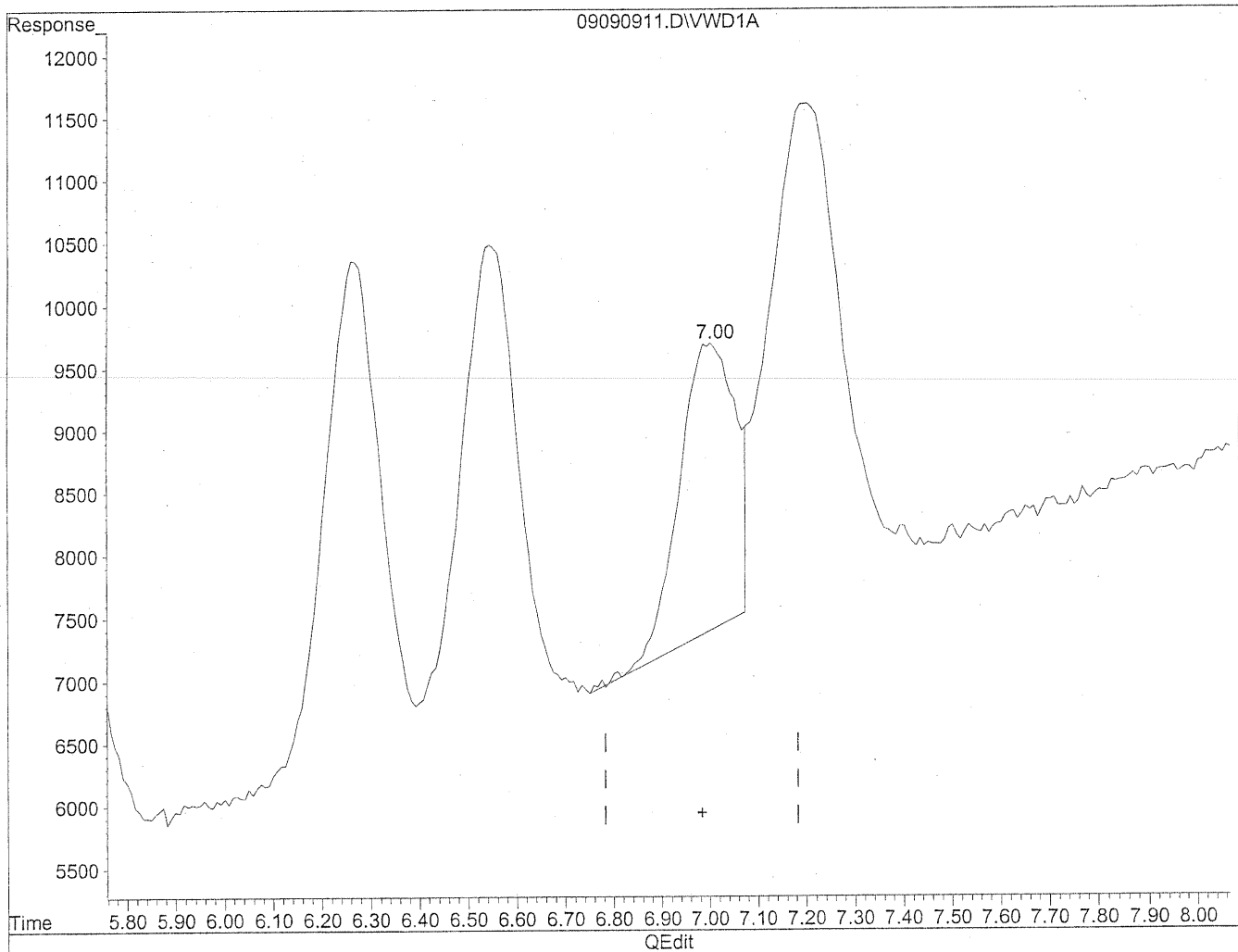
Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.34	857936	93.340 ng/ml
2) Acetaldehyde	1.88	602866	90.745 ng/ml
3) Propionaldehyde	3.26	495705	95.023 ng/ml
4) Crotonaldehyde	4.24	389577	95.443 ng/ml
5) Butyraldehyde	4.84	390139	94.563 ng/ml
6) Benzaldehyde	5.68	249897	93.081 ng/ml
7) Isovaleraldehyde	6.27	323665	91.369 ng/ml
8) Valeraldehyde	6.55	320426	96.613 ng/ml
9) o-Tolualdehyde	7.00	207105	91.087 ng/mlm
10) m,p-Tolualdehyde	7.20	397976	171.466 ng/mlm
11) Hexaldehyde	8.25	282439	96.453 ng/mlm
12) 2,5-Dimethylbenzaldehyde	8.48	170783	86.876 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

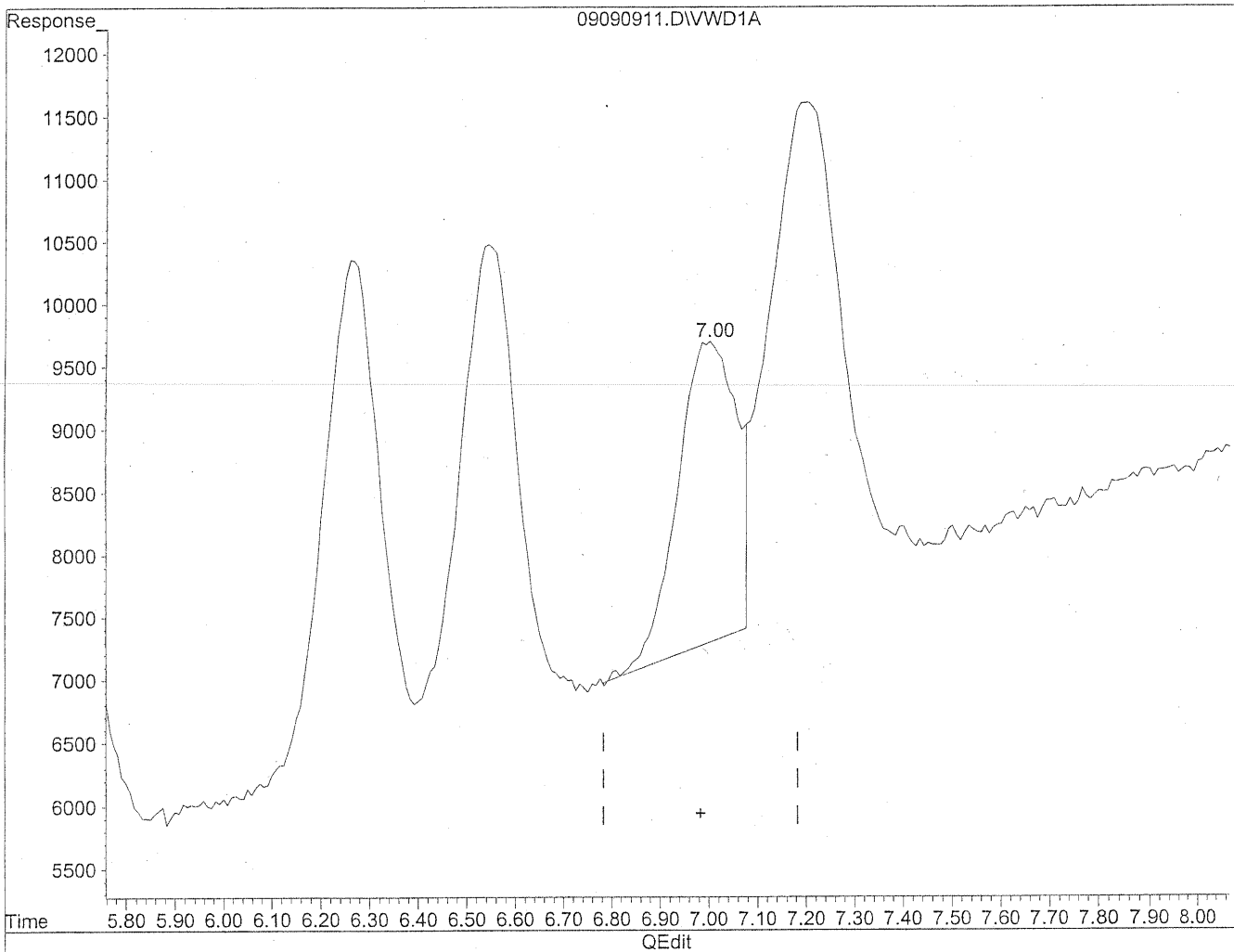


(9) o-Tolualdehyde
7.00min 80.006ng/ml
response 181910

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



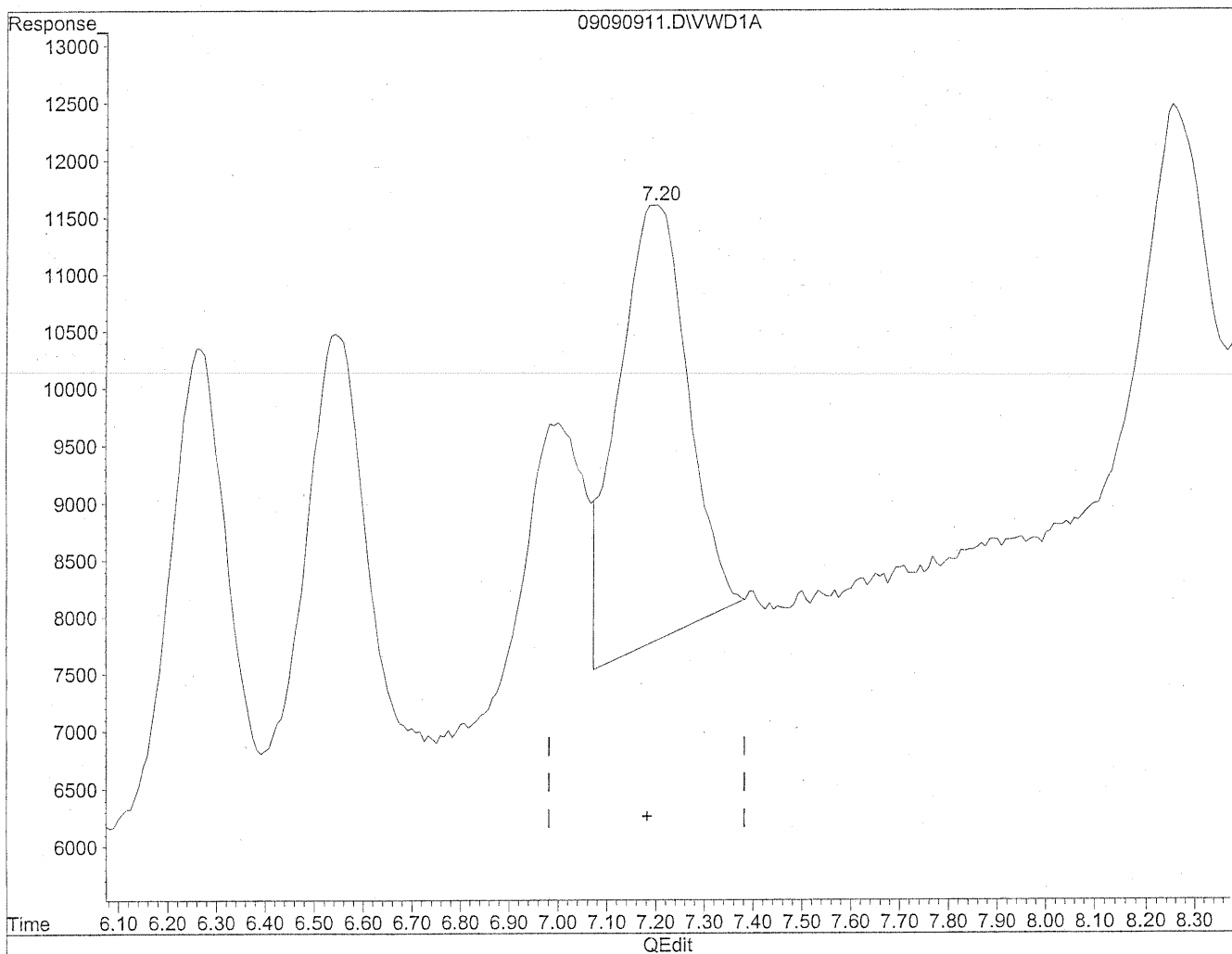
(9) o-Tolualdehyde
7.00min 91.087ng/ml m
response 207105

MD
9/10/09
12
9/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

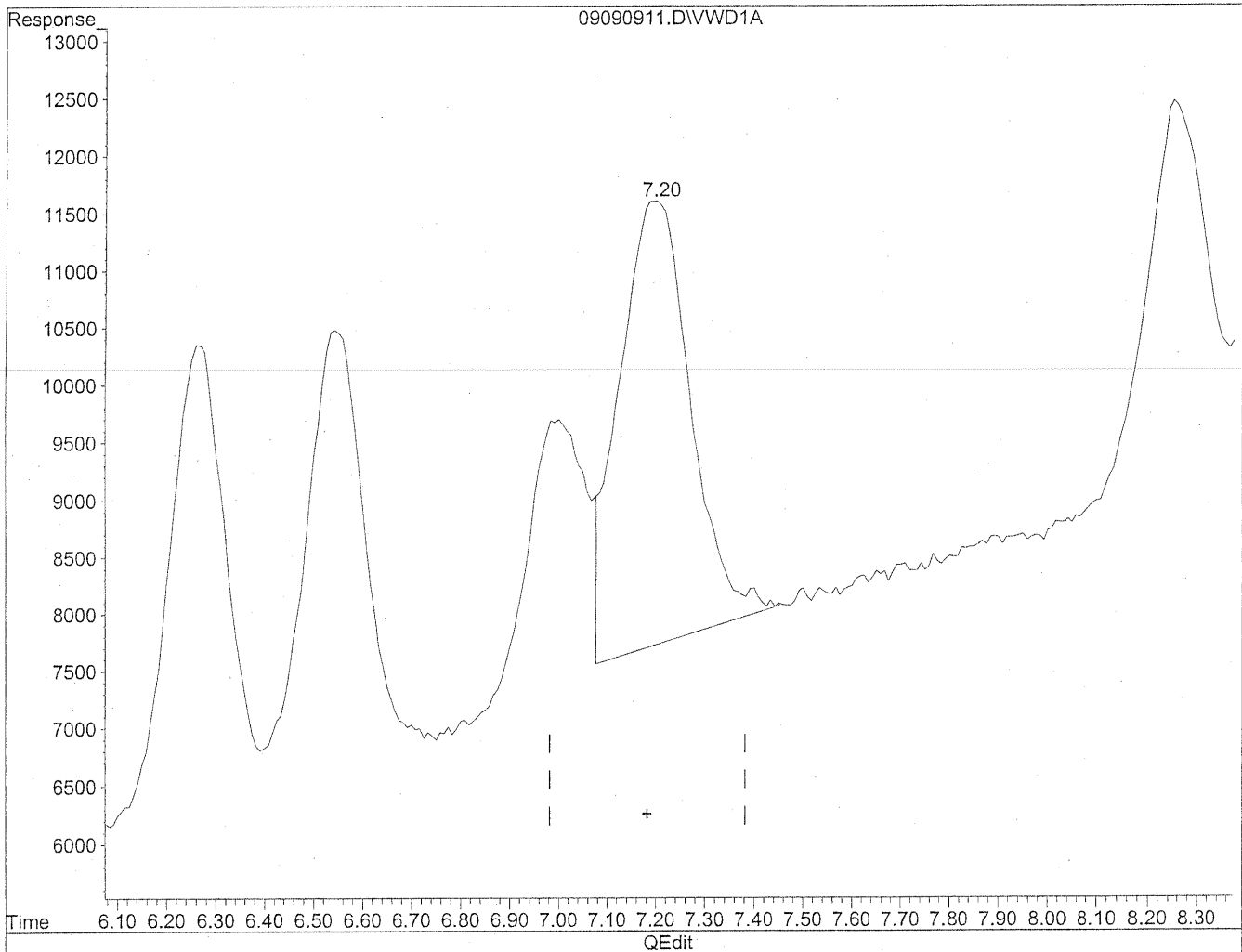


(10) m,p-Tolualdehyde
7.20min 165.581ng/ml
response 384316

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



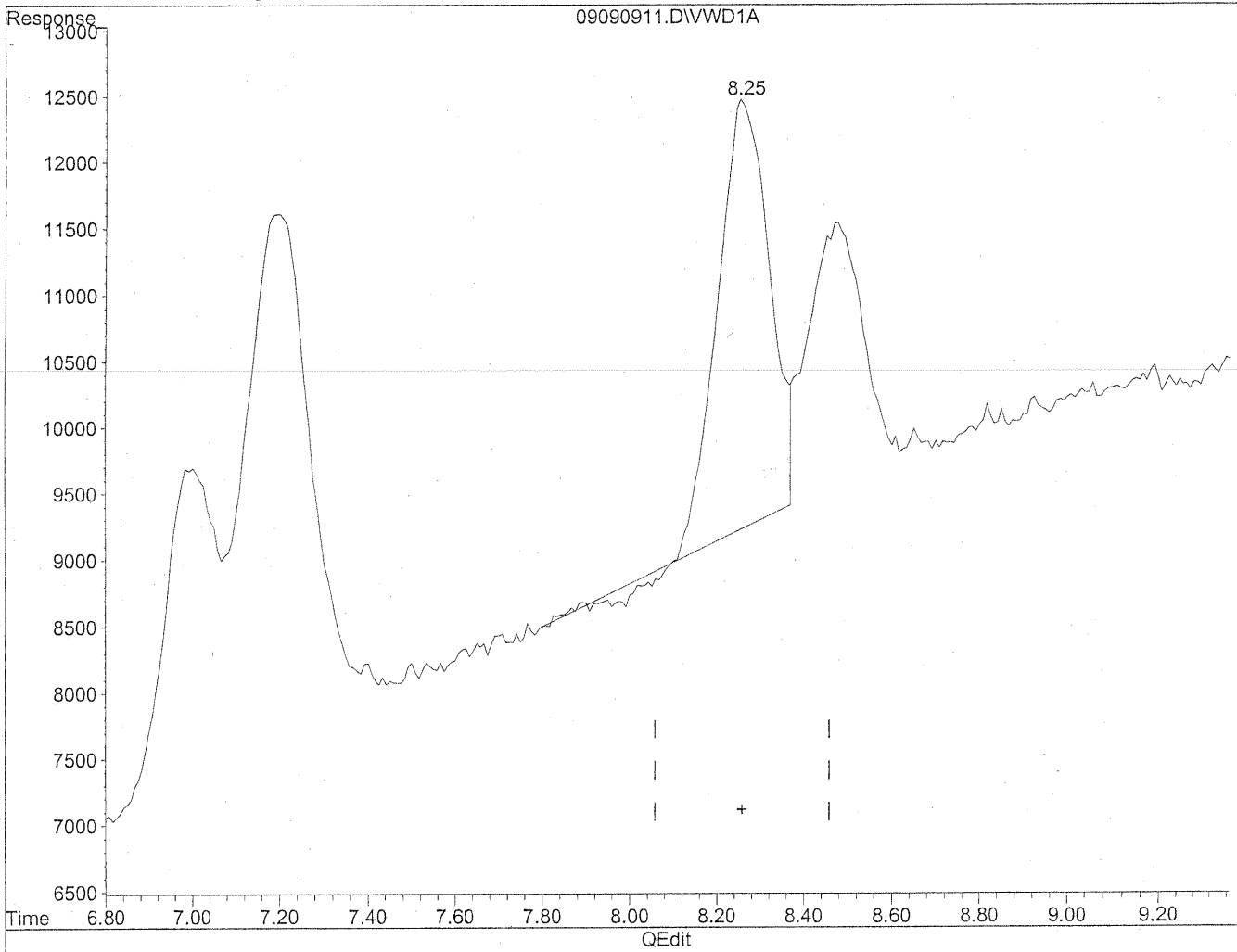
(10) m,p-Tolualdehyde
7.20min 171.466ng/ml m
response 397976

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9/10/09
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KE 9/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

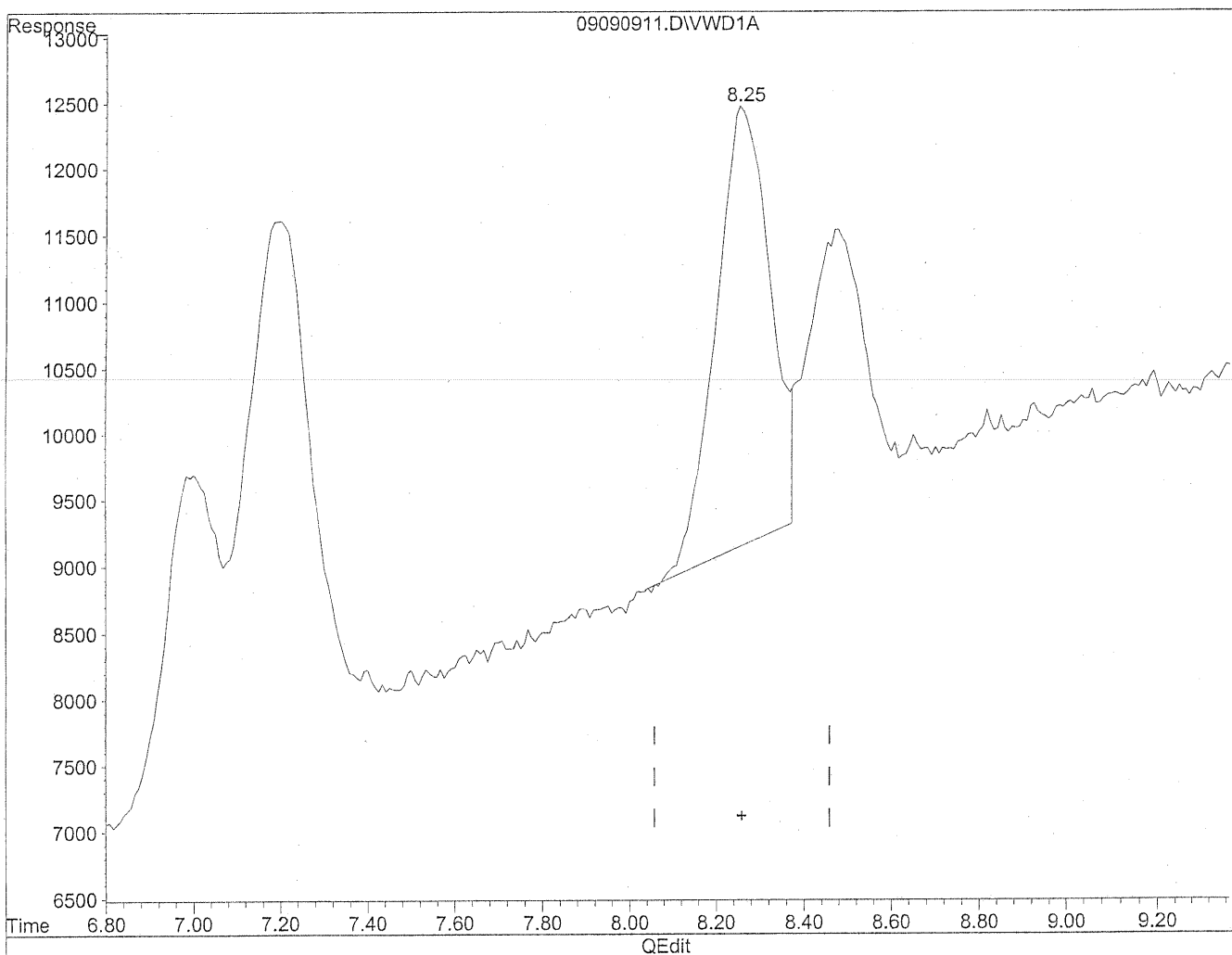


(11) Hexaldehyde
8.25min 88.073ng/ml
response 257900

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090911.D Vial: 8
Acq On : 09-Sep-2009, 15:54 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(11) Hexaldehyde
8.25min 96.453ng/ml m
response 282439

