February 15, 2016 Reference No. 073011

Mr. Paul Horwath, P.E.
Alaska Department of Environmental Conservation
43335 K-Beach Road
Soldotna, Alaska 99669

Dear Mr. Horwath

Re: Second Semiannual 2015 Groundwater Monitoring and Sampling Report
Delta Western Inc.,
Dillingham Auto
315 Main Street
Dillingham, Alaska
ADEC File Number: 2540.26.003
ADEC Hazard ID: 23487

GHD is submitting this *Second Semiannual 2015 Groundwater Monitoring Report* to the Alaska Department of Environmental Conservation (ADEC) on behalf of Delta Western, Incorporated (DWI) for the site referenced above. GHD prepared this report summarizing the October 2015 groundwater sampling in Dillingham, Alaska.

Site Background

The site is a former automotive repair shop located at 315 Main Street in Dillingham, Alaska (Figure 1). The former automotive shop building was demolished in 2010. DWI's bulk fuel terminal is directly southwest of the site. The property's legal description is U.S.S. 1922, west boundary and U.S.S. 1793, east boundary, Lot 1, Block 32, Dillingham Townsite. Site latitude and longitude are 59.0380° north and 158.4662° west. Site facilities include aboveground storage tanks (ASTs), fuel dispensers, a loading rack, product piping, a warehouse and a station building (Figure 2).

Contaminants of Potential Concern and Cleanup Levels

Site contaminants of potential concern (COPCs) are diesel range organics (DRO), gasoline range organics (GRO) and benzene. ADEC Table C Groundwater Cleanup Levels (*Title 18 Alaska Administrative Code (AAC) 75.345)* and ADEC Method Two Soil Cleanup Levels, Tables B1 and B2, under 40-inch zone, migration to groundwater (*Title 18 AAC 75.341*) are the current site groundwater and soil cleanup levels.

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Hydrogeology

Dillingham is located in the northern arm of Bristol Bay. The Wood and Nushagak Rivers converge in Dillingham. Average annual precipitation in Dillingham is approximately 26 inches per year. Groundwater depths ranged from 1.30 (MW-8) to 6.86 (MW-11) feet (ft) below ground surface (bgs) on October 9, 2015. Groundwater flows to the south/southwest with an approximate gradient of 0.04 ft/ft (Figure 2). The site groundwater monitoring wells will be resurveyed during the 2016 season to confirm the accuracy of the groundwater flow direction.

Conceptual Site Model

CRA/GHD submitted a conceptual site model (CSM) to the ADEC on November 29, 2011. The CSM includes information on sources, affected media and exposure pathways. Incidental ingestion of soil, groundwater and surface water, and inhalation of indoor and outdoor air were identified as complete exposure pathways.

Groundwater Sampling

GHD gauged and sampled monitoring wells B3MW, TW-2, MW-5R, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, and MW-13 on October 13, 2015. Each monitoring well was opened and the well cap removed to allow groundwater levels to stabilize. Wells B1MW and B2MW were not located. B4MW is covered by a soil stockpile. MW-9 was suspended from the sampling plan. Monitoring wells were purged of approximately three well-casing volumes while collecting temperature, pH, dissolved oxygen, oxidation reduction potential, and conductivity data. All groundwater samples, including a duplicate sample (MW-11-DUP), were collected using clean, disposable, Teflon bailers and decanted into clean containers supplied by the analytical laboratory. The samples were submitted under chain-of-custody to Pace Analytical of Minneapolis, Minnesota. Field sampling forms are presented as Attachment A.

Sampling-Derived Waste

Purged groundwater was discharged directly to the ground surface within the site boundaries a minimum of 100 ft away from any drinking water wells and/or surface water bodies with ADEC approval.

Groundwater Analytical Methods

All groundwater samples were analyzed for the following:

- DRO by Alaska Series Method AK102
- GRO by Alaska Series Method AK101
- Benzene, toluene, ethylbenzene and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B (Table 1).

In addition, groundwater samples collected from MW-11 were analyzed for Polynuclear aromatic hydrocarbons (PAHs) by Environmental Protection Agency (EPA) Method 8270M (Table 2).

Groundwater analytical data collected from downgradient monitoring well MW-11 were used to calculate for total aromatic hydrocarbons (TAH) and total aqueous hydrocarbons (TAqH) (18 AAC 70).

Groundwater Analytical Results

Benzene exceeded the ADEC Table C groundwater cleanup level of 0.005 milligrams per liter (mg/L) in groundwater samples collected from wells B3MW, MW-5R, MW-6, MW-7, MW-8, MW-10, and MW-11 (downgradient well). The maximum benzene detected concentration was 2.7 mg/L in groundwater sample MW-11. DRO exceeded the ADEC Table C cleanup level in MW-5R, MW-7, MW-8, MW-10 and MW-11. GRO exceeded the ADEC Table C cleanup level in wells MW-5R, MW-8 and MW-11 (Figure 3).

Groundwater sample MW-11 contained 3.026 mg/L TAH and exceeded the 18 AAC 70 cleanup levels of 0.01 mg/L. Groundwater sample MW-11 contained 3.029249 mg/L TAqH and exceeded the 18 AAC 70 cleanup standard of 0.015 mg/L.

Based on the quality assurance/quality control review, the data submitted were judged to be acceptable for use with the qualifications noted. The analytical laboratory report is presented as Attachment B. The ADEC laboratory data review checklist and summary are presented as Attachment C.

GHD collected geochemical parameters for dissolved oxygen (DO), temperature, pH, oxygen reduction potential (ORP) and conductivity measurements to evaluate evidence of natural attenuation at the site (Table 1). The collected data varies greatly to assess if MNA is occurring within the hydrocarbon plume and geochemical parameters will be continue to be collected.

Conclusions

The site monitoring well casings and well vaults have heaved and deteriorating the well integrity, as observed in the October 2015 site visit. The site well vaults and top of casings need to be repaired and resurveyed to continuously monitor the varying groundwater flow direction since numerous potential sources areas are located west of the site boundary. New wells have been requested by the ADEC and will also be included in the survey post installation in 2016.

Groundwater is exceeding ADEC Table C groundwater cleanup levels across the site and 18 AAC 70 Water Quality Standards in the downgradient well MW-11

Sincerely

GHD

John Riggi, P.G
Senior Project Geologist

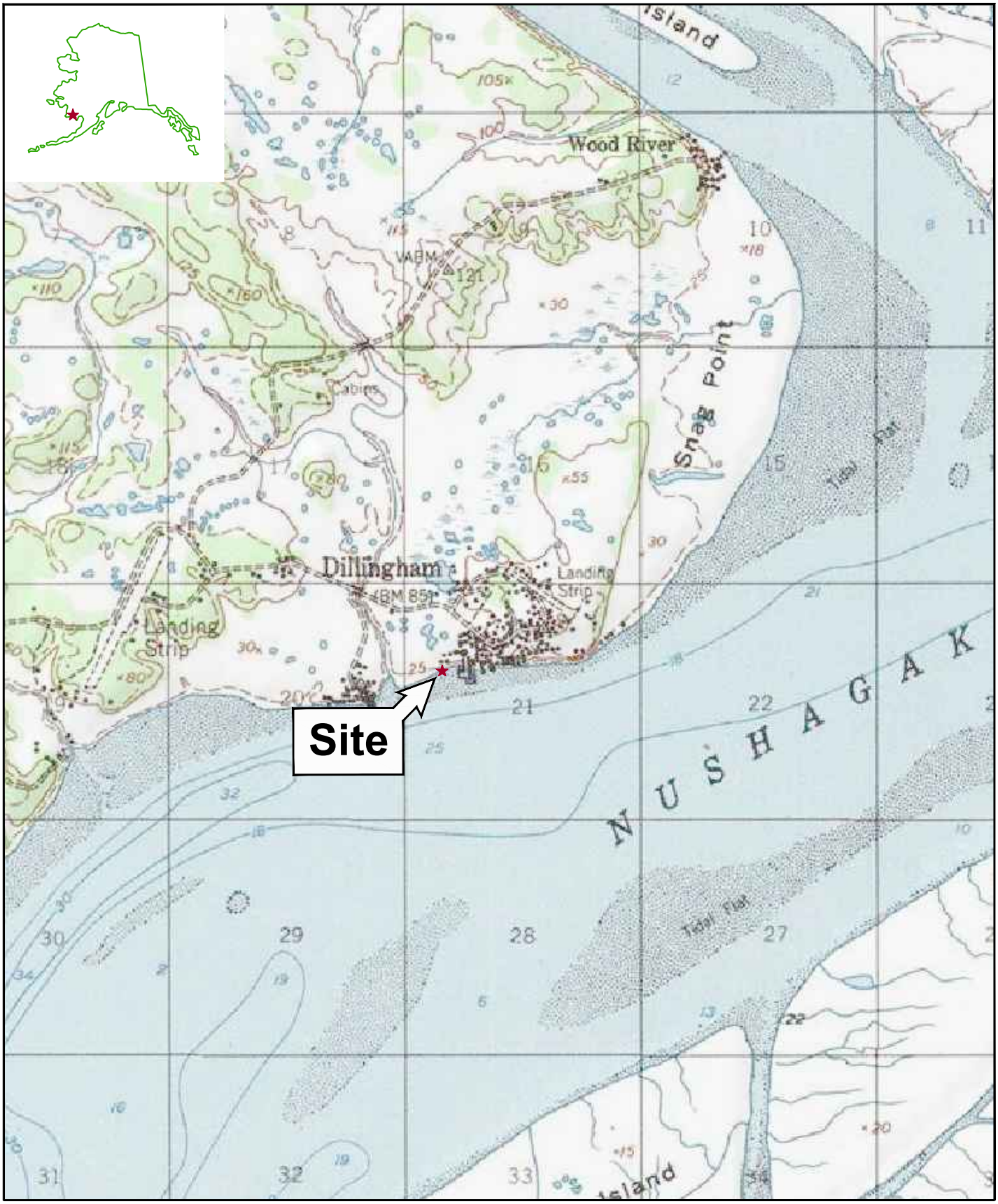
JR/ca/2

Encl.

