

Atmospheric Analysis & Consulting, Inc.

Client : SWAPE
Client Project Name : Bridgeton Sanitary Landfill Air Quality Assessment
Client Project No. : NA
AAC Project No. : 130528
Reporting Date : 05/10/2013

On May 2, 2013, Atmospheric Analysis & Consulting, Inc. received four (4) DNPH impregnated silica gel cartridges for Carbonyls analysis by EPA Method TO-11A. Upon receipt the samples were assigned unique Laboratory ID numbers as follows:

Client ID	AAC Sample ID
U-1 W5-DNPH	130528-62753
U-2 W8-DNPH	130528-62754
D-1 W9-DNPH	130528-62755
D-2 W2-DNPH	130528-62756

TO-11A - HPLC/UV analysis - A 10 μ L aliquot of the extract was analyzed by HPLC/UV following the analytical protocols of EPA Method TO-11A as specified in the SOW. Holding times for preparation and analysis were complied with.

No problems were encountered during the receipt, preparation, and/or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# TO.11.09.

I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized release of the data contained in this hardcopy data package.

If you have any questions or require further explanation of data results, please contact the undersigned.

Marcus Hueppe
Laboratory Director

This report consists of 52 pages.

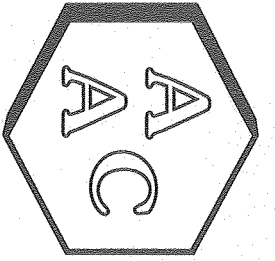


Log of Air Samples Collected on May 1, 2013
 Bridgeton Sanitary Landfill Air Quality Assessment

Sample Name	Parameter	Tube	Description	Location	Start Time (24-Hour)	Start Flow (L/min)	End Time (24-Hour)	End Flow (L/min)	Flow Rate (L/min)	Run Time (mins)	Volume (Liters)	Notes
U-1 W5-DNPH	Aldehydes	226-120	Off-site Ambient		8:30	1.003	12:30	0.818	0.911	240	219	
U-2 W8-DNPH	Aldehydes	226-120	Off-site Ambient		9:50	1.009	13:50	0.975	0.992	240	238	
D-1 W9-DNPH	Aldehydes	226-120	Off-site Ambient		9:30	1.015	13:30	1.002	1.009	240	242	
D-2 W2-DNPH	Aldehydes	226-120	Off-site Ambient		9:48	1.001	13:49	0.98	0.991	241	239	

NOTES:

Results



Atmospheric Analysis & Consulting, Inc.


LABORATORY ANALYSIS REPORT Analysis of Carbonyls by EPA Method TO-11A

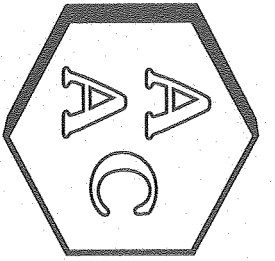
Client : SWAPE
 Client Project Name : Bridgetown Sanitary Landfill Air Quality Assessment
 AAC Project No. : 130528
 Analyst : HP/EG
 Units : ppbv

Sampling Date (s) : 05/01/2013
 Receiving Date : 05/02/2013
 Analysis Date : 05/09/2013
 Reporting Date : 05/10/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 W5-DNPH	130528-62753	2.14	0.995	<SRL	2.23	<SRL	3.23	<SRL	0.485	0.127	<SRL	0.144	<SRL
	SRL	0.279	0.190	0.149	0.144	0.144	0.119	0.119	0.116	0.079	0.097	0.070	0.084
U-2 W8-DNPH	130528-62754	11.2	5.23	<SRL	2.72	2.79	2.68	<SRL	5.84	1.32	10.8	2.95	34.1
	SRL	0.257	0.175	0.137	0.133	0.133	0.110	0.110	0.107	0.073	0.089	0.064	0.154
D-1 W9-DNPH	130528-62755	2.28	0.891	<SRL	2.57	<SRL	2.98	<SRL	0.487	<SRL	<SRL	0.321	<SRL
	SRL	0.252	0.172	0.135	0.130	<SRL	0.108	0.108	0.105	0.071	0.088	0.063	0.076
D-2 W2-DNPH	130528-62756	5.35	2.73	<SRL	3.42	1.28	3.17	0.129	2.67	0.494	3.86	1.32	12.7
	SRL	0.253	0.173	0.136	0.131	0.131	0.109	0.109	0.106	0.072	0.088	0.063	0.076

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)


 Marcus Hueppe
 Laboratory Director



Atmospheric Analysis & Consulting, Inc.

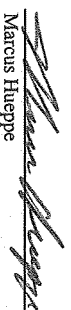
LABORATORY ANALYSIS REPORT Analysis of Carbonyls by EPA Method TO-11A

Client : SWAPE
 Client Project Name : Bridgetown Sanitary Landfill Air Quality Assessment
 AAC Project No. : 130528
 Analyst : HP/EG
 Units : ug/m³

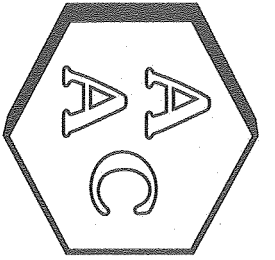
Sampling Date (s) : 05/01/2013
 Receiving Date : 05/02/2013
 Analysis Date : 05/09/2013
 Reporting Date : 05/10/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 W5-DNPH	130528-62753	2.63	1.79	<SRL	5.30	<SRL	9.26	<SRL	1.43	0.552	<SRL	0.708	<SRL
SRL		0.342	0.342	0.342	0.342	0.342	0.342	0.342	0.342	0.342	0.342	0.342	0.342
U-2 W8-DNPH	130528-62754	13.8	9.42	<SRL	6.47	6.64	7.67	<SRL	17.2	5.75	38.0	14.5	139
SRL		0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.630
D-1 W9-DNPH	130258-62755	2.80	1.61	<SRL	6.10	<SRL	8.55	<SRL	1.44	<SRL	<SRL	1.58	<SRL
SRL		0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310
D-2 W2-DNPH	130258-62756	6.63	4.96	<SRL	8.19	3.08	9.17	0.372	7.94	2.16	13.7	6.36	52.3
SRL		0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)


 Marcus Hueppe
 Laboratory Director

QA/QC Summary



Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report TO-11A

HPLC Calibration Verification of the 01/16/2013 Calibration

Analysis Date : 05/09/2013
Analyst : HPI/EG

Instrument ID : HPLC 01

Opening CCV

Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.62	2.61	2.63	2.58	2.60	2.60	2.60	5.19	2.59	2.59	2.56	2.55
Accuracy (%)*	105	104	105	103	104	104	104	104	104	104	102	102

Continuing CCV

Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.58	2.60	2.64	2.57	2.60	2.61	2.63	5.17	2.63	2.55	2.49	2.54
Accuracy (%)*	103	104	106	103	104	104	105	103	105	102	99.6	102

Closing CCV

Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.56	2.58	2.60	2.56	2.57	2.59	2.58	5.16	2.67	2.57	2.56	2.55
Accuracy (%)*	102	103	104	102	103	104	103	103	107	103	102	102

Second Source

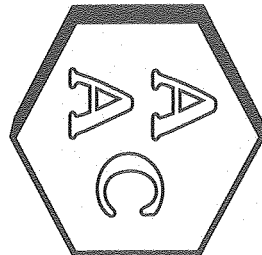
Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.58	2.58	2.62	2.56	2.54	2.56	2.57	5.12	2.52	2.57	2.54	2.58
Accuracy (%)*	103	103	105	102	102	102	103	102	101	103	102	103

Second Source

Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.55	2.56	2.59	2.53	2.55	2.55	2.56	5.07	2.54	2.56	2.54	2.51
Accuracy (%)*	102	102	104	101	102	102	102	101	102	102	102	100

*Must be 100 ± 10%

Marcus Hueppe
 Marcus Hueppe
 Laboratory Director



Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report TO-11A Laboratory Control Spike Analysis

Analysis Date : 05/09/2013

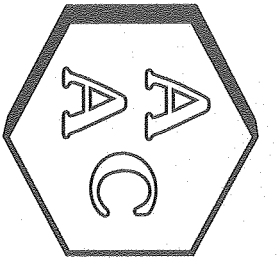
Analyst : HP/EG

Instrument ID : HPLC 01

Analytes	Formaldehyde (ug/ml)	Acetaldehyde (ug/ml)	Acrolein (ug/ml)	Acetone (ug/ml)	Propionaldehyde (ug/ml)	Crotonaldehyde (ug/ml)	Methacrolein (ug/ml)	MEK & Butyraldehyde (ug/ml)	Benzaldehyde (ug/ml)	Valeraldehyde (ug/ml)	m-Tolualdehyde (ug/ml)	Hexanaldehyde (ug/ml)
Sample Concentration (ug/ml)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Spike Concentration (ug/ml)	0.379	0.379	0.379	0.379	0.379	0.379	0.379	0.758	0.379	0.379	0.379	0.379
Spiked Sample Concentration (ug/ml)	0.363	0.367	0.382	0.366	0.375	0.377	0.413	0.689	0.365	0.369	0.365	0.377
Spike Recovery (%)*	95.9	97.0	101	96.6	98.9	100	109	91.0	96.3	97.4	96.4	100

*Must be 100 ± 15%


Marcus Hueppe
Laboratory Director



Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report TO-11A Matrix Spike Analysis


Analysis Date : 05/09/2013

Analyst : HP/EG

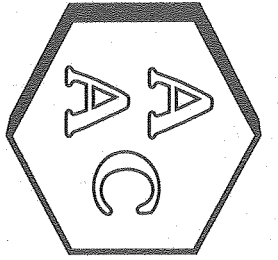
Instrument ID : HPLC 01

Sample ID	130528-62753											
Analytes	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crabonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
Sample Concentration (ug/mL)	0.096	0.065	0.000	0.194	0.009	0.338	0.009	0.052	0.020	0.003	0.026	0.007
Spike Concentration (ug/mL)	1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.50	1.25	1.25	1.25	1.25
Spiked Sample Concentration (ug/mL)	1.38	1.32	1.29	1.47	1.28	1.57	1.42	2.42	1.25	1.30	1.31	1.27
Duplicate Spiked Sample Concentration (ug/mL)	1.43	1.36	1.33	1.50	1.31	1.63	1.46	2.49	1.28	1.34	1.33	1.31
Spike Recovery (%)*	103	100	103	102	102	98.6	113	94.7	98.4	104	103	101
Duplicate Spike Recovery (%)*	107	104	106	105	104	103	116	97.5	101	107	104	104
RPD**	3.6	3.0	3.1	2.0	2.3	3.7	2.8	2.9	2.4	3.0	1.5	3.1

* Must be 100± 25%
** Must be ≤ 25%


 Marcus Hueppe
 Laboratory Director





Atmospheric Analysis & Consulting, Inc.


Quality Control/Quality Assurance Report TO-11A Duplicate Analysis

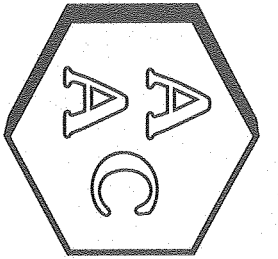
Analysis Date : 05/09/2013
Analyst : HP/EG

Instrument ID : HPLC 01

Analyte	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Glutaraldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolaldehyde (ug/mL)	Hexaldehyde (ug/mL)
Sample ID	130528-62753											
Sample Concentration (ug/mL)	0.192	0.131	ND	0.387	<RL	0.676	<RL	0.105	0.040	<RL	0.052	<RL
Duplicate Sample Concentration (ug/mL)	0.189	0.127	ND	0.379	<RL	0.649	<RL	0.105	0.038	<RL	0.051	<RL
RPD**	1.7	2.6	NA	2.2	NA	4.1	NA	0.6	6.4	NA	2.0	NA
Sample ID	130528-62755											
Sample Concentration (ug/mL)	0.226	0.130	<RL	0.492	<RL	0.690	<RL	0.116	<RL	<RL	0.127	<RL
Duplicate Sample Concentration (ug/mL)	0.224	0.129	<RL	0.493	<RL	0.687	<RL	0.122	<RL	<RL	0.121	<RL
RPD**	0.8	0.5	NA	0.2	NA	0.3	NA	4.8	NA	NA	5.2	NA
Sample ID	130559-62862											
Sample Concentration (ug/mL)	0.123	0.107	<RL	0.113	<RL	0.260	<RL	0.033	<RL	<RL	<RL	<RL
Duplicate Sample Concentration (ug/mL)	0.123	0.107	<RL	0.112	<RL	0.257	<RL	0.036	<RL	<RL	<RL	<RL
RPD**	0.3	0.1	NA	0.2	NA	0.9	NA	10.5	NA	NA	NA	NA

** Must be $\leq 20\%$
<RL = less than the Reporting Limit
ND = Not Detected
NA = Not Applicable


 Marcus Hueppe
 Laboratory Director



Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report 10-11A System and Method Blank Analysis

Analysis Date : 05/09/2013
Analyst : HPEG

Instrument ID : HPLC 01

Analyte	Formaldehyde (ug/ml)	Acetaldehyde (ug/ml)	Acrolein (ug/ml)	Acetone (ug/ml)	Propionaldehyde (ug/ml)	Carbonyldehyde (ug/ml)	Methacrolein (ug/ml)	MEK & Butyraldehyde (ug/ml)	Benzaldehyde (ug/ml)	Valeraldehyde (ug/ml)	m-Tolualdehyde (ug/ml)	Hexaldehyde (ug/ml)
Opening Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Method Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Continuing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Continuing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Closing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Reporting Limit	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025

RL = Reporting Limit
<RL=less than the Reporting Limit

Marcus Hueppe
Laboratory Director

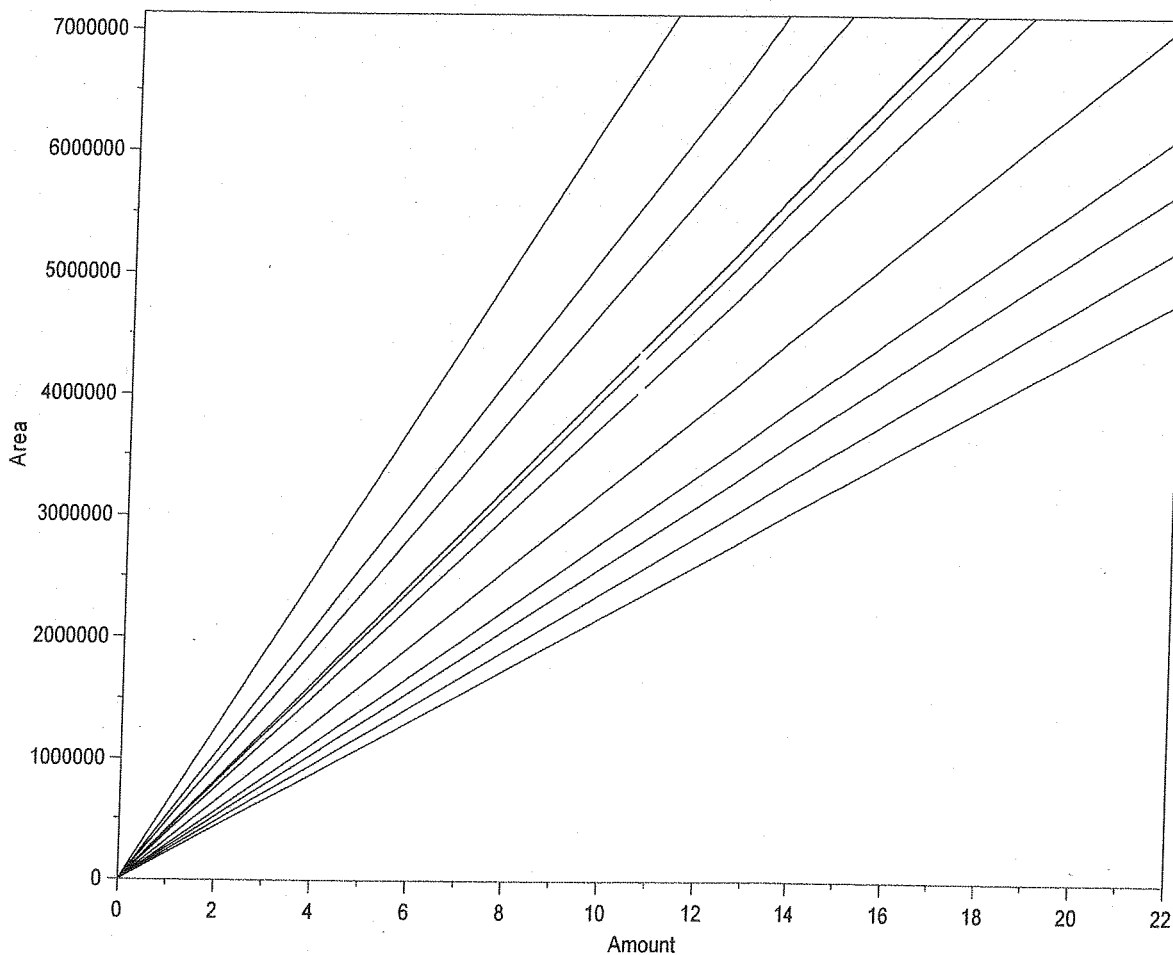
Calibration Summary

File Name: C:\CP Methods & Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
Version: 13
Creator: EG/HP
Description: EPA TO-11

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 1000
Reference peak area reject threshold: 1000
Amount units: ug/ml
No default component

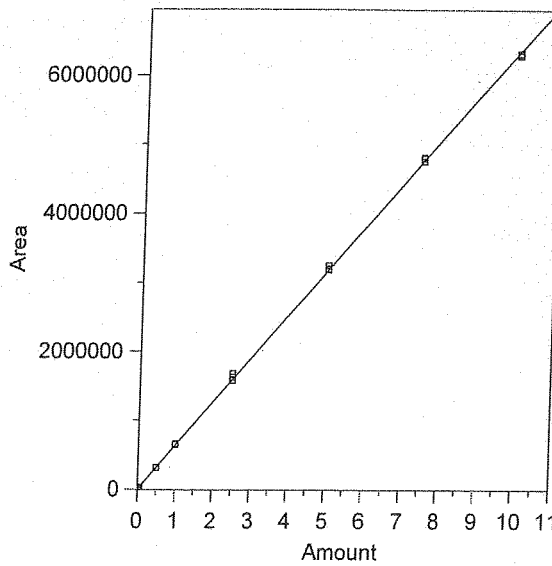
Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.