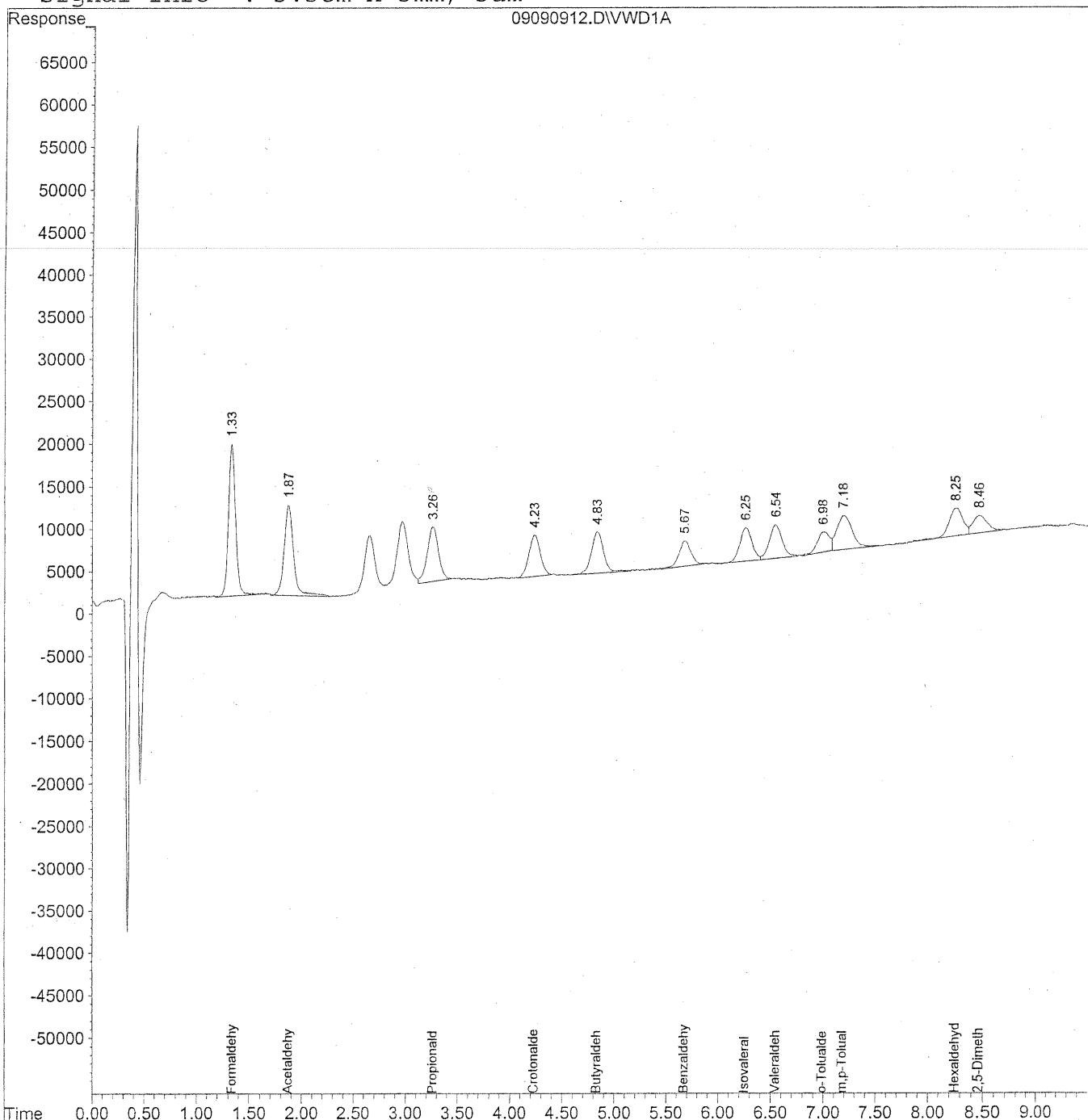
MD
9/10/09
12
12/9/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090912.D Vial: 8
Acq On : 09-Sep-2009, 16:06 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:51 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090912.D Vial: 8
 Acq On : 09-Sep-2009, 16:06 Operator: MD
 Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:51 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

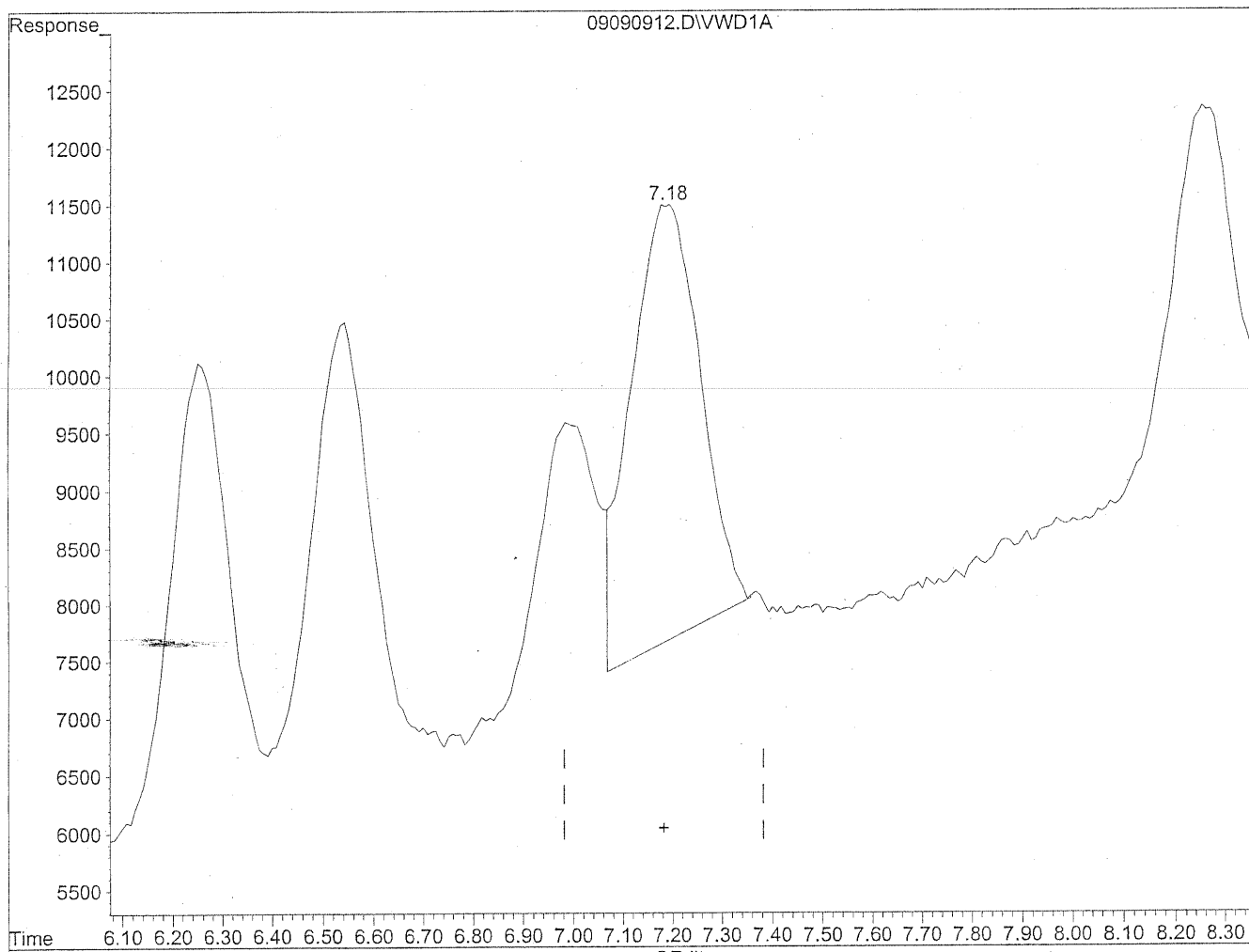
Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.33	856527	95.214 ng/ml
2) Acetaldehyde	1.87	664731	103.021 ng/ml
3) Propionaldehyde	3.26	489979	96.720 ng/ml
4) Crotonaldehyde	4.23	375407	93.706 ng/ml
5) Butyraldehyde	4.83	399611	98.840 ng/ml
6) Benzaldehyde	5.67	241433	91.160 ng/ml
7) Isovaleraldehyde	6.26	313564	91.728 ng/ml
8) Valeraldehyde	6.54	335005	102.594 ng/ml
9) o-Tolualdehyde	6.99	188768	88.367 ng/ml
10) m,p-Tolualdehyde	7.18	416110	187.485 ng/mlm
11) Hexaldehyde	8.26	285615	98.813 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.47	182724	97.357 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090912.D Vial: 8
Acq On : 09-Sep-2009, 16:06 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

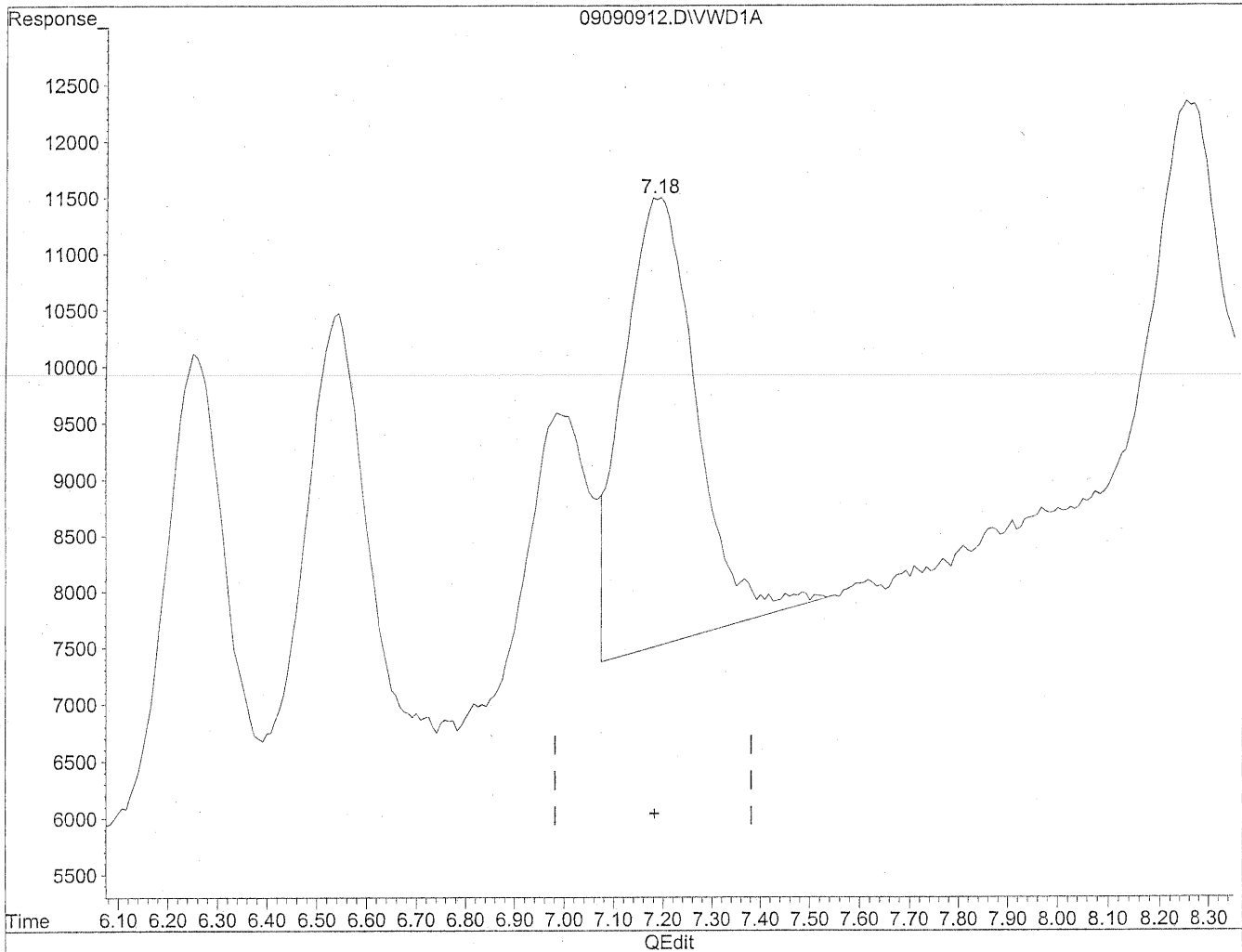


(10) m,p-Tolualdehyde
7.19min 169.858ng/ml
response 376988

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090912.D Vial: 8
Acq On : 09-Sep-2009, 16:06 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:50 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(10) m,p-Tolualdehyde
7.18min 187.485ng/ml m
response 416110

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9/10/09
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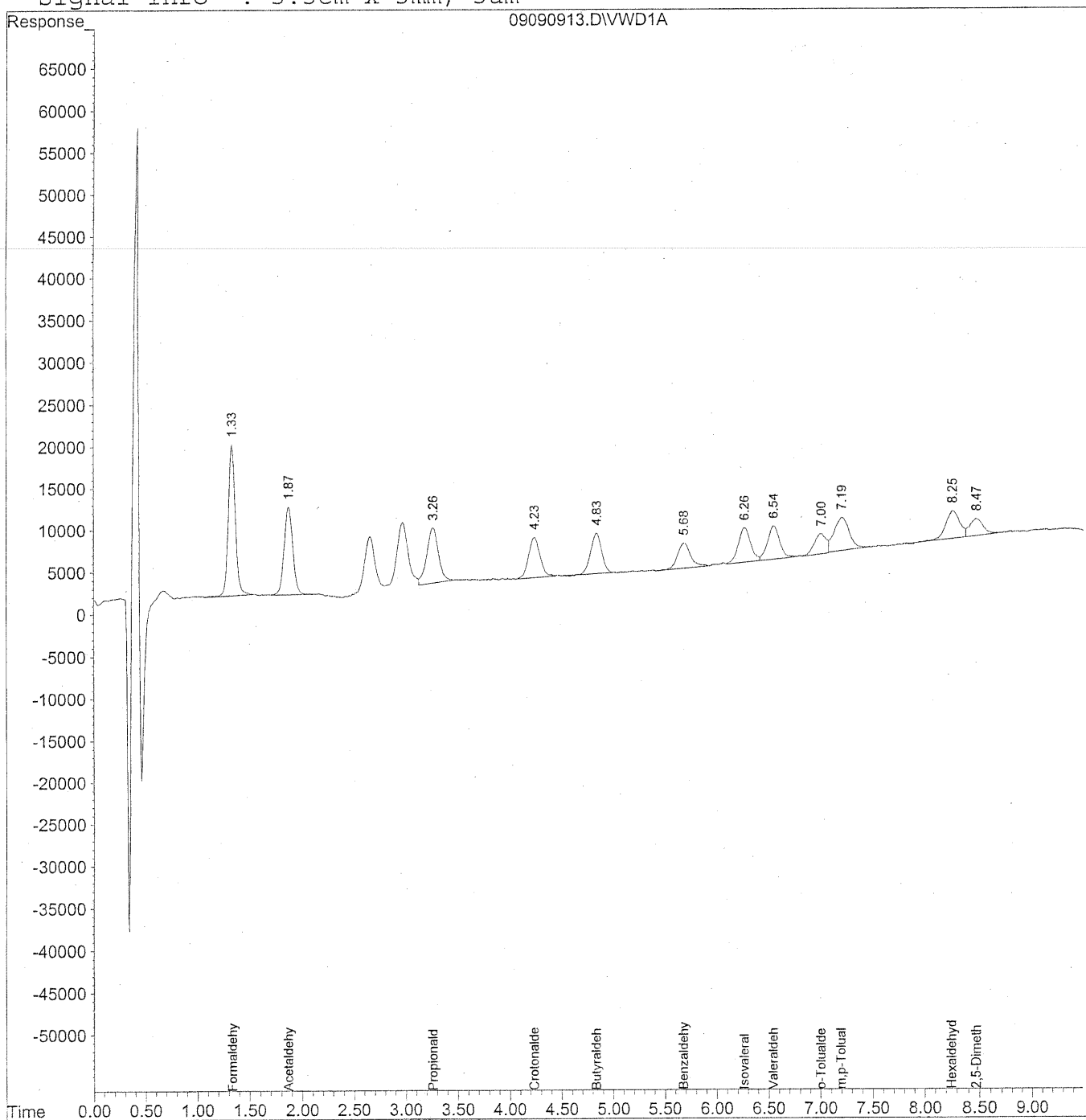
9/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090913.D Vial: 8
Acq On : 09-Sep-2009, 16:17 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 9:02 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090913.D Vial: 8
 Acq On : 09-Sep-2009, 16:17 Operator: MD
 Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 9:02 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

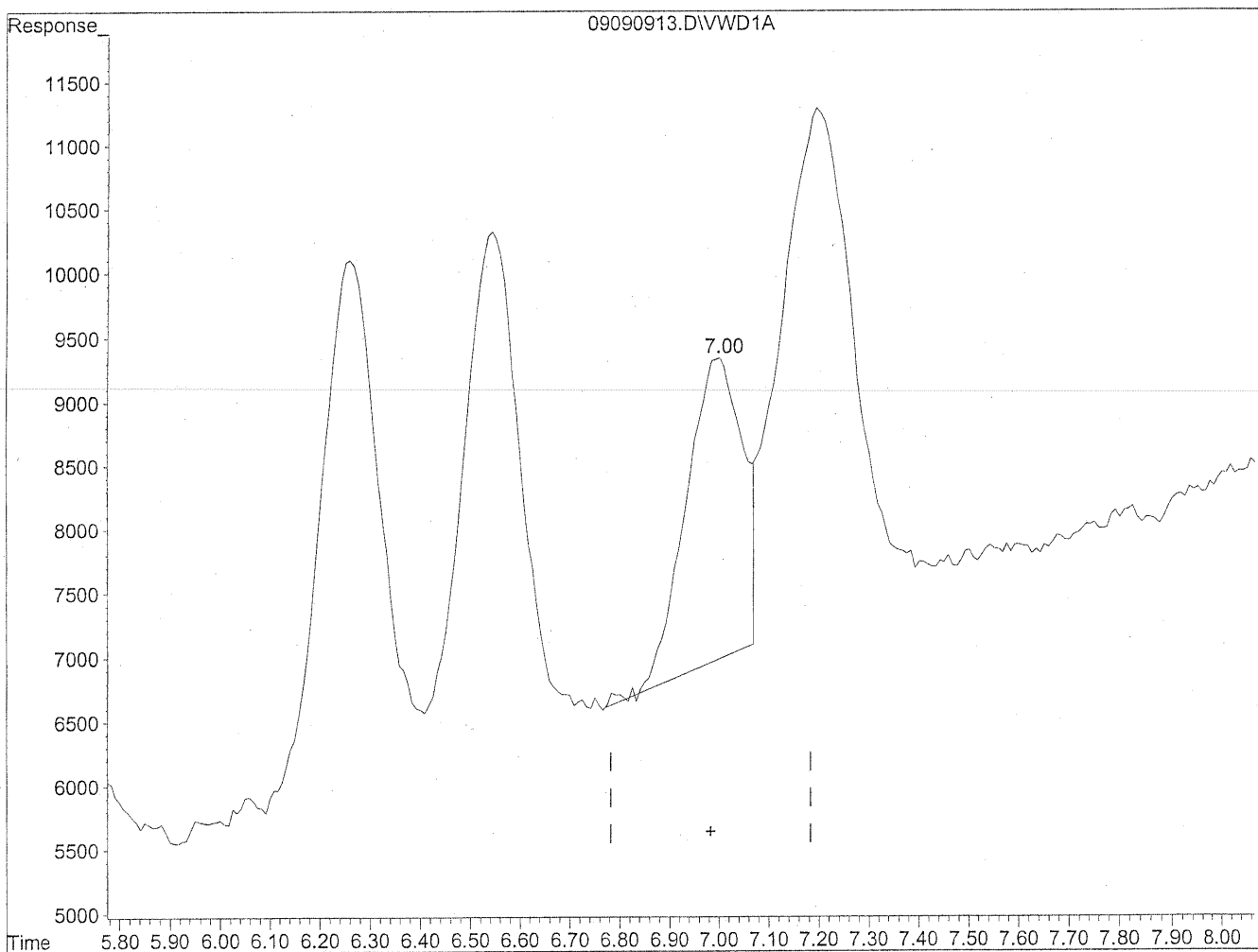
Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.34	864000	96.057 ng/ml
2) Acetaldehyde	1.87	602096	92.574 ng/ml
3) Propionaldehyde	3.26	512978	101.355 ng/ml
4) Crotonaldehyde	4.24	373596	93.529 ng/ml
5) Butyraldehyde	4.84	358623	88.529 ng/ml
6) Benzaldehyde	5.68	261486	98.995 ng/ml
7) Isovaleraldehyde	6.26	340775	99.934 ng/ml
8) Valeraldehyde	6.54	327561	99.943 ng/ml
9) o-Tolualdehyde	7.00	198353	92.606 ng/ml
10) m,p-Tolualdehyde	7.20	403186	181.045 ng/ml
11) Hexaldehyde	8.26	288074	99.573 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.47	174836	92.662 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090913.D Vial: 8
Acq On : 09-Sep-2009, 16:17 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:51 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 09:02:40 2009
Response via : Multiple Level Calibration

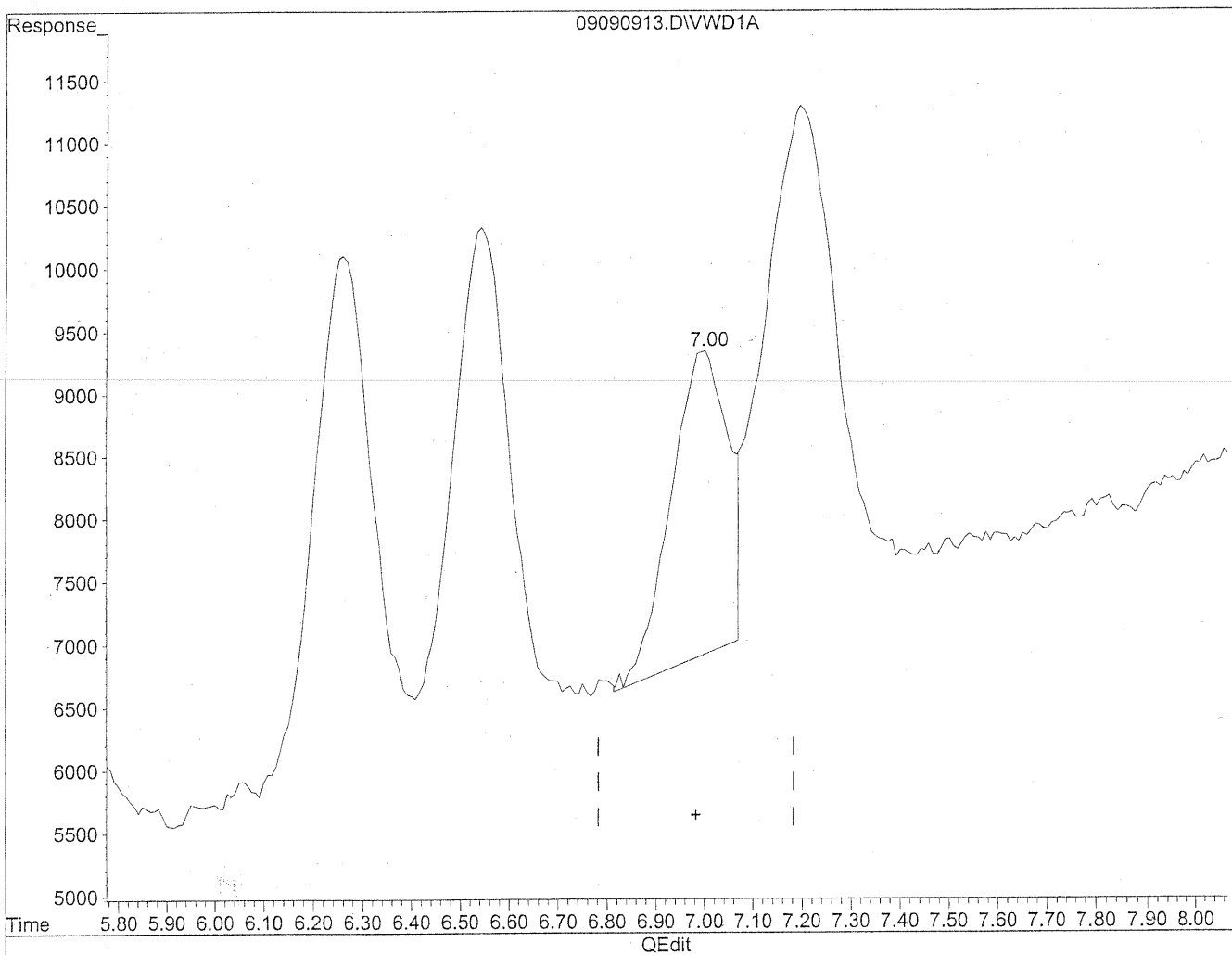


(9) o-Tolualdehyde
7.00min 84.692ng/ml
response 181403

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090913.D Vial: 8
Acq On : 09-Sep-2009, 16:17 Operator: MD
Sample : 100ng/ml TO-11A S21-09080904 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:51 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 09:02:40 2009
Response via : Multiple Level Calibration