Figure 1	Vicinity Map
Figure 2	Groundwater Elevation Contour Map
Figure 3	Hydrocarbon Concentrations in Groundwater
Table 1	Groundwater Analytical Results
Table 2	Groundwater Analytical Results for PAHs
Attachment A	Field Sampling Forms
Attachment B	Pace Analytical Laboratory Analytical Report
Attachment C	ADEC Laboratory Data Review Checklist and Summary

cc: Ms. Bev Niemann, Delta Western, Inc.

Figures



0 1500 3000ft

DELTA WESTERN - DILLINGHAM AUTO
315 MAIN STREET
DILLINGHAM, ALASKA

073011

Feb 4, 2016

VICINITY MAP

Figure 1

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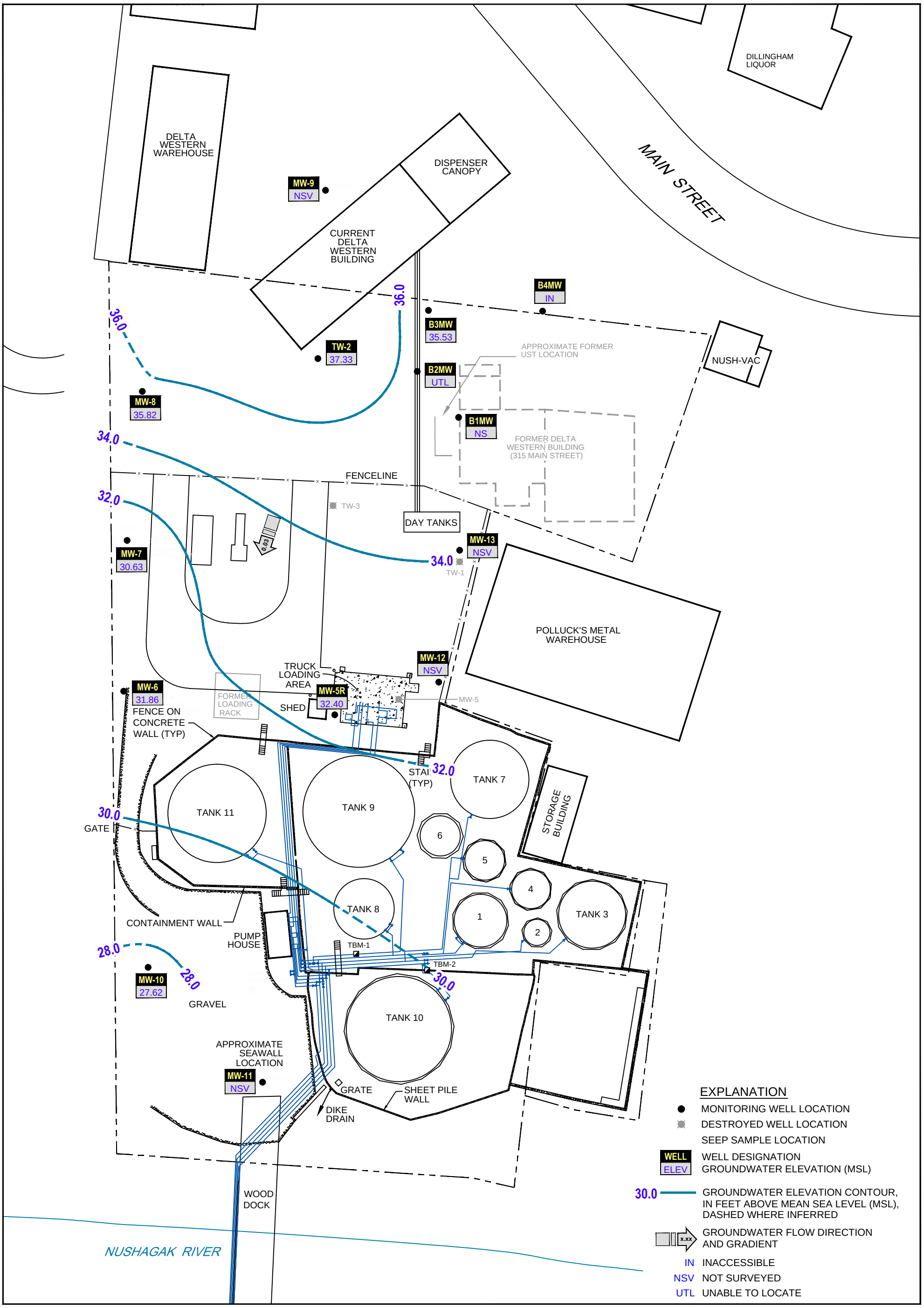


SOURCE: SITEPLAN CREATED FROM ENTERPRISE ENGINEERING INC. DRAWING 8204, DATED SEPTEMBER 18, 2014.

0 20 40ft

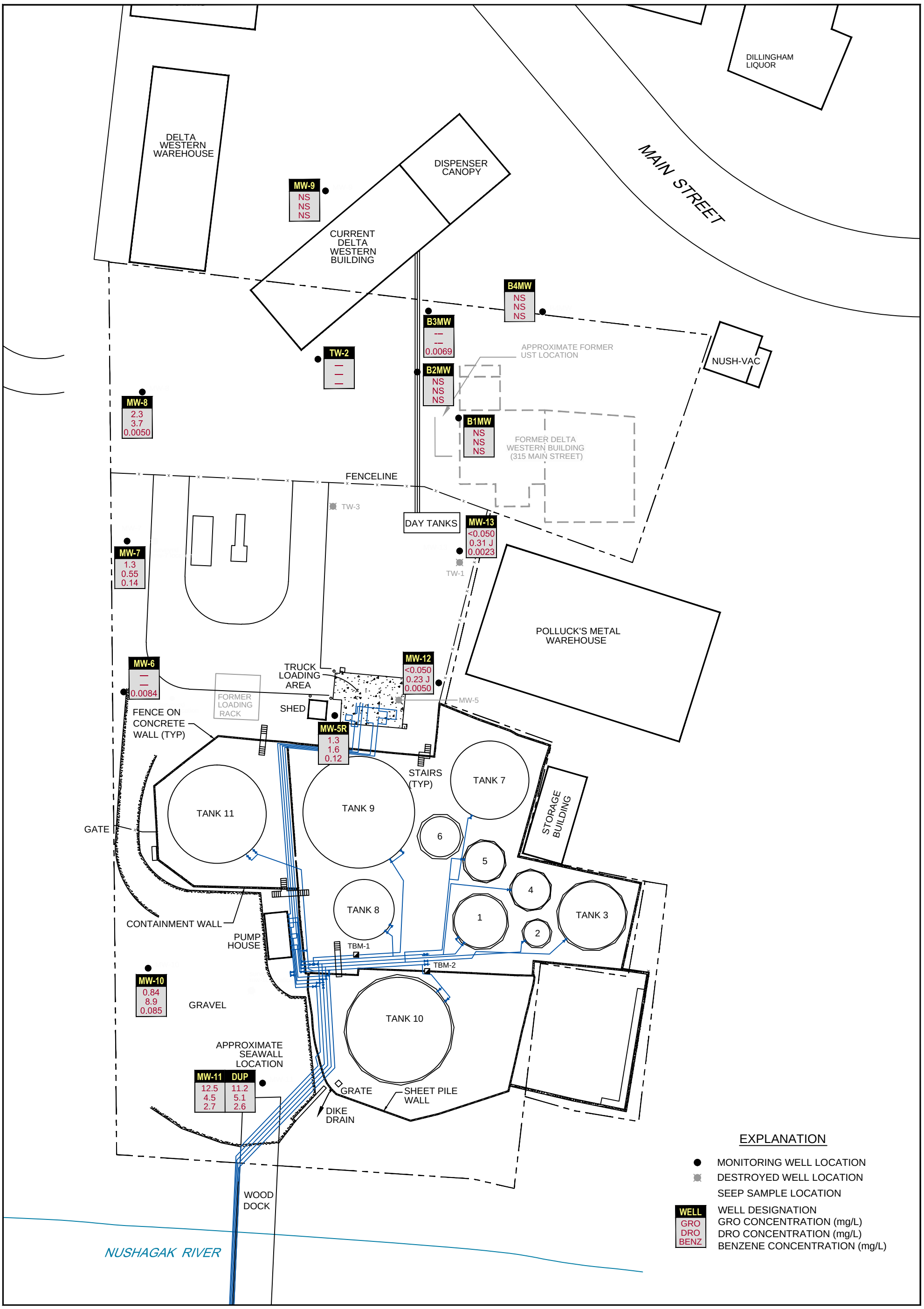
DELTA WESTERN - DILLINGHAM AUTO
315 MAIN STREET
DILLINGHAM, ALASKA

GROUNDWATER ELEVATION CONTOUR MAP
OCTOBER 13, 2015

073011
Feb 4, 2016

Figure 2

CAD File: Z:\wp\6-chars\07----\0730--\073011\073011-FIGURES\073011-RPTs\073011 RPT-19\073011-2016(019)GN-DN002.dwg



SOURCE: SITEPLAN CREATED FROM ENTERPRISE ENGINEERING INC. DRAWING 8204, DATED SEPTEMBER 18, 2014.