1 Formaldehyde
Expected retention time: 2.668 minutes
Search window: 0.1 minutes
No retention time reference component
Group number: 0
High alarm limit: 0

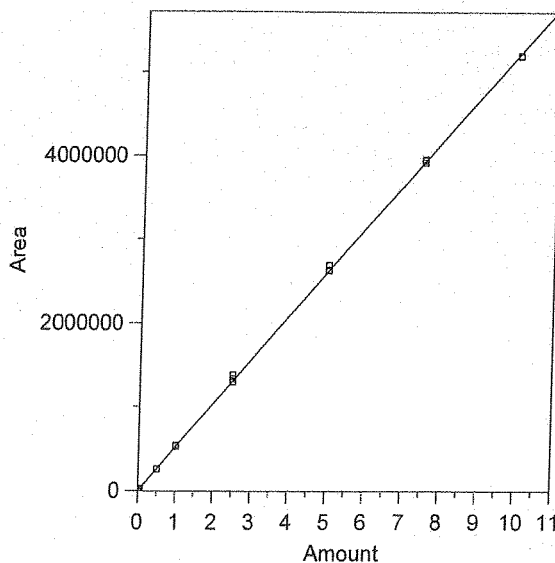
I Formaldehyde



Expected retention time: 2.668 minutes
 Search window: 0.1 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 $Y = 635498.8 X + 0$
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9998119
 Average error: 2.277%
 Average CF: 646538.3
 RSD: 2.426%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	3319.347	663869.4	4.464	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	3370.723	674144.6	6.081	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	3248.552	649710.4	2.236	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	16006.42	640256.8	0.749	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	16354.98	654199.2	2.943	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	16366.92	654676.8	3.018	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	32105.94	642118.8	1.042	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	33903.62	678072.4	6.699	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	33799.1	675982	6.370	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	315170.2	630340.4	-0.812	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	313531.4	627062.8	-1.327	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	311779	623558	-1.879	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	657848.8	657848.8	3.517	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	645232.1	645232.1	1.532	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	655379.7	655379.7	3.128	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1573829	629531.6	-0.939	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1620797	648318.8	2.017	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1673874	669549.6	5.358	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	3188477	637695.4	0.346	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	3204251	640850.2	0.842	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	3251028	650205.6	2.314	C:\CP Data\#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	4808576	641143.4	0.888	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	4753309	633774.6	-0.271	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	4797090	639612	0.647	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	6314019	631401.9	-0.645	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	6326623	632662.3	-0.446	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	6293350	629335	-0.970	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

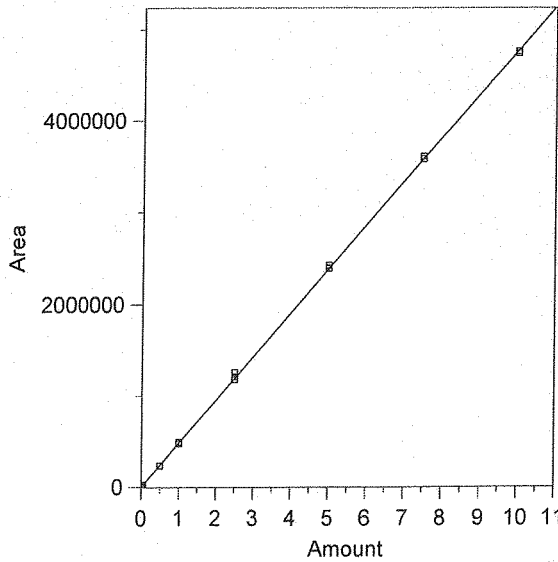
2 Acetaldehyde



Expected retention time: 3.257 minutes
 Search window: 0.3 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 $Y = 523848.9 X + 0$
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9998139
 Average error: 2.531%
 Average CF: 534292.2
 RSD: 2.711%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2745296	549059.2	4.813	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	2776359	555271.8	5.998	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	2703649	540729.8	3.222	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	13497.82	539912.8	3.067	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	13515.47	540618.8	3.201	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	14104.01	564160.4	7.695	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	26300.05	526001	0.411	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	27932.75	558655	6.644	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	27879.66	557593.2	6.442	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	259874.6	519749.2	-0.783	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	258633.5	517267	-1.256	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	256621.7	513243.4	-2.025	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	540890.6	540890.6	3.253	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	530744.3	530744.3	1.316	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	538459.7	538459.7	2.789	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1295813	518325.2	-1.054	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1335265	534106	1.958	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1382832	553132.8	5.590	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	2624115	524823	0.186	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	2633835	526767	0.557	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	2686124	537224.8	2.553	C:\CP Data\#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	3950260	526701.3	0.545	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	3923232	523097.6	-0.143	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	3961766	528235.4	0.837	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	5206756	520675.6	-0.606	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	5208438	520843.8	-0.574	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	5196004	519600.4	-0.811	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

3 Acrolein



Expected retention time: 3.943 minutes
 Search window: 0.2 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0

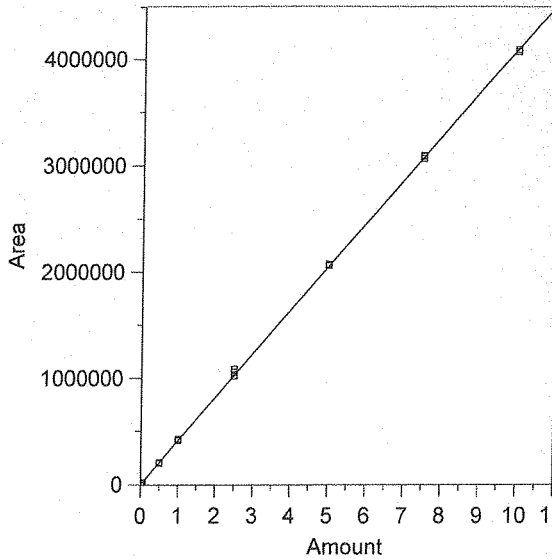
Single peak quantification by area

$Y = 477513.6 X + 0$

Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9998558
 Average error: 1.593%
 Average CF: 479383.3
 RSD: 2.006%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2415.335	483067	1.163	CACP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	2359.939	471987.8	-1.157	CACP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	2341.276	468255.2	-1.939	CACP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	12230.26	489210.4	2.450	CACP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	11731.43	469257.2	-1.729	CACP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	12013.16	480526.4	0.631	CACP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	23533.81	470676.2	-1.432	CACP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	24849.35	496987	4.078	CACP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	24508.45	490169	2.650	CACP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	234643.4	469286.8	-1.723	CACP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	235366	470732	-1.420	CACP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	231717.2	463434.4	-2.948	CACP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	492637.6	492637.6	3.167	CACP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	473624.6	473624.6	-0.814	CACP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	486674.4	486674.4	1.918	CACP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1178759	471503.6	-1.259	CACP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1212454	484981.6	1.564	CACP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1260575	504230	5.595	CACP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	2391359	478271.8	0.159	CACP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	2397531	479506.2	0.417	CACP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	2423446	484689.2	1.503	CACP Data#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	3608190	481092	0.749	CACP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	3578272	477102.9	-0.086	CACP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	3607869	481049.2	0.740	CACP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	4739617	473961.7	-0.744	CACP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	4740989	474098.9	-0.715	CACP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	4763349	476334.9	-0.247	CACP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

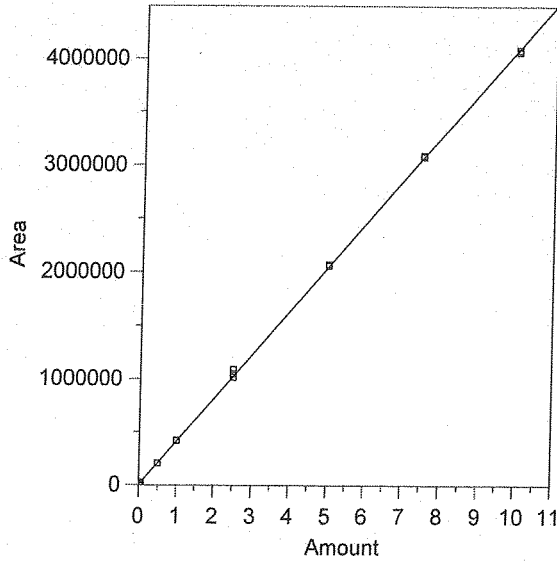
4 Acetone



Expected retention time: 4.132 minutes
 Search window: 0.4 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 $Y = 413240.1 X + 0$
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.999868
 Average error: 2.733%
 Average CF: 420186.8
 RSD: 2.868%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	218334.5	436669	6.442	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	216285.7	432571.4	5.443	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	216603.9	433207.8	5.599	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	105938.4	423753.6	3.294	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	111586.8	446347.2	8.801	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	108632.3	434529.2	5.921	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	20778.5	415570	1.299	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	22119.85	442397	7.839	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	21561.34	431226.8	5.116	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	206884.7	413769.4	0.860	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	202801.7	405603.4	-1.130	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	204367.4	408734.8	-0.367	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	423714.7	423714.7	3.285	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	413611.8	413611.8	0.822	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	424962.7	424962.7	3.589	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1017069	406827.6	-0.832	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1052471	420988.4	2.620	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1082277	432910.8	5.526	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	2059978	411995.6	0.428	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	2061998	412399.6	0.526	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	2074281	414856.2	1.125	C:\CP Data\#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	3090544	412072.5	0.447	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	3065231	408697.5	-0.376	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	3096511	412868.1	0.641	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	4075368	407536.8	-0.659	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	4095606	409560.6	-0.166	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	4076624	407662.4	-0.628	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

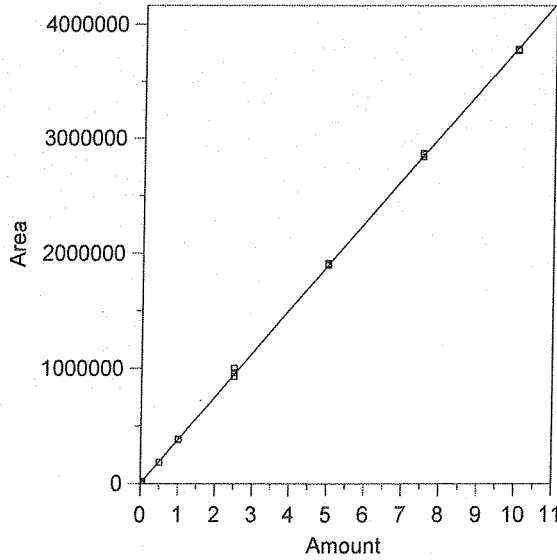
5 Propionaldehyde



Expected retention time: 4.392 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 409729.4 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9998541
 Average error: 2.076%
 Average CF: 414811.5
 RSD: 2.614%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1972.789	394557.8	-3.703	CACP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1996.396	399279.2	-2.551	CACP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	2036.421	407284.2	-0.597	CACP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	10616.59	424663.6	3.645	CACP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	10751.91	430076.4	4.966	CACP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	10655.2	426208	4.022	CACP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	20828.86	416577.2	1.671	CACP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	22022.53	440450.6	7.498	CACP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	21487.62	429752.4	4.887	CACP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	203755.9	407511.8	-0.541	CACP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	204614.9	409229.8	-0.122	CACP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	202760.2	405520.4	-1.027	CACP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	422491.5	422491.5	3.115	CACP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	414054.3	414054.3	1.056	CACP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	418737.7	418737.7	2.199	CACP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	1013506	405402.4	-1.056	CACP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1049219	419687.6	2.430	CACP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1088355	435342	6.251	CACP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	2055268	411053.6	0.323	CACP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	2059857	411971.4	0.547	CACP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	2067409	413481.8	0.916	CACP Data#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	3090514	412068.5	0.571	CACP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	3078345	410446	0.175	CACP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	3088245	411766	0.497	CACP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	4063636	406363.6	-0.821	CACP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:44 AM
26	10	4072347	407234.7	-0.609	CACP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:25:02 AM
27	10	4086977	408697.7	-0.252	CACP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

6 Crotonaldehyde



Expected retention time: 5.161 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0

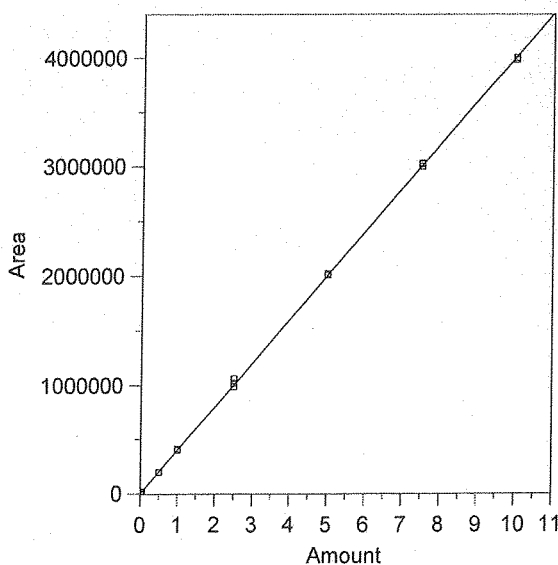
Single peak quantification by area

$Y = 379197.3 X + 0$

Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9998879
 Average error: 2.055%
 Average CF: 377240.3
 RSD: 2.954%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1763.188	352637.6	-7.004	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1769.861	353972.2	-6.652	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1774.771	354954.2	-6.393	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	9632.542	385301.7	1.610	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	9590.598	383623.9	1.167	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	9482.347	379293.9	0.025	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	18280.8	365616	-3.582	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	19753.15	395063	4.184	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	19265.63	385312.6	1.613	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	184891.2	369782.4	-2.483	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	184884.5	369769	-2.486	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	185209	370418	-2.315	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	385583	385583	1.684	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	378746.3	378746.3	-0.119	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	383412.3	383412.3	1.112	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	927177.1	370870.8	-2.196	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	962027.6	384811.1	1.480	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	999406.8	399762.7	5.423	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1894920	378984	-0.056	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1912362	382472.4	0.864	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1900975	380195	0.263	C:\CP Data\#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	2868305	382440.7	0.855	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	2837994	378399.2	-0.210	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	2857948	381059.7	0.491	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	3777541	377754.1	-0.381	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	3769081	376908.1	-0.604	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	3783434	378343.4	-0.225	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

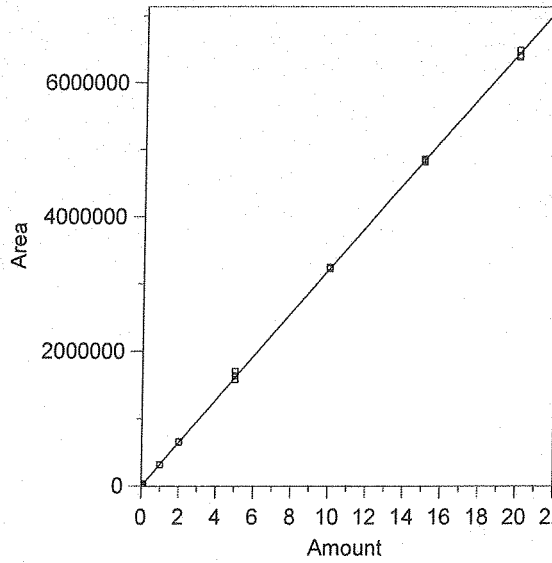
7 Methacrolein



Expect ed retention time: 5.502 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 $Y = 401227.3 X + 0$
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9998807
 Average error: 1.583%
 Average CF: 405093.2
 RSD: 1.942%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1996.921	399384.2	-0.459	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	2026.085	405217	0.994	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	2064.975	412995	2.933	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	10232.26	409290.4	2.010	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	10312.39	412495.6	2.808	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	10222.34	408893.6	1.911	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	19918.92	398378.4	-0.710	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	21271.74	425434.8	6.033	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	20500.99	410019.8	2.191	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	197838.8	395677.6	-1.383	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	197555.6	395111.2	-1.524	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	198160.6	396321.2	-1.223	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	410566.2	410566.2	2.328	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	403644.6	403644.6	0.602	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	411295.8	411295.8	2.509	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	988448.4	395379.3	-1.458	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	1020493	408197.2	1.737	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	1060355	424142	5.711	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	2012112	402422.4	0.298	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	2012416	402483.2	0.313	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	2019797	403959.4	0.681	C:\CP Data\#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	3032186	404291.5	0.764	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	3000600	400080	-0.286	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	3026002	403466.9	0.558	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	4001513	400151.3	-0.268	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	3982305	398230.5	-0.747	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	3999860	399986	-0.309	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