(9) o-Tolualdehyde
7.00min 92.606ng/ml m
response 198353

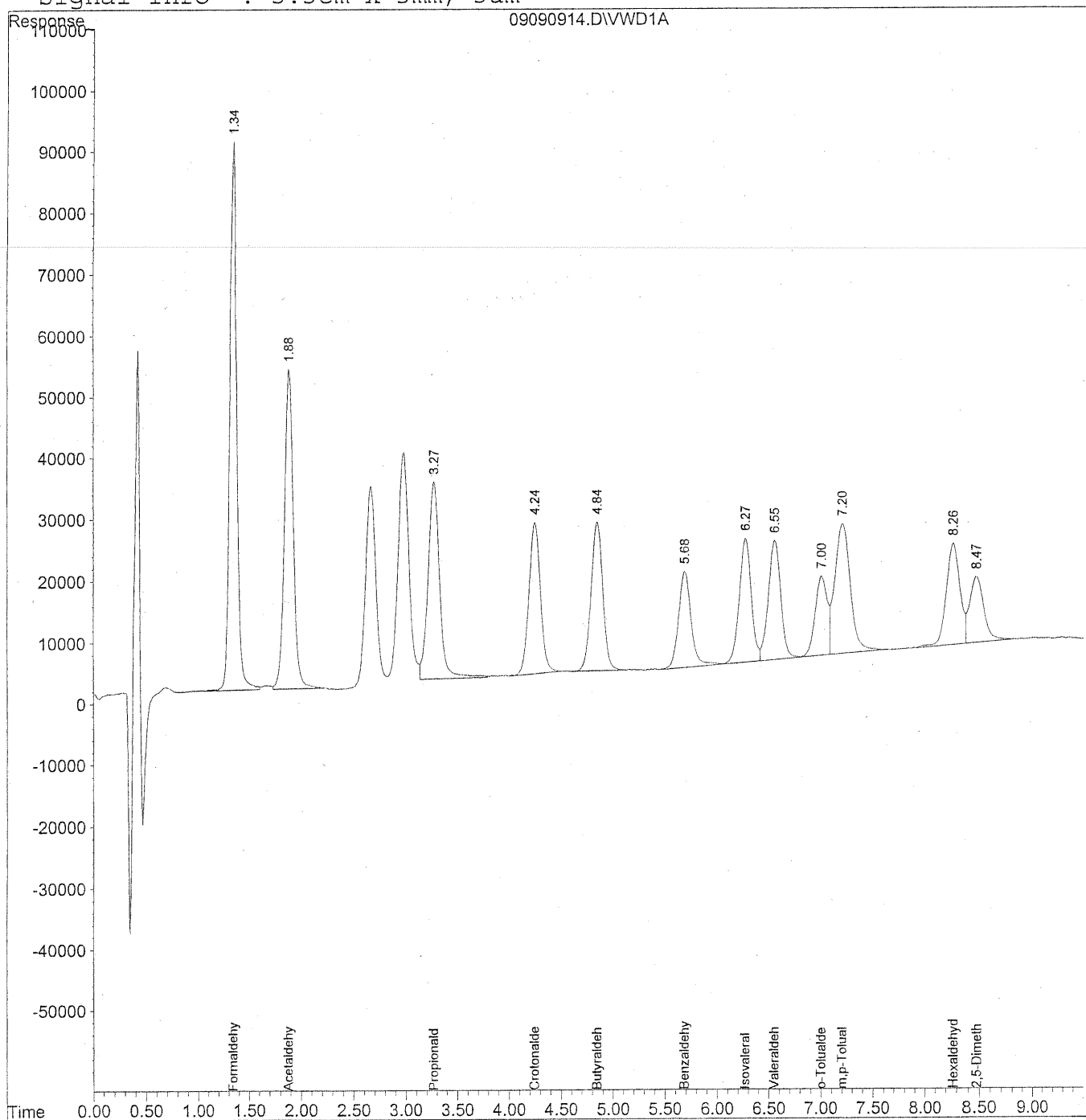
MD
9/10/09
KW 9/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090914.D Vial: 7
Acq On : 09-Sep-2009, 16:29 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:52 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Data File : J:\LC02\DATA\TO11A\2009_09\09\09090914.D Vial: 7
 Acq On : 09-Sep-2009, 16:29 Operator: MD
 Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:52 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

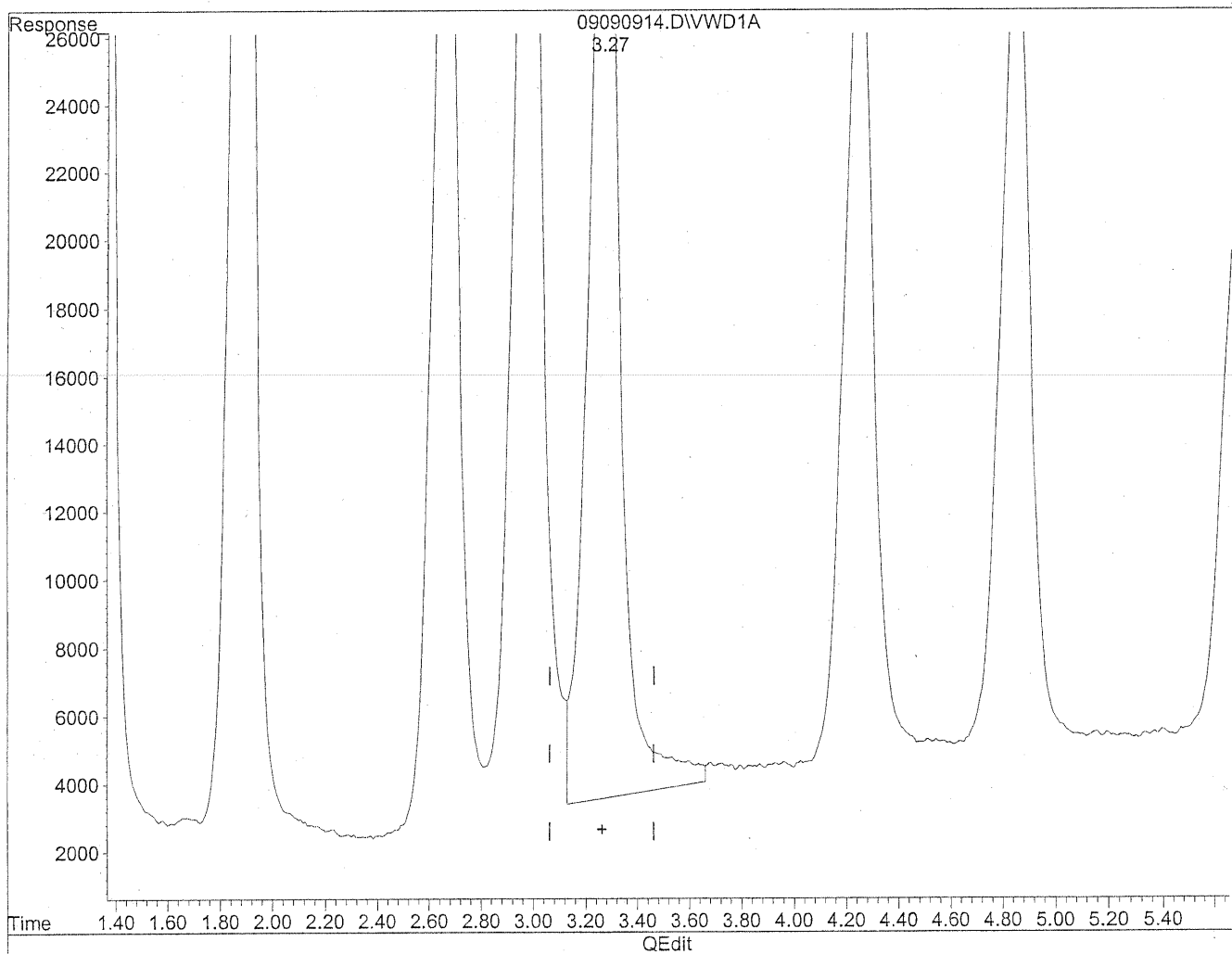
Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.34	4290125	476.763 ng/ml
2) Acetaldehyde	1.88	3109621	479.414 ng/ml
3) Propionaldehyde	3.27	2494796	491.839 ng/mlm
4) Crotonaldehyde	4.24	1900371	476.346 ng/ml
5) Butyraldehyde	4.84	1886701	468.075 ng/ml
6) Benzaldehyde	5.69	1323186	499.277 ng/ml
7) Isovaleraldehyde	6.27	1631123	476.614 ng/ml
8) Valeraldehyde	6.55	1598180	487.637 ng/ml
9) o-Tolualdehyde	7.00	1023918	478.529 ng/ml
10) m,p-Tolualdehyde	7.20	2205841	990.981 ng/ml
11) Hexaldehyde	8.27	1425262	492.260 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.48	964881	511.672 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090914.D Vial: 7
Acq On : 09-Sep-2009, 16:29 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:52 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

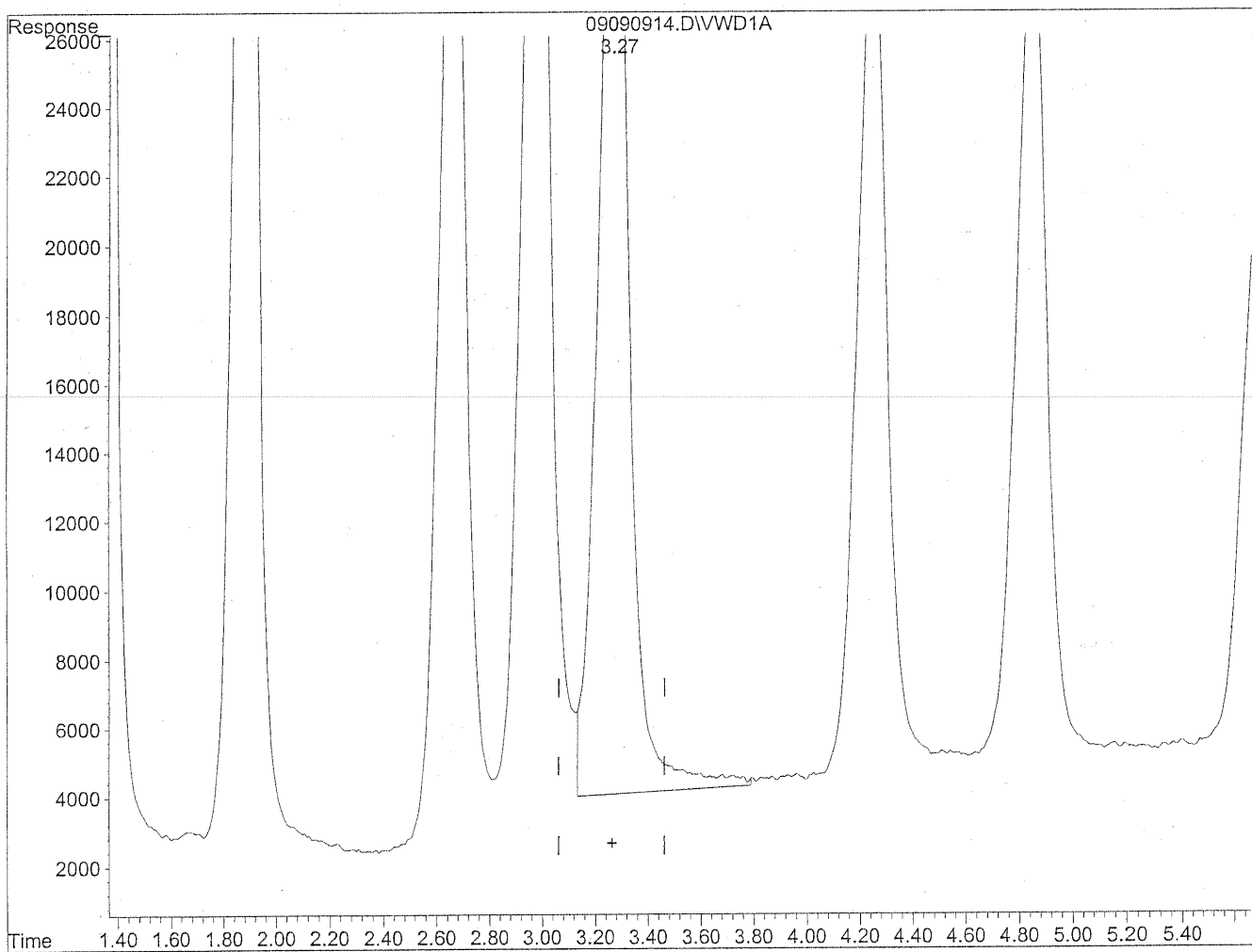


(3) Propionaldehyde
3.27min 515.231ng/ml
response 2613453

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090914.D Vial: 7
Acq On : 09-Sep-2009, 16:29 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:52 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(3) Propionaldehyde
3.27min 491.839ng/ml m
response 2494796

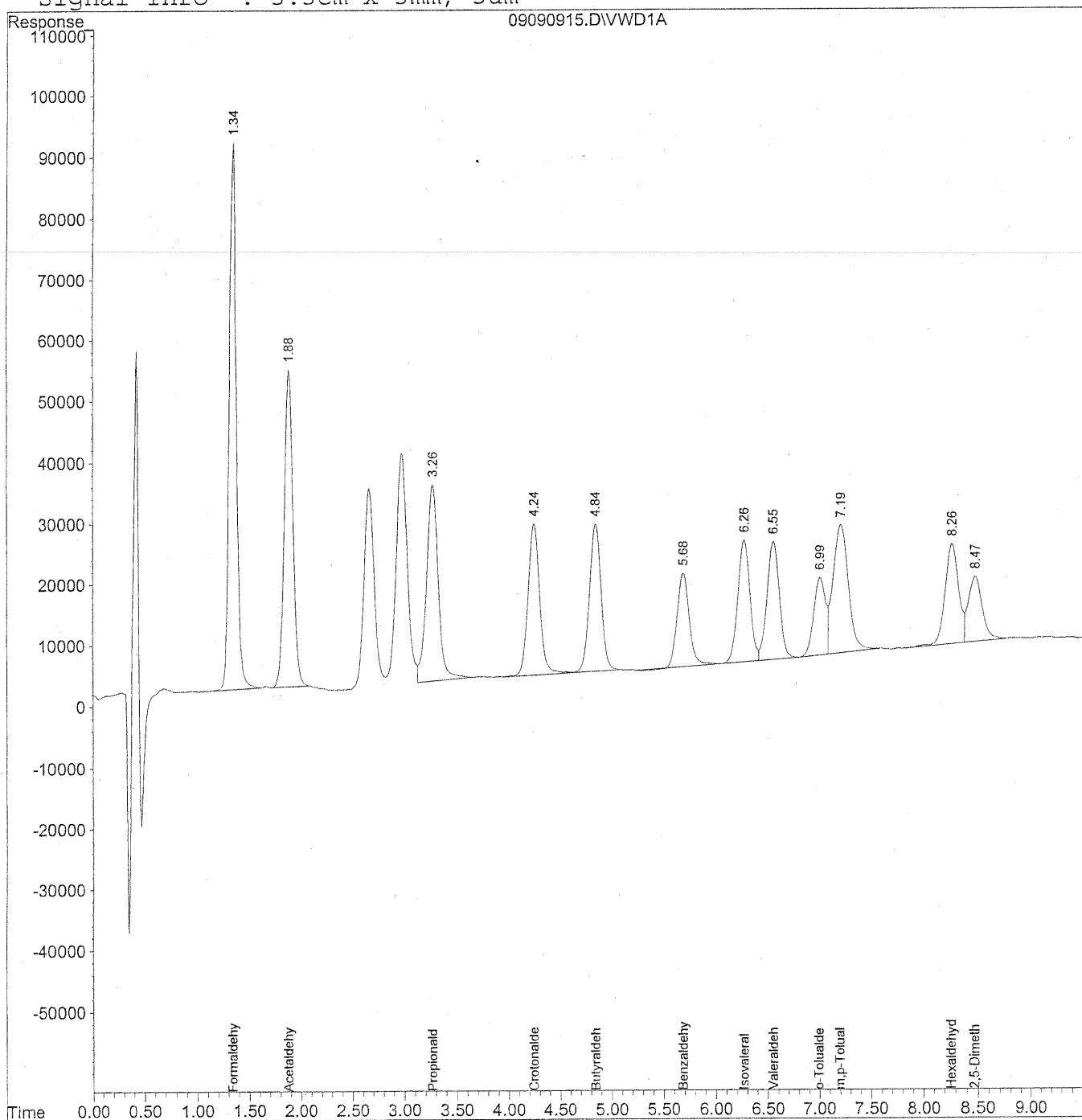
MD
9/10/09
PR
12/9/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090915.D Vial: 7
Acq On : 09-Sep-2009, 16:40 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090915.D Vial: 7
 Acq On : 09-Sep-2009, 16:40 Operator: MD
 Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc Units

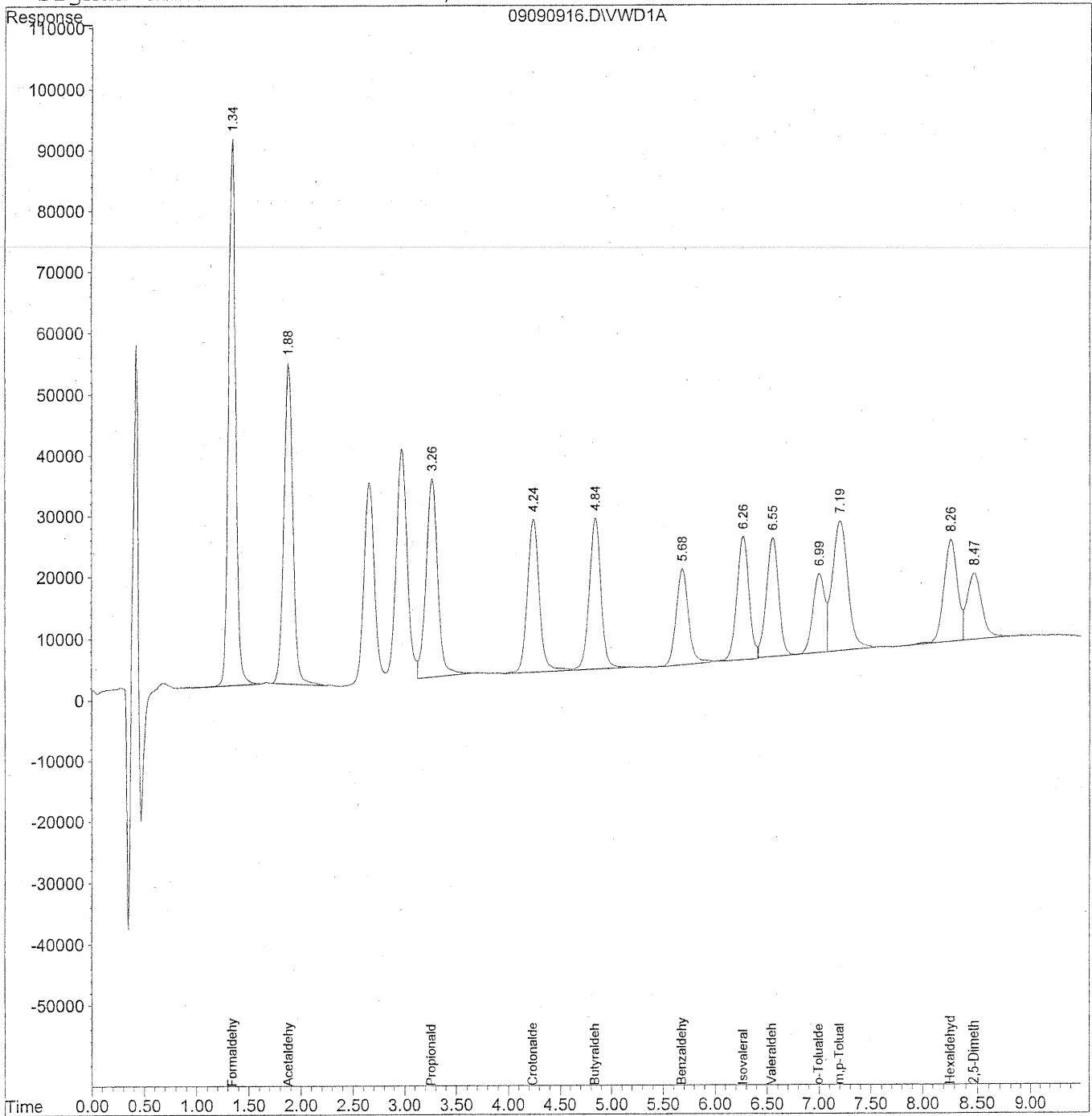
Target Compounds			
1) Formaldehyde	1.34	4242920	476.675 ng/ml
2) Acetaldehyde	1.88	2996333	465.530 ng/ml
3) Propionaldehyde	3.27	2520033	495.333 ng/ml
4) Crotonaldehyde	4.24	1968873	499.829 ng/ml
5) Butyraldehyde	4.84	1894865	474.705 ng/ml
6) Benzaldehyde	5.68	1238947	466.007 ng/ml
7) Isovaleraldehyde	6.27	1614213	474.093 ng/ml
8) Valeraldehyde	6.55	1593172	485.301 ng/ml
9) o-Tolualdehyde	7.00	1018615	479.067 ng/ml
10) m,p-Tolualdehyde	7.20	2181093	980.898 ng/ml
11) Hexaldehyde	8.26	1423115	491.568 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.47	956005	504.834 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
Acq On : 09-Sep-2009, 16:51 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:54 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
 Acq On : 09-Sep-2009, 16:51 Operator: MD
 Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:54 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