0 20 40ft

DELTA WESTERN - DILLINGHAM AUTO
315 MAIN STREET
DILLINGHAM, ALASKA

HYDROCARBON CONCENTRATIONS IN GROUNDWATER
OCTOBER 13, 2015

073011
Feb 18, 2016

Figure 3

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Tables

Table 1
Groundwater Analytical Results

					HYDROCARBONS		PRIMARY VOCS				FIELD PARAMETERS				
Location	*Date*	*TOC*	*DTW*	*GWE*	*DRO*	*GRO*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*Conductivity*	*DO*	*ORP*	*pH*	*Temperature, sample*
	Units	*ft msl*	*fbg*	*ft msl*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mS/cm*	*mg/l*	*millivolts*	*s.u.*	*Deg C*
ADEC Groundwater Cleanup Levels [a]					**1.5**	**2.2**	**0.005**	**1.0**	**0.7**	**10.0**					
B1MW	06/08/2006	101.77	2.01	97.6	0.15	<0.067	**1.20**	**5.93**	0.593	3.36	--	--	--	--	--
B1MW	08/19/2008	101.77	4.89	96.88	Analytical sample not collected										
B1MW	07/15/2010	101.77	3.20	98.57	<0.17	<0.05	**0.342**	0.653	0.202	1.57	--	--	--	--	--
B1MW	06/21/2011	31.11	1.38	29.73	**5.5 / 6.1**	**23 J / 23 J**	**0.470 / 0.540**	**1.6 / 1.900**	0.170 / 0.170	**10.000 / 11.000**	0.487	7.77	-20.2	6.3	5.79
B1MW	08/05/2011	31.11	2.05	29.06	**11.5**	**21.5**	**0.30**	0.93	0.24	5.7	0.499	7.65	-54.2	6.63	7.81
B1MW	10/03/2011	31.11	2.75	28.36	**7.8 / 10.5**	**11.4 / 10.6**	**0.51 / 0.53**	0.57 / 0.46	0.17 / 0.15	2.6 / 2.4	0.432	5.31	-54.2	7.34	7.2
B1MW	06/05/2012	31.11	2.34	28.77	**3.8 / 3.3**	**16.3 / 16.4**	**0.52 / 0.45**	**2.0 / 1.8**	0.51 / 0.47	4.5 / 4.3	0.45	4.15	-85.6	5.81	3.76
B1MW	09/16/2012	31.11	2.51	28.60	**3.0 / 4.1**	**8.3 J / 9.3**	**0.36 / 0.34**	0.68 / 0.67	0.18 / 0.20	1.8 / 1.7	0.341	5.23	-140.1	7.27	7.04
B1MW	06/05/2013	31.11	1.54	29.57	**7.8 / 7.7**	**33.3 / 31.8**	**0.32 / 0.37**	**1.7 / 2.0**	0.58 / 0.59	**10.2 / 9.6**	0.26	4.48	-29.5	6.59	3.13
B1MW	09/11/2013	31.11	1.70	29.41	**2.5**	**14.3 J**	**0.22**	0.95	0.21	2.9	0.423	3.60	1.9	6.84	3.51
B1MW	06/19/2014	31.11	2.90	28.21	**3.5**	**17.0**	**0.17**	0.51	0.18	2.5	0.35	5.71	113.6	4.38	5.27
B1MW	09/29/2014	32.50	3.21	29.29	**2.8**	**6.3**	**0.14**	0.33	0.12	1.1	0.270	2.05	18.2	6.23	8.75
B1MW	06/02/2015	32.50	2.33	30.17	**2.3**	**8.9 J**	**0.17**	0.35	0.15	1.8	4.26	12.10	271	3.57	13.01
B2MW	06/08/2006	100.11	2.32	97.79	<0.14	<0.067	**0.0275**	0.0113	0.00231	0.0145					
B2MW	08/19/2008	100.11	3.75	96.36	Analytical sample not collected										
B2MW	07/15/2010	100.11	3.35	96.76	<0.16	<0.05	0.00293	<0.00200	<0.00200	<0.00200	--	--	--	--	--
B2MW	06/21/2011	31.37	1.52	29.85	0.89	0.044 J	0.0031	<0.00030	<0.00012	<0.00069	0.287	5.88	107.1	6.05	3.79
B2MW	08/05/2011	31.37	2.09	29.28	0.61	0.066	**0.0093**	0.00028 J	<0.00020	0.0011 J	0.725	13.41	-54.3	6.52	5.27
B2MW	10/03/2011	31.37	3.30	28.07	0.52	<0.069 U	**0.012**	<0.0010 U	<0.0010 U	<0.0030 U	0.743	5.18	-112.4	8.18	6.7
B2MW	06/05/2012	31.37	2.88	28.49	0.50	0.14	**0.012**	0.0020	<0.00010	0.0017 J	0.675	3.46	-220.2	6.34	1.36
B2MW	09/16/2012	31.24	2.41	28.83	<0.38	0.19	**0.052**	0.0011	<0.00010	0.0038	0.582	5.54	-98.4	7.68	6.81
B2MW	06/05/2013	31.24	1.99	29.25	0.32 J	0.27 J	**0.044**	0.0055	<0.00024	0.0075	0.289	5.96	-5.4	6.63	1.33
B2MW	09/11/2013	31.24	1.93	29.31	0.26 J	0.24	**0.025**	0.015	<0.00024	0.0047	0.34	4.58	-12.4	6.63	3.99
B2MW	06/19/2014	31.24	2.99	28.25	0.084 J	0.080 J	**0.0091**	0.00075J	<0.00016	<0.00040	0.262	4.71	76.2	5.42	4.03
B2MW	09/29/2014	37.53	3.25	34.28	0.28 J	0.15	**0.015**	0.00039 J	<0.00016	0.0037	0.357	2.30	36.6	6.15	10.56
B2MW	06/02/2015	Could Not Locate													
B3MW	06/08/2006	-	3.05	-	<0.14	<0.067	**0.00856**	0.0120	0.0805	0.239	--	--	--	--	--
B3MW	08/19/2008	-	-	-	Well not located										
B3MW	07/15/2010	-	-	-	Well not located										
B3MW	06/21/2011	33.11	2.51	30.60	0.61	0.79	0.0028	0.0012	0.014	0.047	0.413	9.63	-25.5	5.91	5.29
B3MW	08/05/2011	33.11	3.16	29.95	0.85	1.4	0.0026	0.0017	0.016	0.058	0.534	6.11	-19.7	5.95	5.36
B3MW	10/03/2011	33.11	4.50	28.61	0.55	0.92	0.0016	0.0015	0.016	0.042	0.438	6.03	-46.2	7.41	7.06
B3MW	06/05/2012	33.11	3.31	29.80	0.54	1.2 J	0.0030	0.0026	0.027	0.085	0.488	5.48	-124	6.23	2.02
B3MW	09/16/2012	33.02	2.31	30.71	0.66	**3.1 J**	0.0036	0.0034	0.071	0.21	0.521	5.74	-68.9	7.42	6.89
B3MW	06/05/2013	33.02	2.11	30.91	0.60	1.1 J	0.0034	0.0024	0.027	0.074	0.221	3.75	-28.7	6.62	2.31
B3MW	09/11/2013	33.02	2.96	30.06	0.49	0.97	0.0048	0.0026	0.023	0.058	0.297	2.06	-33.1	6.69	2.99
B3MW	09/29/2014	39.46	4.53	34.93	0.83	1.8	**0.0080**	0.0053	0.059	0.16	0.465	4.40	2.4	6.50	10.21
B3MW	06/02/2015	39.46	3.39	36.07	-	-	**0.0053**	0.0016	0.035	0.063	4.653	14.1	276.2	3.39	10.84
B3MW	10/13/2015	39.46	3.93	35.53	-	-	**0.0069**	0.0038	0.045	0.11	0.468	11.93	-35.1	7.09	8.94
B4MW	06/08/2006	-	2.95	-	<0.014	0.11	0.0017	0.0049	<0.0010	0.0390	--	--	--	--	--
B4MW	08/19/2008	-	-	-	Well not located										
B4MW	07/15/2010	-	3.70	-	<0.16	<0.05	<0.001	<0.001	<0.001	<0.003	--	--	--	--	--
B4MW	06/21/2011	32.27	1.79	30.48	1.1	0.019 J	0.00073	<0.00014 UJ	<0.0005	<0.00035	0.221	1.53	97.8	5.33	3.14
B4MW	08/05/2011	32.27	2.41	29.86	1.3	<0.020 UJ	0.00072 J	0.00013 J	0.00018 J	0.0013 J	0.469	5.63	145.4	5.08	4.26
B4MW	10/03/2011	32.27	3.00	29.27	0.70	<0.050 U	0.00095 J	<0.0010 U	<0.0010 U	<0.0030 U	0.344	7.75	139.8	7.19	6.65
B4MW	06/05/2012	32.27	1.35	30.92	0.18 J	<0.025	0.00053 J	<0.00010	<0.00010	<0.00030	--	--	--	--	--
B4MW	09/16/2012	32.27	2.84	29.43	**4.0**	<0.025	0.00040 J	<0.00010	0.00012 J	<0.0030 U	0.839	6.95	-149.9	7.09	5.76
B4MW	06/05/2013	32.27	2.72	29.55	**1.8**	<0.050	0.00073 J	<0.00023	<0.00024	<0.00072	0.111	2.73	30.8	6.15	1.49
B4MW	09/11/2013	32.27	2.81	29.46	0.51	<0.050	0.0010	<0.00023	<0.00024	<0.00072	0.269	2.29	-43.6	6.17	2.77
B4MW	06/02/2015	Covered by Stockpile													
TW-1	08/19/2008	101.32	2.28	99.04	<0.014	<0.067	0.00437	0.00203	0.00468	0.0467	--	--	--	--	--
TW-1	07/16/2010	101.32	5.10	96.22	<0.014	<0.067	**0.01015**	0.164	<0.00200	0.00502	--	--	--	--	--
TW-1	06/21/2011	30.53	2.28	28.25	**3.6**	1.5	**0.027**	0.820	0.0011	0.0064	0.221	12.14	-23.7	6.38	5.28