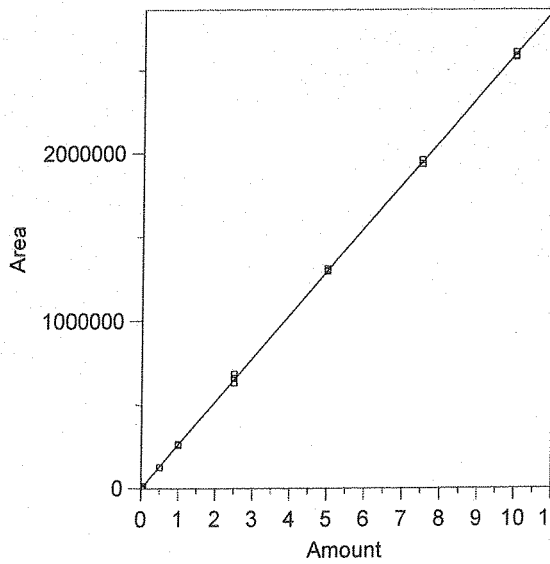
8 MEK & Butyraldehyde



Expected retention time: 5.872 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 322232.7 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.999867
 Average error: 2.084%
 Average CF: 327115.7
 RSD: 2.391%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.01	3351.753	335175.3	4.017	CACP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.01	3391.47	339147	5.249	CACP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.01	3384.082	338408.2	5.020	CACP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.05	16525.07	330501.4	2.566	CACP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.05	16528.89	330577.8	2.590	CACP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.05	16684.14	333682.8	3.553	CACP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.1	32230.04	322300.4	0.021	CACP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.1	34515.54	345155.4	7.114	CACP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.1	33411.08	334110.8	3.686	CACP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	1	317772.7	317772.7	-1.384	CACP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	1	319288.8	319288.8	-0.914	CACP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	1	317344.1	317344.1	-1.517	CACP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	2	659698.4	329849.2	2.364	CACP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	2	648058.6	324029.3	0.558	CACP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	2	660032.3	330016.2	2.415	CACP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	5	1578239	315647.8	-2.044	CACP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	5	1635369	327073.8	1.502	CACP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	5	1699770	339954	5.500	CACP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	10	3225144	322514.4	0.087	CACP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	10	3232554	323255.4	0.317	CACP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	10	3248338	324833.8	0.807	CACP Data#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	15	4858471	323898.1	0.517	CACP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	15	4813685	320912.3	-0.410	CACP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	15	4835401	322360.1	0.040	CACP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	20	6411478	320573.9	-0.515	CACP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	20	6386688	319334.4	-0.899	CACP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	20	6488133	324406.7	0.675	CACP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

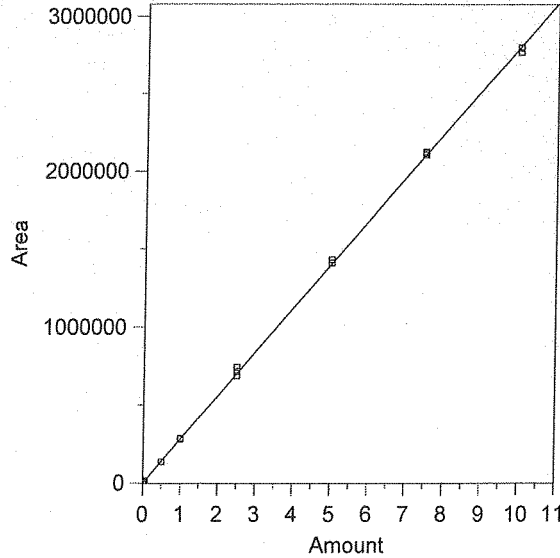
9 Benzaldehyde



Expected retention time: 6.315 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 259532.3 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9998788
 Average error: 1.745%
 Average CF: 259316.8
 RSD: 2.653%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1297.518	259503.6	-0.011	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1262	252400	-2.748	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1295.839	259167.8	-0.140	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	6666.208	266648.3	2.742	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	7034.047	281361.9	8.411	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	6534.359	261374.4	0.710	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	12466.06	249321.2	-3.934	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	13008.72	260174.4	0.247	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	12791.38	255827.6	-1.427	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	124939.2	249878.4	-3.720	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	125454.3	250908.6	-3.323	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	125079.6	250159.2	-3.612	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	262209.1	262209.1	1.031	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	257536.3	257536.3	-0.769	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	260766	260766	0.475	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	628872.8	251549.1	-3.076	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	656123.5	262449.4	1.124	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	681751.6	272700.7	5.074	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1294694	258938.8	-0.229	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1299522	259904.4	0.143	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1309382	261876.4	0.903	C:\CP Data\#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	1958642	261152.3	0.624	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	1935214	258028.5	-0.579	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	1957459	260994.5	0.563	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	2584429	258442.9	-0.420	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	2577391	257739.1	-0.691	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	2605401	260540.1	0.388	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

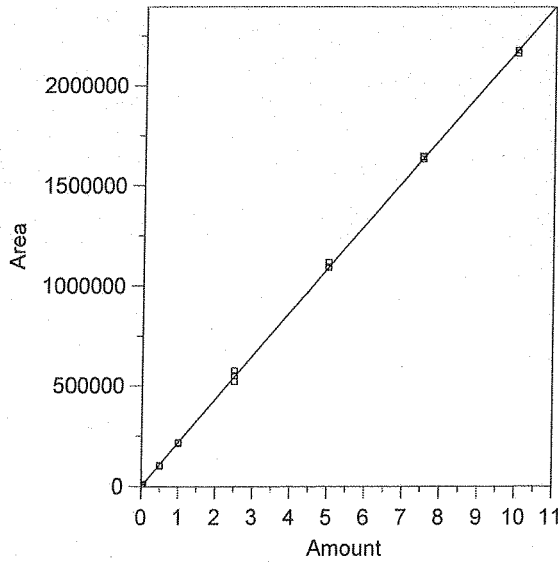
10 Valeraldehyde



Expected retention time: 8.218 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 280512 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9997866
 Average error: 2.469%
 Average CF: 283524.1
 RSD: 3.137%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1445.899	289179.8	3.090	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1390.823	278164.6	-0.837	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1340.829	268165.8	-4.401	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	7353.619	294144.8	4.860	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	7425.595	297023.8	5.886	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	7536.798	301471.9	7.472	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	14114.53	282290.6	0.634	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	15079.2	301584	7.512	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	14163.98	283279.6	0.987	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	135255.9	270511.8	-3.565	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	136645.9	273291.8	-2.574	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	135763.1	271526.2	-3.203	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	286190.2	286190.2	2.024	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	281834.7	281834.7	0.472	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	286224.8	286224.8	2.037	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	685932.9	274373.2	-2.188	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	715768.4	286307.3	2.066	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	742902.5	297161	5.935	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1409340	281868	0.483	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1412526	282505.2	0.711	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1432906	286581.2	2.164	C:\CP Data\#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	2123480	283130.7	0.934	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	2104405	280587.3	0.027	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	2115076	282010.1	0.534	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	2797888	279788.8	-0.258	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	2792255	279225.5	-0.459	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	2767273	276727.3	-1.349	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

11 m-Tolualdehyde



Expected retention time: 8.714 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High a arm limit: 0
 Low alarm limit: 0
 Component constant: 0

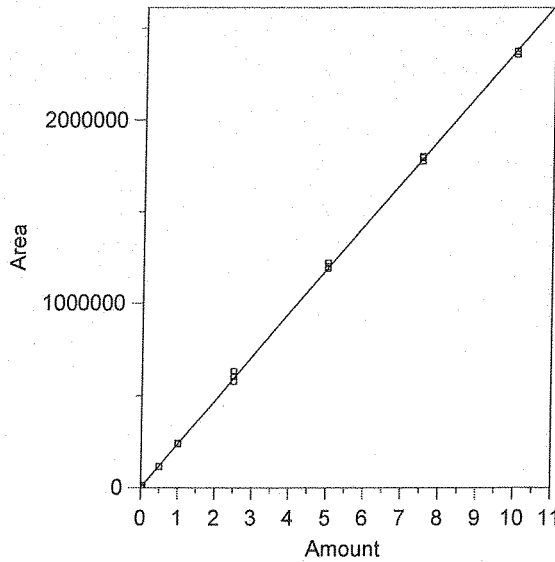
Single peak quantification by area

$Y = 217944 X + 0$

Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.999814
 Average error: 2.420%
 Average CF: 216368.5
 RSD: 3.395%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1084.321	216864.2	-0.495	C:\CP Data\#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1047.397	209479.4	-3.884	C:\CP Data\#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1050.553	210110.6	-3.594	C:\CP Data\#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	5352.188	214087.5	-1.769	C:\CP Data\#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	5534.859	221394.4	1.583	C:\CP Data\#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	5846.229	233849.2	7.298	C:\CP Data\#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	10182.27	203645.4	-6.561	C:\CP Data\#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	10890.73	217814.6	-0.059	C:\CP Data\#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	11251.93	225038.6	3.255	C:\CP Data\#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	101870.9	203741.8	-6.516	C:\CP Data\#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	104487.3	208974.6	-4.115	C:\CP Data\#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	101281.7	202563.4	-7.057	C:\CP Data\#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	218741.4	218741.4	0.366	C:\CP Data\#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	214107.1	214107.1	-1.761	C:\CP Data\#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	216178.3	216178.3	-0.810	C:\CP Data\#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	521558	208623.2	-4.277	C:\CP Data\#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	549983.1	219993.3	0.940	C:\CP Data\#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	574107.8	229643.1	5.368	C:\CP Data\#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1091337	218267.4	0.148	C:\CP Data\#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1093125	218625	0.312	C:\CP Data\#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1115959	223191.8	2.408	C:\CP Data\#1 HPLC #1\2013\011613\011613.0022.BND	1/17/2013 9:22:52 AM
22	7.5	1646059	219474.5	0.702	C:\CP Data\#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	1632394	217652.5	-0.134	C:\CP Data\#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	1643241	219098.8	0.530	C:\CP Data\#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	2178426	217842.6	-0.047	C:\CP Data\#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	2164076	216407.6	-0.705	C:\CP Data\#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	2165400	216540	-0.644	C:\CP Data\#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

12 Hexaldehyde

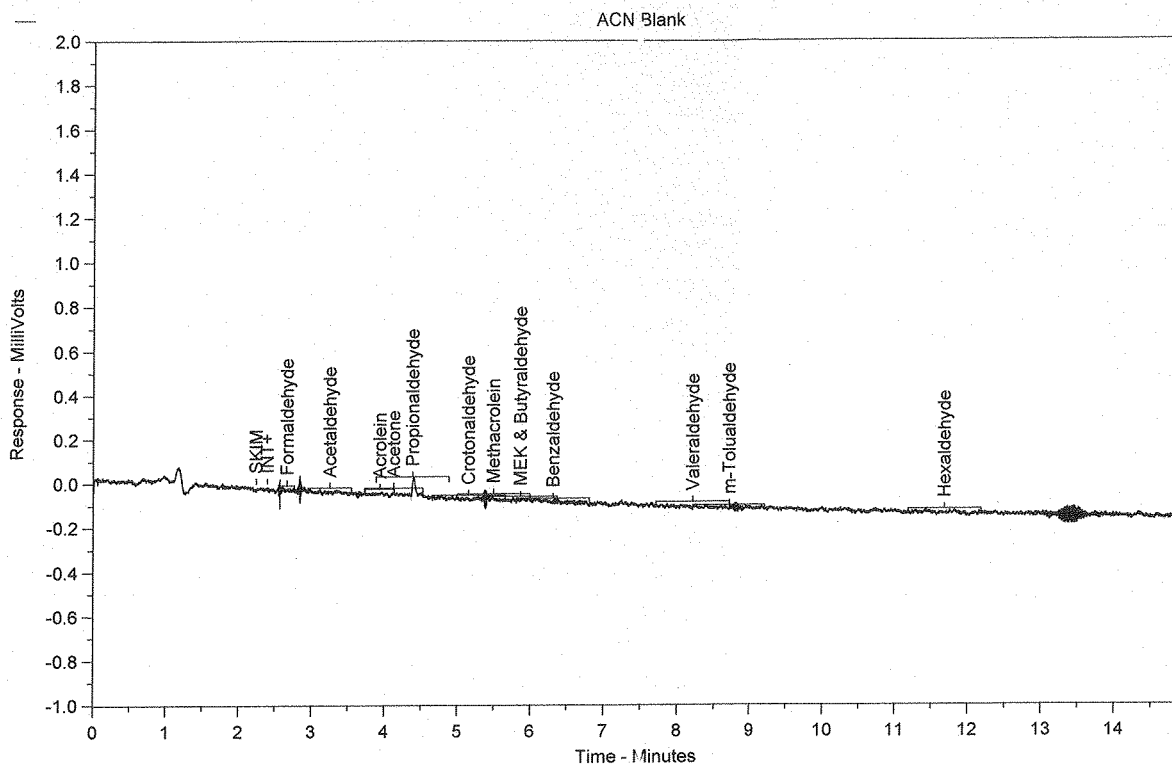


Expected retention time: 11.69 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 238038.2 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9997897
 Average error: 2.235%
 Average CF: 239924.7
 RSD: 2.911%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1179.385	235877	-0.908	CACP Data#1 HPLC #1\2013\011613\011613.0002.BND	1/17/2013 12:07:44 PM
2	0.005	1141.726	228345.2	-4.072	CACP Data#1 HPLC #1\2013\011613\011613.0003.BND	1/17/2013 12:01:00 PM
3	0.005	1198.028	239605.6	0.658	CACP Data#1 HPLC #1\2013\011613\011613.0004.BND	1/17/2013 12:01:16 PM
4	0.025	5798.175	231927	-2.567	CACP Data#1 HPLC #1\2013\011613\011613.0005.BND	1/17/2013 9:14:58 AM
5	0.025	6347.2	253888	6.659	CACP Data#1 HPLC #1\2013\011613\011613.0006.BND	1/17/2013 9:15:29 AM
6	0.025	6114.321	244572.8	2.745	CACP Data#1 HPLC #1\2013\011613\011613.0007.BND	1/17/2013 9:16:11 AM
7	0.05	12059.8	241196	1.327	CACP Data#1 HPLC #1\2013\011613\011613.0008.BND	1/17/2013 9:16:31 AM
8	0.05	12746.25	254925	7.094	CACP Data#1 HPLC #1\2013\011613\011613.0009.BND	1/17/2013 9:16:54 AM
9	0.05	12547.26	250945.2	5.422	CACP Data#1 HPLC #1\2013\011613\011613.0010.BND	1/17/2013 9:17:32 AM
10	0.5	116351.3	232702.6	-2.241	CACP Data#1 HPLC #1\2013\011613\011613.0011.BND	1/17/2013 9:17:53 AM
11	0.5	116956.5	233913	-1.733	CACP Data#1 HPLC #1\2013\011613\011613.0012.BND	1/17/2013 9:18:18 AM
12	0.5	115390.1	230780.2	-3.049	CACP Data#1 HPLC #1\2013\011613\011613.0013.BND	1/17/2013 9:18:37 AM
13	1	242438.8	242438.8	1.849	CACP Data#1 HPLC #1\2013\011613\011613.0014.BND	1/17/2013 9:18:57 AM
14	1	239854.8	239854.8	0.763	CACP Data#1 HPLC #1\2013\011613\011613.0015.BND	1/17/2013 9:19:16 AM
15	1	241212.3	241212.3	1.333	CACP Data#1 HPLC #1\2013\011613\011613.0016.BND	1/17/2013 9:19:35 AM
16	2.5	579103.3	231641.3	-2.687	CACP Data#1 HPLC #1\2013\011613\011613.0017.BND	1/17/2013 9:19:53 AM
17	2.5	607368.1	242947.3	2.062	CACP Data#1 HPLC #1\2013\011613\011613.0018.BND	1/17/2013 9:20:27 AM
18	2.5	632353.5	252941.4	6.261	CACP Data#1 HPLC #1\2013\011613\011613.0019.BND	1/17/2013 9:20:50 AM
19	5	1190551	238110.2	0.030	CACP Data#1 HPLC #1\2013\011613\011613.0020.BND	1/17/2013 9:21:10 AM
20	5	1200522	240104.4	0.868	CACP Data#1 HPLC #1\2013\011613\011613.0021.BND	1/17/2013 9:21:33 AM
21	5	1219377	243875.4	2.452	CACP Data#1 HPLC #1\2013\011613\011613.0033.BND	1/17/2013 9:22:52 AM
22	7.5	1800685	240091.3	0.863	CACP Data#1 HPLC #1\2013\011613\011613.0023.BND	1/17/2013 9:23:16 AM
23	7.5	1775360	236714.7	-0.556	CACP Data#1 HPLC #1\2013\011613\011613.0024.BND	1/17/2013 9:23:45 AM
24	7.5	1793857	239180.9	0.480	CACP Data#1 HPLC #1\2013\011613\011613.0025.BND	1/17/2013 9:24:04 AM
25	10	2371220	237122	-0.385	CACP Data#1 HPLC #1\2013\011613\011613.0026.BND	1/17/2013 9:24:23 AM
26	10	2356180	235618	-1.017	CACP Data#1 HPLC #1\2013\011613\011613.0027.BND	1/17/2013 9:24:44 AM
27	10	2374361	237436.1	-0.253	CACP Data#1 HPLC #1\2013\011613\011613.0028.BND	1/17/2013 9:25:02 AM

Raw Data

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromep perfect 2\Data\HPLC #1\2013\050913TO-11\050913.0001.RAW

Date Taken (end) = 5/9/2013 7:07:16 AM

Method File Name = C:\Chromep perfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromep perfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 1