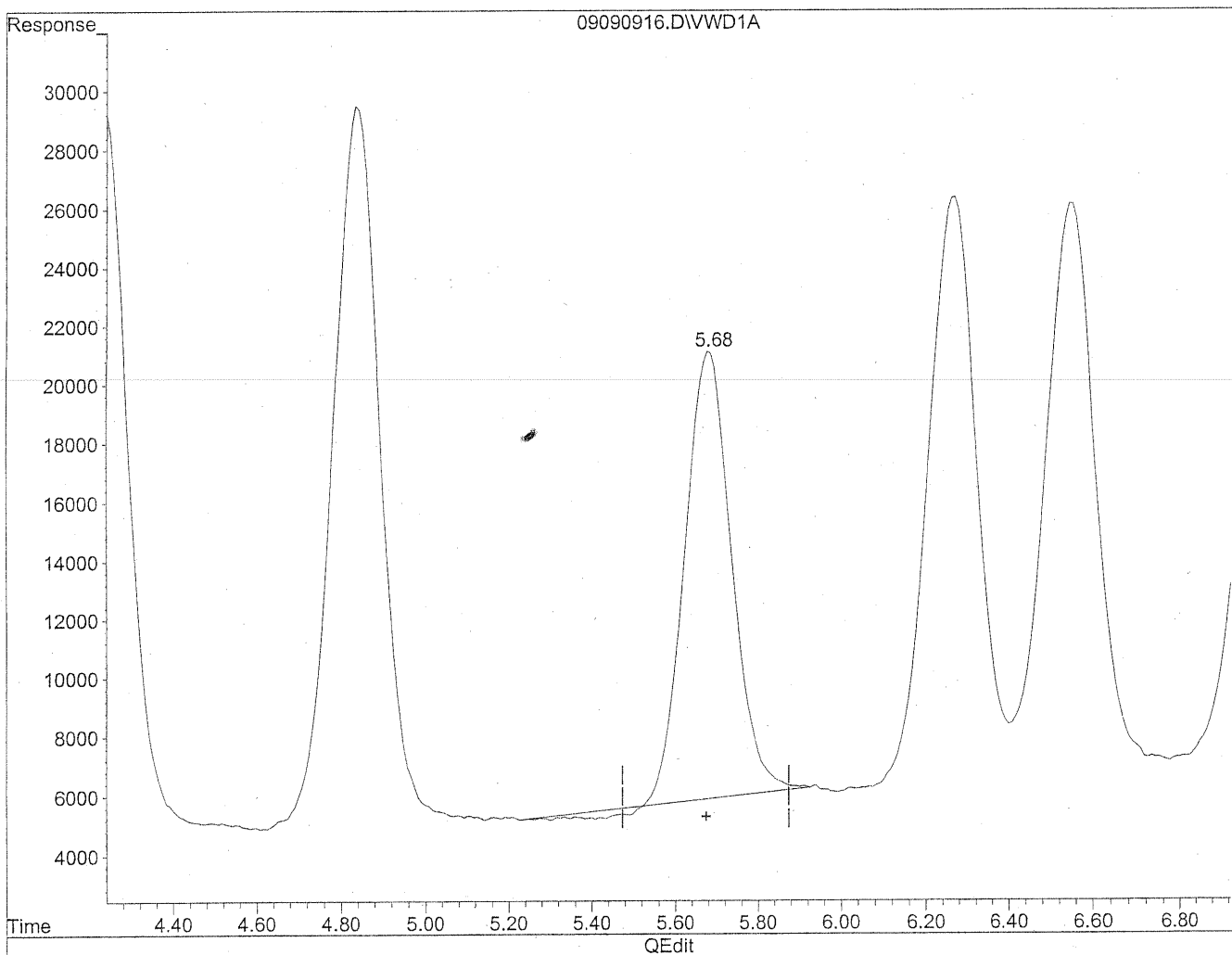
Compound	R.T.	Response	Conc Units

Target Compounds			
1) Formaldehyde	1.34	4239441	476.706 ng/ml
2) Acetaldehyde	1.88	3088021	481.187 ng/ml
3) Propionaldehyde	3.27	2504937	491.959 ng/ml
4) Crotonaldehyde	4.24	1993623	504.650 ng/ml
5) Butyraldehyde	4.84	1946571	487.492 ng/ml
6) Benzaldehyde	5.68	1291253	488.260 ng/mlm
7) Isovaleraldehyde	6.26	1639714	481.982 ng/mlm
8) Valeraldehyde	6.55	1572954	479.264 ng/ml
9) o-Tolualdehyde	7.00	1012283	476.287 ng/ml
10) m,p-Tolualdehyde	7.20	2206747	993.357 ng/ml
11) Hexaldehyde	8.26	1418487	490.030 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.47	962409	508.613 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
Acq On : 09-Sep-2009, 16:51 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

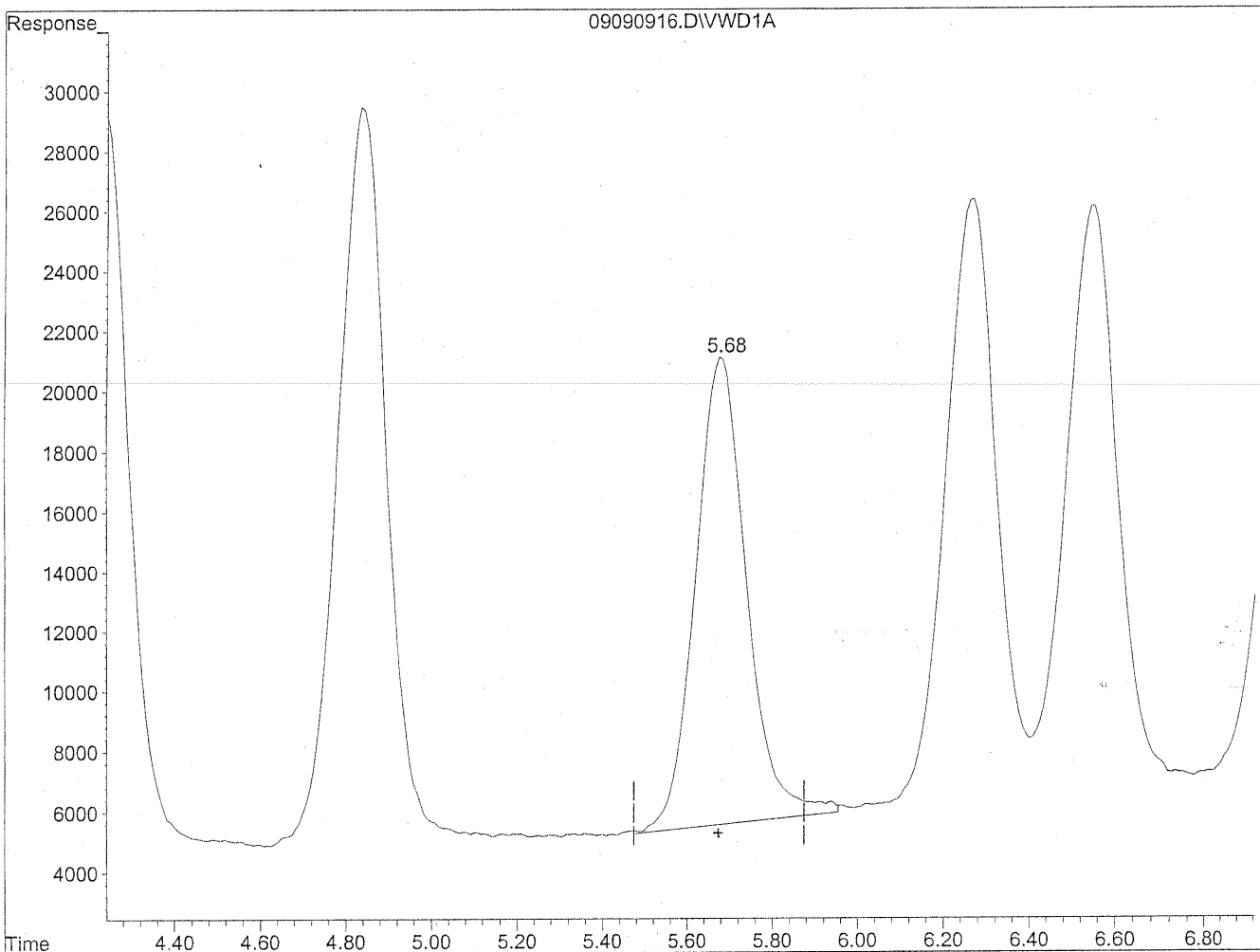


(6) Benzaldehyde
5.68min 446.383ng/ml
response 1180507

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
Acq On : 09-Sep-2009, 16:51 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(6) Benzaldehyde
5.68min 488.260ng/ml m
response 1291253

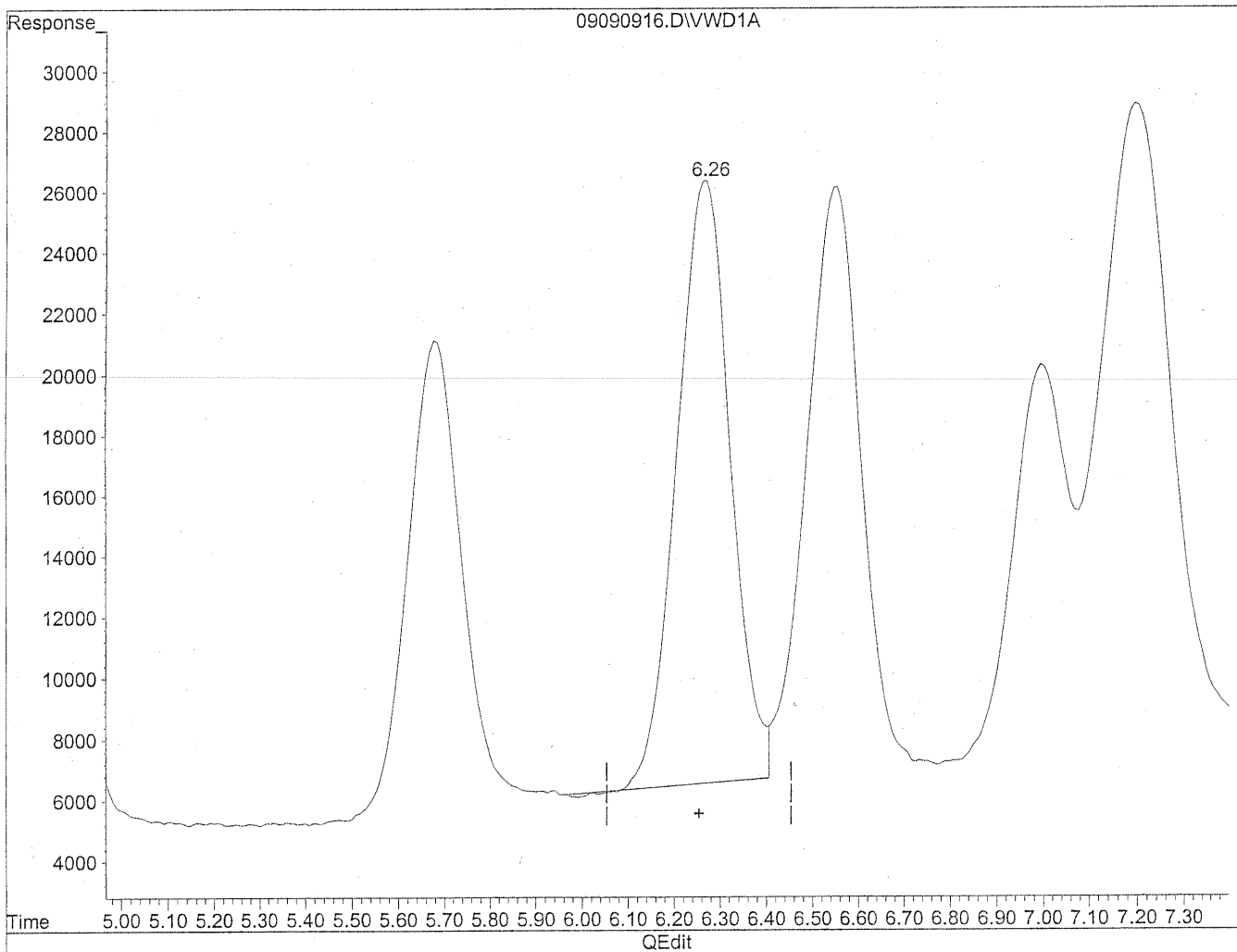
MD
9/10/09
12

KE 9/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
Acq On : 09-Sep-2009, 16:51 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration

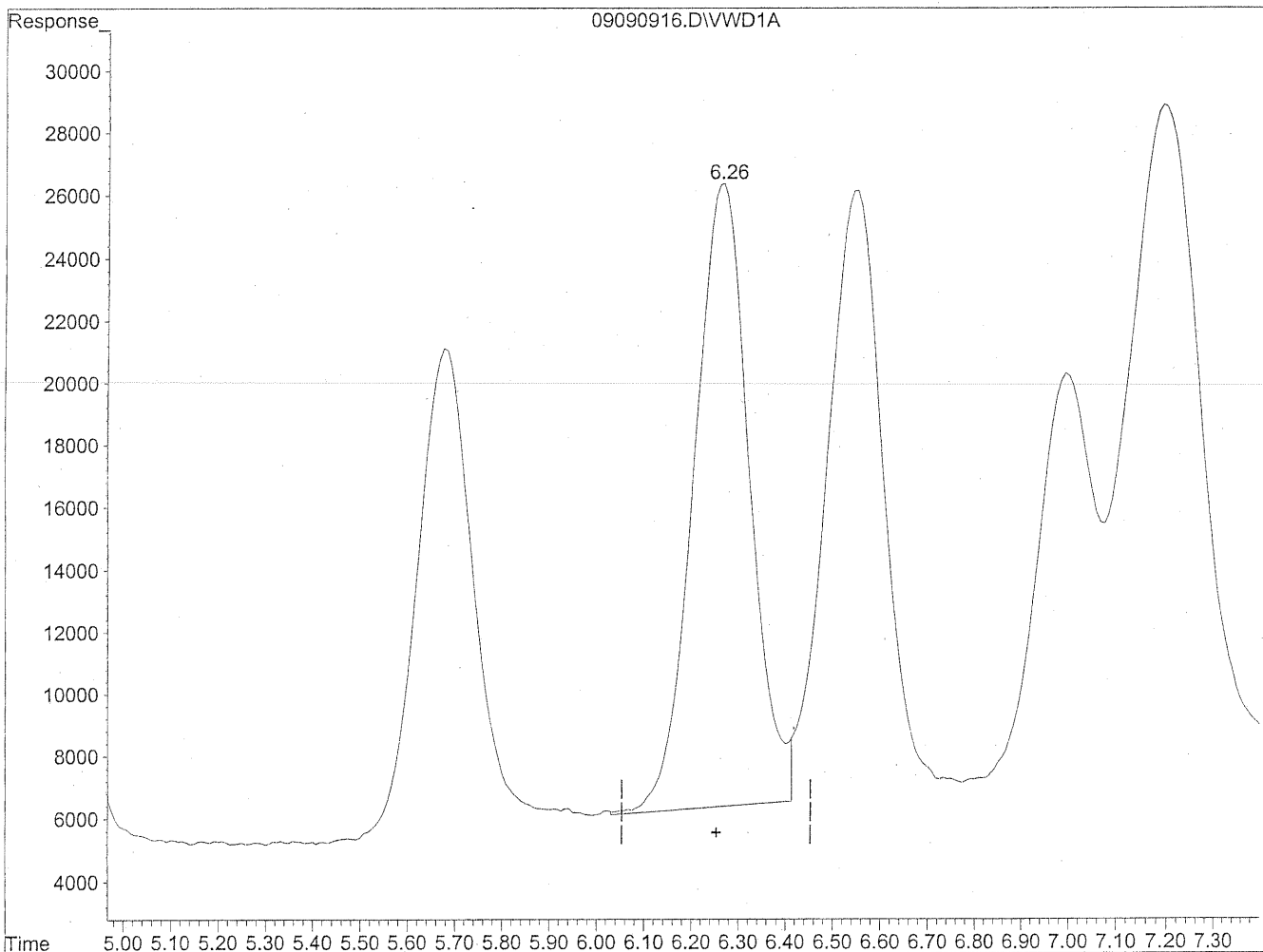


(7) Isovaleraldehyde
6.27min 466.813ng/ml
response 1588109

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090916.D Vial: 7
Acq On : 09-Sep-2009, 16:51 Operator: MD
Sample : 500ng/ml TO-11A S21-09080903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:53 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration



(7) Isovaleraldehyde
6.26min 481.982ng/ml m
response 1639714

MD
9/10/09
12

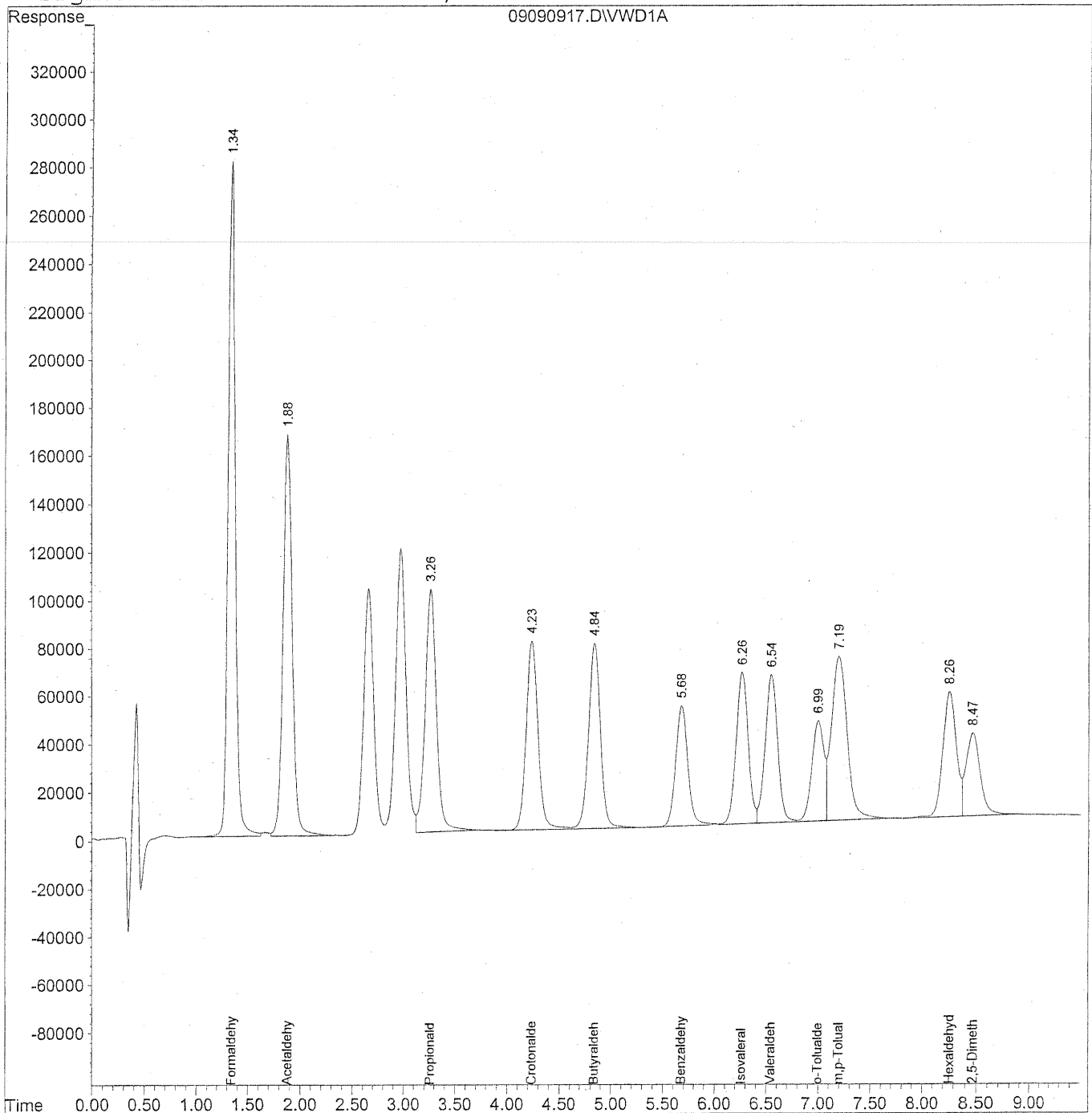
KE 9/10/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090917.D Vial: 6
Acq On : 09-Sep-2009, 17:03 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:54 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Data File : J:\LC02\DATA\TO11A\2009_09\09\09090917.D Vial: 6
 Acq On : 09-Sep-2009, 17:03 Operator: MD
 Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:54 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc	Units

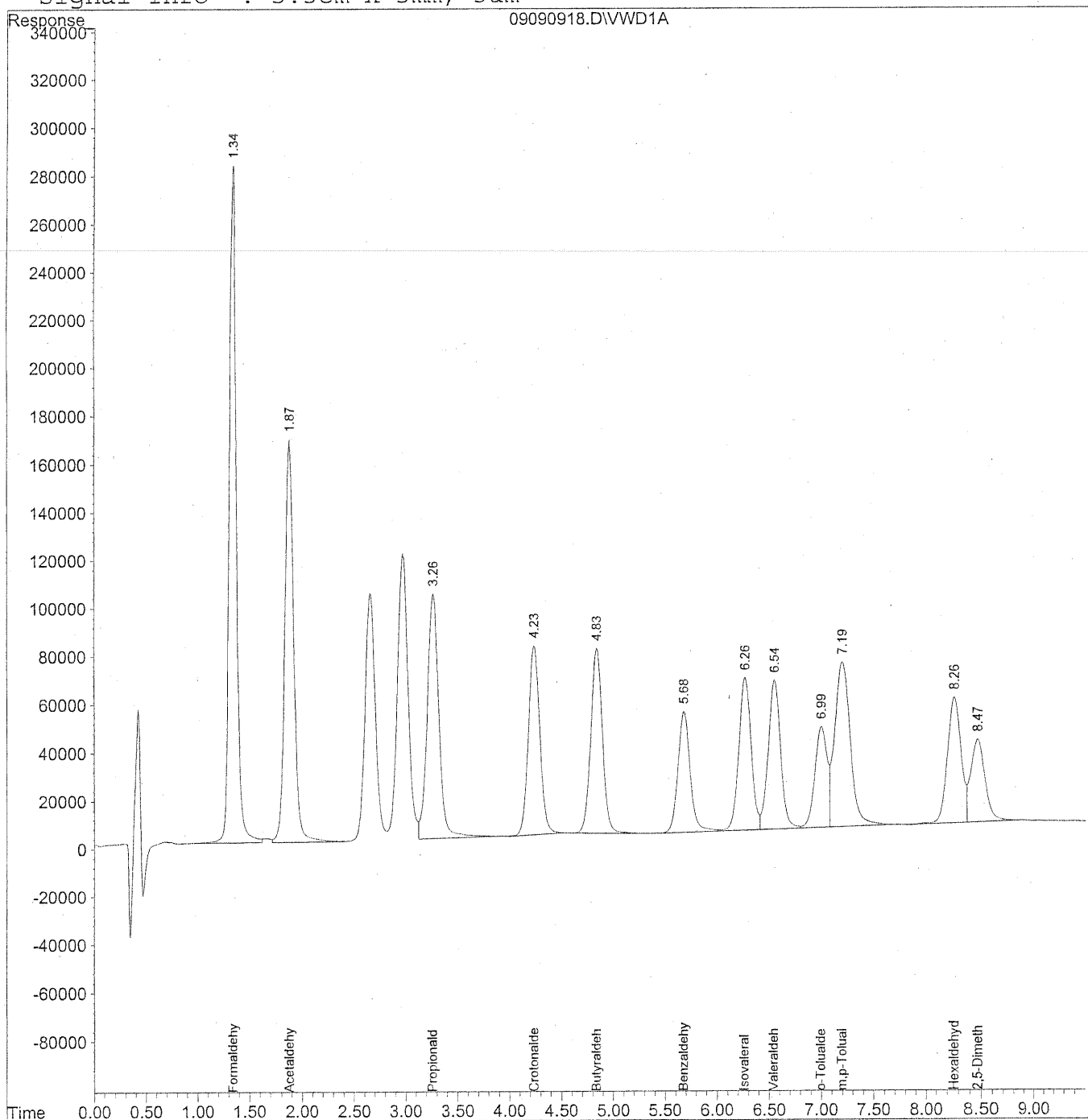
Target Compounds				
1) Formaldehyde	1.34	13461963	1514.248	ng/ml
2) Acetaldehyde	1.88	9836721	1531.865	ng/ml
3) Propionaldehyde	3.26	7740242	1520.232	ng/ml
4) Crotonaldehyde	4.24	6180043	1561.774	ng/ml
5) Butyraldehyde	4.84	6161274	1540.616	ng/ml
6) Benzaldehyde	5.68	4059200	1534.243	ng/ml
7) Isovaleraldehyde	6.27	5115478	1502.821	ng/ml
8) Valeraldehyde	6.55	5104937	1556.624	ng/ml
9) o-Tolualdehyde	7.00	3347391	1575.714	ng/ml
10) m,p-Tolualdehyde	7.20	7133126	3209.878	ng/ml
11) Hexaldehyde	8.26	4465907	1543.128	ng/ml
12) 2,5-Dimethylbenzaldehyde	8.47	3088612	1632.078	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090918.D Vial: 6
Acq On : 09-Sep-2009, 17:14 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:55 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090918.D Vial: 6
 Acq On : 09-Sep-2009, 17:14 Operator: MD
 Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:55 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc	Units