Table 1
Groundwater Analytical Results

					HYDROCARBONS		*PRIMARY VOCS*				*FIELD PARAMETERS*				
Location	*Date*	*TOC*	*DTW*	*GWE*	*DRO*	*GRO*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*Conductivity*	*DO*	*ORP*	*pH*	*Temperature, sample*
	Units	*ft msl*	*fbg*	*ft msl*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mS/cm*	*mg/l*	*millivolts*	*s.u.*	*Deg C*
ADEC Groundwater Cleanup Levels [a]					***1.5***	***2.2***	***0.005***	***1.0***	***0.7***	***10.0***					
TW-1	08/05/2011	30.53	2.84	27.69	0.62	0.071	**0.0051**	0.0024	<0.000070	<0.00013 UJ	0.159	10.16	35.2	6.9	5.13
TW-1	10/03/2011	30.53	2.35	28.18	0.78	<0.050 U	0.0028	<0.0010 U	0.0014	<0.0030 U	0.299	5.36	-71.3	8.24	5.91
TW-1	06/05/2012	30.53	2.35	28.18					Ice in well						
TW-1	09/15/2012	30.53	2.84	27.69	1.3	0.18	0.00062 J	0.074	0.00013 J	<0.0030 U	0.479	5.27529414	-84.3	6.99	6.59
TW-2	08/19/2008	-	5.44	-	<0.014	<0.067	**1.23**	0.151	0.203	1.48	--	--	--	--	--
TW-2	07/16/2010	-	5.74	-	<0.014	<0.067	0.00459	<0.00200	<0.00200	<0.00200	--	--	--	--	--
TW-2	06/21/2011	34.35	3.24	31.11	0.93	**79**	**5.100**	**14.00**	0.470	4.70	0.133	9.10	20.6	6.67	6.98
TW-2	08/05/2011	34.35	2.91	31.44	0.89 / 0.89	1.7 / **2.4**	**0.025 / 0.031**	0.080 / 0.090	0.017 / 0.021	0.58 / 0.65	0.173	8.54	-62.6	6.79	9.22
TW-2	10/03/2011	34.35	5.78	28.57	0.97	1.8	**0.041**	0.0053	0.012	0.56	0.269	7.50	34.8	6.7	7.31
TW-2	06/05/2012	34.35	4.59	29.76	0.16 J	0.068	**0.013**	0.00044 J	0.00041 J	0.0032	0.386	12.74	-76.9	6.86	2.45
TW-2	09/16/2012	34.37	3.53	30.84	<0.38	<0.025	<0.00010	<0.00010	<0.00010	<0.0030 U	0.309	6.93	-68.8	8.03	6.27
TW-2	06/05/2013	34.37	3.13	31.24	0.12 J	<0.050	0.0014	<0.00023	<0.00024	<0.00072	0.089	8.24	-10.2	6.79	6.62
TW-2	09/11/2013	34.37	2.66	31.71	<0.22	<0.050	0.00034 J	<0.00023	<0.00024	<0.00072	0.371	4.36	-98.4	6.52	6.91
TW-2	06/19/2014	34.37	4.94	29.43	0.066J	<0.050	<0.00015	<0.00011	<0.00016	<0.00040	0.148	7.88	53.4	6.42	7.71
TW-2	09/29/2014	40.70	5.44	35.26	0.13 J	<0.050	0.00031 J	<0.00011	<0.00016	<0.00040	0.129	8.31	-4.0	7.15	11.1
TW-2	06/02/2015	40.70	3.55	37.15	-	-	-	-	-	-	-	-	-	-	-
TW-2	10/13/2015	40.70	3.37	37.33	-	-	-	-	-	-	-	-	-	-	-
TW-3	08/19/2008	102.51	6.26	96.25	<0.14	<0.067	**0.158**	<0.00200	<0.00200	<0.00200	--	--	--	--	--
TW-3	07/16/2010	102.51	3.42	99.09	0.15	<0.067	**0.00927**	<0.00200	<0.00200	<0.00200	--	--	--	--	--
TW-3	06/21/2011	30.60	1.11	29.49	0.62	0.043 J	**0.0096**	<0.00016 UJ	<0.0005	<0.00032 U	0.267	7.09	2.8	6.47	5.32
TW-3	08/05/2011	30.60	2.50	28.10	0.35 J	0.24	**0.11**	0.00036 J	0.00034 J	0.0017 J	0.331	6.10	-30.4	6.45	5.04
TW-3	10/03/2011	30.60	3.50	27.10	0.51	0.23	**0.11**	<0.0010 U	<0.0010 U	<0.0030 U	0.238	3.68	-2.3	7.42	6.41
TW-3	06/05/2012	30.60	2.04	28.56	0.28 J	0.026 J	0.0046	0.00017 J	0.00020 J	0.00064 J	0.456	8.82	-34.3	6.33	3.86
TW-3	09/14/2012	30.60	2.75	27.85					Well Destroyed						
MW-5	06/22/2011	29.21	1.31	27.90	**8.4**	1.5	**0.083**	0.0052	0.022	0.100	0.312	25.36	21.4	6.67	2.8
MW-5	08/05/2011	29.21	2.04	27.17	**7.6**	1.8	**0.027**	0.0014	0.020	0.067	0.322	11.36	-14.1	6.6	4.71
MW-5	10/03/2011	29.21	2.69	26.52	**5.6**	1.7	**0.039**	0.00092 J	0.013	0.040	0.42	3.02	46.7	7.07	6.19
MW-5	06/05/2012	29.21	1.12	28.09	**5.2**	1.0	**0.12**	0.00095 J	0.0049	0.017	--	--	--	--	--
MW-5R	09/15/2012	--	2.60	--	**1.9**	1.4	**0.11**	0.0020	0.031	0.13	0.26	4.85	33.9	7.95	7.02
MW-5R	06/05/2012	--	1.63	--					**Ice in well; obstructed at 4.15 ft bgs**						
MW-5R	09/10/2013	--	2.91	--	2.6	1.1	**0.17**	0.0019	0.031	0.070	0.211	1.82	49.6	6.39	4.08
MW-5R	09/10/2013	--	2.91	--	**2.5**	1.2	**0.17**	0.0020	0.031	0.070	0.211	1.82	49.6	6.39	4.08
MW-5R	06/19/2014	--	3.67	--	**1.7**	1.1	**0.17**	0.0026	0.026	0.080	0.414	3.59	141.6	4.48	1.6
MW-5R	09/29/2014	36.00	3.36	32.64	1.2	**2.3**	**0.23**	0.0078	0.054	0.13	0.273	3.56	26.8	6.47	7.44
MW-5R	06/02/2015	36.00	3.44	32.56	1.2 J	**3.2**	**0.15**	0.0028	0.034	0.051	4.729	9.4	261.2	3.58	10.28
MW-5R	10/13/2015	36.00	3.60	32.40	1.6	**1.3**	**0.12**	0.0044	0.046	0.10	0.261	5.20	19.8	6.97	6.64
MW-6	06/22/2011	28.07	1.51	26.56	0.70	0.39	**0.150**	0.0004 J	0.00016 J	0.0014	0.29	6.26	-27.9	6.31	3.87
MW-6	08/05/2011	28.07	3.11	24.96	0.79	0.41	**0.14**	0.00036 J	0.00022 J	0.0016 J	0.304	7.37	-11.7	6.51	5.14
MW-6	10/03/2011	28.07	3.30	24.77	0.59	0.47	**0.18**	<0.0010 U	<0.0010 U	<0.0030 U	0.283	4.00	10.3	7.23	6.64
MW-6	06/05/2012	28.07	2.06	26.01	0.59	0.17	**0.083**	0.00047 J	<0.00010	0.00042 J	0.293	10.31	-59.4	6.78	2.29
MW-6	09/15/2012	28.19	3.50	24.69	0.98	0.087	**0.025**	<0.00010	<0.00010	<0.0030 U	0.293	5.77	102	7.13	6.54
MW-6	06/05/2013	28.19	1.59	26.60	0.39 J	0.34	**0.14**	0.00035 J	<0.00024	0.0013 J	0.329	1.89	-10.3	6.47	2.5