Injection Volume = 10

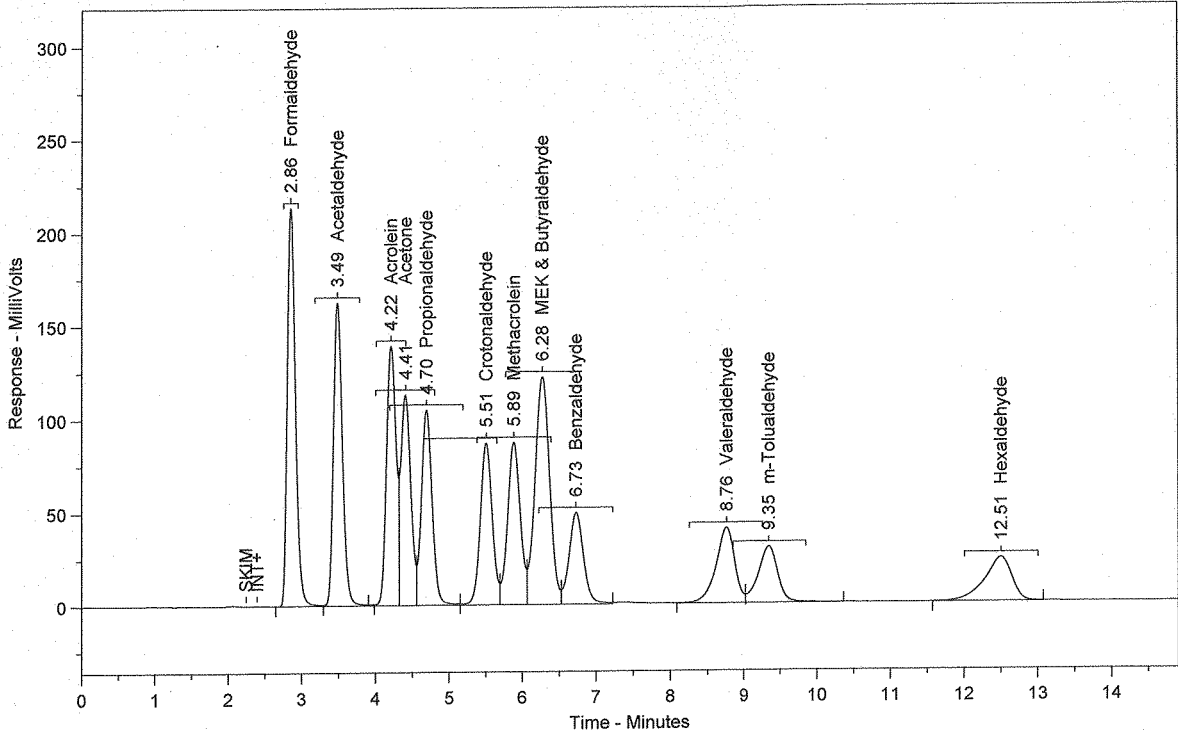
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
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LC
05/09/13

Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913\TO-11\050913.0002.RAW

Date Taken (end) = 5/9/2013 7:23:52 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 2

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.86	Formaldehyde	2.6182	7.762	1663889	13.120	SBB	0.12
2	3.49	Acetaldehyde	2.6126	7.745	1368628	10.792	TBV	0.13
3	4.22	Acrolein	2.6338	7.808	1257652	9.917	TVV	0.16
4	4.41	Acetone	2.5832	7.658	1059736	8.356	TVV	0.16
5	4.70	Propionaldehyde	2.6027	7.715	1066397	8.409	TVV	0.15
6	5.51	Crotonaldehyde	2.6014	7.712	986435	7.778	TVV	0.17
7	5.89	Methacrolein	2.5958	7.695	1041492	8.213	TVV	0.17
8	6.28	MEK & Butyraldehyde	5.1902	15.386	1672443	13.188	TVV	0.20
9	6.73	Benzaldehyde	2.5931	7.687	672988	5.307	TVB	0.20
10	8.76	Valeraldehyde	2.5916	7.683	726976	5.732	BV	0.26
11	9.35	m-Tolualdehyde	2.5609	7.592	558131	4.401	VB	0.28
12	12.51	Hexaldehyde	2.5498	7.559	606959	4.786	BB	0.38

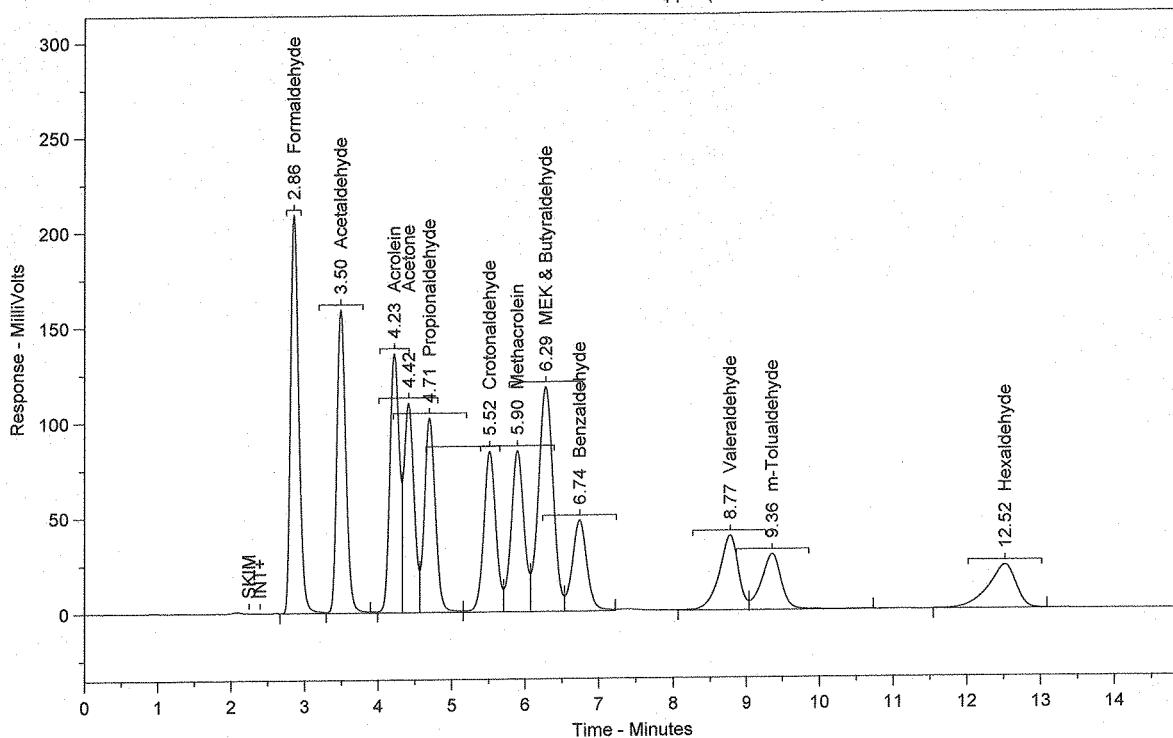
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Total Amount = 33.73325

Chrom Perfect Chromatogram Report

SS 1.25 ppm (PS080412-01)



Sample Name = SS 1.25 ppm (PS080412-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0003.RAW

Date Taken (end) = 5/9/2013 7:40:27 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET
 Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
 Concentration Units = ug/ml

Run Time = 14.89889
 Injection Volume = 10

Vial Number = 3
 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.86	Formaldehyde	2.5528	7.712	1622323	13.046	SBB	0.12
2	3.50	Acetaldehyde	2.5584	7.729	1340230	10.778	TBV	0.13
3	4.23	Acrolein	2.5873	7.816	1235455	9.935	TVV	0.17
4	4.42	Acetone	2.5257	7.630	1036133	8.332	TVV	0.16
5	4.71	Propionaldehyde	2.5505	7.705	1045011	8.404	TVV	0.16
6	5.52	Crotonaldehyde	2.5524	7.711	967873	7.783	TVV	0.17
7	5.90	Methacrolein	2.5590	7.730	1026727	8.256	TVV	0.17
8	6.29	MEK & Butyraldehyde	5.0739	15.328	1634980	13.148	TVV	0.20
9	6.74	Benzaldehyde	2.5424	7.680	659827	5.306	TVB	0.21
10	8.77	Valeraldehyde	2.5569	7.724	717237	5.768	BV	0.27
11	9.36	m-Tolualdehyde	2.5378	7.666	553101	4.448	VB	0.28
12	12.52	Hexaldehyde	2.5059	7.570	596492	4.797	BB	0.39

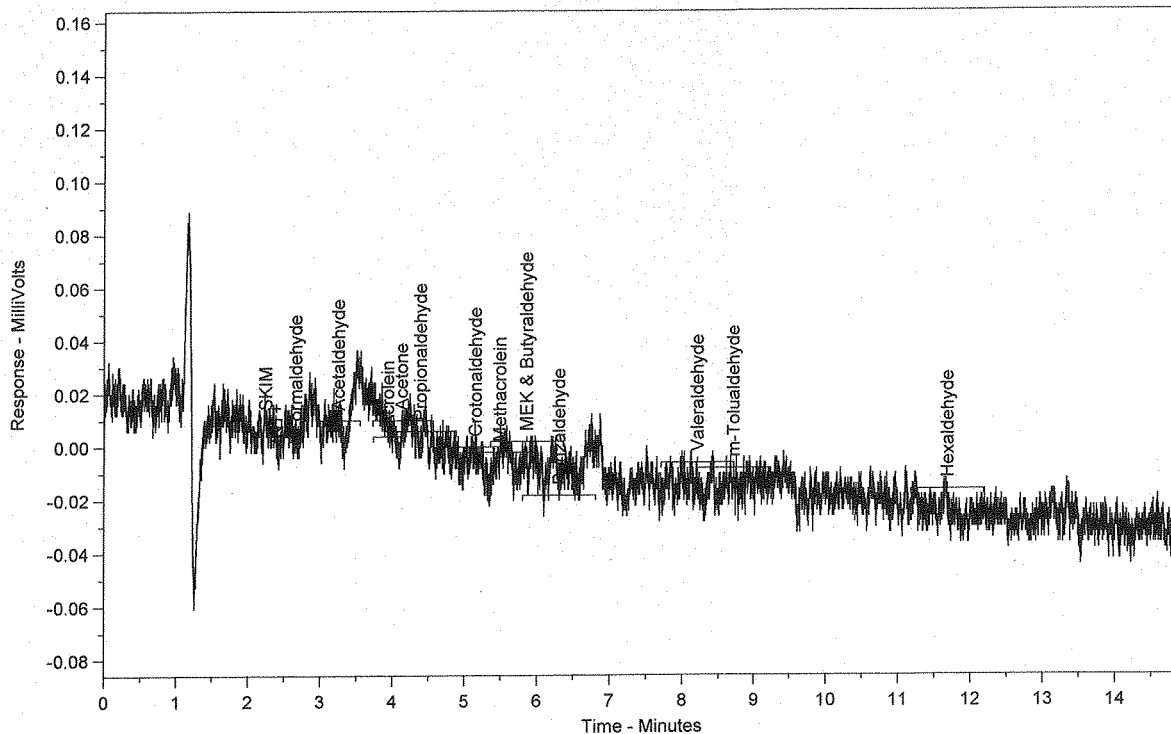
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Total Amount = 33.10293

Chrom Perfect Chromatogram Report

TO-11 Method Blank



Sample Name = TO-11 Method Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0004.RAW

Date Taken (end) = 5/9/2013 7:57:02 AM

Method File Name = C:\Chromperfect 2-Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2-Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 4

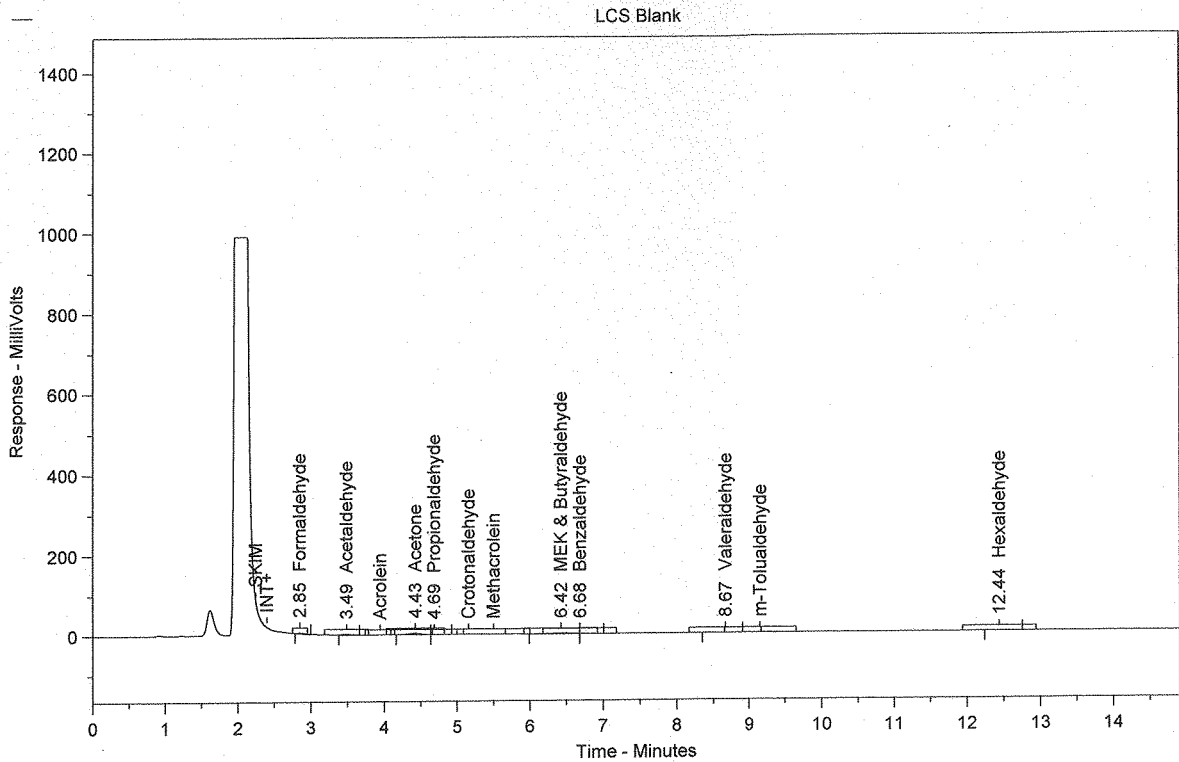
Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
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HP
05/09/13

Chrom Perfect Chromatogram Report



Sample Name = LCS Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0005.RAW

Date Taken (end) = 5/9/2013 8:13:38 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 5

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.85	Formaldehyde	0.0155	7.406	9845	12.361	BB	0.14
2	3.49	Acetaldehyde	0.0133	6.348	6956	8.734	BB	0.16
3	4.43	Acetone	0.0692	33.103	28405	35.666	BV	0.14
4	4.69	Propionaldehyde	0.0067	3.208	2749	3.452	VB	0.15
5	6.42	MEK & Butyraldehyde	0.0681	32.550	21938	27.546	BV	0.27
6	6.68	Benzaldehyde	0.0096	4.606	2500	3.140	VB	0.17
7	8.67	Valeraldehyde	0.0209	9.977	5854	7.350	BB	0.25
8	12.44	Hexaldehyde	0.0059	2.801	1394	1.751	BB	0.43

Total Area = 79641.7

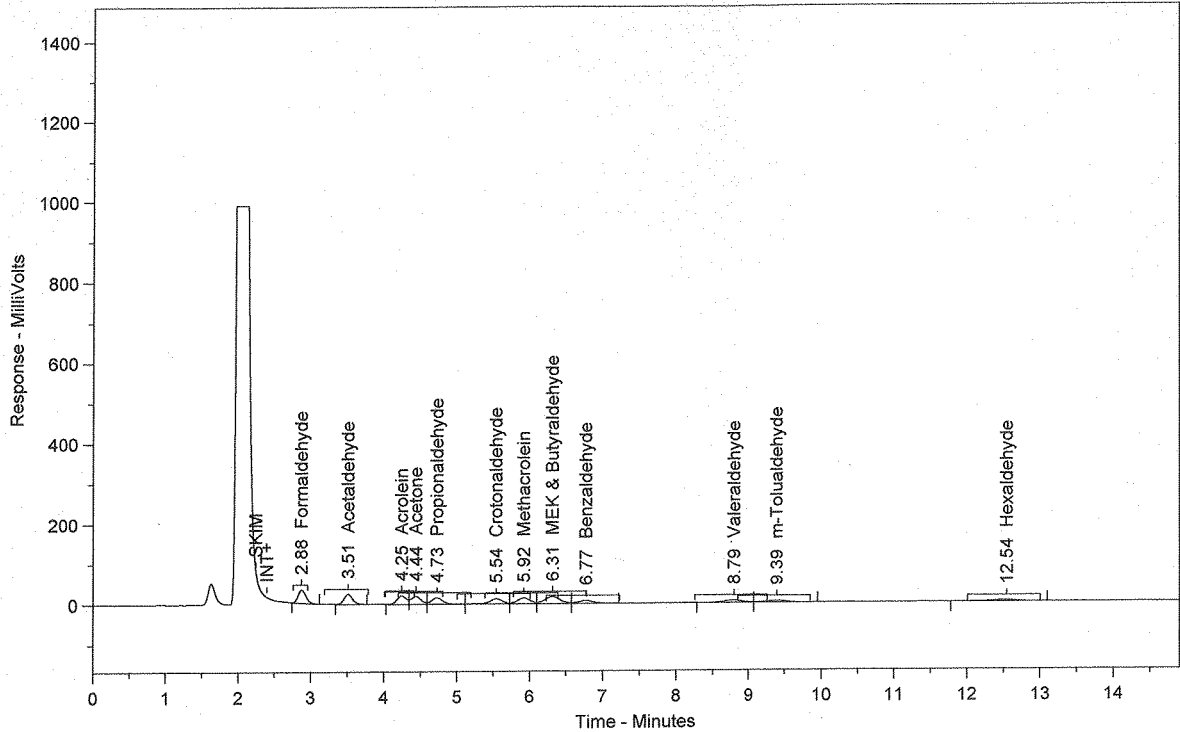
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HP
05/09/13

Chrom Perfect Chromatogram Report

LCS 1.25ug/mL (PS011013-01)



Sample Name = LCS 1.25ug/mL (PS011013-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0006.RAW

Date Taken (end) = 5/9/2013 8:30:13 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 6

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.88	Formaldehyde	0.3788	7.549	240734	12.755	BB	0.12
2	3.51	Acetaldehyde	0.3807	7.586	199418	10.566	BB	0.13
3	4.25	Acrolein	0.3815	7.604	182193	9.653	BV	0.17
4	4.44	Acetone	0.4351	8.671	178490	9.457	VV	0.16
5	4.73	Propionaldehyde	0.3814	7.600	156259	8.279	VV	0.16
6	5.54	Crotonaldehyde	0.3773	7.519	143081	7.581	VV	0.18
7	5.92	Methacrolein	0.4133	8.237	165840	8.787	VV	0.17
8	6.31	MEK & Butyraldehyde	0.7572	15.091	244009	12.929	VV	0.21
9	6.77	Benzaldehyde	0.3745	7.463	97199	5.150	VB	0.21
10	8.79	Valeraldehyde	0.3899	7.771	109384	5.796	BV	0.27
11	9.39	m-Tolualdehyde	0.3652	7.279	79601	4.218	VB	0.28
12	12.54	Hexaldehyde	0.3829	7.630	91143	4.829	BB	0.39