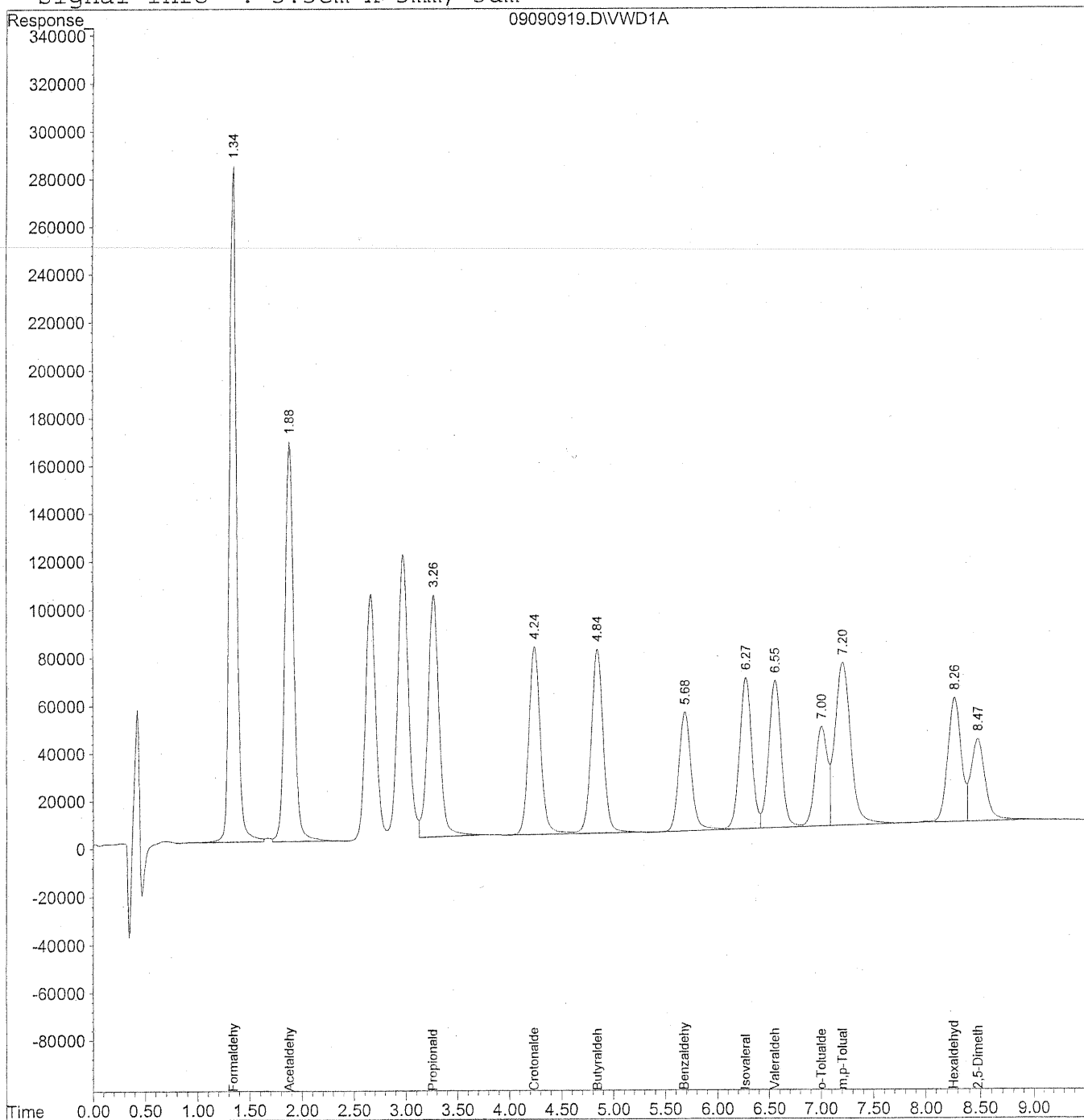
Target Compounds				
1) Formaldehyde	1.34	13578339	1534.981	ng/ml
2) Acetaldehyde	1.88	9942887	1551.020	ng/ml
3) Propionaldehyde	3.26	7876607	1547.881	ng/ml
4) Crotonaldehyde	4.24	6053894	1529.058	ng/ml
5) Butyraldehyde	4.84	6038847	1511.965	ng/ml
6) Benzaldehyde	5.68	4163474	1571.850	ng/ml
7) Isovaleraldehyde	6.27	5182178	1528.173	ng/ml
8) Valeraldehyde	6.55	5176264	1571.132	ng/ml
9) o-Tolualdehyde	7.00	3396097	1598.500	ng/ml
10) m,p-Tolualdehyde	7.20	7179077	3215.253	ng/ml
11) Hexaldehyde	8.26	4448983	1533.800	ng/ml
12) 2,5-Dimethylbenzaldehyde	8.47	3056583	1602.761	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090919.D Vial: 6
Acq On : 09-Sep-2009, 17:26 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:56 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Data File : J:\LC02\DATA\TO11A\2009_09\09\09090919.D Vial: 6
 Acq On : 09-Sep-2009, 17:26 Operator: MD
 Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:56 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc	Units

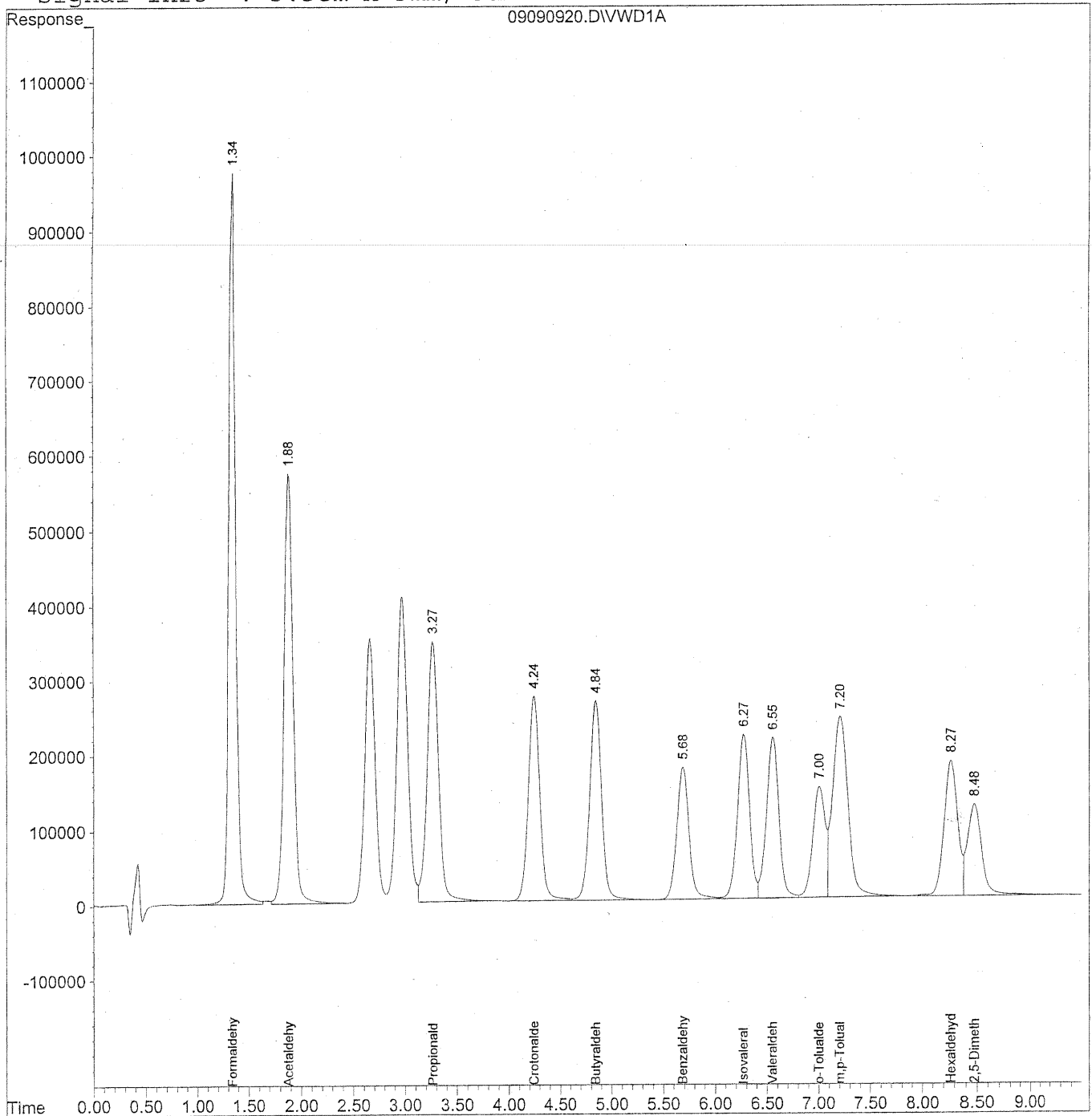
Target Compounds				
1) Formaldehyde	1.34	13548320	1530.469	ng/ml
2) Acetaldehyde	1.88	9888425	1541.106	ng/ml
3) Propionaldehyde	3.27	7759817	1522.663	ng/ml
4) Crotonaldehyde	4.24	6211709	1571.700	ng/ml
5) Butyraldehyde	4.84	6160753	1545.118	ng/ml
6) Benzaldehyde	5.68	4131112	1556.228	ng/ml
7) Isovaleraldehyde	6.27	5170579	1523.089	ng/ml
8) Valeraldehyde	6.55	5170597	1567.526	ng/ml
9) o-Tolualdehyde	7.00	3376687	1587.343	ng/ml
10) m,p-Tolualdehyde	7.20	7206393	3225.643	ng/ml
11) Hexaldehyde	8.27	4462344	1538.905	ng/ml
12) 2,5-Dimethylbenzaldehyde	8.47	3155386	1656.115	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090920.D Vial: 5
Acq On : 09-Sep-2009, 17:37 Operator: MD
Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:56 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



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Data File : J:\LC02\DATA\TO11A\2009_09\09\09090920.D Vial: 5
 Acq On : 09-Sep-2009, 17:37 Operator: MD
 Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:56 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc	Units

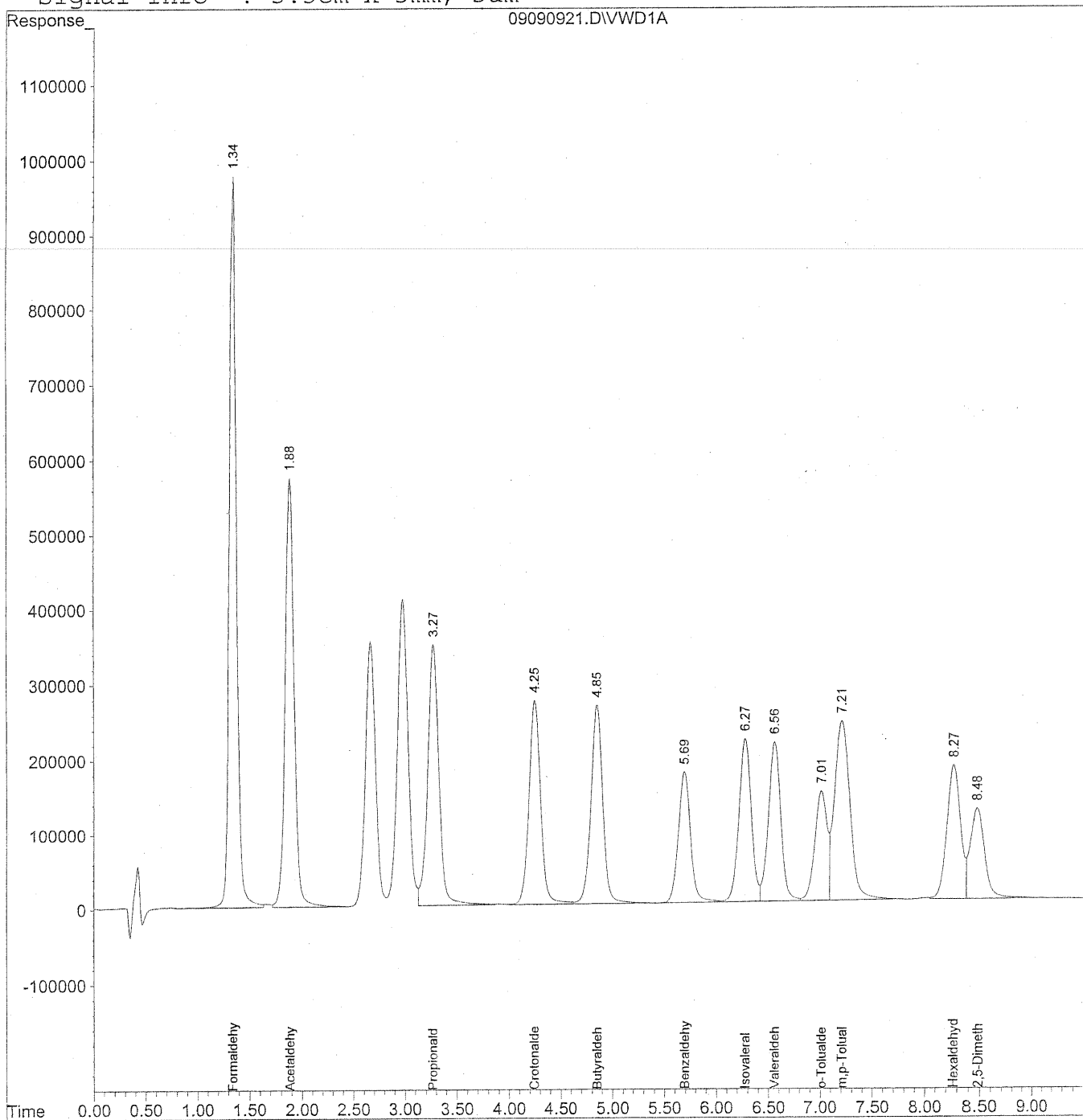
Target Compounds				
1) Formaldehyde	1.34	46422998	5243.497	ng/ml
2) Acetaldehyde	1.88	33949113	5290.994	ng/ml
3) Propionaldehyde	3.27	26460164	5193.957	ng/ml
4) Crotonaldehyde	4.24	21469148	5427.351	ng/ml
5) Butyraldehyde	4.84	21371531	5356.965	ng/ml
6) Benzaldehyde	5.69	14455457	5444.003	ng/ml
7) Isovaleraldehyde	6.27	17854488	5258.118	ng/ml
8) Valeraldehyde	6.55	17905508	5426.435	ng/ml
9) o-Tolualdehyde	7.00	11990582	5636.154	ng/ml
10) m,p-Tolualdehyde	7.20	25039167	11203.076	ng/ml
11) Hexaldehyde	8.27	15466841	5333.634	ng/ml
12) 2,5-Dimethylbenzaldehyde	8.48	11107870	5820.635	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090921.D Vial: 5
Acq On : 09-Sep-2009, 17:49 Operator: MD
Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:57 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090921.D Vial: 5
 Acq On : 09-Sep-2009, 17:49 Operator: MD
 Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:57 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc	Units

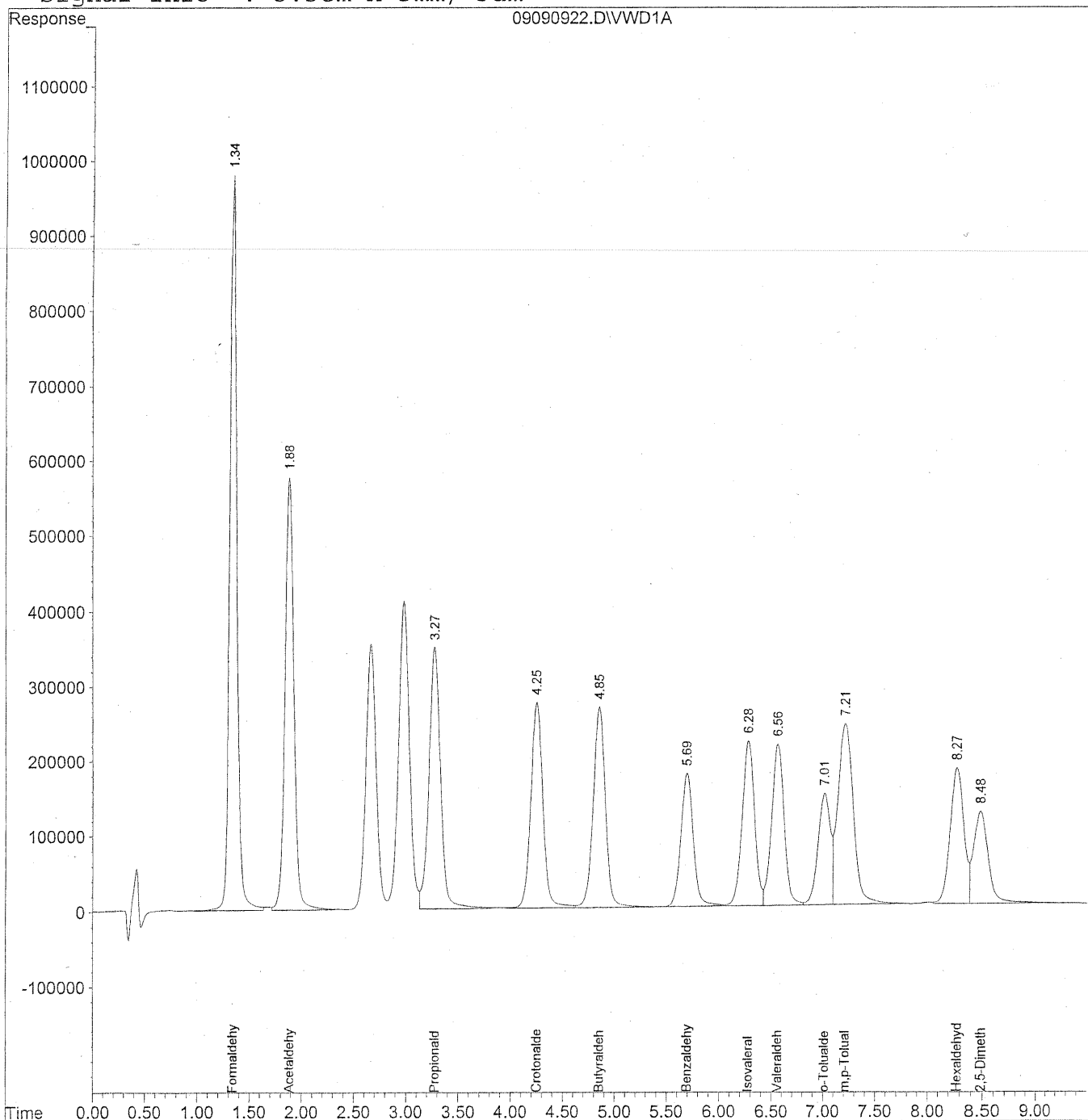
Target Compounds				
1) Formaldehyde	1.35	46464064	5198.646	ng/ml
2) Acetaldehyde	1.88	33977292	5236.353	ng/ml
3) Propionaldehyde	3.27	26758092	5177.051	ng/ml
4) Crotonaldehyde	4.25	21604348	5366.312	ng/ml
5) Butyraldehyde	4.85	21444271	5303.711	ng/ml
6) Benzaldehyde	5.69	14435192	5328.040	ng/ml
7) Isovaleraldehyde	6.28	17875029	5200.288	ng/ml
8) Valeraldehyde	6.56	17921465	5321.025	ng/ml
9) o-Tolualdehyde	7.01	11986554	5544.716	ng/ml
10) m,p-Tolualdehyde	7.21	25032033	10984.299	ng/ml
11) Hexaldehyde	8.27	15380456	5215.387	ng/ml
12) 2,5-Dimethylbenzaldehyde	8.48	11113181	5654.303	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090922.D Vial: 5
Acq On : 09-Sep-2009, 18:00 Operator: MD
Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:58 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090922.D Vial: 5
Acq On : 09-Sep-2009, 18:00 Operator: MD
Sample : 5000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:58 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Initial Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc Units

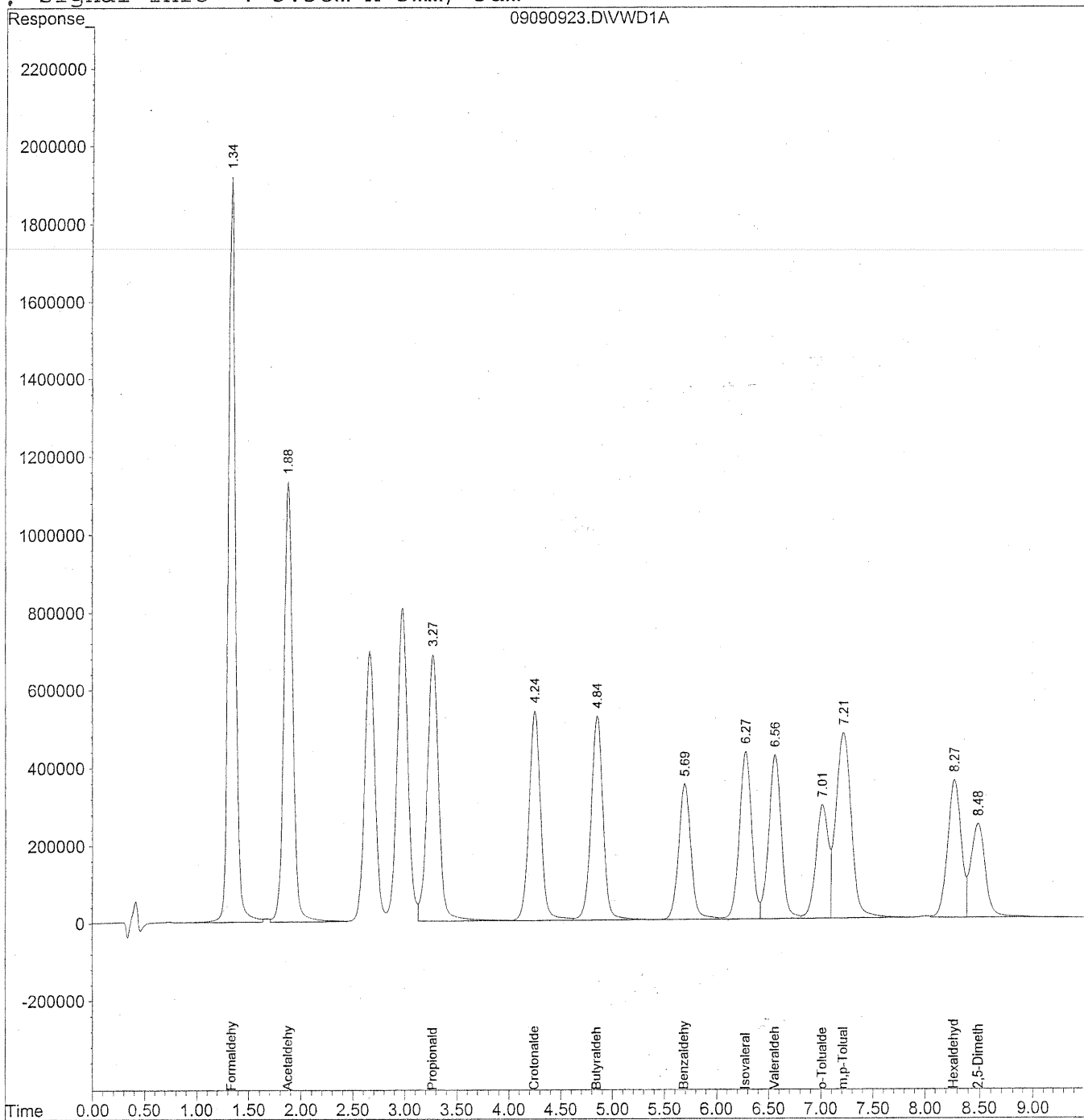
Target Compounds			
1) Formaldehyde	1.35	46648983	5218.936 ng/ml
2) Acetaldehyde	1.88	34054104	5247.811 ng/ml
3) Propionaldehyde	3.27	26843474	5188.585 ng/ml
4) Crotonaldehyde	4.25	21717189	5391.323 ng/ml
5) Butyraldehyde	4.85	21538832	5325.502 ng/ml
6) Benzaldehyde	5.69	14515721	5358.432 ng/ml
7) Isovaleraldehyde	6.28	17932725	5216.554 ng/ml
8) Valeraldehyde	6.56	17988106	5340.390 ng/ml
9) o-Tolualdehyde	7.01	12035186	5567.385 ng/ml
10) m,p-Tolualdehyde	7.21	25134428	11029.519 ng/ml
11) Hexaldehyde	8.28	15437631	5237.332 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.49	11198210	5697.308 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090923.D Vial: 4
Acq On : 09-Sep-2009, 18:11 Operator: MD
Sample : 10000ng/ml TO-11A S21-09080901 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:58 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090923.D Vial: 4
 Acq On : 09-Sep-2009, 18:11 Operator: MD
 Sample : 10000ng/ml TO-11A S21-09080901 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:58 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc Units