Table 1
Groundwater Analytical Results

					HYDROCARBONS		PRIMARY VOCS				FIELD PARAMETERS				
Location	*Date*	*TOC*	*DTW*	*GWE*	*DRO*	*GRO*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*Conductivity*	*DO*	*ORP*	*pH*	*Temperature, sample*
	Units	*ft msl*	*fbg*	*ft msl*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mS/cm*	*mg/l*	*millivolts*	*s.u.*	*Deg C*
ADEC Groundwater Cleanup Levels [a]					**1.5**	**2.2**	**0.005**	**1.0**	**0.7**	**10.0**					
MW-6	09/10/2013	28.19	2.71	25.48	1.0	0.079 J	**0.017**	<0.00023	<0.00024	<0.00072	0.329	1.89	-10.3	6.46	3.99
MW-6	06/19/2014	28.19	3.47	24.72	0.49	0.12	**0.036**	0.00048 J	<0.00016	<0.00040	0.175	7.14	56.5	5.51	4.44
MW-6	09/29/2014	34.66	3.20	31.46	0.84	0.12	**0.022**	<0.00011	<0.00016	<0.00040	0.191	3.94	9.0	6.25	8.52
MW-6	06/02/2015	34.66	2.92	31.74	-	-	**0.021**	<0.00013	<0.00023	<0.00060	0.188	49.3	68.3	5.56	3.33
MW-6	10/13/2015	34.66	2.80	31.86	-	-	**0.0084**	<0.00013	<0.00023	<0.00060	0.175	4.43	18.8	6.82	7.34
MW-7	06/22/2011	29.48	5.20	24.28	**6.4**	**2.6 J**	**0.130**	0.011	0.050	0.340	0.269	25.43	19.8	6.55	4.17
MW-7	08/05/2011	29.48	5.26	24.22	-- / **11.1**	1.5 / 1.6	**0.19 / 0.20**	0.0017 / 0.0023	0.0056 J / 0.011 J	0.037 J / 0.068 J	0.357	6.43	-28	6.4	5.14
MW-7	10/03/2011	29.48	5.31	24.17	**11.5 / 8.0**	1.2 / 1.3	**0.14 / 0.18**	0.0025 / 0.0032	0.012 J / 0.020 J	0.070 J / 0.12 J	0.418	4.13	13.4	7.06	6.26
MW-7	06/05/2012	29.48	5.37	24.11	**1.7**	**2.4**	**0.24**	0.0057	0.019	0.14	0.398	5.75	-159.2	5.5	2.45
MW-7	09/15/2012	29.48	5.33	24.15	**7.7 / 9.4**	1.9 / 2.2	**0.16 / 0.15**	0.0070 / 0.0066	0.038 J / 0.036	0.20 J / 0.18	0.294	5.45	-38.7	6.98	7
MW-7	06/05/2013	29.48	5.36	24.12	**4.2**	2.1	**0.17**	0.0086	0.034	0.21	0.312	1.46	-72.8	6.52	5.09
MW-7	09/10/2013	29.48	5.31	24.17	**3.8**	2.0	**0.23**	0.0067	0.011	0.075	0.284	3.71	-47.7	6.39	2.99
MW-7	09/10/2013	29.48	5.31	24.17	**3.3**	1.9	**0.20**	0.0078	0.0085	0.060	0.284	3.71	-47.7	6.39	2.99
MW-7	06/19/2014	29.48	5.44	24.04	**1.9**	1.7	**0.20**	0.0066	0.011	0.068	0.393	9.17	82.2	5.17	3.76
MW-7	06/19/2014	29.48	5.44	24.04	**1.9**	1.8	**0.19**	0.0068	0.012	0.072	0.393	9.17	82.2	5.17	3.76
MW-7	09/29/2014	36.01	5.33	30.68	**3.4 J / 7.1 J**	1.4 J / 1.5 J	**0.19 / 0.15**	0.0055 / 0.0058	0.0075 J / 0.013 J	0.042 J / 0.072 J	0.339	5.50	8.4	6.20	7.84
MW-7	06/02/2015	36.01	5.39	30.62	**1.7**	1.2 J	**0.15**	0.0051	0.010	0.061	0.316	47.0	-16.4	6.02	3.32
MW-7	10/13/2015	36.01	5.38	30.63	**0.55**	1.3	**0.14**	0.0044	0.0057	0.029	0.287	7.18	-11.7	7.18	7.07
MW-8	06/22/2011	30.60	0.55	30.05	**5.2**	**2.2 J**	**0.0074 J**	0.0027 J	0.130 J	0.470 J	0.287	6.40	-42.3	6.23	4.11
MW-8	08/05/2011	30.60	0.70	29.90	**7.3**	**3.4 J**	**0.0071**	0.0027	0.19	0.53	0.302	7.72	-44.3	6.67	9.95
MW-8	10/03/2011	30.60	2.13	28.47	**11.7**	**3.3 J**	**0.0070**	0.0025	0.15	0.51	0.307	4.06	-24.3	7.4	7.77
MW-8	06/05/2012	30.60	2.39	28.21	**4.7**	1.3	0.0025	0.00029 J	0.044	0.11	0.433	7.98	-124	6.7	1.99
MW-8	09/16/2012	30.77	0.64	30.13	**5.2**	**3.6 J**	**0.0064**	0.0020	0.16	0.50	0.633	5.74	-42.4	7.19	6.19
MW-8	06/05/2013	30.77	0.47	30.30	**4.8**	**2.5**	**0.0064**	0.0025	0.17	0.60	0.159	2.02	-75.9	7.11	1.08
MW-8	09/10/2013	30.77	0.36	30.41	**4.1**	**2.7**	**0.0072**	0.0029	0.15	0.56	0.32	3.31	56.8	6.29	4.78
MW-8	06/19/2014	30.77	1.52	29.25	**5.0**	**2.4**	**0.0063**	0.0026	0.14	0.52	0.283	2.73	-21.5	6.21	8.89
MW-8	06/19/2014	30.77	1.52	29.25	**4.0**	**2.3**	**0.0065**	0.0028	0.15	0.53	0.283	2.73	-21.5	6.21	8.89
MW-8	06/02/2015	37.12	1.15	35.97	**5.0**	**2.5 J**	**0.0061**	0.0016	0.13	0.49	4.729	8.8	261.2	3.58	10.28
MW-8	10/13/2015	37.12	1.30	35.82	**3.7**	**2.3**	0.0050	0.0020	0.13	0.50	0.297	4.02	-68.4	7.29	8.32
MW-9	09/14/2012	34.25						Could not be gauged due to surface water runoff							
MW-9	06/05/2013	34.25	2.74	31.51	0.24 J	<0.050	<0.00024	<0.00023	<0.00024	<0.00072	0.067	5.24	49.7	6.42	2.86
MW-9	09/10/2013	34.25	0.51	33.74	<0.23	<0.050	<0.00024	<0.00023	<0.00024	<0.00072	0.127	5.28	45.5	6.39	2.73
MW-9	06/19/2014	34.25	4.04	30.21	0.077 J	<0.050	0.00021 J	<0.00011	<0.00016	<0.00040	0.139	4.57	94.7	5.63	4.82
MW-9	09/29/2014	--	5.14	--	0.17 J	<0.050	0.00025 J	<0.00011	<0.00016	<0.00040	0.214	2.10	17.9	6.49	10.32
MW-9	06/02/2015							Did Not Monitor							
MW-10	09/15/2012	24.01	3.00	21.01	**8.5**	0.72	**0.078**	0.0017	0.054	0.079	0.293	5.69	-38.8	6.92	7.05
MW-10	06/05/2013	24.01	6.77	17.24	**5.8**	0.60 J	**0.11**	0.0012	0.013	0.070	0.605	0.26	-6.4	6.43	3.21
MW-10	09/10/2013	24.01	3.80	20.21	**9.3**	0.62	**0.060**	<0.0016	0.043	0.076	0.286	4.63	-61	6.39	2.66
MW-10	06/19/2014	24.01	2.96	21.05	**7.0**	0.72	**0.074**	0.0019	0.063	0.10	0.698	2.90	-47.8	6.28	7.26
MW-10	09/29/2014	30.39	3.44	26.95	**9.2**	0.72	**0.065**	0.0018	0.054	0.076	0.738	4.41	-0.2	6.10	9.81
MW-10	06/02/2015	30.39	2.82	27.57	**7.2**	0.95 J	**0.099**	0.0020	0.070	0.15	0.581	52.0	-61.8	6.06	6.73
MW-10	10/13/2015	30.39	2.77	27.62	**8.9**	0.84	**0.085**	0.0018	0.073	0.10	0.721	5.33	-82.2	7.27	8.23
MW-11	09/29/2014	--	7.32	--	**7.3**	**17.0 J**	**2.8 J**	0.0042 J	0.061	0.26	0.475	2.51	15.3	6.03	7.33
MW-11	06/02/2015	--	6.60	--	**4.3 /4.0**	**7.1 J / 8.7 J**	**1.9 /2.3**	<0.0034 / 0.00032 J	0.038 / 0.040	0.17 / 0.15	0.484	32.9	-11.0	5.34	3.58
MW-11	10/13/2015	--	6.86	--	**4.5 / 5.1**	**12.5 / 11.2**	**2.7 / 2.6**	<0.0034 / <0.0027	0.056 / 0.047	0.27 / 0.21	0.470	7.02	-45.8	7.02	7.44
MW-12	09/29/2014	--	3.58	--	0.54	0.39	**0.046**	0.00057 J	0.010	0.020	0.273	4.35	45.3	6.20	7.25
MW-12	06/02/2015	--	3.12	--	0.36 J	0.078 J	**0.012**	0.00023 J	0.0016	0.0030	4.737	10.0	260.7	3.46	7.11
MW-12	10/13/2015	--	3.21	--	0.23 J	<0.050	0.0050	<0.00013	<0.00023	<0.00060	0.241	4.22	28.1	6.42	6.65
MW-13	09/29/2014	--	3.25	--	0.37 J / 0.33 J	0.088 J / 0.20 J	**0.0063 / 0.0053**	<0.00055 / <0.00055	0.00087 J / <0.00082	<0.0020 / <0.0020	0.334	4.00	-24.1	6.62	6.81
MW-13	06/02/2015	--	3.03	--	0.28 J	<0.050 J	0.0029	0.00083 J	<0.00023	<0.00060	4.708	9.6	244.2	3.69	9.00

Table 1
Groundwater Analytical Results

					HYDROCARBONS		PRIMARY VOCS				FIELD PARAMETERS				
Location	*Date*	*TOC*	*DTW*	*GWE*	*DRO*	*GRO*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*Conductivity*	*DO*	*ORP*	*pH*	*Temperature, sample*
	Units	*ft msl*	*fbg*	*ft msl*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*mS/cm*	*mg/l*	*millivolts*	*s.u.*	*Deg C*
ADEC Groundwater Cleanup Levels [a]					***1.5***	***2.2***	***0.005***	***1.0***	***0.7***	***10.0***					
MW-13	10/13/2015	--	3.03	--	0.31 J	<0.050	0.0023	<0.00036 J	<0.00023	<0.00060	0.337	3.71	-17.2	6.57	5.93
SEEP-1	09/15/2012	--	--	--	0.96	**3.8**	**0.38**	0.51	0.10	0.41	--	--	--	--	--
SEEP-1	06/19/2014	--	--	--	0.70	**2.2**	**0.34**	0.075	0.045	0.17	--	--	--	--	--
SEEP-1	09/29/2014	--	--	--	0.77	**2.9**	**0.38**	0.15	0.055	0.20	0.283	1.81	25.2	6.24	9.81
TRIP BLANK	06/21/2011	--	--	--	--	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--	--	--	--	--
TRIP BLANK	06/22/2011	--	--	--	--	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--	--	--	--	--
TRIP BLANK	08/05/2011	--	--	--	--	0.0093 J	0.000022 J	0.000033 J	**85**	0.000096 J	--	--	--	--	--
TRIP BLANK	10/03/2011	--	--	--	--	0.015 J	<0.00012	<0.00020	<0.00021	<0.00042	--	--	--	--	--
TRIP BLANK	06/05/2012	--	--	--	--	<0.025	<0.00010	<0.00010	<0.00010	<0.00030	--	--	--	--	--
TRIP BLANK	09/15/2012	--	--	--	--	<0.025	<0.00010	<0.00010	<0.00010	<0.0030 U	--	--	--	--	--
TRIP BLANK	06/05/2013	--	--	--	--	<0.050	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--
TRIP BLANK-1	09/11/2013	--	--	--	--	<0.050	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--
TRIP BLANK-2	09/11/2013	--	--	--	--	<0.050	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--
TRIP BLANK-1	06/19/2014	--	--	--	--	<0.050	<0.00015	<0.00011	<0.00016	<0.00040	--	--	--	--	--
TRIP BLANK-1	09/29/2014	--	--	--	--	<0.050	<0.00015	<0.00011	<0.00016	<0.00040	--	--	--	--	--
TRIP BLANK-2	09/29/2014	--	--	--	--	<0.050	<0.00015	<0.00011	<0.00016	<0.00040	--	--	--	--	--
TRIP BLANK	06/02/2015	--	--	--	--	<0.050	<0.00021	<0.00013	<0.00023	<0.00060	--	--	--	--	--
Trip Blank	10/13/2015	--	--	--	--	<0.050	<0.00021	0.00019 J	<0.00023	<0.00060	--	--	--	--	--

Notes and Abbreviations

VOCs = Volatile organic compounds
TOC = Top of casing
DTW = Depth to water
GWE = Groundwater elevation
DRO = Diesel range organics Alaska Series Method AK102
GRO = Gasoline range organics by Alaska Series Method AK
Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8260B
Total Xylenes = Sum of m-, o-, and p-xylenes
ft msl = Feet above mean sea level
fbg = Feet below grade
mg/l = Milligrams per liter
ADEC = Alaska Department of Environmental Conservation
[a] = Levels established in ADEC Table C Groundwater Cleanup Levels (18 AAC 75.345)
<x = Constituent not detected above x milligrams per liter
BOLD = Indicates concentration above the ADEC Table C Groundwater Cleanup Level
Y = The chromatographic response resembles a typical fuel pattern
x / y = Sample results / blind duplicate results
J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).
U = Qualified below Detection Limit.
UJ =Esitmated value below Detection Limit.
- = Not measured/not analyzed
EPA = Environmental Protection Agency
DO measurements were converted from %DO to mg/l using the equivalent 1% = 0.115686275 mg/L.