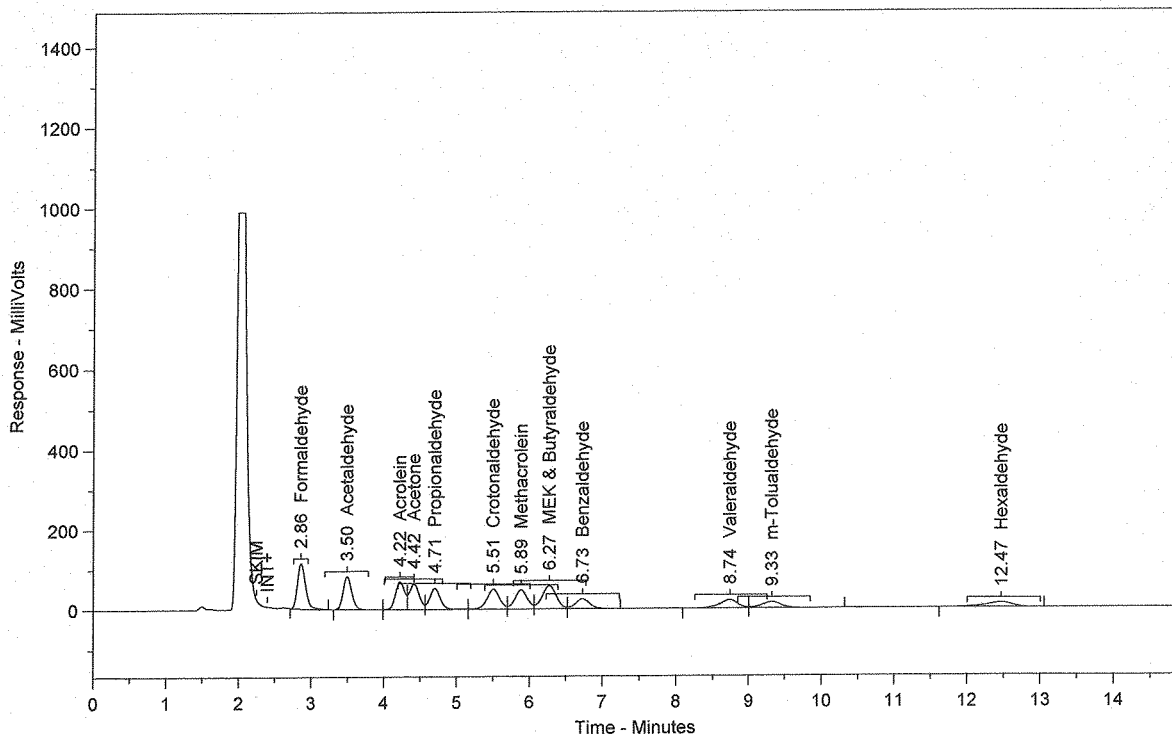
Total Area = 1887353

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Total Amount = 5.017989

Chrom Perfect Chromatogram Report

MS 130528-62753 1.25 ppm [(PS011613-01x2)]



Sample Name = MS 130528-62753 1.25 ppm [(PS011613-01x2)]

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0007.RAW

Date Taken (end) = 5/9/2013 8:46:49 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 7

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.86	Formaldehyde	1.3822	7.995	878364	13.436	BB	0.12
2	3.50	Acetaldehyde	1.3214	7.644	692220	10.589	BB	0.13
3	4.22	Acrolein	1.2874	7.447	614752	9.404	BV	0.17
4	4.42	Acetone	1.4670	8.486	601820	9.206	VV	0.15
5	4.71	Propionaldehyde	1.2845	7.430	526314	8.051	VV	0.16
6	5.51	Crotonaldehyde	1.5728	9.098	596392	9.123	VV	0.18
7	5.89	Methacrolein	1.4220	8.225	570529	8.727	VV	0.17
8	6.27	MEK & Butyraldehyde	2.4210	14.004	780135	11.934	VV	0.20
9	6.73	Benzaldehyde	1.2488	7.224	324101	4.958	VB	0.20
10	8.74	Valeraldehyde	1.3010	7.526	364948	5.583	BV	0.26
11	9.33	m-Tolualdehyde	1.3077	7.564	285002	4.360	VB	0.28
12	12.47	Hexaldehyde	1.2718	7.357	302749	4.631	BB	0.39

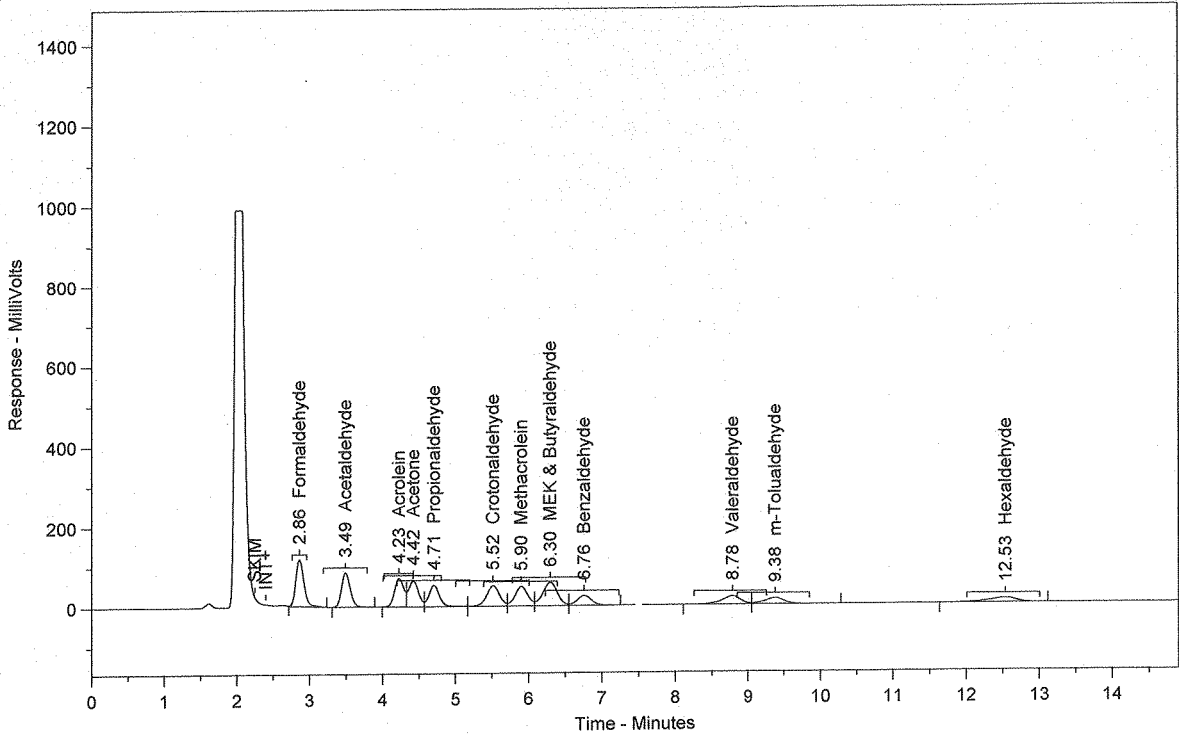
Total Area = 6537326

Total Height = 605413.1

Total Amount = 17.28761

Chrom Perfect Chromatogram Report

MSD 130528-62753 1.25 ppm [(PS011613-01x2)]



Sample Name = MSD 130528-62753 1.25 ppm [(PS011613-01x2)]

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0008.RAW

Date Taken (end) = 5/9/2013 9:03:24 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 8

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.86	Formaldehyde	1.4314	8.054	909626	13.523	BB	0.12
2	3.49	Acetaldehyde	1.3628	7.668	713878	10.613	BB	0.13
3	4.23	Acrolein	1.3291	7.478	634661	9.435	BV	0.17
4	4.42	Acetone	1.4994	8.437	615116	9.145	VV	0.15
5	4.71	Propionaldehyde	1.3109	7.376	537127	7.985	VV	0.16
6	5.52	Crotonaldehyde	1.6284	9.163	617497	9.180	VV	0.19
7	5.90	Methacrolein	1.4647	8.241	587669	8.737	VV	0.17
8	6.30	MEK & Butyraldehyde	2.4889	14.004	802003	11.923	VV	0.21
9	6.76	Benzaldehyde	1.2789	7.196	331909	4.934	VB	0.21
10	8.78	Valeraldehyde	1.3397	7.538	375804	5.587	BV	0.27
11	9.38	m-Tolualdehyde	1.3298	7.483	289828	4.309	VB	0.28
12	12.53	Hexaldehyde	1.3084	7.362	311438	4.630	BB	0.40

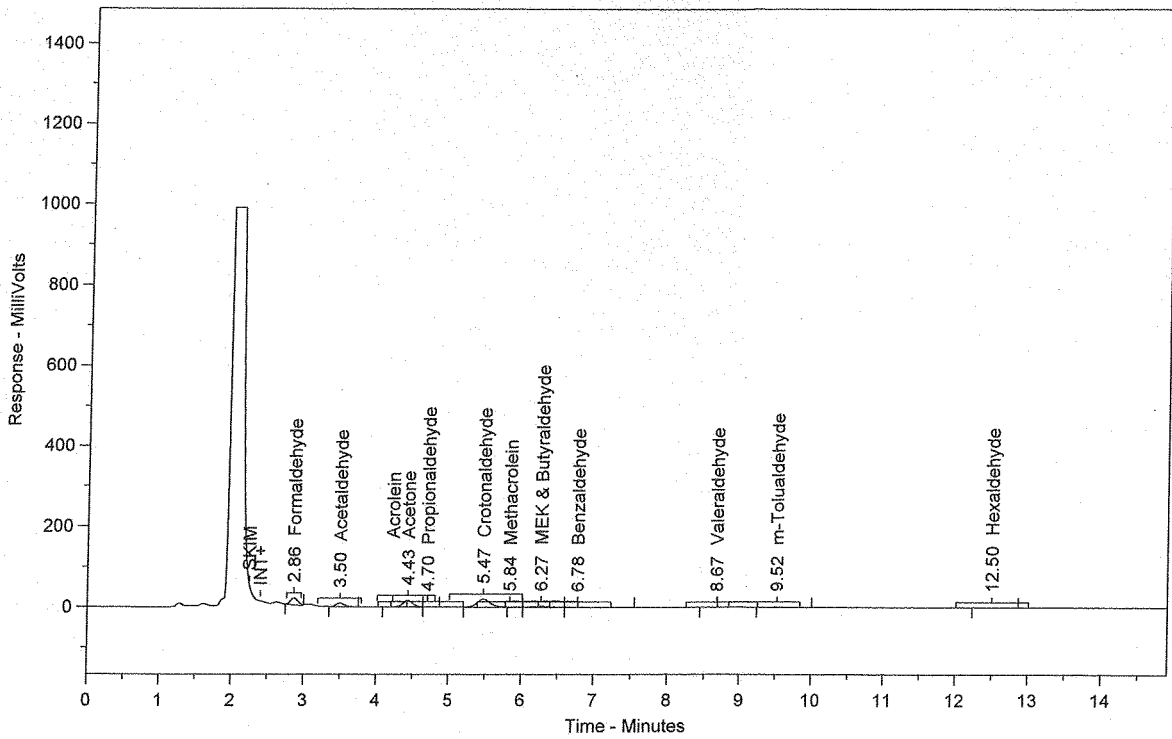
Total Area = 6726555

Total Height = 617818.5

Total Amount = 17.77231

Chrom Perfect Chromatogram Report

130528-62753



Sample Name = 130528-62753

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0009.RAW

Date Taken (end) = 5/9/2013 9:20:03 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 9

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.86	Formaldehyde	0.1922	11.725	122145	17.933	BB	0.11
2	3.50	Acetaldehyde	0.1308	7.978	68513	10.059	BB	0.13
3	4.43	Acetone	0.3870	23.605	158746	23.307	BV	0.15
4	4.70	Propionaldehyde	0.0185	1.128	7577	1.112	VB	0.14
5	5.47	Crotonaldehyde	0.6761	41.245	256386	37.642	SBB	0.19
6	5.84	Methacrolein	0.0183	1.114	7329	1.076	TBV	0.13
7	6.27	MEK & Butyraldehyde	0.1045	6.373	33664	4.942	TVV	0.23
8	6.78	Benzaldehyde	0.0403	2.461	10469	1.537	TVB	0.38
9	8.67	Valeraldehyde	0.0063	0.386	1777	0.261	BB	0.17
10	9.52	m-Tolualdehyde	0.0517	3.151	11258	1.653	BB	0.33
11	12.50	Hexaldehyde	0.0137	0.833	3251	0.477	BB	0.46

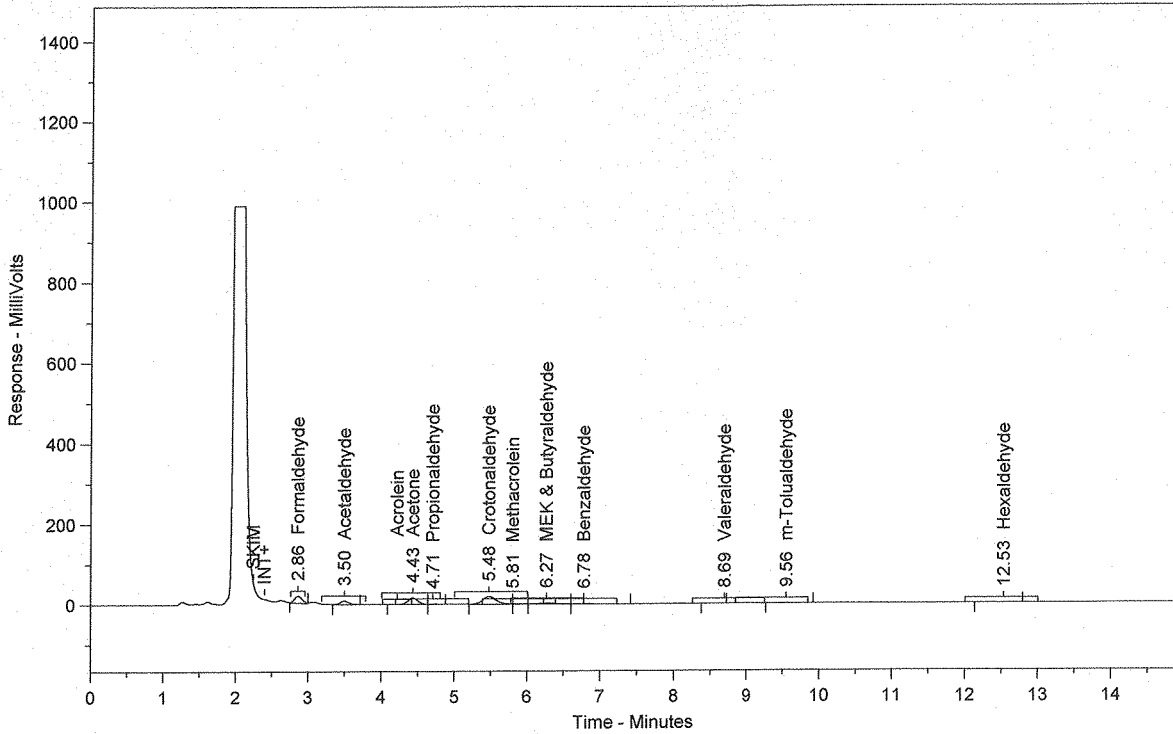
Total Area = 681115.4

Total Height = 66624.87

Total Amount = 1.639295

Chrom Perfect Chromatogram Report

130528-62753 Dup



Sample Name = 130528-62753 Dup

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913\TO-11\050913.0010.RAW

Date Taken (end) = 5/9/2013 9:36:38 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 10

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.86	Formaldehyde	0.1889	11.809	120021	18.060	BB	0.11
2	3.50	Acetaldehyde	0.1274	7.963	66715	10.039	BB	0.13
3	4.43	Acetone	0.3785	23.665	155260	23.363	BV	0.15
4	4.71	Propionaldehyde	0.0219	1.371	8980	1.351	VB	0.14
5	5.48	Crotonaldehyde	0.6488	40.567	246010	37.019	BV	0.19
6	5.81	Methacrolein	0.0174	1.091	7000	1.053	VV	0.14
7	6.27	MEK & Butyraldehyde	0.1051	6.570	33858	5.095	VV	0.23
8	6.78	Benzaldehyde	0.0378	2.361	9801	1.475	VB	0.38
9	8.69	Valeraldehyde	0.0095	0.596	2674	0.402	BB	0.20
10	9.56	m-Tolualdehyde	0.0507	3.168	11042	1.662	BB	0.31
11	12.53	Hexaldehyde	0.0134	0.838	3190	0.480	BB	0.39