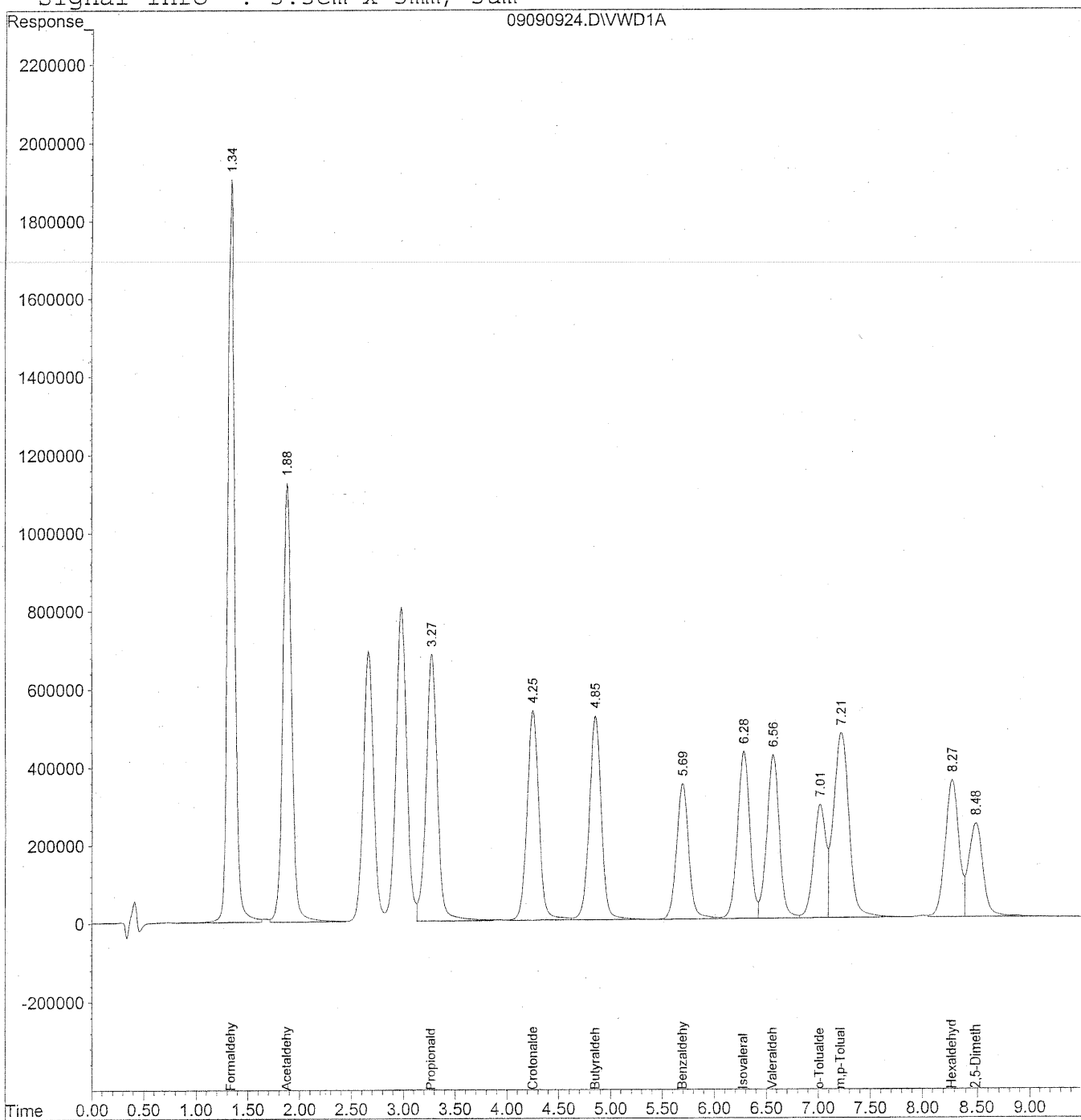
Target Compounds			
1) Formaldehyde	1.34	91542792	10238.895 ng/ml
2) Acetaldehyde	1.88	67198566	10353.832 ng/ml
3) Propionaldehyde	3.27	52731710	10187.405 ng/ml
4) Crotonaldehyde	4.25	42623472	10576.073 ng/ml
5) Butyraldehyde	4.85	42304249	10456.015 ng/ml
6) Benzaldehyde	5.69	28602353	10555.419 ng/ml
7) Isovaleraldehyde	6.28	35277028	10259.685 ng/ml
8) Valeraldehyde	6.56	35412579	10510.859 ng/ml
9) o-Tolualdehyde	7.01	23892692	11049.929 ng/ml
10) m,p-Tolualdehyde	7.21	49431359	21686.301 ng/ml
11) Hexaldehyde	8.27	30345892	10294.528 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.48	21989696	11182.144 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090924.D Vial: 4
Acq On : 09-Sep-2009, 18:23 Operator: MD
Sample : 10000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:59 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090924.D Vial: 4
 Acq On : 09-Sep-2009, 18:23 Operator: MD
 Sample : 10000ng/ml TO-11A S21-09080902 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:59 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc Units

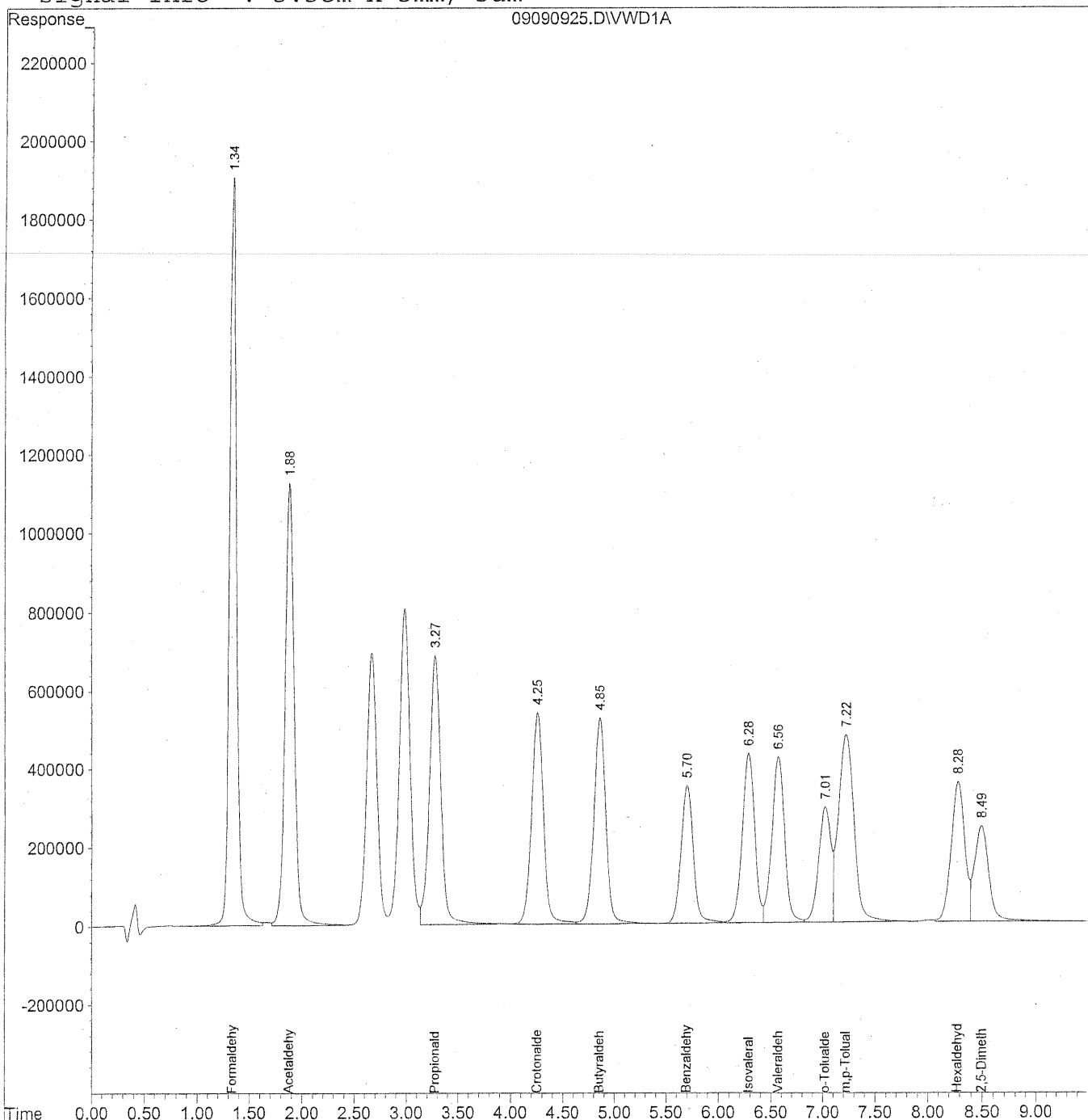
Target Compounds			
1) Formaldehyde	1.34	91301664	10216.742 ng/ml
2) Acetaldehyde	1.88	67004053	10305.740 ng/ml
3) Propionaldehyde	3.27	52551284	10108.517 ng/ml
4) Crotonaldehyde	4.25	42531897	10476.390 ng/ml
5) Butyraldehyde	4.85	42207282	10413.662 ng/ml
6) Benzaldehyde	5.69	28552063	10464.403 ng/ml
7) Isovaleraldehyde	6.28	35194712	10224.544 ng/ml
8) Valeraldehyde	6.56	35338059	10393.485 ng/ml
9) o-Tolualdehyde	7.01	23813504	10965.300 ng/ml
10) m,p-Tolualdehyde	7.21	49315533	21467.660 ng/ml
11) Hexaldehyde	8.28	30246038	10213.789 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.49	21823086	10931.999 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090925.D Vial: 4
Acq On : 09-Sep-2009, 18:34 Operator: MD
Sample : 10000ng/ml TO-11A S21-09080902 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 8:59 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090925.D Vial: 4
 Acq On : 09-Sep-2009, 18:34 Operator: MD
 Sample : 10000ng/ml TO-11A S21-09080902 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 8:59 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc Units

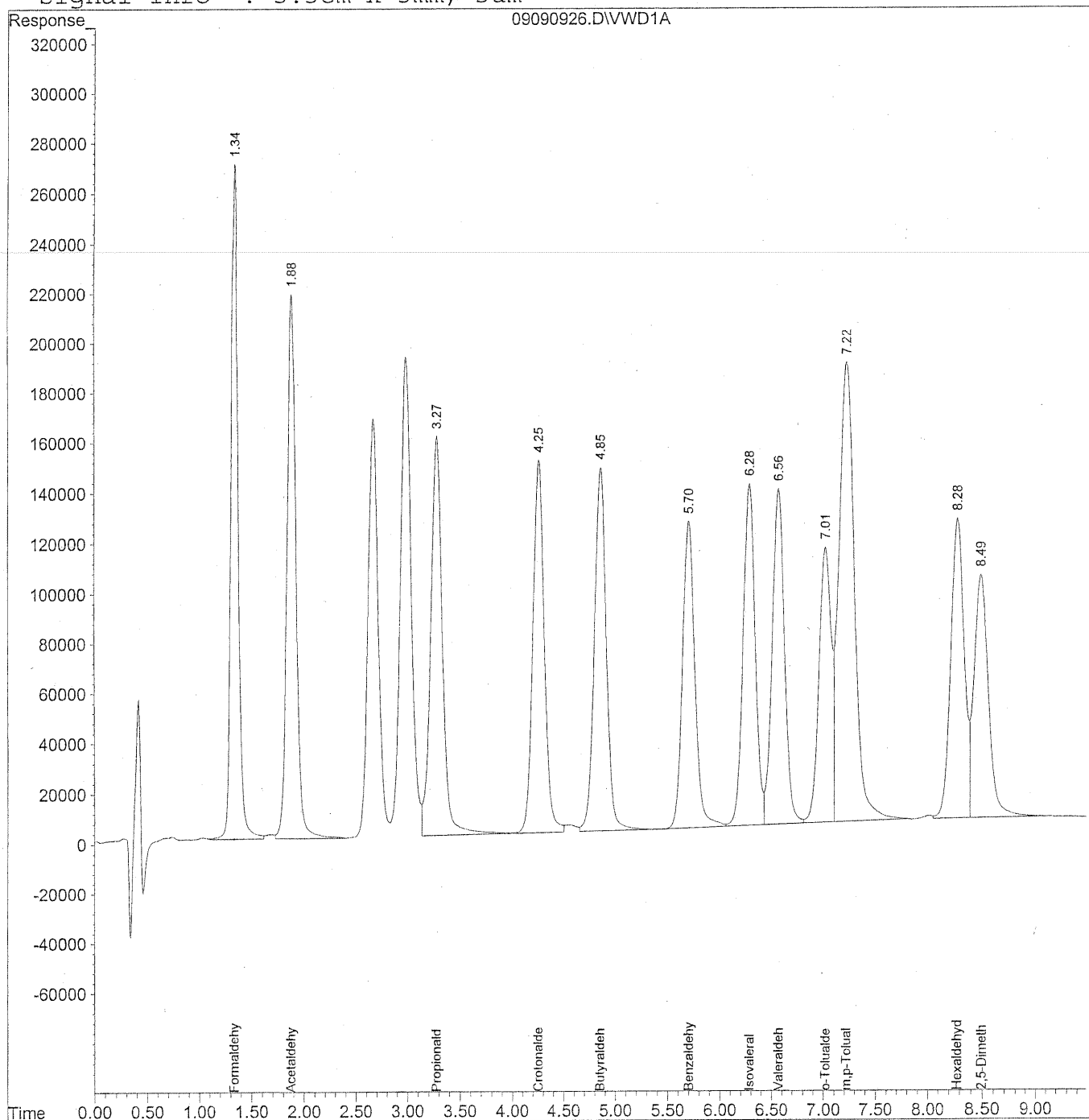
Target Compounds			
1) Formaldehyde	1.34	91595894	10251.972 ng/ml
2) Acetaldehyde	1.88	67244158	10345.249 ng/ml
3) Propionaldehyde	3.28	52752024	10150.066 ng/ml
4) Crotonaldehyde	4.25	42676337	10513.945 ng/ml
5) Butyraldehyde	4.86	42347195	10450.266 ng/ml
6) Benzaldehyde	5.70	28631645	10495.182 ng/ml
7) Isovaleraldehyde	6.28	35288997	10253.979 ng/ml
8) Valeraldehyde	6.57	35418570	10419.068 ng/ml
9) o-Tolualdehyde	7.02	23869930	10994.623 ng/ml
10) m,p-Tolualdehyde	7.22	49446486	21529.189 ng/ml
11) Hexaldehyde	8.28	30343150	10249.463 ng/ml
12) 2,5-Dimethylbenzaldehyde	8.49	22018475	11037.553 ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\09\09090926.D Vial: 3
Acq On : 09-Sep-2009, 18:46 Operator: MD
Sample : ~1500ng/ml TO-11A ICV S21-07270907 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 9:30 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Wed Sep 09 16:02:22 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\09\09090926.D Vial: 3
 Acq On : 09-Sep-2009, 18:46 Operator: MD
 Sample : ~1500ng/ml TO-11A ICV S21-07270907 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 9:30 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Wed Sep 09 16:02:22 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Formaldehyde	1.34	12986438	1453.521	ng/ml
2) Acetaldehyde	1.88	13048264	2007.424	ng/ml
3) Propionaldehyde	3.28	12411611	2388.130	ng/ml
4) Crotonaldehyde	4.26	11686650	2879.178	ng/ml
5) Butyraldehyde	4.86	11660734	2877.588	ng/ml
6) Benzaldehyde	5.70	10075461	3693.249	ng/ml
7) Isovaleraldehyde	6.28	11105935	3227.069	ng/ml
8) Valeraldehyde	6.57	11151355	3280.390	ng/ml
9) o-Tolualdehyde	7.02	8894551	4053.169	ng/ml
10) m,p-Tolualdehyde	7.22	19279847	8394.519	ng/ml
11) Hexaldehyde	8.28	10194419	3443.522	ng/ml
12) 2,5-Dimethylbenzaldehyde	8.49	8824280	4423.488	ng/ml

CONTINUING CALIBRATION STANDARDS

COLUMBIA ANALYTICAL SERVICES

TO11A Aldehyde & Ketone DNPH Analysis by HPLC

Instrument : LC#02
 Detector : UV-VIS 360
 Analyst : MD

Printed : 09/16/09
 Date Acquired : 09/10/09
 Sample Amount : 3ul
 Client & PAI Job# : EH & E P0903083

MD
 9/16/09
 HC
 9/17/09

SAMPLE RESULT SUMMARY

Sample Information	MDL	1500ng/ml TO 11A S21- 09090903	% Diff	ACN blank lot CY331	MB front 1.0ml lot 5855/5994	MB back 1.0ml lot 5855/5994	P0903083-001 back 1.0ml	P0903083-002 back 1.0ml	P0903083-003 back 1.0ml
Dilution	1.0			1.0	1.0	1.0	1.0	1.0	1.0
Sample Volume (L)	NA			NA	NA	NA	NA	104.50	103.95
Final Vol.(ml)	1.0			1.0	1.0	1.0	1.0	1.0	1.0

	ng/sample	ng/sample	% Diff	ng/sample	ng/sample	ng/sample	ng/sample	ng/sample	ng/sample
Formaldehyde	100.00	1514.3	1.0%	ND	ND	ND	ND	ND	ND
Acetaldehyde	100.00	1513.5	0.9%	ND	ND	ND	ND	274.492 BT	337.304 BT
Propionaldehyde	100.00	1516.5	1.1%	ND	ND	ND	ND	ND	ND
Crotonaldehyde	100.00	1518.9	1.3%	ND	ND	ND	ND	ND	ND
Butyraldehyde	100.00	1515.9	1.1%	ND	ND	ND	ND	ND	ND
Benzaldehyde	100.00	1462.5	2.5%	ND	ND	ND	ND	ND	ND
Isovaleraldehyde	100.00	1473.3	1.8%	ND	ND	ND	ND	ND	ND
Valeraldehyde	100.00	1482.2	1.2%	ND	ND	ND	ND	ND	ND
o-Tolualdehyde	100.00	1487.7	0.8%	ND	ND	ND	ND	ND	ND
m,p-Tolualdehyde	200.00	3031.4	1.0%	ND	ND	ND	ND	ND	ND
Hexaldehyde	100.00	1512.4	0.8%	ND	ND	ND	ND	ND	ND
2,5-Dimethylbenzaldehyde	100.00	1590.5	6.0%	ND	ND	ND	ND	ND	ND

	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Formaldehyde			NA	NA	NA	ND	ND
Acetaldehyde			NA	NA	NA	ND	2.627
Propionaldehyde			NA	NA	NA	ND	ND
Crotonaldehyde			NA	NA	NA	ND	ND
Butyraldehyde			NA	NA	NA	ND	ND
Benzaldehyde			NA	NA	NA	ND	ND
Isovaleraldehyde			NA	NA	NA	ND	ND
Valeraldehyde			NA	NA	NA	ND	ND
o-Tolualdehyde			NA	NA	NA	ND	ND
m,p-Tolualdehyde			NA	NA	NA	ND	ND
Hexaldehyde			NA	NA	NA	ND	ND
2,5-Dimethylbenzaldehyde			NA	NA	NA	ND	ND

	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Formaldehyde			NA	NA	NA	ND	ND
Acetaldehyde			NA	NA	NA	ND	1.459
Propionaldehyde			NA	NA	NA	ND	ND
Crotonaldehyde			NA	NA	NA	ND	ND
Butyraldehyde			NA	NA	NA	ND	ND
Benzaldehyde			NA	NA	NA	ND	ND
Isovaleraldehyde			NA	NA	NA	ND	ND
Valeraldehyde			NA	NA	NA	ND	ND
o-Tolualdehyde			NA	NA	NA	ND	ND
m,p-Tolualdehyde			NA	NA	NA	ND	ND
Hexaldehyde			NA	NA	NA	ND	ND
2,5-Dimethylbenzaldehyde			NA	NA	NA	ND	ND

COLUMBIA ANALYTICAL SERVICES

TO11A Aldehyde & Ketone DNP Analysis by HPLC

Printed : 09/16/09

Instrument : LC#02
 Detector : UV-VIS 360
 Analyst : MD

Date Acquired : 09/10/09
 Sample Amount : 3ul
 Client & PAI Job# : EH & E P0903083

Sample Information	MDL	P0903083-004 back 1.0ml	P0903083-005 back 1.0ml	P0903083-006 back 1.0ml	P0903083-001 front 1.0ml	P0903083-002 front 1.0ml	P0903083-003 front 1.0ml	P0903083-004 front 1.0ml
Dilution	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Sample Volume (L)	NA	109.29	107.64	107.00	NA	104.50	103.95	109.29
Final Vol.(ml)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

	ng/sample	ng/sample	ng/sample	ng/sample	ng/sample	ng/sample	ng/sample	ng/sample
Formaldehyde	100.00	ND	ND	ND	ND	3137.472	3239.617	3650.049
Acetaldehyde	100.00	260.150 BT	356.484 BT	ND	ND	2187.660	2194.908	2299.436
Propionaldehyde	100.00	ND	ND	ND	ND	ND	265.258	216.409
Crotonaldehyde	100.00	ND	ND	ND	ND	ND	ND	ND
Butyraldehyde	100.00	ND	ND	ND	ND	ND	302.451	325.197
Benzaldehyde	100.00	ND	ND	ND	ND	564.070 M↑	649.508 M↑	764.441 M↑
Isovaleraldehyde	100.00	ND	ND	ND	ND	111.354	116.947	112.057
Valeraldehyde	100.00	ND	ND	ND	ND	774.198	849.957	860.062
o-Tolualdehyde	100.00	ND	ND	ND	ND	ND	ND	ND
m,p-Tolualdehyde	200.00	ND	ND	ND	ND	ND	ND	ND
Hexaldehyde	100.00	ND	ND	ND	ND	2753.886	3079.600	3219.012
2,5-Dimethylbenzaldehyde	100.00	ND	ND	ND	ND	ND	130.876	181.278