Table 2
Groundwater Analytical Results for PAHs

GHD

Well ID	MW-11	DUP-1	**ADEC Method II**
Date	10/13/2015	10/13/2015	**Cleanup Levels***
	(mg/L)		
1-Methylnaphthalene	0.00031	0.00038	**0.15**
2-Methylnaphthalene	0.00018	0.00023	**0.15**
Acenaphthene	0.000039 J	0.000040 J	**2.2**
Acenaphthylene	0.000016 J	0.0000097 J	**2.2**
Anthracene	0.000048	0.000046	**11**
Benzo(a)anthracene	0.0000064 J	0.0000055 J	**0.0012**
Benzo(a)pyrene	<0.0000031	<0.0000030	**0.0002**
Benzo(b)fluoranthene	<0.0000080	<0.0000076	**0.0012**
Benzo(g,h,i)perylene	<0.0000056	<0.0000054	**1.1**
Benzo(k)fluoranthene	<0.0000039	<0.0000038	**0.012**
Chrysene	<0.0000055	<0.0000053	**0.12**
Dibenz(a,h)anthracene	<0.000010	<0.0000096	**0.00012**
Fluoranthene	<0.0000059	<0.0000057	**1.5**
Fluorene	0.000035 J	0.000034 J	**1.5**
Indeno(1,2,3-cd)pyrene	<0.0000058	<0.0000056	**0.0012**
Naphthalene	0.0026	0.0033	**0.73**
Phenanthrene	0.000015 J	0.000015 J	**11**
Pyrene	<0.0000067	<0.0000064	**1.1**

Abbreviations and Methods:

PAHs = Polynuclear Aromatic Hydrocarbons

PAHs by EPA Method 8270M-SIM

fbg = Feet below grade

mg/L = Milligrams per liter

<x = Constituent not detected above x milligrams per kilogram

EPA = Environmental Protection Agency

ADEC = Alaska Department of Environmental Conservation

* = Levels established in ADEC Method II - Soil Cleanup Levels, Tables B1 and B2, Under 40-Inch Zone, Migration to Groundwater, (ADEC, 18 AAC 75.341)

Attachment A
Field Sampling Forms

CONTAINER COUNT (upon departure): _____ DM _____ BA

CONTAINER COUNT (upon arrival): _____ DM _____ BA
NEW CONTAINERS GENERATED? YES( ) NO( ) _____ DM _____ BA
SPACE ENOUGH FOR ANOTHER EVENT? YES ( ) NO ( ) N/A ( )
CONTAINER LOCATION: NA
OPERATIONAL MILEAGE: Start _____ End _____ Total _____

DAILY FIELD REPORT

Project Name: Delta Western, Auto	GHD Mgr: Riggi	Field Rep: Riggi/Greco
Project Number: 073011	Date: 10/9/15	Site Address: 315 Main Street Dillingham, Alaska
Scope of Work: Groundwater Monitoring and Sampling		
Initial Weather Conditions:		

Time	Activity/Comments	SWA
0700	Paperwork / Health & Safety Meeting / JSAs / Meeting point - refer to tailgate	
0730	Open Work Vaults; Locate wells	
1000	Complete locating and gauging wells; Could not locate B1MW (beneath soil stockpile) and B2MW + B4MW.; Begin purging and sampling	
1345	Measured MW-12; Well MW-12 is 15' North of NE corner of stairs (loading rack)	
1435	Measured MW-11; Well MW-11 is 25.5' North of the center of the dock	
1515	Complete sampling on 9 wells; Meet w/ terminal manager to discuss soil stockpile	
1600	Secure samples for shipping / Assist w/ stockpile / Demob field equipment	
1750.	Mob field gear to Airport	
1900	JR to Anchorage / NG stays to ship samples via Northland in the morning.	

SWA Key:	A: Person or People	B: Equipment	C: Environmental
	D: Procedures/Processes/JSA-review/revise	E: Visitors	

25A15

GHD Services, Inc.

Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Depth to Bottom	Product Thickness	Amount of Product Removed	Casing Diam.	PID	Comments
B1MW		UNABLE TO LOCATE; UNDER STOCKPILE					2"		
B2MW		UNABLE TO LOCATE					2"		BTEX only
B3MW			3.93'	10.75'	—	—	2"		BTEX only
B4MW									Under stockpile
TW-2			3.37'	10.75'	—	—	2"		No Sample
MW-5R			3.60	12.46'	—	—	2"		
MW-6			2.80	13.38'	—	—	2"		BTEX only
MW-7			5.38	13.60	—	—	2"		
MW-8			1.30	12.12	—	—	2"		
MW-10			2.77	12.46	—	—	2"		
MW-11			6.86	17.52	—	—	2"		
							2"		

GAC Filtered Water Volume: _____ gallons Volume logged on *Portable GAC Volume Tracking Log*? ☐

Project Name: **Delta Western, Inc., DLG Auto** Project Number: **073011**

Field Staff: _____ Date: 10/13/15

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GHD Services, Inc.

Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Depth to Bottom	Product Thickness	Amount of Product Removed	Casing Diam.	PID	Comments
MW-12		—	3.21	11.91'	—	—	2"		
MW-13		—	3.03	11.60'	—	—	2"		
	GAC Filtered Water Volume: _____ gallons					Volume logged on *Portable GAC Volume Tracking Log?*			☐

Project Name: **Delta Western, Inc., DLG Auto** Project Number: **073011**

Field Staff: _____ Date: 10/18/15

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Groundwater Sampling Form

Project No. 73011 PM JR Well ID B3MW Date 10/13/15 Page 1 of 1

Site ID / Location / Dillingham Auto

Screen Setting (ft-btoc) _____ Casing Diameter (in.) 2" Well Material ✓ PVC ___ SS Sampled by JR, NG

Static Water Level (ft-btoc) 3.93 Total Depth (ft-btoc) 10.75 Water Column / Gallons in Well 6.82 / 1.09

Sample ID B3MW - 101315

Dup ID —

Sample Time 1255 Start — End —

No-Purge Method

Sampler Length (in) 36 ☒ 30 ☐ Depth of Sampler (ft-btoc) —

Weights Top ☐ Bottom ☐ Position Supended ☐ Bottom set ☐

Was Teflon Baler used to collect non volatile samples Yes ☒ No ☐

Low Flow Method

Pump type Bladder ☐ Other ☐ Pump Intake (ft-btoc) _____ Volumes Purged _____

Flow rate (ml/minute) _____ Purge Time: Start _____ End _____

Did well Dewater? Yes ☐ No ☐

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH 0.1	Redox (mV) 10	Turbidity (NTU)	Additional notes
1010	—	—	—	1.0	8.96	0.467	12.62	6.94	-35.4		
1013	—	—	—	2.0	8.94	0.468	11.93	7.09	-35.1		
	—	—	—	Well Purged Dry	—	—	—	—			

Constituents Sampled		Container	Number	Preservative
BTEX by 8260	☒ 8021 ☐	40 mL	3	HCl
HVOCs by 8260	☐			
GRO by AK 101	☐			
DRO by AK 102	☐			
RRO by AK 103	☐			
Lead by 6010	☐			
PAHs by 8270	☐			
Alkalinity by 2320B	☐			
Methane by RSK175	☐			
Sulfate by EPA 300	☐			
Nitrate/Nitrite by EPA 300	☐			
Ferrous Iron	☐			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Field Test Results: Ferrous Iron — mg/L Nitrate — mg/L Other —

Well Information

Well Location: In Front of building doorway Well Locked at Arrival: Yes / No

Condition of Well: Good Well Locked at Departure: Yes / No

Well Completion: (Flush Mount) / Stick Up

Additional Notes

Groundwater Sampling Form

Project No. 73011 PM JR Well ID MW-8 Date 10/13/15 Page 1 of 1

Site ID / Location / Dillingham Auto

Screen Setting (ft-btoc) – Casing Diameter (in.) 2" Well Material ✓ PVC ___ SS ___ Sampled by JR NG

Static Water Level (ft-btoc) 1.30 Total Depth (ft-btoc) 12.12 Water Column / Gallons in Well 10.82 / 1.73

Sample ID MW-8-101315 Dup ID –

Sample Time 1310 Start – End –

~~No Purge~~ Method

Sampler Length (in) 36 ☒ 30 ☐ Depth of Sampler (ft-btoc) –

Weights ~~Top~~ ☐ ~~Bottom~~ ☐ Position ~~Supended~~ ☐ ~~Bottom set~~ ☐

Was Teflon Baler used to collect non volatile samples Yes ☒ No ☐

~~Low Flow Method~~

~~Pump type Bladder ☐ Other ☐ Pump Intake (ft-btoc) Volumes Purged~~

~~Flow rate (ml/minute) Purge Time: Start End~~

~~Did well Dewater? Yes ☐ No ☐~~

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH 0.1	Redox (mV) 10	Turbidity (NTU)	Additional notes
1020	–	–	–	1.75	8.36	0.298	4.04	7.30	-69.3	–	
1025	–	–	–	3.5	8.35	0.296	3.88	7.29	-68.4	–	
1030	–	–	–	4.5	8.32	0.297	4.02	7.29	-68.4	–	