Total Area = 664551.5

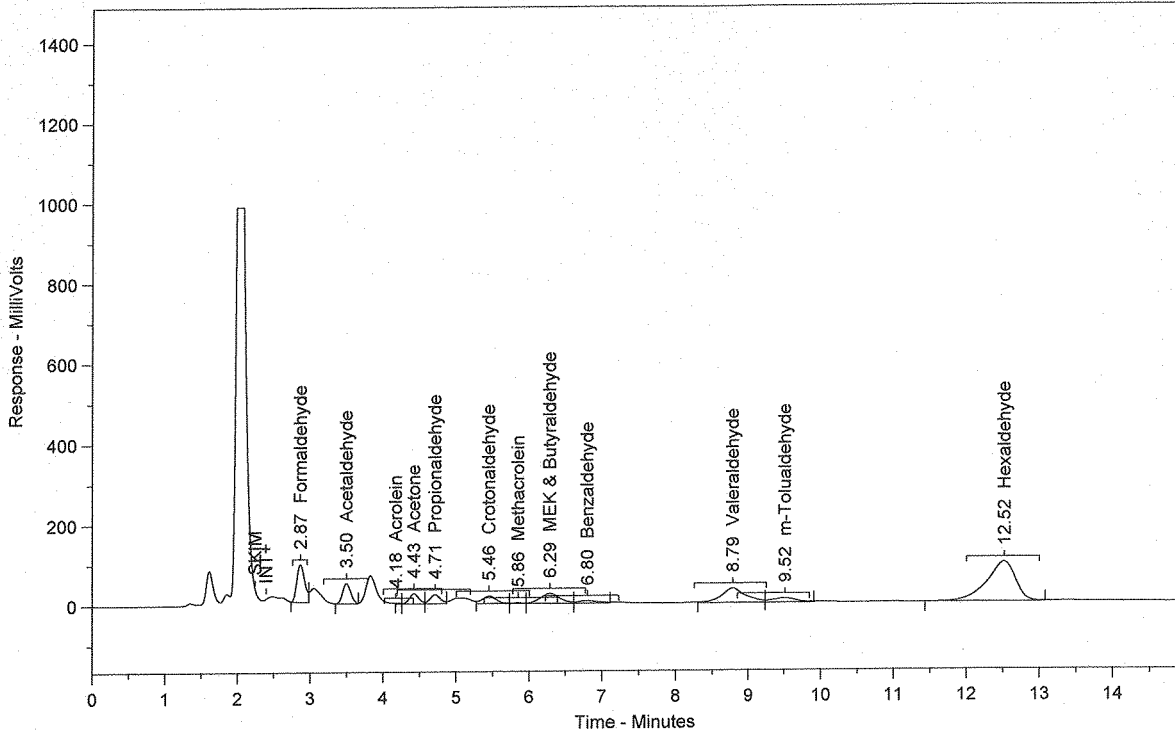
Total Height = 64762.64

Total Amount = 1.599243

HP
05/09/13

Chrom Perfect Chromatogram Report

130528-62754



Sample Name = 130528-62754

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0011.RAW

Date Taken (end) = 5/9/2013 9:53:14 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 11

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Am t %	Area	Area %	Type	Width
1	2.87	Formaldehyde	1.0938	5.287	695125	11.447	BB	0.12
2	3.50	Acetaldehyde	0.7475	3.613	391586	6.448	BB	0.12
3	4.18	Acrolein	0.0047	0.023	2245	0.037	BV	0.05
4	4.43	Acetone	0.5135	2.482	210658	3.469	VV	0.14
5	4.71	Propionaldehyde	0.5266	2.545	215765	3.553	VB	0.14
6	5.46	Crotonaldehyde	0.6087	2.942	230831	3.801	BV	0.21
7	5.86	Methacrolein	0.0232	0.112	9295	0.153	VV	0.13
8	6.29	MEK & Butyraldehyde	1.3661	6.603	440198	7.249	VV	0.28
9	6.80	Benzaldehyde	0.4559	2.204	118333	1.949	VB	0.20
10	8.79	Valeraldehyde	3.0128	14.562	845137	13.917	BV	0.31
11	9.52	m-Tolualdehyde	1.1485	5.551	250309	4.122	VB	0.35
12	12.52	Hexaldehyde	11.1878	54.076	2663434	43.855	BB	0.40

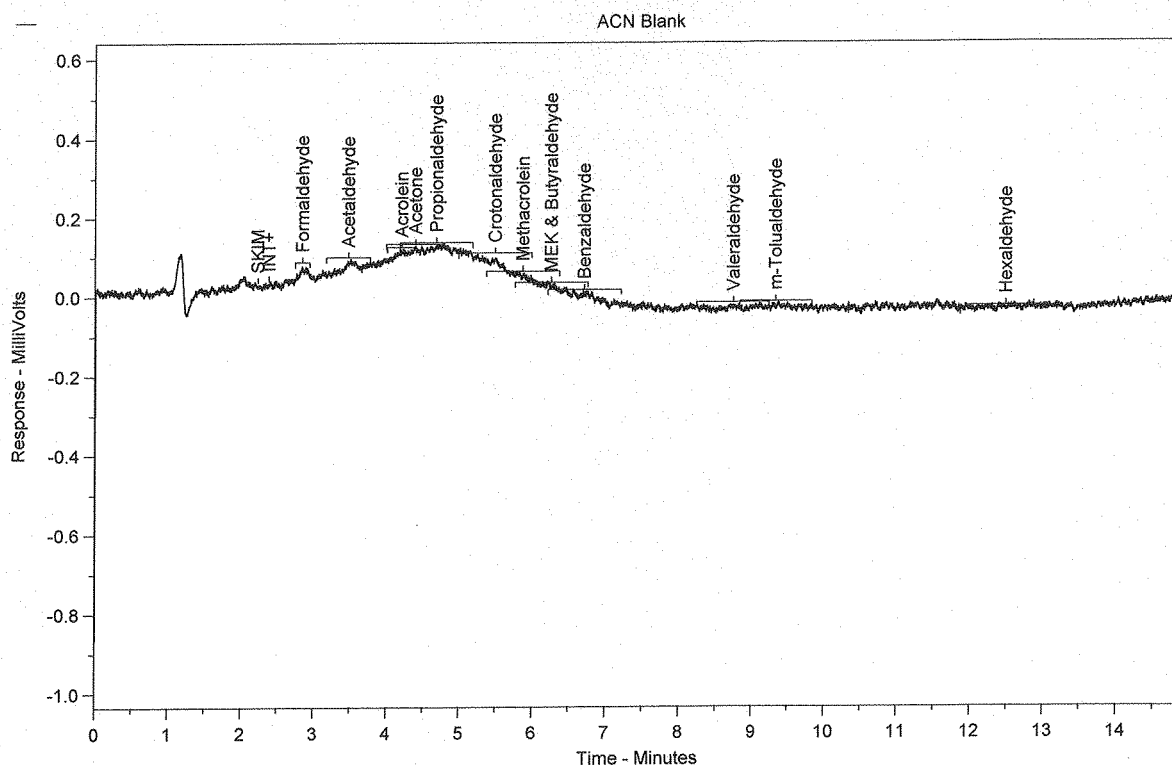
Total Area = 6072617

Total Height = 382115

Total Amount = 20.68927

off scale.
HP
05/09/13

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913(1).0012.RAW

Date Taken (end) = 5/9/2013 10:48:18 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 12

Injection Volume = 10

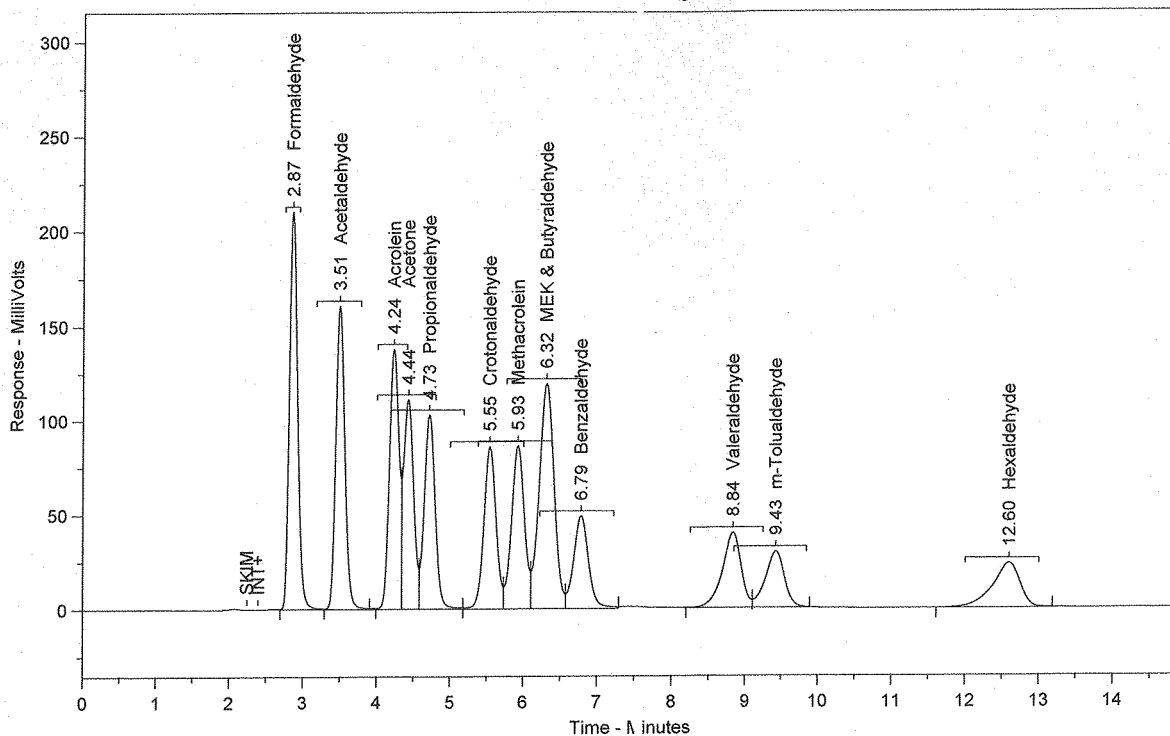
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
Total Area = 0			Total Height = 0		Total Amount = 0			

HP
05/09/13

Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0013.RAW

Date Taken (end) = 5/9/2013 11:04:53 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 13

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.87	Formaldehyde	2.5760	7.667	1637031	12.960	SBB	0.12
2	3.51	Acetaldehyde	2.5959	7.726	1359841	10.766	TBV	0.13
3	4.24	Acrolein	2.6375	7.850	1259436	9.971	TVV	0.17
4	4.44	Acetone	2.5698	7.648	1054220	8.346	TVV	0.16
5	4.73	Propionaldehyde	2.5991	7.735	1064939	8.431	TVV	0.16
6	5.55	Crotonaldehyde	2.6074	7.760	988736	7.828	TVV	0.18
7	5.93	Methacrolein	2.6261	7.816	1053661	8.342	TVV	0.17
8	6.32	MEK & Butyraldehyde	5.1701	15.387	1665977	13.190	TVV	0.21
9	6.79	Benzaldehyde	2.6329	7.836	683321	5.410	TVB	0.21
10	8.84	Valeraldehyde	2.5505	7.591	715445	5.664	BV	0.27
11	9.43	m-Tolualdehyde	2.4924	7.418	543208	4.301	VB	0.28
12	12.60	Hexaldehyde	2.5427	7.568	605268	4.792	BB	0.38

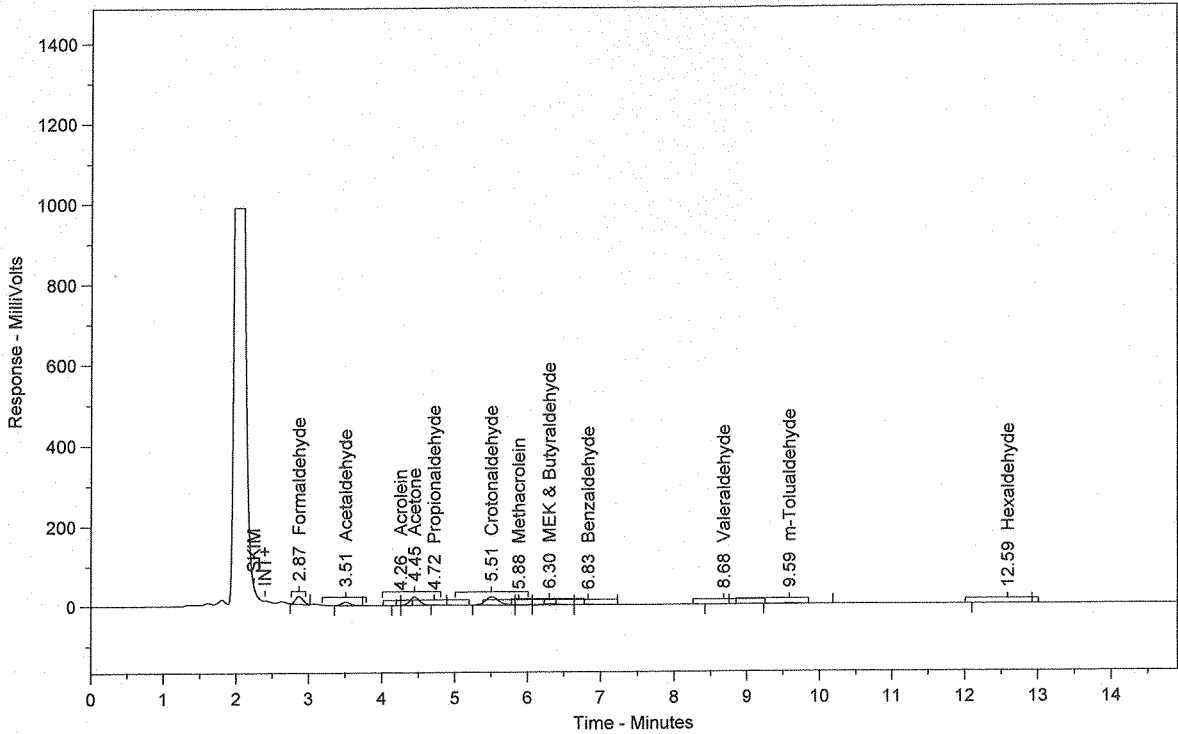
Total Area = 1.263108E+07

Total Height = 1155057

Total Amount = 33.60041

Chrom Perfect Chromatogram Report

130528-62755



Sample Name = 130528-62755

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0014.RAW

Date Taken (end) = 5/9/2013 11:21:28 AM

Method File Name = C:\Chromperfect 2\Methods and Sequence\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 14

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.87	Formaldehyde	0.2259	12.122	143540	18.715	BB	0.11
2	3.51	Acetaldehyde	0.1295	6.949	67828	8.844	BB	0.13
3	4.26	Acrolein	0.0026	0.137	1220	0.159	BV	0.05
4	4.45	Acetone	0.4917	26.390	201726	26.301	SBB	0.14
5	4.72	Propionaldehyde	0.0166	0.891	6801	0.887	TBB	0.13
6	5.51	Crotonaldehyde	0.6896	37.009	261489	34.093	BV	0.19
7	5.88	Methacrolein	0.0192	1.028	7684	1.002	VV	0.15
8	6.30	MEK & Butyraldehyde	0.1158	6.215	37314	4.865	VV	0.21
9	6.83	Benzaldehyde	0.0222	1.194	5772	0.753	VB	0.32
10	8.68	Valeraldehyde	0.0092	0.494	2584	0.337	BB	0.21
11	9.59	m-Tolualdehyde	0.1272	6.826	27719	3.614	BB	0.30
12	12.59	Hexaldehyde	0.0139	0.745	3305	0.431	BB	0.47

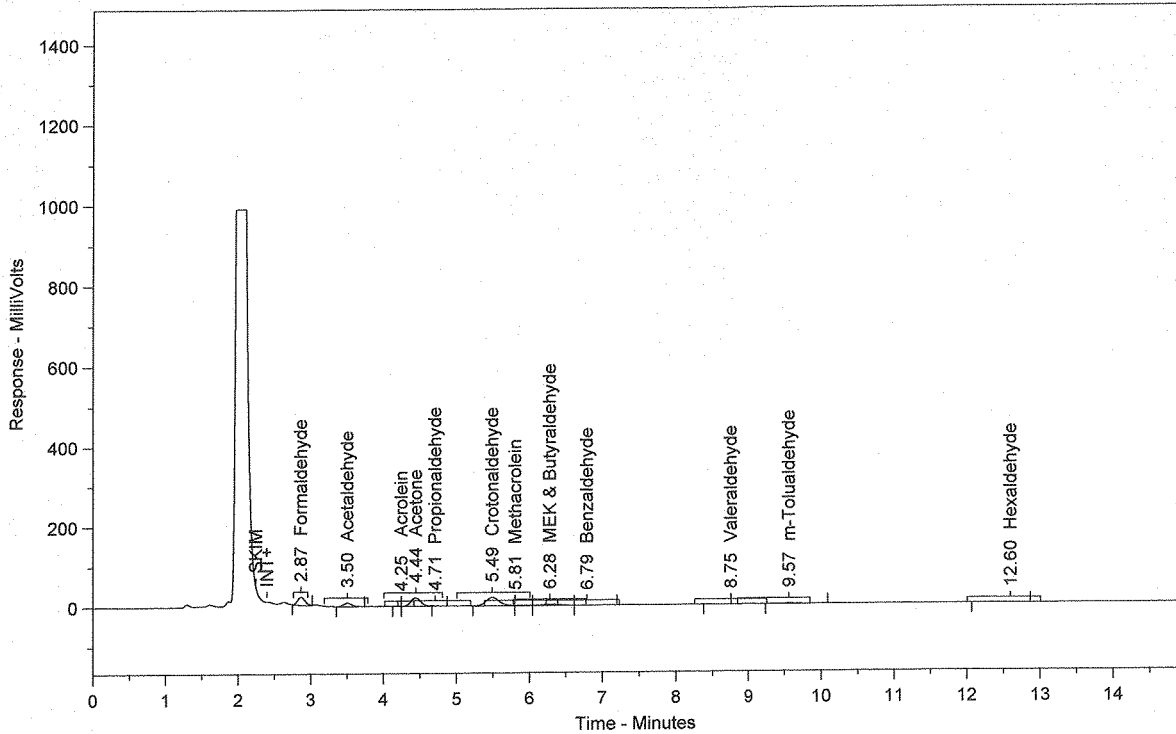
Total Area = 766982.6

Total Height = 76627.8

Total Amount = 1.863285

Chrom Perfect Chromatogram Report

130528-62755 Dup



Sample Name = 130528-62755 Dup

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0015.RAW

Date Taken (end) = 5/9/2013 11:38:04 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 15