	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Formaldehyde		ND	ND	ND	ND	30.024	31.165	33.398
Acetaldehyde		2.380	3.312	ND	ND	20.935	21.115	21.040
Propionaldehyde		ND	ND	ND	ND	ND	2.552	1.980
Crotonaldehyde		ND	ND	ND	ND	ND	ND	ND
Butyraldehyde		ND	ND	ND	ND	ND	2.910	2.976
Benzaldehyde		ND	ND	ND	ND	5.398	6.248	6.995
Isovaleraldehyde		ND	ND	ND	ND	1.066	1.125	1.025
Valeraldehyde		ND	ND	ND	ND	7.409	8.177	7.870
o-Tolualdehyde		ND	ND	ND	ND	ND	ND	ND
m,p-Tolualdehyde		ND	ND	ND	ND	ND	ND	ND
Hexaldehyde		ND	ND	ND	ND	26.353	29.626	29.454
2,5-Dimethylbenzaldehyde		ND	ND	ND	ND	ND	1.259	1.659

	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Formaldehyde		ND	ND	ND	ND	24.455	25.385	27.203
Acetaldehyde		1.322	1.839	ND	ND	11.624	11.725	11.683
Propionaldehyde		ND	ND	ND	ND	ND	1.075	0.834
Crotonaldehyde		ND	ND	ND	ND	ND	ND	ND
Butyraldehyde		ND	ND	ND	ND	ND	0.987	1.009
Benzaldehyde		ND	ND	ND	ND	1.244	1.440	1.612
Isovaleraldehyde		ND	ND	ND	ND	0.303	0.319	0.291
Valeraldehyde		ND	ND	ND	ND	2.104	2.322	2.235
o-Tolualdehyde		ND	ND	ND	ND	ND	ND	ND
m,p-Tolualdehyde		ND	ND	ND	ND	ND	ND	ND
Hexaldehyde		ND	ND	ND	ND	6.436	7.235	7.193
2,5-Dimethylbenzaldehyde		ND	ND	ND	ND	ND	0.230	0.302

COLUMBIA ANALYTICAL SERVICES

TO11A Aldehyde & Ketone DNPH Analysis by HPLC

Instrument : LC#02
 Detector : UV-VIS 360
 Analyst : MD

Printed : 09/16/09
 Date Acquired : 09/10/09
 Sample Amount : 3ul
 Client & PAI Job# : EH & E P0903083

SAMPLE RESULT SUMMARY

Sample Information	MDL	MID CCV 1500ng/ml	% Diff	P0903083-005 front 1.0ml	P0903083-006 front 1.0ml	1500ng/ml TO- 11A S21- 09090903	% Diff
Dilution	1.0	1.0		1.0	1.0	1.0	
Sample Volume (L)	NA	NA		107.64	107.00	NA	
Final Vol.(ml)	1.0	1.0		1.0	1.0	1.0	

	ng/sample	ng/sample	% Diff	ng/sample	ng/sample	ng/sample	% Diff
Formaldehyde	100.00	1502.489	0.2%	3300.804	477.373	1498.830	0.1%
Acetaldehyde	100.00	1487.206	0.9%	2140.934	171.653	1495.062	0.3%
Propionaldehyde	100.00	1498.754	0.1%	185.569	ND	1480.592	1.3%
Crotonaldehyde	100.00	1486.885	0.9%	ND	ND	1487.835	0.8%
Butyraldehyde	100.00	1488.901	0.7%	298.837	ND	1478.552	1.4%
Benzaldehyde	100.00	1545.631	3.0%	533.443 M, ↑	ND	1493.249	0.5%
Isovaleraldehyde	100.00	1528.789	1.9%	109.273	ND	1469.588	2.0%
Valeraldehyde	100.00	1532.588	2.2%	783.292	ND	1464.060	2.4%
o-Tolualdehyde	100.00	1562.247	4.1%	ND	ND	1486.269	0.9%
m,p-Tolualdehyde	200.00	3125.057	4.2%	ND	ND	3020.275	0.7%
Hexaldehyde	100.00	1559.353	4.0%	2683.515	ND	1457.026	2.9%
2,5-Dimethylbenzaldehyde	100.00	1680.990	12.1%	ND	ND	1397.640	6.8%

	ug/m3	ug/m3	ug/m3
Formaldehyde		30.665	4.461
Acetaldehyde		19.890	1.604
Propionaldehyde		1.724	ND
Crotonaldehyde		ND	ND
Butyraldehyde		2.776	ND
Benzaldehyde		4.956	ND
Isovaleraldehyde		1.015	ND
Valeraldehyde		7.277	ND
o-Tolualdehyde		ND	ND
m,p-Tolualdehyde		ND	ND
Hexaldehyde		24.930	ND
2,5-Dimethylbenzaldehyde		ND	ND

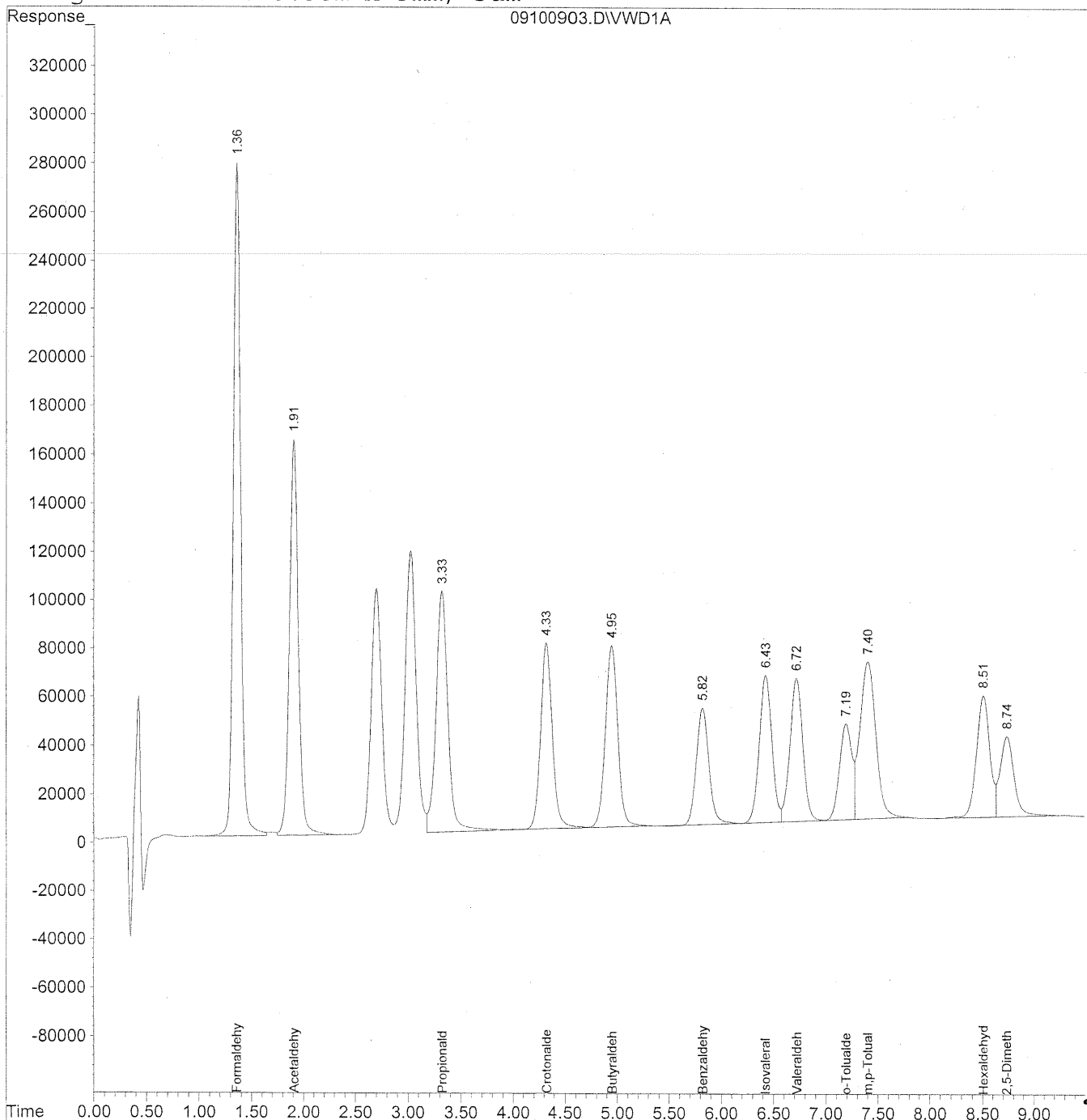
	ppb	ppb	ppb
Formaldehyde		24.977	3.634
Acetaldehyde		11.044	0.891
Propionaldehyde		0.726	ND
Crotonaldehyde		ND	ND
Butyraldehyde		0.942	ND
Benzaldehyde		1.142	ND
Isovaleraldehyde		0.288	ND
Valeraldehyde		2.067	ND
o-Tolualdehyde		ND	ND
m,p-Tolualdehyde		ND	ND
Hexaldehyde		6.088	ND
2,5-Dimethylbenzaldehyde		ND	ND

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100903.D Vial: 5
Acq On : 10-Sep-2009, 11:46 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 12:03 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100903.D Vial: 5
 Acq On : 10-Sep-2009, 11:46 Operator: MD
 Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 12:03 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Thu Sep 10 12:03:26 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Handwritten notes:
 HU 9/17/09
 (ML) 9/16/09

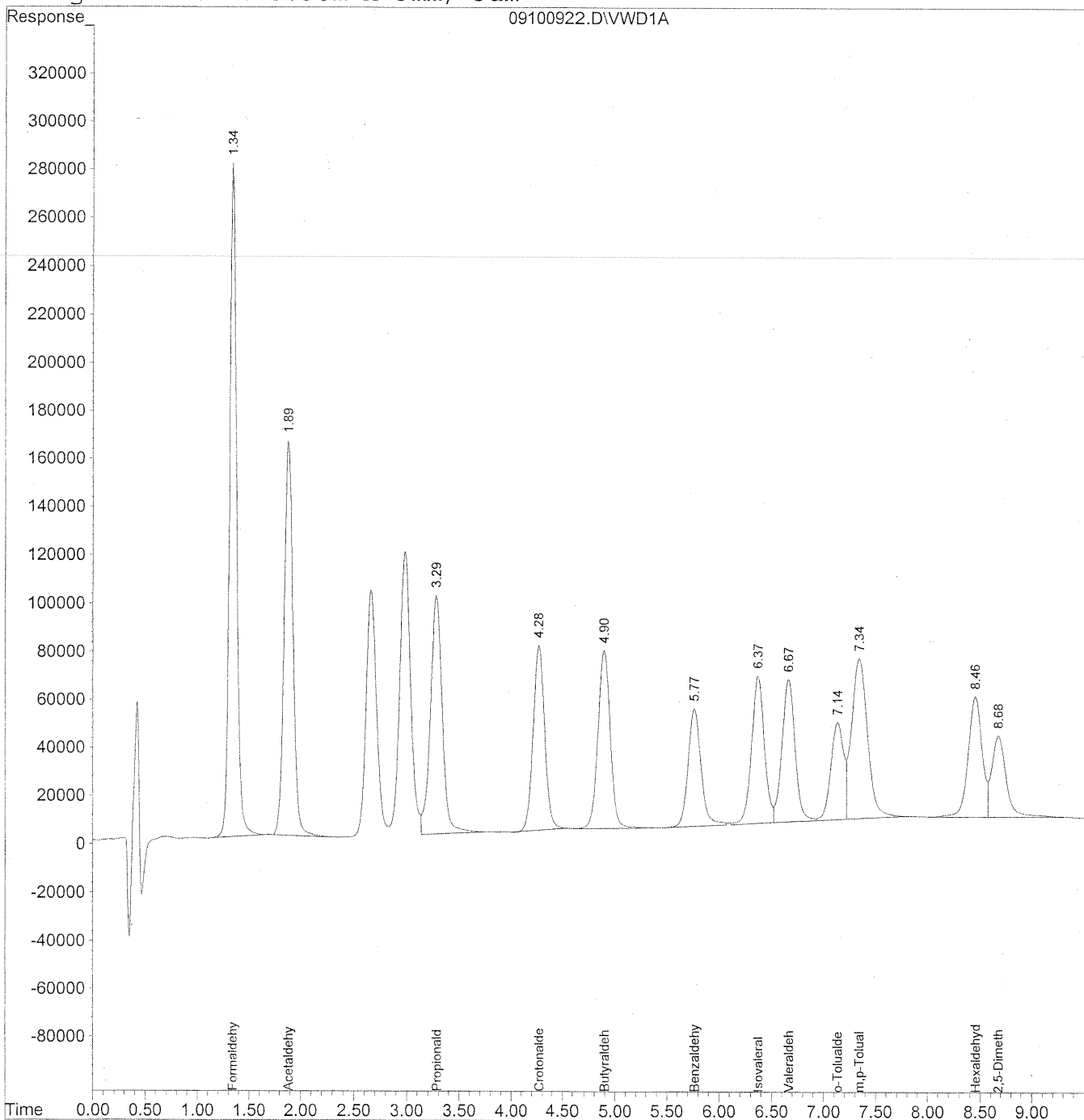
Compound	R.T.	Response	Conc	Units
Target Compounds				
1) Formaldehyde	1.36	13530544	1514.258	ng/ml
2) Acetaldehyde	1.91	9838949	1513.499	ng/ml
3) Propionaldehyde	3.33	7882752	1516.549	ng/ml
4) Crotonaldehyde	4.33	6165999	1518.880	ng/ml
5) Butyraldehyde	4.95	6143746	1515.938	ng/ml
6) Benzaldehyde	5.83	3990243	1462.497	ng/ml
7) Isovaleraldehyde	6.43	5070890	1473.330	ng/ml
8) Valeraldehyde	6.73	5039042	1482.228	ng/ml
9) o-Tolualdehyde	7.20	3264861	1487.705	ng/ml
10) m,p-Tolualdehyde	7.41	6962781	3031.354	ng/ml
11) Hexaldehyde	8.51	4477796	1512.399	ng/ml
12) 2,5-Dimethylbenzaldehyde	8.74	3173768	1590.469	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100922.D Vial: 10
Acq On : 10-Sep-2009, 15:27 Operator: MD
Sample : MID CCV 1500ng/ml Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 10 15:45 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100922.D Vial: 10
 Acq On : 10-Sep-2009, 15:27 Operator: MD
 Sample : MID CCV 1500ng/ml Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 10 15:45 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Thu Sep 10 12:03:26 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

Compound	R.T.	Response	Conc	Units

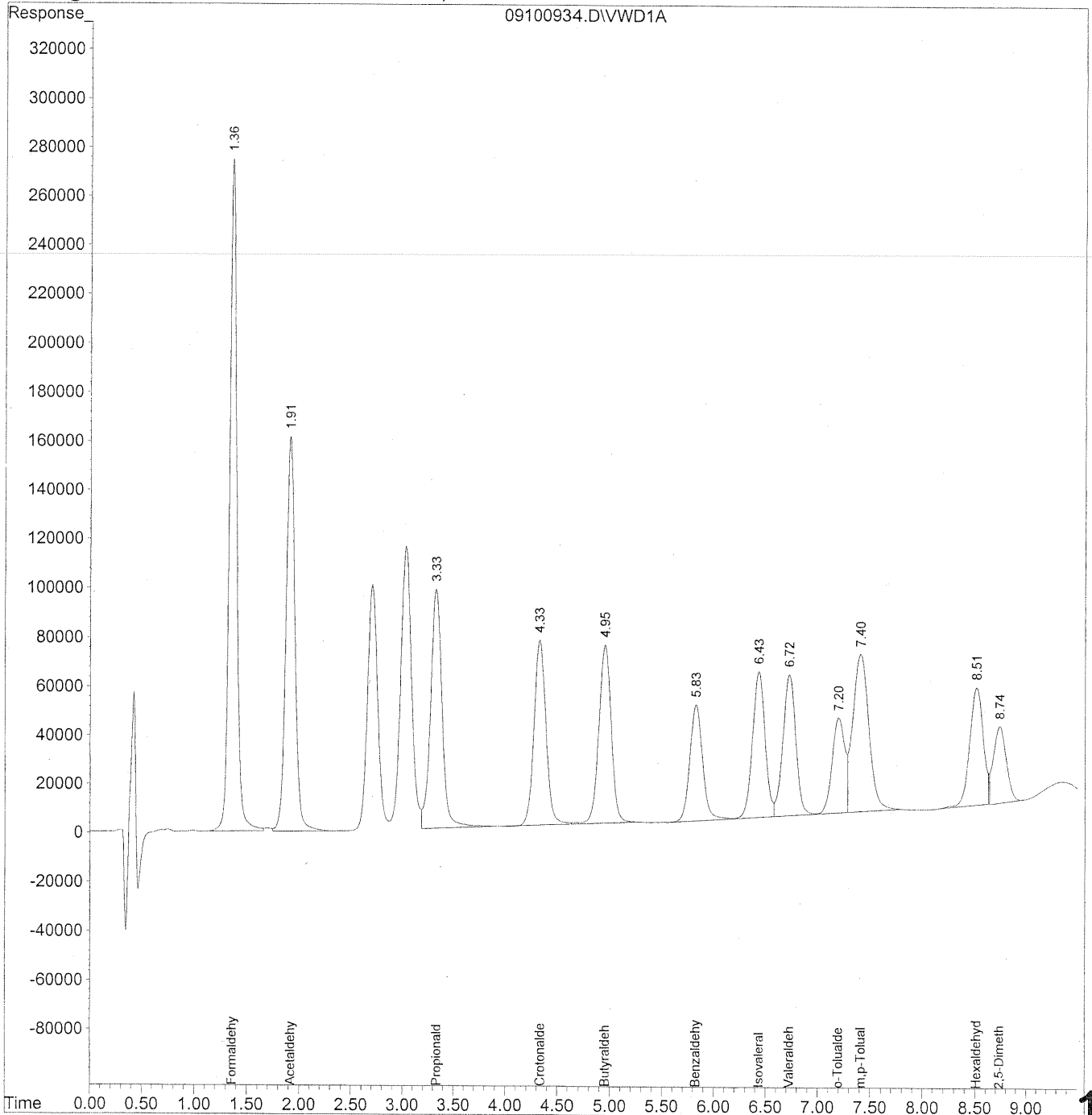
Target Compounds				
1) Formaldehyde	1.35	13425388	1502.489	ng/ml
2) Acetaldehyde	1.89	9668026	1487.206	ng/ml
3) Propionaldehyde	3.29	7790258	1498.754	ng/ml
4) Crotonaldehyde	4.28	6036117	1486.885	ng/ml
5) Butyraldehyde	4.90	6034169	1488.901	ng/ml
6) Benzaldehyde	5.77	4217064	1545.631	ng/ml
7) Isovaleraldehyde	6.38	5261767	1528.789	ng/ml
8) Valeraldehyde	6.67	5210248	1532.588	ng/ml
9) o-Tolualdehyde	7.14	3428448	1562.247	ng/ml
10) m,p-Tolualdehyde	7.35	7178010	3125.057	ng/ml
11) Hexaldehyde	8.46	4616815	1559.353	ng/ml
12) 2,5-Dimethylbenzaldehyde	8.68	3354402	1680.990	ng/ml

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100934.D Vial: 10
Acq On : 11-Sep-2009, 08:19 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 16 11:03 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Thu Sep 10 12:03:26 2009
Response via : Multiple Level Calibration
DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
Signal Phase : Supelcosil LC-18
Signal Info : 3.3cm x 3mm, 3um



Data File : J:\LC02\DATA\TO11A\2009_09\10\09100934.D Vial: 10
 Acq On : 11-Sep-2009, 08:19 Operator: MD
 Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Sep 16 11:03 19109 Quant Results File: TO110909.RES

Quant Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
 Title : LC-1050 TO-11A ICAL
 Last Update : Thu Sep 10 12:03:26 2009
 Response via : Initial Calibration
 DataAcq Meth : TO-11A.M

Volume Inj. : 3uL
 Signal Phase : Supelcosil LC-18
 Signal Info : 3.3cm x 3mm, 3um

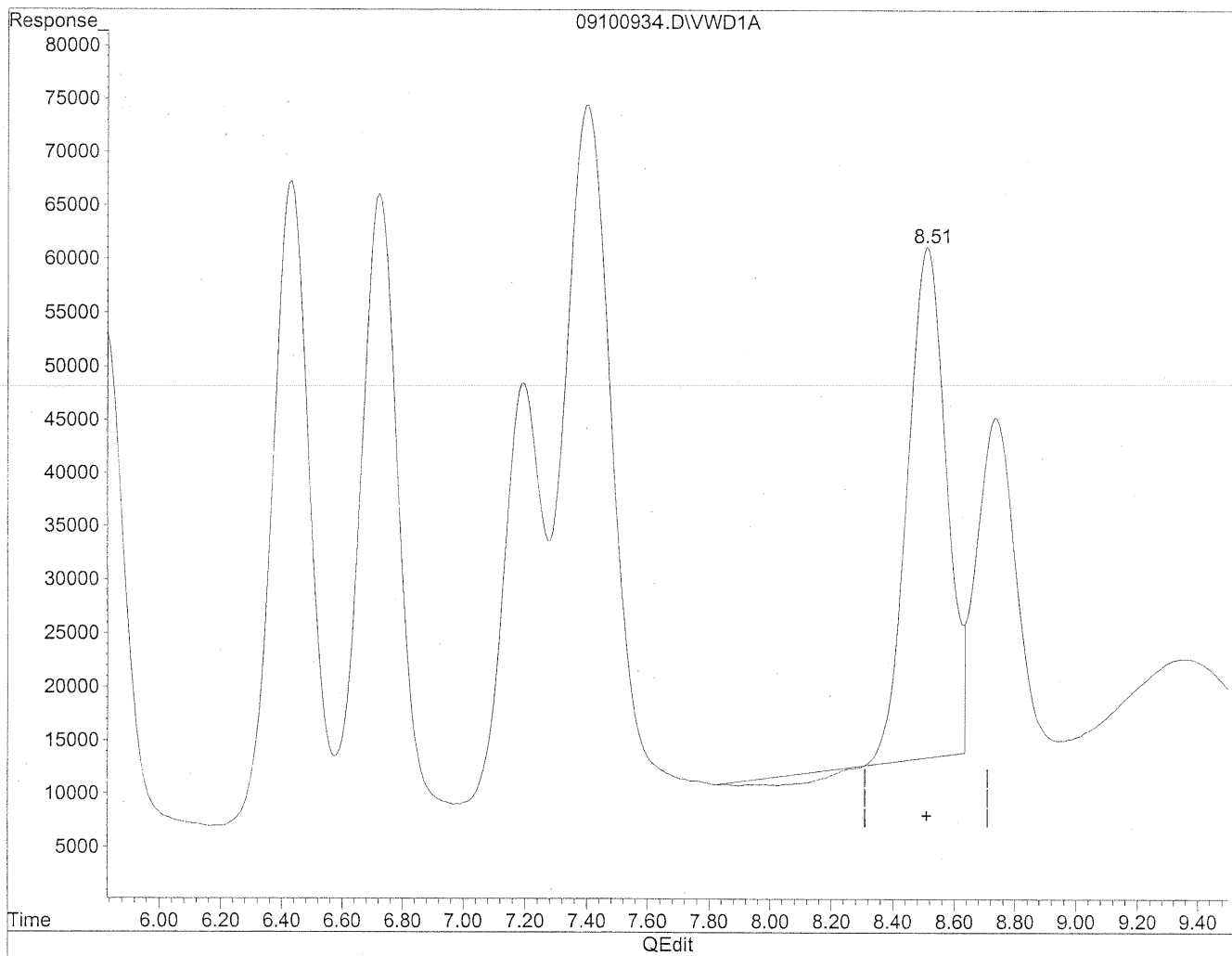
Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Formaldehyde	1.36	13392690	1498.830	ng/ml
2) Acetaldehyde	1.92	9719094	1495.062	ng/ml
3) Propionaldehyde	3.33	7695858	1480.592	ng/ml
4) Crotonaldehyde	4.34	6039973	1487.835	ng/ml
5) Butyraldehyde	4.95	5992226	1478.552	ng/ml
6) Benzaldehyde	5.83	4074146	1493.249	ng/ml
7) Isovaleraldehyde	6.43	5058009	1469.588	ng/ml
8) Valeraldehyde	6.73	4977278	1464.060	ng/ml
9) o-Tolualdehyde	7.20	3261709	1486.269	ng/ml
10) m,p-Tolualdehyde	7.41	6937334	3020.275	ng/ml
11) Hexaldehyde	8.51	4313852	1457.026	ng/mlm
12) 2,5-Dimethylbenzaldehyde	8.74	2788980	1397.640	ng/mlm