Constituents Sampled		Container	Number	Preservative
BTEX by 8260	☒ 8021 ☐	40 mL	3	HCl
HVOCs by 8260	☐			
GRO by AK 101	☒	40 mL	3	HCl
DRO by AK 102	☒	250 mL	2	HCl
RRO by AK 103	☐			
Lead by 6010	☐			
PAHs by 8270	☐			
Alkalinity by 2320B	☐			
Methane by RSK175	☐			
Sulfate by EPA 300	☐			
Nitrate/Nitrite by EPA 300	☐			
Ferrous Iron	☐			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Field Test Results: Ferrous Iron – mg/L Nitrate – mg/L Other –

Well Information

Well Location: Well Locked at Arrival: Yes / No

Condition of Well: Well Locked at Departure: Yes / No

Well Completion: (Flush Mount) / Stick Up

Additional Notes

Groundwater Sampling Form

Project No. 73011 PM JR Well ID MW-13 Date 10/13/15 Page 1 of 1

Site ID / Location / Dillingham Auto

Screen Setting (ft-btoc) — Casing Diameter (in.) 2" Well Material ☒ PVC ☐ SS Sampled by JR NG

Static Water Level (ft-btoc) 3.03 Total Depth (ft-btoc) 11.60 Water Column / Gallons in Well 8.57/1.37 Sample ID MW-13-10/13/15 Dup ID —

Sample Time 1320 Start — End —

~~No~~ Purge Method

Sampler Length (in) 36 ☒ 30 ☐ Depth of Sampler (ft-btoc) —

Weights Top ☒ Bottom ☐ Position Supended ☒ Bottom set ☐

Was Teflon Baler used to collect non volatile samples Yes ☒ No ☐

Low Flow Method

Pump type Bladder ☐ Other ☐ Pump Intake (ft-btoc) Volumes Purged

Flow rate (ml/minute) Purge Time: Start End

Did well Dewater? Yes ☐ No ☐

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH 0.1	Redox (mV) 10	Turbidity (NTU)	Additional notes
1035	—	—	—	1.25	5.88	0.295	3.35	6.48	-6.7	—	
1040	—	—	—	2.5	5.83	0.334	4.21	6.40	-14.9	—	
1045	—	—	—	3.75	5.93	0.337	3.71	6.57	-17.2	—	

Constituents Sampled		Container	Number	Preservative
BTEX by 8260	☒ 8021 ☐	40 mL	3	HCl
HVOCs by 8260	☐			
GRO by AK 101	☒	40 mL	3	HCl
DRO by AK 102	☒	250 mL	2	HCl
RRO by AK 103	☐			
Lead by 6010	☐			
PAHs by 8270	☐			
Alkalinity by 2320B	☐			
Methane by RSK175	☐			
Sulfate by EPA 300	☐			
Nitrate/Nitrite by EPA 300	☐			
Ferrous Iron	☐			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Field Test Results: Ferrous Iron — mg/L Nitrate — mg/L Other —

Well Information

Well Location: Well Locked at Arrival: Yes / No

Condition of Well: Well Locked at Departure: Yes / No

Well Completion: (Flush Mount) / Stick Up

Additional Notes

Groundwater Sampling Form

Project No. 73011 PM J. Riggi Well ID MW-12 Date 10/13/15 Page 1 of 1

Site ID / Location — / Dillingham Auto

Screen — Casing Diameter (in.) 2" Well Material ✓ PVC SS Sampled by NG JR

Setting (ft-btoc) —

Static Water Level (ft-btoc) 3.21 Total Depth (ft-btoc) 11.91 Water Column / Gallons in Well 8.7 / 1.4

Sample ID MW-12-101315

Dup ID —

Sample Time 1335 Start — End —

No-Purge Method

Sampler Length (in) 36 ☒ 30 ☐ Depth of Sampler (ft-btoc) —

Weights Top ☒ Bottom ☒ Position Supended ☐ Bottom set ☒

Was Teflon Baler used to collect non volatile samples Yes ☒ No ☐

Low Flow Method

Pump type Bladder ☐ Other ☐ Pump Intake (ft-btoc) —

Volumes Purged —

Flow rate (ml/minute) — Purge Time: Start — End —

Did well Dewater? Yes ☐ No ☐

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH 0.1	Redox (mV) 10	Turbidity (NTU)	Additional notes
1047	—	—	—	1.5	6.93	0.242	3.85	6.46	27.8	—	
1050	—	—	—	3.0	6.67	0.244	3.93	6.46	27.3	—	
1055	—	—	—	4.5	6.65	0.241	4.22	6.42	28.1		

Constituents Sampled		Container	Number	Preservative
BTEX by 8260	☒ 8021 ☐	40 mL	3	HCl
HVOCs by 8260	☐			
GRO by AK 101	☒	40 mL	3	HCl
DRO by AK 102	☒	250 mL	2	HCl
RRO by AK 103	☐			
Lead by 6010	☐			
PAHs by 8270	☐			
Alkalinity by 2320B	☐			
Methane by RSK175	☐			
Sulfate by EPA 300	☐			
Nitrate/Nitrite by EPA 300	☐			
Ferrous Iron	☐			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Field Test Results: Ferrous Iron — mg/L Nitrate — mg/L Other —

Well Information

Well Location: 15' North of NE corner of stairs Well Locked at Arrival: Yes / No

Condition of Well: Well Locked at Departure: Yes / No

Well Completion: (Flush Mount) / Stick Up

Additional Notes

Groundwater Sampling Form

Project No. 73011 PM TR Well ID MW-5R Date 10/13/15 Page 1 of 1

Site ID / Location / Dillingham Auto

Screen Setting (ft-btoc) — Casing Diameter (in.) 2" Well Material X PVC SS Sampled by JR NR

Static Water Level (ft-btoc) 3.60 Total Depth (ft-btoc) 12.46 Water Column / Gallons in Well 8.86/1.4

Sample ID MW-5R-101315 Dup ID — Sample Time 1345 Start — End —

~~No~~ Purge Method

Sampler Length (in) 36 ☒ 30 ☐ Depth of Sampler (ft-btoc) —

Weights ~~Top~~ ☐ ~~Bottom~~ ☐ Position ~~Supended~~ ☐ ~~Bottom set~~ ☐

Was Teflon Baler used to collect non volatile samples Yes ☒ No ☐

Low Flow Method

Pump type Bladder ☐ Other ☐ Pump Intake (ft-btoc) Volumes Purged

Flow rate (ml/minute) Purge Time: Start End

Did well Dewater? Yes ☐ No ☐

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH 0.1	Redox (mV) 10	Turbidity (NTU)	Additional notes
1055	—	—	—	1.5	6.80	0.187	3.71	6.65	49.5	—	
	—	—	—	3.0	6.74	0.230	4.69	6.85	29.8	—	
	—	—	—	4.5	6.64	0.261	5.20	6.97	19.8	—	

Constituents Sampled		Container	Number	Preservative
BTEX by 8260	☒ 8021 ☐	40 mL	3	HCl
HVOCs by 8260	☐			
GRO by AK 101	☒	40 mL	3	HCl
DRO by AK 102	☒	250 mL	2	HCl
RRO by AK 103	☐			
Lead by 6010	☐			
PAHs by 8270	☐			
Alkalinity by 2320B	☐			
Methane by RSK175	☐			
Sulfate by EPA 300	☐			
Nitrate/Nitrite by EPA 300	☐			
Ferrous Iron	☐			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Field Test Results: Ferrous Iron — mg/L Nitrate — mg/L Other —

Well Information

Well Location: Well Locked at Arrival: Yes / No

Condition of Well: Good Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up

Additional Notes

Groundwater Sampling Form

Project No. 73011 PM JR Well ID MW-7 Date 10/13/15 Page 1 of 1

Site ID / Location — / Dillingham Auto

Screen Setting (ft-btoc) — Casing Diameter (in.) 2" Well Material X PVC ___ SS Sampled by JR, NB

Static Water Level (ft-btoc) 5.38 Total Depth (ft-btoc) 13.60 Water Column / Gallons in Well 8.22 / 1.3

Sample ID MW-7-101315

Dup ID —

Sample Time 1355 Start — End —

No-Purge Method

Sampler Length (in) 36 ☒ 30 ☐ Depth of Sampler (ft-btoc) —

Weights Top ☒ Bottom ☒ Position Supended ☒ Bottom set ☐

Was Teflon Baler used to collect non volatile samples Yes ☒ No ☐

Low Flow Method

Pump type Bladder ☐ Other ☐ Pump Intake (ft-btoc) ___ Volumes Purged ___

Flow rate (ml/minute) ___ Purge Time: Start ___ End ___

Did well Dewater? Yes ☐ No ☐

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH 0.1	Redox (mV) 10	Turbidity (NTU)	Additional notes
1100	—	—	—	—	7.11	0.339	7.91	7.05	-7.2	—	
1105	—	—	—	—	7.40	0.319	7.35	7.07	-9.6	—	
1110	—	—	—	—	7.07	0.287	7.96	7.18	-11.7	—	

Constituents Sampled		Container	Number	Preservative
BTEX by 8260	☒ 8021 ☐	40 mL	3	HCl
HVOCs by 8260	☐			
GRO by AK 101	☒	40 mL	3	HCl
DRO by AK 102	☒	250 mL	2	HCl
RRO by AK 103	☐			
Lead by 6010	☐			
PAHs by 8270	☐			
Alkalinity by 2320B	☐			
Methane by RSK175	☐			
Sulfate by EPA 300	☐			
Nitrate/Nitrite by EPA 300	☐			
Ferrous Iron	☐			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Field Test Results: Ferrous Iron — mg/L Nitrate — mg/L Other —

Well Information

Well Location: ___ Well Locked at Arrival: Yes / No

Condition of Well: ___ Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up

Additional Notes

Groundwater Sampling Form

Project No. 73011 PM JA Well ID MW-6 Date 10/13/15 Page 1 of 1

Site ID / Location — / Dillingham Auto

Screen Setting (ft-btoc) — Casing Diameter (in.) 2" Well Material ✓ PVC ___ SS ___ Sampled by NB JA