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.87	Formaldehyde	0.2241	12.053	142418	18.598	BB	0.11
2	3.50	Acetaldehyde	0.1288	6.926	67461	8.810	BB	0.13
3	4.25	Acrolein	0.0023	0.125	1111	0.145	BV	0.05
4	4.44	Acetone	0.4925	26.485	202027	26.383	SBB	0.14
5	4.71	Propionaldehyde	0.0168	0.905	6892	0.900	TBB	0.13
6	5.49	Crotonaldehyde	0.6872	36.958	260577	34.029	BV	0.19
7	5.81	Methacrolein	0.0202	1.087	8109	1.059	VV	0.15
8	6.28	MEK & Butyraldehyde	0.1215	6.533	39140	5.111	VV	0.22
9	6.79	Benzaldehyde	0.0222	1.193	5755	0.752	VB	0.33
10	8.75	Valeraldehyde	0.0104	0.562	2931	0.383	BB	0.23
11	9.57	m-Tolualdehyde	0.1207	6.490	26300	3.434	BB	0.29
12	12.60	Hexaldehyde	0.0127	0.685	3033	0.396	BB	0.39

Total Area = 765751.2

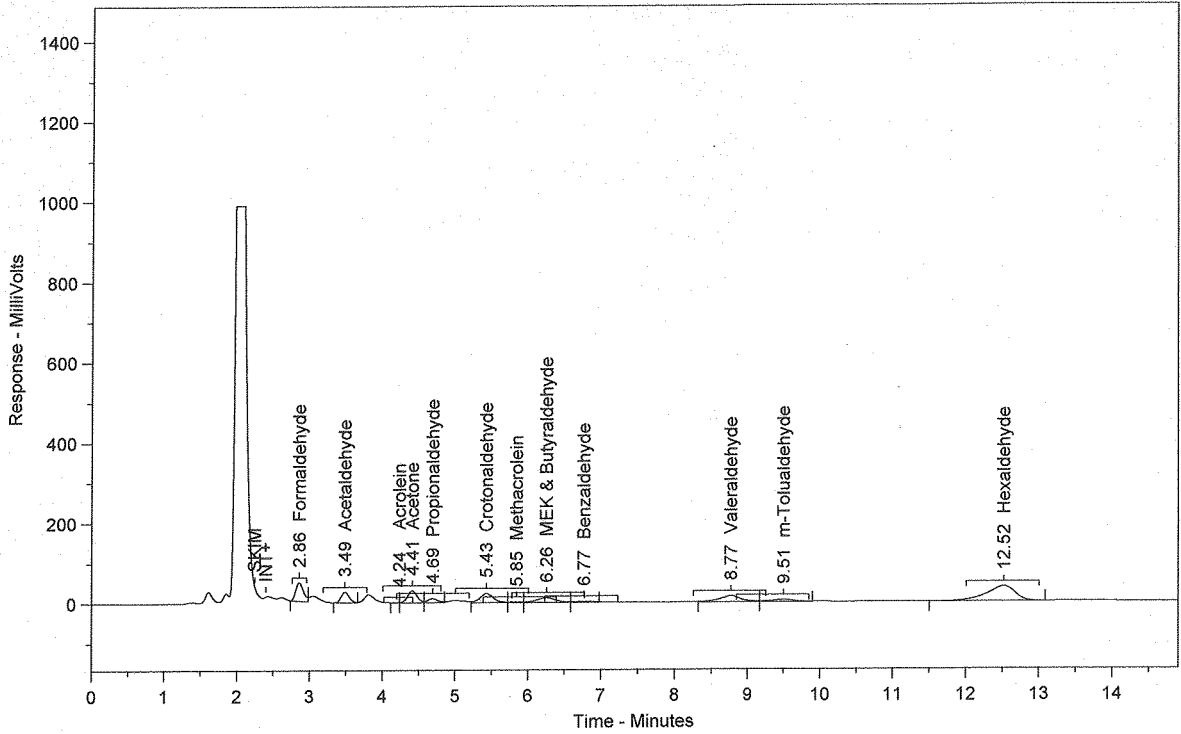
Total Height = 76323.7

Total Amount = 1.859377

HP
05/09/13

Chrom Perfect Chromatogram Report

130528-62756



Sample Name = 130528-62756

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0016.RAW

Date Taken (end) = 5/9/2013 11:54:39 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 16

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Ant %	Area	Area %	Type	Width
1	2.86	Formaldehyde	0.5281	5.756	335576	11.724	BB	0.11
2	3.49	Acetaldehyde	0.3952	4.308	207028	7.233	BB	0.13
3	4.24	Acrolein	0.0029	0.031	1377	0.048	BV	0.05
4	4.41	Acetone	0.6526	7.114	267721	9.353	VV	0.14
5	4.69	Propionaldehyde	0.2450	2.671	100399	3.508	VB	0.14
6	5.43	Crotonaldehyde	0.7306	7.965	277047	9.679	BV	0.19
7	5.85	Methacrolein	0.0296	0.323	11880	0.415	VV	0.12
8	6.26	MEK & Butyraldehyde	0.6324	6.894	203787	7.119	VV	0.25
9	6.77	Benzaldehyde	0.1721	1.876	44674	1.561	VB	0.19
10	8.77	Valeraldehyde	1.0926	11.910	306478	10.707	BV	0.28
11	9.51	m-Tolualdehyde	0.5223	5.694	113831	3.977	VB	0.33
12	12.52	Hexaldehyde	4.1700	45.457	992609	34.677	BB	0.40

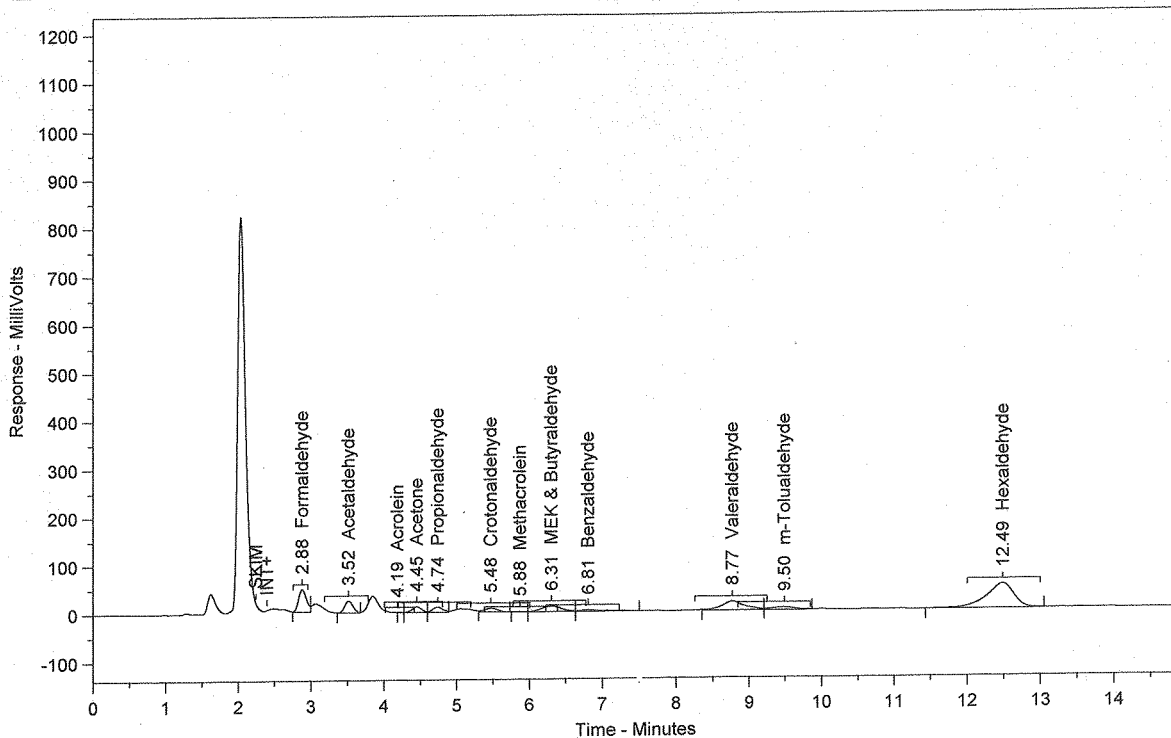
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Total Height = 204551.1

Total Amount = 9.173378

Chrom Perfect Chromatogram Report

130528-62754x2



Sample Name = 130528-62754x2

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0020.RAW

Date Taken (end) = 5/9/2013 1:01:05 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 20

Injection Volume = 10

Dilution Factor = 2

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.88	Formaldehyde	1.0969	5.370	348538	11.638	BB	0.12
2	3.52	Acetaldehyde	0.7444	3.644	194978	6.511	BB	0.13
3	4.19	Acrolein	0.0042	0.021	1014	0.034	BV	0.06
4	4.45	Acetone	0.5022	2.458	103002	3.439	VV	0.14
5	4.74	Propionaldehyde	0.5157	2.525	105658	3.528	VB	0.14
6	5.48	Crotonaldehyde	0.5243	2.567	99412	3.319	BB	0.21
7	5.88	Methacrolein	0.0182	0.089	3647	0.122	BV	0.13
8	6.31	MEK & Butyraldehyde	1.3330	6.525	214763	7.171	VV	0.28
9	6.81	Benzaldehyde	0.5378	2.633	69786	2.330	VB	0.28
10	8.77	Valeraldehyde	2.9337	14.361	411467	13.739	BV	0.30
11	9.50	m-Tolualdehyde	1.1509	5.634	125417	4.188	VB	0.33
12	12.49	Hexaldehyde	11.0664	54.173	1317109	43.980	BB	0.39

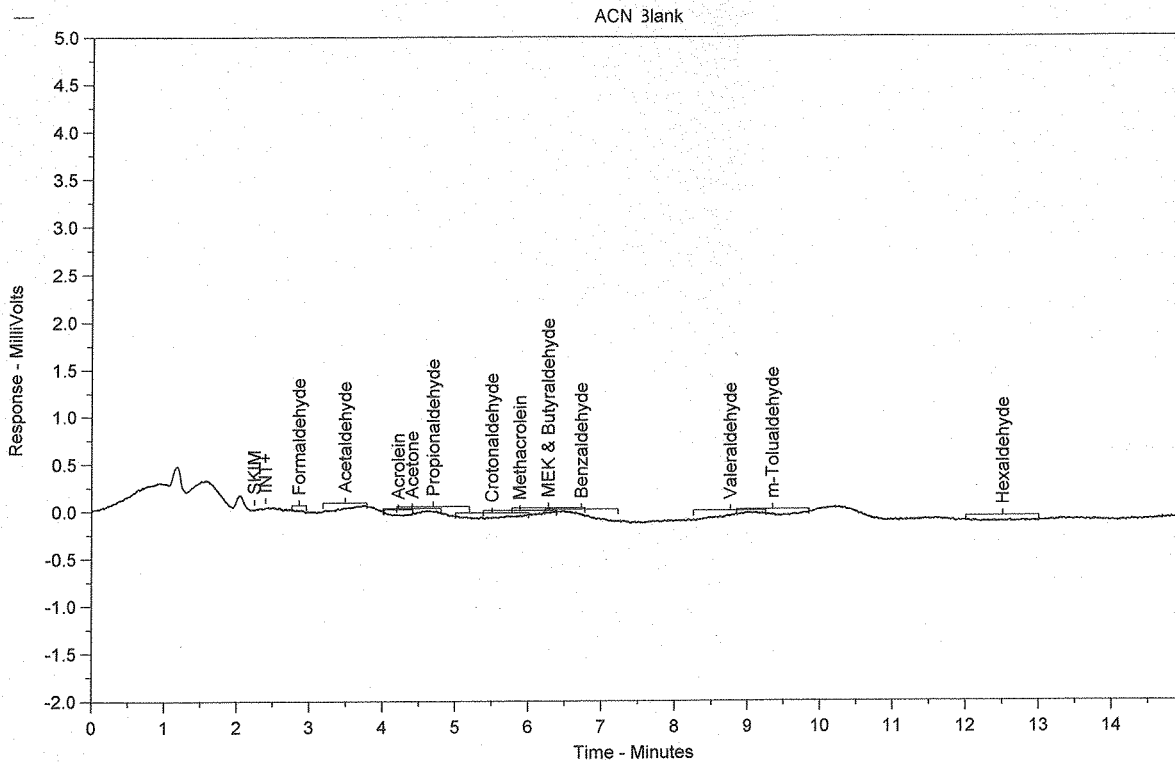
*Did not report
Confirmation
only*

Total Area = 2994789

Total Height = 190167.8

Total Amount = 20.42766

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913\TO-11\050913.0023.RAW

Date Taken (end) = 5/9/2013 2:37:33 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 23

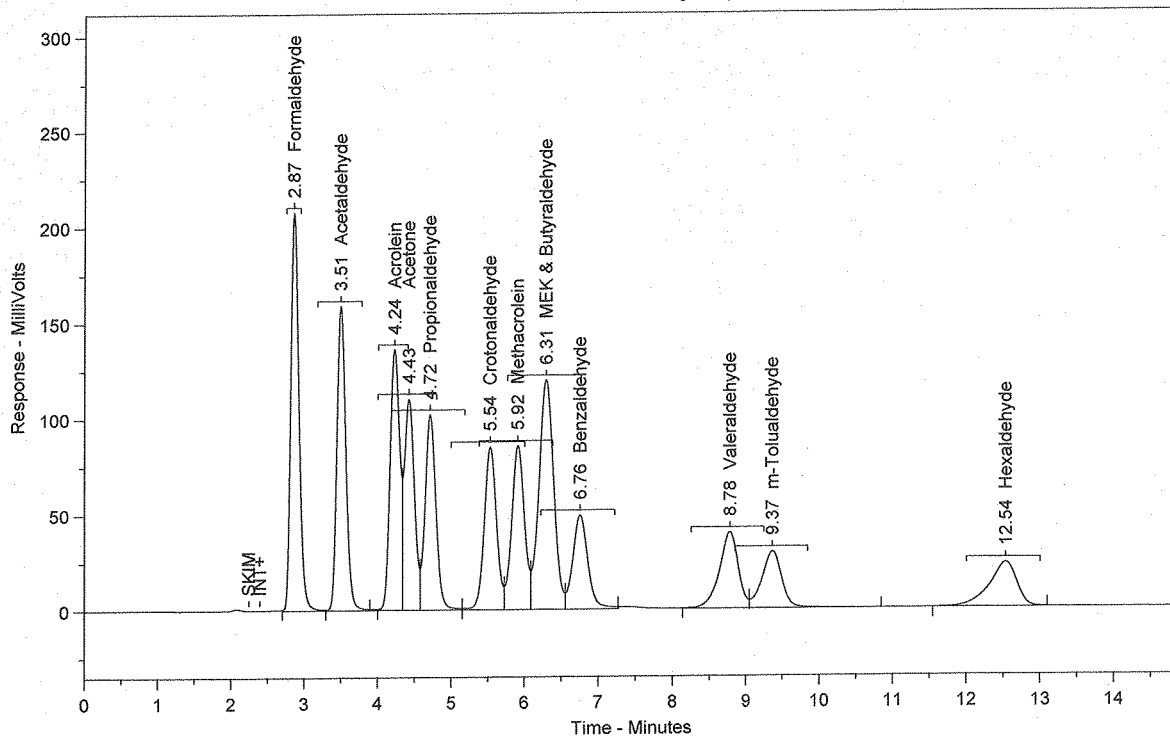
Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
Total Area = 0			Total Height = 0		Total Amount = 0			

Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0024.RAW

Date Taken (end) = 5/9/2013 2:54:08 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 24

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.87	Formaldehyde	2.5623	7.633	1628348	12.934	SBB	0.12
2	3.51	Acetaldehyde	2.5810	7.688	1352037	10.739	TBV	0.13
3	4.24	Acrolein	2.5998	7.745	1241457	9.861	TVV	0.17
4	4.43	Acetone	2.5564	7.615	1048756	8.330	TVV	0.16
5	4.72	Propionaldehyde	2.5743	7.668	1054759	8.378	TVV	0.16
6	5.54	Crotonaldehyde	2.5946	7.729	983850	7.815	TVV	0.18
7	5.92	Methacrolein	2.5836	7.696	1036620	8.234	TVV	0.17
8	6.31	MEK & Butyraldehyde	5.1646	15.385	1664206	13.219	TVV	0.20
9	6.76	Benzaldehyde	2.6749	7.968	694235	5.514	TVB	0.21
10	8.78	Valeraldehyde	2.5660	7.644	719806	5.718	BV	0.27
11	9.37	m-Tolualdehyde	2.5613	7.630	558220	4.434	VV	0.28
12	12.54	Hexaldehyde	2.5508	7.599	607195	4.823	VB	0.38