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100934.D Vial: 10
Acq On : 11-Sep-2009, 08:19 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 11 8:29 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration

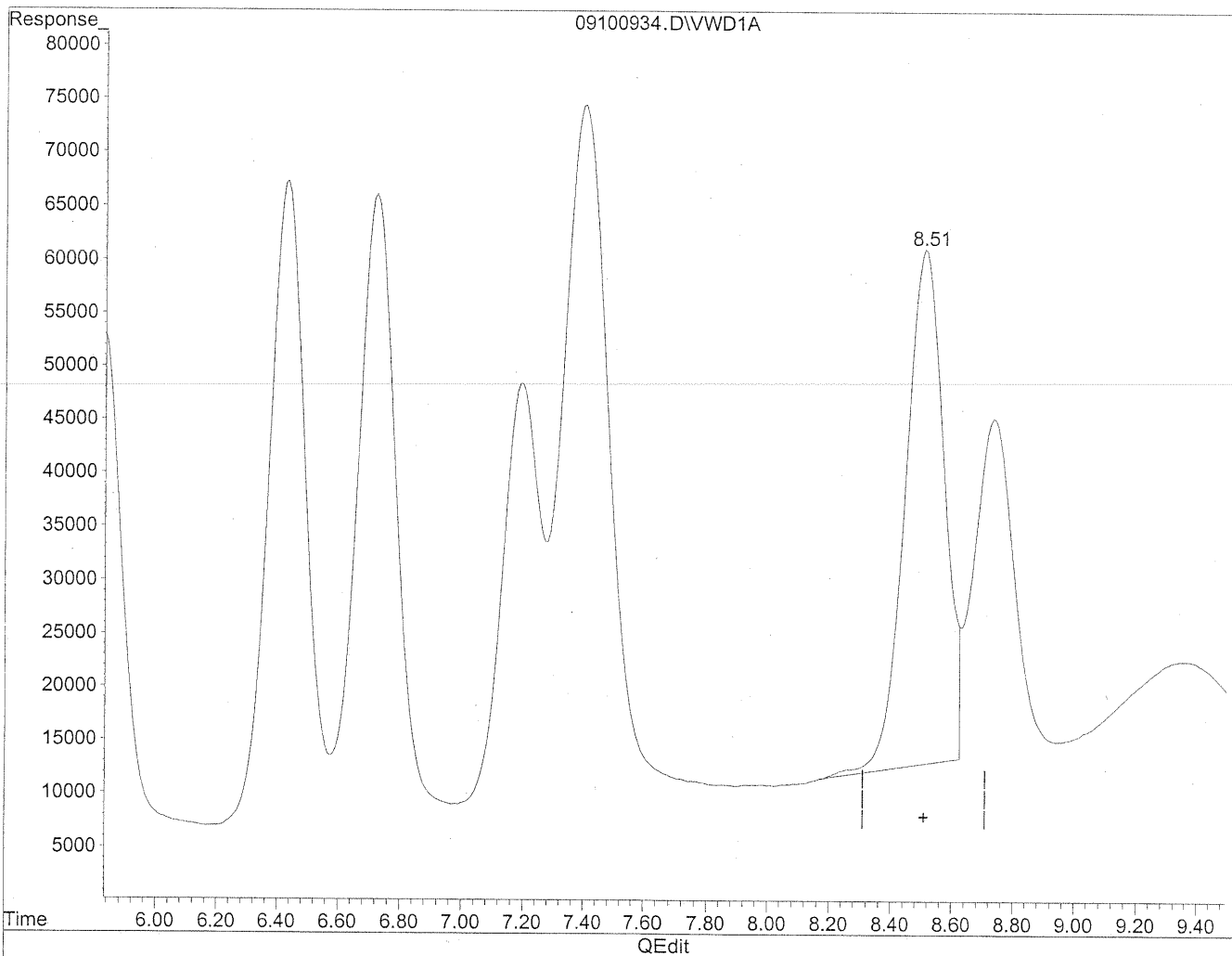


(11) Hexaldehyde
8.51min 1357.686ng/ml
response 4019734

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100934.D Vial: 10
Acq On : 11-Sep-2009, 08:19 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 11 8:29 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration



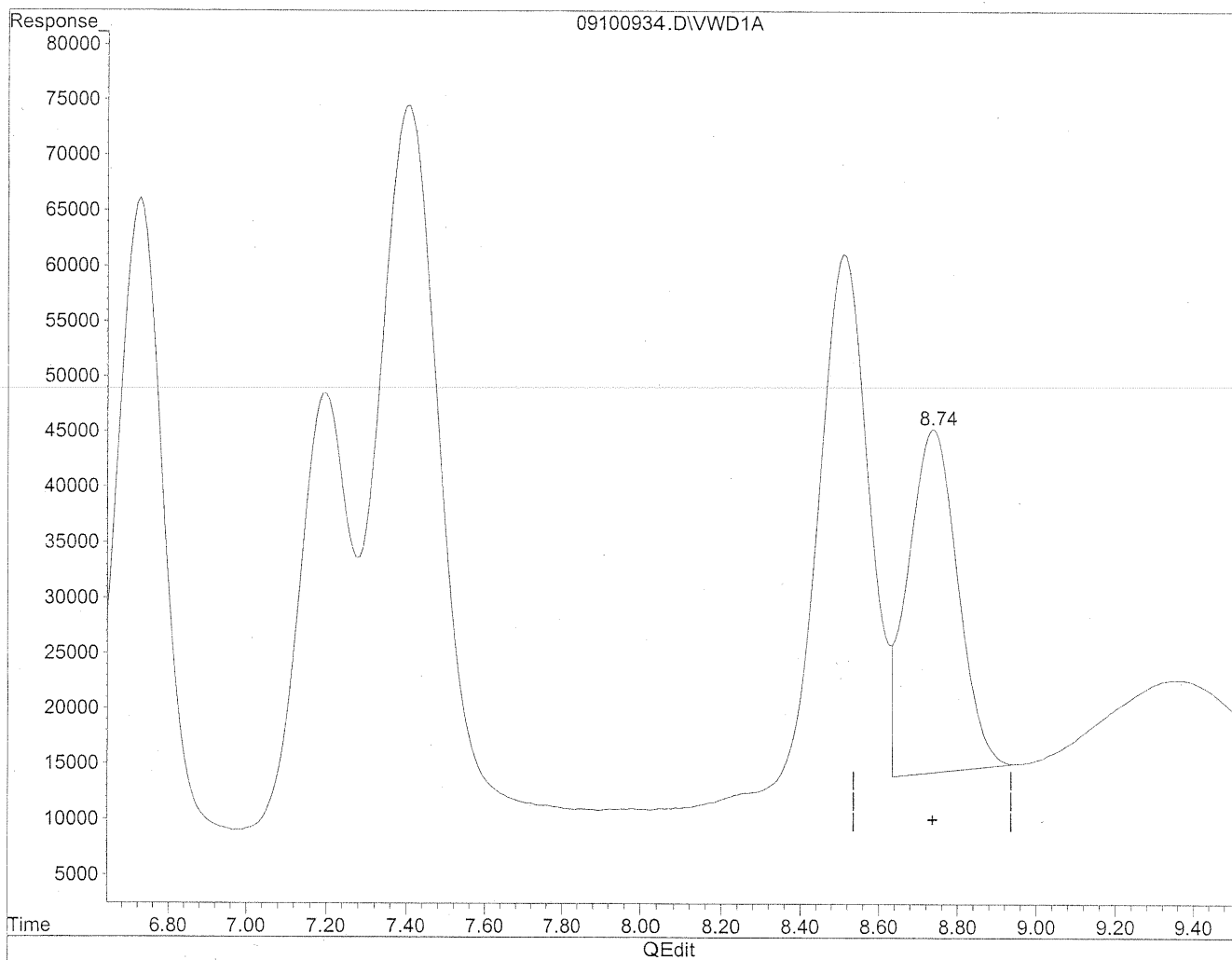
(11) Hexaldehyde
8.51min 1457.026ng/ml m
response 4313852

MD
9/16/09
PC
HC
9/17/09

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100934.D Vial: 10
Acq On : 11-Sep-2009, 08:19 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 11 8:29 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde

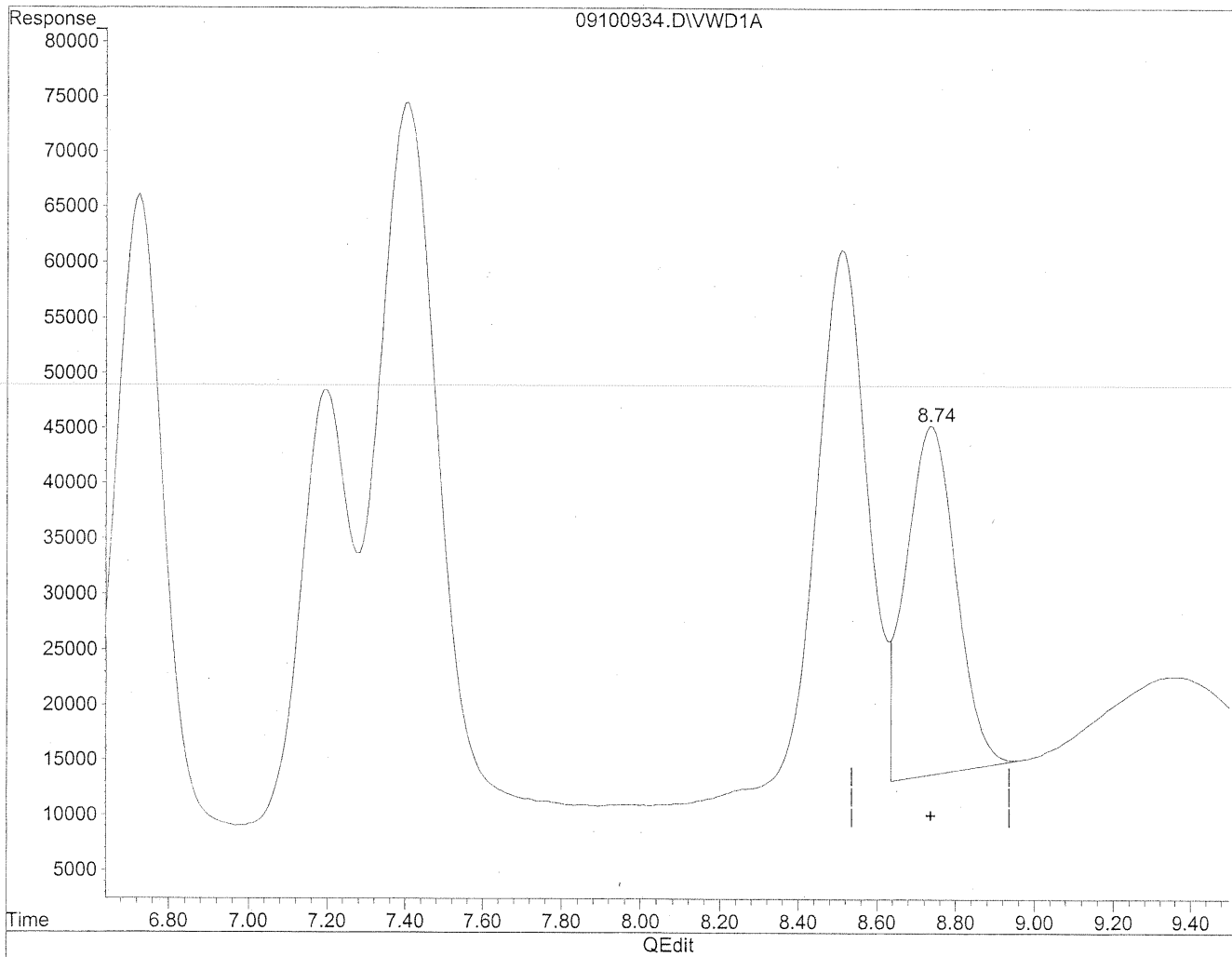
8.74min 1376.566ng/ml

response 2746926

Quantitation Report

Data File : J:\LC02\DATA\TO11A\2009_09\10\09100934.D Vial: 10
Acq On : 11-Sep-2009, 08:19 Operator: MD
Sample : 1500ng/ml TO-11A S21-09090903 Inst : VWD
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 11 8:29 19109 Quant Results File: TO110909.RES

Method : J:\LC02\METHODS\TO110909.M (Chemstation Integrator)
Title : LC-1050 TO-11A ICAL
Last Update : Tue Sep 15 09:56:03 2009
Response via : Multiple Level Calibration



(12) 2,5-Dimethylbenzaldehyde
8.74min 1397.640ng/ml m
response 2788980

MD
9/16/09
12

AC
9/17/09

RUN LOGS

Injection Log

Directory: j:\lc02\data\to11a\2009_09\09

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
		09090901.d	1.			
		09090902.d	1.			
	102	09090903.d	1.	TO11 STD TEST		09-Sep-09, 12:4
	102	09090904.d	1.	TO11 STD TEST		09-Sep-09, 12:5
	10	09090905.d	1.	TO11 STD TEST		09-Sep-09, 26:1
	10	09090906.d	1.	TO11 STD TEST		09-Sep-09, 26:3
	10	09090907.d	1.	ACN BLANK Lot CY331		09-Sep-09, 27:0
	9	09090908.d	1.	50ng/ml TO-11A S21-09080905		09-Sep-09, 27:2
	9	09090909.d	1.	50ng/ml TO-11A S21-09080905		09-Sep-09, 27:3
0	9	09090910.d	1.	50ng/ml TO-11A S21-09080905		09-Sep-09, 27:4
1	8	09090911.d	1.	100ng/ml TO-11A S21-09080904		09-Sep-09, 27:5
2	8	09090912.d	1.	100ng/ml TO-11A S21-09080904		09-Sep-09, 28:0
3	8	09090913.d	1.	100ng/ml TO-11A S21-09080904		09-Sep-09, 28:1
4	7	09090914.d	1.	500ng/ml TO-11A S21-09080903		09-Sep-09, 28:2
5	7	09090915.d	1.	500ng/ml TO-11A S21-09080903		09-Sep-09, 28:4
6	7	09090916.d	1.	500ng/ml TO-11A S21-09080903		09-Sep-09, 28:5
7	6	09090917.d	1.	1500ng/ml TO-11A S21-09090903		09-Sep-09, 29:0
8	6	09090918.d	1.	1500ng/ml TO-11A S21-09090903		09-Sep-09, 29:1
9	6	09090919.d	1.	1500ng/ml TO-11A S21-09090903		09-Sep-09, 29:2
10	5	09090920.d	1.	5000ng/ml TO-11A S21-09080902		09-Sep-09, 29:3
11	5	09090921.d	1.	5000ng/ml TO-11A S21-09080902		09-Sep-09, 29:4
12	5	09090922.d	1.	5000ng/ml TO-11A S21-09080902		09-Sep-09, 30:0
13	4	09090923.d	1.	10000ng/ml TO-11A S21-09080901		09-Sep-09, 30:1
14	4	09090924.d	1.	10000ng/ml TO-11A S21-09080902		09-Sep-09, 30:2
15	4	09090925.d	1.	10000ng/ml TO-11A S21-09080902		09-Sep-09, 30:3
16	3	09090926.d	1.	~1500ng/ml TO-11A ICV S21-07270907		09-Sep-09, 30:4
17	3	09090927.d	1.	~1500ng/ml TO-11A ICV S21-07270907		09-Sep-09, 30:5
18	3	09090928.d	1.	~1500ng/ml TO-11A ICV S21-07270907		09-Sep-09, 31:0

> injected ICV 3x
by mistake (MK)
9/10/09

Injection Log

Directory: j:\lc02\data\to11a\2009_09\10

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	5	09100901.d	1.	prime		10-Sep-09, 23:2
2	5	09100902.d	1.	prime		10-Sep-09, 23:3
3	5	09100903.d	1.	1500ng/ml TO-11A S21-09090903		10-Sep-09, 23:4
4	10	09100904.d	1.	ACN blank lot CY331		10-Sep-09, 23:5
5	9	09100905.d	1.	MB front 1.0ml lot 5855/5994		10-Sep-09, 12:0
6	8	09100906.d	1.	MB back 1.0ml lot 5855/5994		10-Sep-09, 12:2
7	7	09100907.d	1.	P0903083-001 back 1.0ml		10-Sep-09, 12:3
8	6	09100908.d	1.	P0903083-002 back 1.0ml		10-Sep-09, 12:4
9	5	09100909.d	1.	P0903083-003 back 1.0ml		10-Sep-09, 12:5
10	4	09100910.d	1.	P0903083-004 back 1.0ml		10-Sep-09, 25:0
11	3	09100911.d	1.	P0903083-005 back 1.0ml		10-Sep-09, 25:1
12	2	09100912.d	1.	P0903083-006 back 1.0ml		10-Sep-09, 25:2
13	101	09100913.d	1.	P0903083-001 front 1.0ml		10-Sep-09, 25:4
14	102	09100914.d	1.	P0903083-002 front 1.0ml		10-Sep-09, 25:5
15	103	09100915.d	1.	P0903083-003 front 1.0ml		10-Sep-09, 26:0
16	104	09100916.d	1.	P0903083-004 front 1.0ml		10-Sep-09, 26:1
17	10	09100917.d	1.	x MID CCV 1500ng/ml	} not used	10-Sep-09, 26:2
18	105	09100918.d	1.	x P0903083-005 front 1.0ml		10-Sep-09, 26:4
19	106	09100919.d	1.	x P0903083-006 front 1.0ml		10-Sep-09, 26:5
20	11	09100920.d	1.	ACN blank		10-Sep-09, 27:0
21	11	09100921.d	1.	ACN blank		10-Sep-09, 27:1
22	10	09100922.d	1.	MID CCV 1500ng/ml		10-Sep-09, 27:2
23	105	09100923.d	1.	P0903083-005 front 1.0ml		10-Sep-09, 27:3
24	106	09100924.d	1.	P0903083-006 front 1.0ml		10-Sep-09, 27:5
25	107	09100925.d	1.	P0903085-001 back 1.0ml		10-Sep-09, 28:0
26	108	09100926.d	1.	P0903085-002 back 1.0ml		10-Sep-09, 28:1
27	109	09100927.d	1.	P0903085-003 back 1.0ml		10-Sep-09, 28:2
28	110	09100928.d	1.	P0903085-004 back 1.0ml		10-Sep-09, 28:4
29	111	09100929.d	1.	P0903085-005 back 1.0ml		10-Sep-09, 28:5
30	112	09100930.d	1.	P0903085-006 back 1.0ml		10-Sep-09, 29:0
31	113	09100931.d	1.	P0903085-001 front 1.0ml		10-Sep-09, 29:1
32	114	09100932.d	1.	P0903085-002 front 1.0ml		11-Sep-09, 19:5
33	10	09100933.d	1.	1500ng/ml TO-11A S21-09090903	- Not used	11-Sep-09, 20:0
34	10	09100934.d	1.	1500ng/ml TO-11A S21-09090903	- OK, good to use	11-Sep-09, 20:1
35	11	09100935.d	1.	ACN blank lot CY331		11-Sep-09, 20:3
36	115	09100936.d	1.	MB-2 front 1.0ml lot 5855/5994		11-Sep-09, 20:4
37	116	09100937.d	1.	MB-2 back 1.0ml lot 5855/5994		11-Sep-09, 20:5
38	117	09100938.d	1.	P0903085-003 front 1.0ml		11-Sep-09, 21:0
39	118	09100939.d	1.	P0903085-004 front 1.0ml		11-Sep-09, 21:1
40	119	09100940.d	1.	P0903085-005 front 1.0ml		11-Sep-09, 21:3
41	120	09100941.d	1.	x- P0903085-006 front 1.0ml	- Not used	11-Sep-09, 21:4
42	121	09100942.d	1.	P0903086-001 back 1.0ml		11-Sep-09, 21:5
43	122	09100943.d	1.	P0903086-002 back 1.0ml		11-Sep-09, 22:0
44	123	09100944.d	1.	P0903086-003 back 1.0ml		11-Sep-09, 22:1
45	124	09100945.d	1.	P0903086-004 back 1.0ml		11-Sep-09, 22:3
46	125	09100946.d	1.	P0903086-005 back 1.0ml		11-Sep-09, 22:4
47	120	09100947.d	1.	P0903085-006 front 1.0ml	- Re-run, good to use	11-Sep-09, 22:5
48	10	09100948.d	1.	x MID CCV 1500ng/ml	- Not used	11-Sep-09, 23:0
49	10	09100949.d	1.	MID CCV 1500ng/ml		11-Sep-09, 23:1
50	126	09100950.d	1.	P0903086-001 front 1.0ml		11-Sep-09, 23:3
51	127	09100951.d	1.	P0903086-002 front 1.0ml		11-Sep-09, 23:4
52	128	09100952.d	1.	P0903086-003 front 1.0ml		11-Sep-09, 23:5
53	129	09100953.d	1.	P0903086-004 front 1.0ml		11-Sep-09, 12:0
54	130	09100954.d	1.	P0903086-005 front 1.0ml		11-Sep-09, 12:1
55	11	09100955.d	1.	acn blank		11-Sep-09, 12:3
56	10	09100956.d	1.	1500ng/ml TO-11A S21-09090903		11-Sep-09, 12:4
57	11	09100957.d	1.	ACN blank lot CY331		11-Sep-09, 12:5

Injection Log

Directory: j:\lc02\data\to11a\2009_09\10

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
58	131	09100958.d	1.	MB-3 front 1.0ml lot 5855/5994		11-Sep-09, 25:0
59	132	09100959.d	1.	MB-3 back 1.0ml lot 5855/5994		11-Sep-09, 25:1
60	133	09100960.d	1.	P0903011-001 back 1.0ml		11-Sep-09, 25:2
61	134	09100961.d	1.	P0903011-002 back 1.0ml		11-Sep-09, 25:4
62	135	09100962.d	1.	P0903011-003 back 1.0ml		11-Sep-09, 25:5
63	136	09100963.d	1.	P0903011-004 back 1.0ml		11-Sep-09, 26:0
64	137	09100964.d	1.	P0903011-005 back 1.0ml		11-Sep-09, 26:1
65	138	09100965.d	1.	P0903011-006 back 1.0ml		11-Sep-09, 26:2
66	139	09100966.d	1.	P0903011-007 back 1.0ml		11-Sep-09, 26:4
67	140	09100967.d	1.	P0903011-008 back 1.0ml		11-Sep-09, 26:5
68	141	09100968.d	1.	P0903011-009 back 1.0ml		11-Sep-09, 27:0
69	142	09100969.d	1.	P0903011-010 back 1.0ml		11-Sep-09, 27:1
70	10	09100970.d	1.	MID CCV 1500ng/ml		11-Sep-09, 27:2
71	143	09100971.d	1.	P0903011-011 back 1.0ml		11-Sep-09, 27:4
72	144	09100972.d	1.	P0903011-012 back 1.0ml		11-Sep-09, 27:5
73	9	09100973.d	1.	P0903086-002 front 10x dil		11-Sep-09, 28:0
74	8	09100974.d	1.	P0903086-003 front 10x dil		11-Sep-09, 28:1
75	7	09100975.d	1.	P0903086-004 front 10x dil		11-Sep-09, 28:2
76	10	09100976.d	1.	1500ng/ml end std		11-Sep-09, 28:3