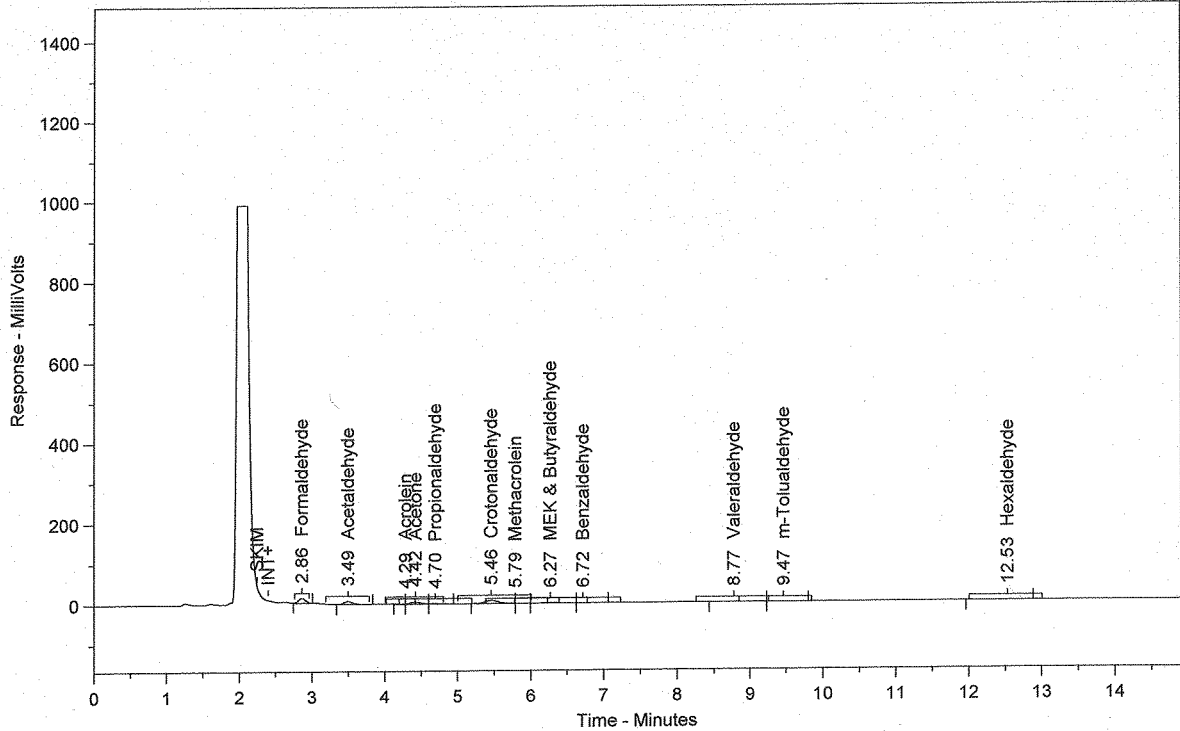
Total Area = 1.258949E+07

Total Height = 1146648

Total Amount = 33.56976

Chrom Perfect Chromatogram Report

130559-62862



Sample Name = 130559-62862

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0025.RAW

Date Taken (end) = 5/9/2013 3:10:42 PM

Method File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0025.BND

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0025.BND

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 25

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.86	Formaldehyde	0.1228	17.250	78068	24.953	BB	0.11
2	3.49	Acetaldehyde	0.1069	15.004	55973	17.891	BB	0.13
3	4.29	Acrolein	0.0023	0.323	1098	0.351	BV	0.03
4	4.42	Acetone	0.1126	15.810	46188	14.763	VV	0.14
5	4.70	Propionaldehyde	0.0185	2.593	7567	2.419	VV	0.17
6	5.46	Crotonaldehyde	0.2596	36.447	98425	31.460	VV	0.19
7	5.79	Methacrolein	0.0039	0.543	1552	0.496	VV	0.12
8	6.27	MEK & Butyraldehyde	0.0325	4.567	10480	3.350	VV	0.25
9	6.72	Benzaldehyde	0.0055	0.775	1432	0.458	VB	0.24
10	8.77	Valeraldehyde	0.0204	2.871	5736	1.833	BV	0.44
11	9.47	m-Tolualdehyde	0.0066	0.933	1448	0.463	VB	0.43
12	12.53	Hexaldehyde	0.0205	2.884	4888	1.563	BB	0.42

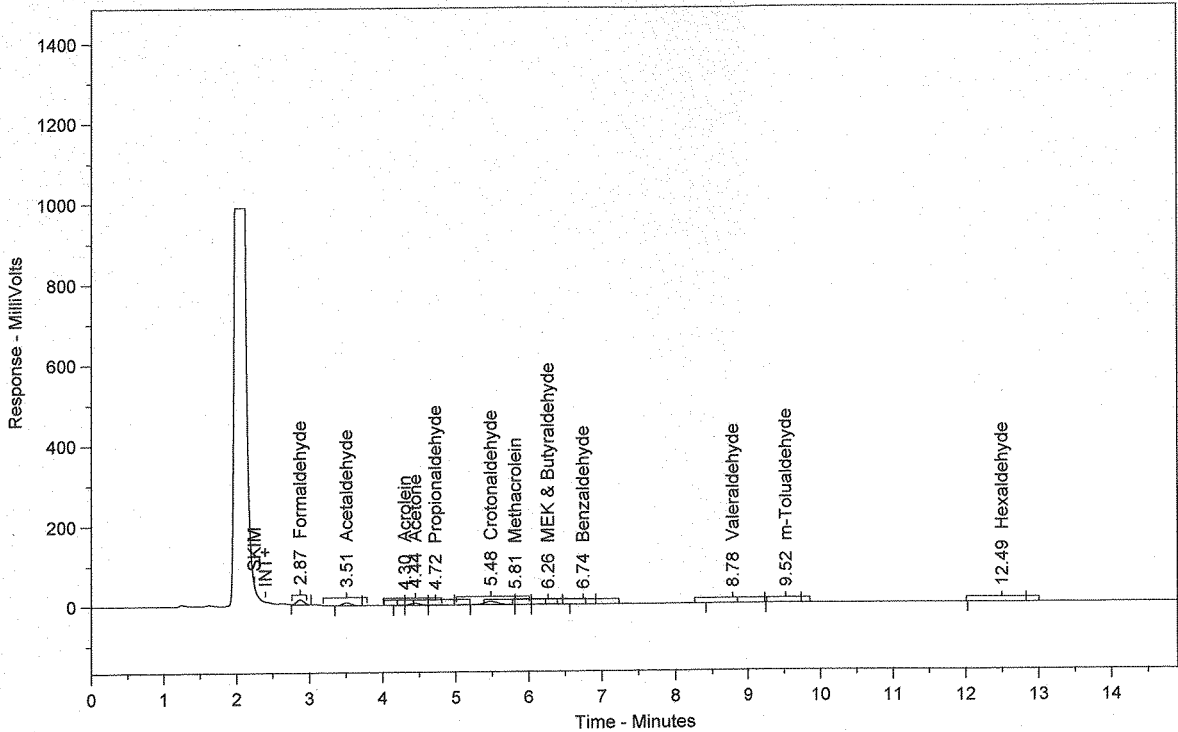
Total Area = 312856.9

Total Height = 33919.64

Total Amount = 0.7121532

Chrom Perfect Chromatogram Report

130559-62862 Dup



Sample Name = 130559-62862 Dup

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0026.RAW

Date Taken (end) = 5/9/2013 3:27:17 PM

Method File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0026.BND

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Data\HPLC #1\2013\050913TO-11\050913.0026.BND

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 26

Injection Volume = 10

Dilution Factor = 1

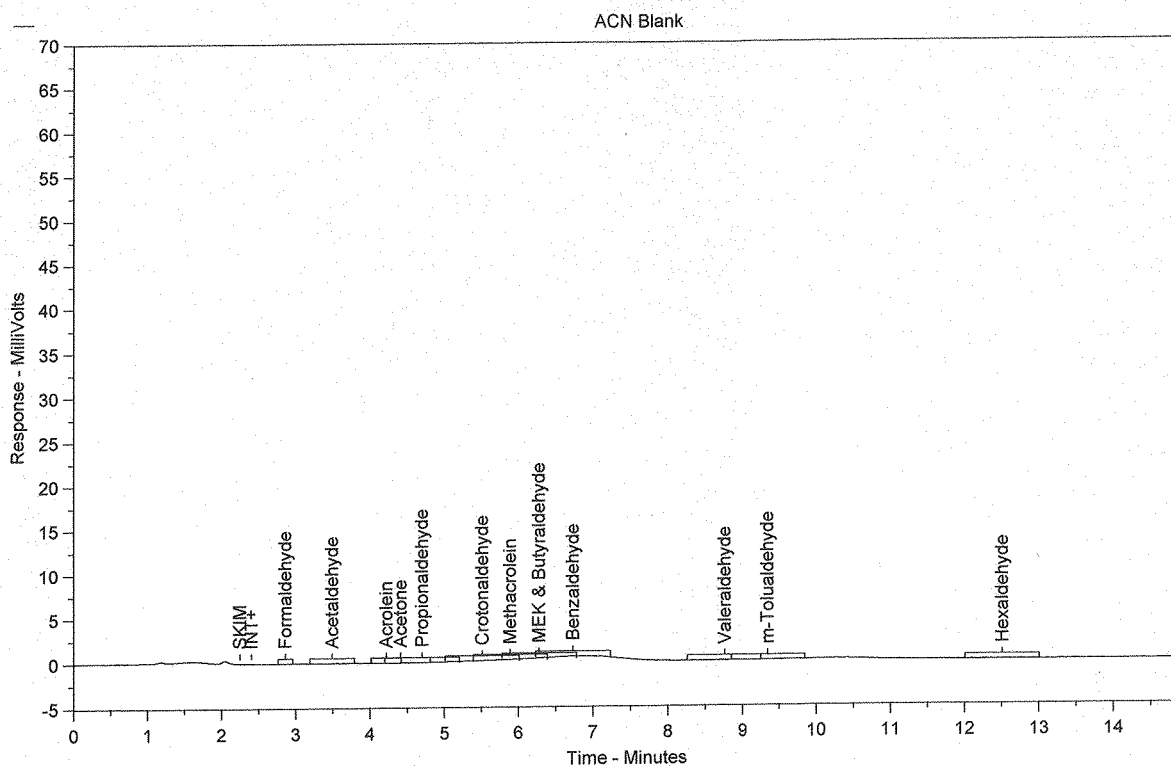
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.87	Formaldehyde	0.1232	17.351	78281	25.051	BB	0.11
2	3.51	Acetaldehyde	0.1070	15.072	56053	17.938	BB	0.13
3	4.30	Acrolein	0.0022	0.303	1029	0.329	BV	0.03
4	4.44	Acetone	0.1124	15.839	46130	14.762	VV	0.14
5	4.72	Propionaldehyde	0.0188	2.642	7684	2.459	VV	0.17
6	5.48	Crotonaldehyde	0.2572	36.235	97546	31.216	VV	0.19
7	5.81	Methacrolein	0.0038	0.534	1521	0.487	VV	0.12
8	6.26	MEK & Butyraldehyde	0.0361	5.084	11631	3.722	VV	0.23
9	6.74	Benzaldehyde	0.0041	0.571	1053	0.337	VB	0.29
10	8.78	Valeraldehyde	0.0212	2.990	5955	1.906	BB	0.45
11	9.52	m-Tolualdehyde	0.0050	0.700	1083	0.346	BB	0.29
12	12.49	Hexaldehyde	0.0190	2.677	4524	1.448	BB	0.43

Total Area = 312489.6

Total Height = 33796.86

Total Amount = 0.7099266

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromep perfect 2\Data\HPLC #1\2013\050913TO-11\050913.0032.RAW

Date Taken (end) = 5/9/2013 5:06:52 PM

Method File Name = C:\Chromep perfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET
 Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromep perfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
 Concentration Units = ug/ml

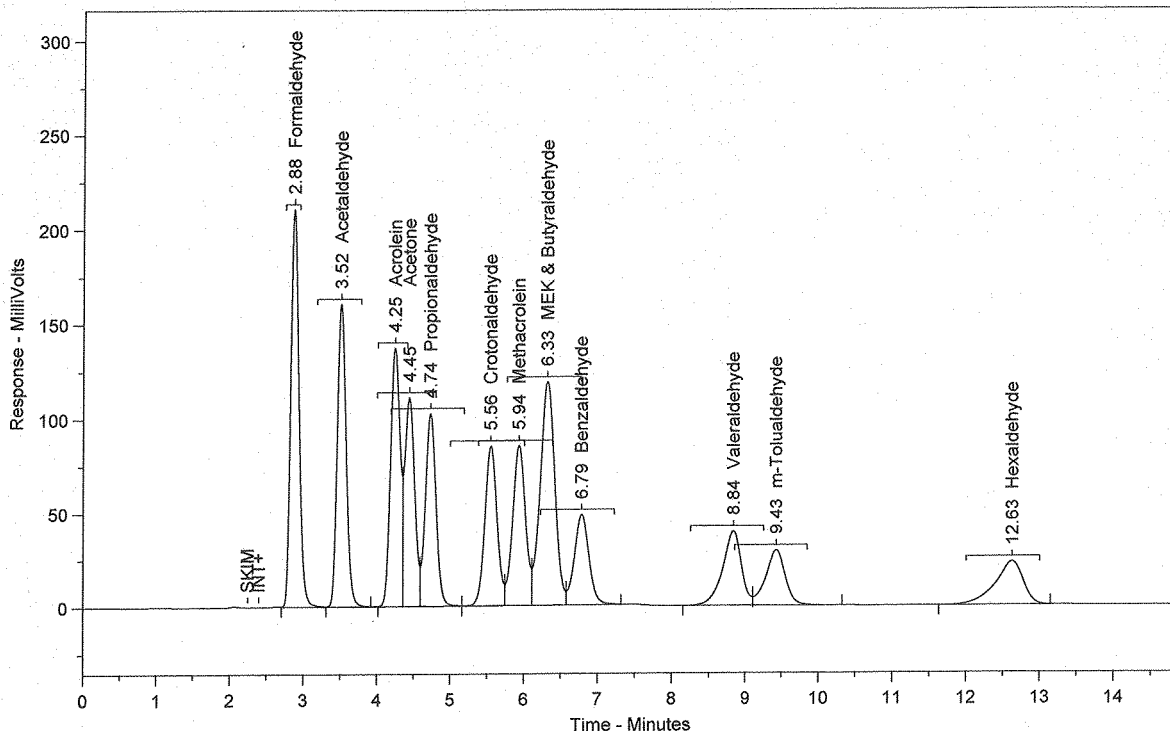
Run Time = 14.89889
 Injection Volume = 10

Vial Number = 32
 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
Total Area = 0			Total Height = 0		Total Amount = 0			

Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\0509 13TO-11\050913.0033.RAW

Date Taken (end) = 5/9/2013 5:23:26 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.MET
 Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\011613 TO-11A.CAL
 Concentration Units = ug/ml

Run Time = 14.89889
 Injection Volume = 10

Vial Number = 33
 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.88	Formaldehyde	2.5780	7.732	1638340	13.077	SBB	0.12
2	3.52	Acetaldehyde	2.5812	7.742	1352155	10.793	TBV	0.13
3	4.25	Acrolein	2.6168	7.849	1249578	9.974	TVV	0.17
4	4.45	Acetone	2.5643	7.691	1051968	8.397	TVV	0.16
5	4.74	Propionaldehyde	2.5448	7.633	1042676	8.323	TVV	0.16
6	5.56	Crotonaldehyde	2.5588	7.675	970286	7.745	TVV	0.18
7	5.94	Methacrolein	2.5703	7.709	1031272	8.232	TVV	0.17
8	6.33	MEK & Butyraldehyde	5.1226	15.364	1650668	13.176	TVV	0.21
9	6.79	Benzaldehyde	2.5232	7.568	654863	5.227	TVB	0.21
10	8.84	Valeraldehyde	2.5659	7.696	719759	5.745	BV	0.27
11	9.43	m-Tolualdehyde	2.5396	7.617	553497	4.418	VB	0.28
12	12.63	Hexaldehyde	2.5754	7.724	613042	4.893	BB	0.39

Total Area = 1.25281E+07

Total Height = 11504:1

Total Amount = 33.34096

Chrom Perfect Sequence File

File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\050913 (TO-11).SEQ

File Date = 5/9/2013 1:25:08 PM

Analyst=

Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
1	050913.0001.raw	011613 TO-11A.MET	ACN Blank	1	1
2	050913.0002.raw	011613 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	2	1
3	050913.0003.raw	011613 TO-11A.MET	SS 1.25 ppm (PS080412-01)	3	1
4	050913.0004.raw	011613 TO-11A.MET	TO-11 Method Blank	4	1
5	050913.0005.raw	011613 TO-11A.MET	LCS Blank	5	1
6	050913.0006.raw	011613 TO-11A.MET	LCS 1.25ug/mL (PS011013-01)	6	1
7	050913.0007.raw	011613 TO-11A.MET	MS 130528-62753 1.25 ppm [(PS011613-01x2]	7	1
8	050913.0008.raw	011613 TO-11A.MET	MSD 130528-62753 1.25 ppm [(PS011613-01x2]	8	1
9	050913.0009.raw	011613 TO-11A.MET	130528-62753	9	1
10	050913.0010.raw	011613 TO-11A.MET	130528-62753 Dup	10	1
11	050913.0011.raw	011613 TO-11A.MET	130528-62754	11	1
12	050913.0012.raw	011613 TO-11A.MET	ACN Blank	12	1
13	050913.0013.raw	011613 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	13	1
14	050913.0014.raw	011613 TO-11A.MET	130528-62755	14	1
15	050913.0015.raw	011613 TO-11A.MET	130528-62755 Dup	15	1
16	050913.0016.raw	011613 TO-11A.MET	130528-62756	16	1
17	050913.0017.raw	011613 TO-11A.MET	130551-62827	17	1
18	050913.0018.raw	011613 TO-11A.MET	130551-62828	18	1
19	050913.0019.raw	011613 TO-11A.MET	130552-62829	19	1
20	050913.0020.raw	011613 TO-11A.MET	130528-62754x2	20	2
21	050913.0021.raw	011613 TO-11A.MET	130559-62843	21	1
22	050913.0022.raw	011613 TO-11A.MET	130559-62853	22	1
23	050913.0023.raw	011613 TO-11A.MET	ACN Blank	23	1
24	050913.0024.raw	011613 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	24	1
25	050913.0025.raw	011613 TO-11A.MET	130559-62862	25	1
26	050913.0026.raw	011613 TO-11A.MET	130559-62862 Dup	26	1
27	050913.0027.raw	011613 TO-11A.MET	130559-62871	27	1
28	050913.0028.raw	011613 TO-11A.MET	130559-62880	28	1
29	050913.0029.raw	011613 TO-11A.MET	130559-62889	29	1
30	050913.0030.raw	011613 TO-11A.MET	130559-62898	30	1
31	050913.0031.raw	011613 TO-11A.MET	130559-62907	31	1
32	050913.0032.raw	011613 TO-11A.MET	ACN Blank	32	1
33	050913.0033.raw	011613 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	33	1