Static Water Level (ft-btoc) 2.80 Total Depth (ft-btoc) 13.38 Water Column / Gallons in Well 10.58/1.7

Sample ID MW-6-101315

Dup ID —

Sample Time 1415 Start — End —

No-Purge Method

Sampler Length (in) 36 ☒ 30 ☐ Depth of Sampler (ft-btoc) —

Weights Top ☑ Bottom ☐ Position Supended ☑ Bottom set ☐

Was Teflon Baler used to collect non volatile samples Yes ☒ No ☐

Low Flow Method

Pump type Bladder ☐ Other ☐ Pump Intake (ft-btoc) ___ Volumes Purged ___

Flow rate (ml/minute) ___ Purge Time: Start ___ End ___

Did well Dewater? Yes ☐ No ☐

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH 0.1	Redox (mV) 10	Turbidity (NTU)	Additional notes
1120	—	—	—	1.7	7.49	0.149	4.42	6.67	44.5	—	
1125	—	—	—	3.5	7.42	0.175	3.75	6.73	27.7	—	
1128	—	—	—	5.25	7.34	0.175	4.43	6.82	18.8	—	

Constituents Sampled			Container	Number	Preservative
BTEX by 8260	☒	8021 ☐	40 mL	3	HCl
HVOCs by 8260	☐				
GRO by AK 101	☒		40 mL	3	HCl
DRO by AK 102	☒		250 mL	2	HCl
RRO by AK 103	☐				
Lead by 6010	☐				
PAHs by 8270	☐				
Alkalinity by 2320B	☐				
Methane by RSK175	☐				
Sulfate by EPA 300	☐				
Nitrate/Nitrite by EPA 300	☐				
Ferrous Iron	☐				

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Field Test Results: Ferrous Iron — mg/L Nitrate — mg/L Other —

Well Information

Well Location: ___ Well Locked at Arrival: Yes / No

Condition of Well: Good Well Locked at Departure: Yes / No

Well Completion: (Flush Mount) / Stick Up

Additional Notes

Groundwater Sampling Form

Project No. 73011 PM J. Riggi Well ID MW-10 Date 10/18/15 Page 1 of 1

Site ID / Location — / Dillingham Auto

Screen Setting (ft-btoc) — Casing Diameter (in.) 2" Well Material ✓ PVC SS Sampled by SE MG

Static Water Level (ft-btoc) 2.77 Total Depth (ft-btoc) 12.46 Water Column / Gallons in Well 9.69 / 1.5

Sample ID MW-10-101315 Dup ID —

Sample Time 1420 Start — End —

~~No~~ Purge Method

Sampler Length (in) 36 ☒ 30 ☐ Depth of Sampler (ft-btoc) —

Weights Top ☒ Bottom ☐ Position Supended ☒ Bottom set ☐

Was Teflon Baler used to collect non volatile samples Yes ☒ No ☐

Low Flow Method

Pump type Bladder ☐ Other ☐ Pump Intake (ft-btoc) Volumes Purged

Flow rate (ml/minute) Purge Time: Start End

Did well Dewater? Yes ☐ No ☐

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH 0.1	Redox (mV) 10	Turbidity (NTU)	Additional notes
1140	—	—	—	1.5	8.08	0.713	5.27	7.20	-81.4	—	
1145	—	—	—	3.0	8.13	0.717	4.76	7.25	-82.0	—	
1150	—	—	—	4.5	8.23	0.721	5.33	7.27	-82.2	—	

Constituents Sampled		Container	Number	Preservative
BTEX by 8260	☒ 8021 ☐	40 mL	3	HCl
HVOCs by 8260	☐			
GRO by AK 101	☒	40 mL	3	HCl
DRO by AK 102	☒	250 mL	2	HCl
RRO by AK 103	☐			
Lead by 6010	☐			
PAHs by 8270	☐			
Alkalinity by 2320B	☐			
Methane by RSK175	☐			
Sulfate by EPA 300	☐			
Nitrate/Nitrite by EPA 300	☐			
Ferrous Iron	☐			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Field Test Results: Ferrous Iron — mg/L Nitrate — mg/L Other —

Well Information

Well Location:

Condition of Well: Good

Well Completion: Flush Mount / Stick Up

Well Locked at Arrival: Yes / No

Well Locked at Departure: Yes / No

Additional Notes

Groundwater Sampling Form

Project No. 73011 PM JR Well ID MW-11 Date 10/13/15 Page 1 of 1

Site ID / Location — / Dillingham Auto

Screen Setting (ft-btoc) — Casing Diameter (in.) 2" Well Material ✓ PVC SS Sampled by JR / NR

Static Water Level (ft-btoc) 6.86 Total Depth (ft-btoc) 17.52 Water Column / Gallons in Well 10.66 / 1.7

Sample ID MW-11-101315 Dup ID DUP-1-101315

Sample Time 1435 Start — End —

No Purge Method

Sampler Length (in) 36 ☒ 30 ☐ Depth of Sampler (ft-btoc) —

Weights Top ☐ Bottom ☐ Position Supended ☐ Bottom set ☐

Was Teflon Baler used to collect non volatile samples Yes ☒ No ☐

Low Flow Method

Pump type Bladder ☐ Other ☐ Pump Intake (ft-btoc) Volumes Purged

Flow rate (ml/minute) Purge Time: Start End

Did well Dewater? Yes ☐ No ☐

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH 0.1	Redox (mV) 10	Turbidity (NTU)	Additional notes
1155	—	—	—	1.75	8.05	0.474	4.28	6.96	-45.4	—	
1158	—	—	—	3.5	7.95	0.474	5.14	6.98	-46.7	—	
	—	—	—	5.25	7.44	0.470	5.87	7.02	-45.8	—	

Constituents Sampled		Container	Number	Preservative
BTEX by 8260	☒ 8021 ☐	40 mL	3	HCl
HVOCs by 8260	☐			
GRO by AK 101	☒	40 mL	3	HCl
DRO by AK 102	☒	250 mL	2	HCl
RRO by AK 103	☐			
Lead by 6010	☐			
PAHs by 8270	☒	1-Liter	2	NONE
Alkalinity by 2320B	☐			
Methane by RSK175	☐			
Sulfate by EPA 300	☐			
Nitrate/Nitrite by EPA 300	☐			
Ferrous Iron	☐			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.5" = 0.09 2.5" = 0.26 3.5" = 0.50 6" = 1.47
1.25" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65

Field Test Results: Ferrous Iron — mg/L Nitrate — mg/L Other —

Well Information

Well Location: 25' North of center of end of dock Well Locked at Arrival: Yes / No

Condition of Well: Good Well Locked at Departure: Yes / No

Well Completion: (Flush Mount) / Stick Up

Additional Notes

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GHD Services_Delta Western Dillingham Auto	Report To:	Jack Riggi / Jeff Cloud / Sarah Gillette/ Chase W.	Attention:	
Address:	[illegible]	Copy To:		Company Name:	
	[illegible]			Address:	
Email:	[illegible]	Purchase Order #:		Pace Quote:	
Phone:	Fax:	Project Name:	Delta Western Dillingham Auto	Pace Project Manager:	jennifer.gross@pacelabs.com,
Requested Due Date:		Project #:	073011-2015-02	Pace Profile #:	31007 # 2

Regulatory Agency	
State / Location	
AK / Dillingham	

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	AK101 GRO	BTEX by 8260	AK102 DRO	PAH 8270/SIM	Residual Chlorine (Y/N)
1	[illegible]			[illegible]	[illegible]				[illegible]										X				
2	[illegible]			[illegible]	310				[illegible]														
3	[illegible]				[illegible]				[illegible]														
4	[illegible]			[illegible]	335				[illegible]														
5	[illegible]			[illegible]	[illegible]				[illegible]														
6	[illegible]			[illegible]	[illegible]				[illegible]														
7	[illegible]			[illegible]	[illegible]				[illegible]										X				
8	[illegible]			[illegible]	[illegible]				[illegible]														
9	[illegible]			[illegible]	[illegible]			[illegible]	[illegible]										X	X	X		
10	[illegible]			[illegible]				[illegible]	[illegible]										X	X	X		
11	[illegible]			[illegible]				[illegible]											X	X			
12																							

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Report results in mg/L & Report to the MDL	[illegible] / GHD	[illegible]	[illegible]				
Send Chomatograms with final report							

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	[illegible]				
SIGNATURE of SAMPLER:	DATE Signed: [illegible]				

Attachment B
Pace Analytical Laboratory Analytical Report

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

October 27, 2015

John Riggi
GHD Services Inc.
14998 W. 26th Ave
Suite 800
Golden, CO 80401

RE: Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Dear John Riggi:
Enclosed are the analytical results for sample(s) received by the laboratory on October 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
Project Manager

Enclosures

cc: Jeffrey Cloud, GHD Services
Sarah Gillette, GHD Services Inc.

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CERTIFICATIONS

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10326303001	**B3MW-101315**	Water	10/13/15 12:55	10/15/15 17:45
10326303002	**MW-8-101315**	Water	10/13/15 13:10	10/15/15 17:45
10326303003	**MW-13-101315**	Water	10/13/15 13:20	10/15/15 17:45
10326303004	**MW-12-101315**	Water	10/13/15 13:35	10/15/15 17:45
10326303005	**MW-5R-101315**	Water	10/13/15 13:45	10/15/15 17:45
10326303006	**MW-7-101315**	Water	10/13/15 13:55	10/15/15 17:45
10326303007	**MW-6-101315**	Water	10/13/15 14:15	10/15/15 17:45
10326303008	**MW-10-101315**	Water	10/13/15 14:20	10/15/15 17:45
10326303009	**MW-11-101315**	Water	10/13/15 14:35	10/15/15 17:45
10326303010	**DUP-1-101315**	Water	10/13/15 00:00	10/15/15 17:45
10326303011	**Trip Blank-1-101315**	Water	10/13/15 00:00	10/15/15 17:45

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SAMPLE ANALYTE COUNT

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10326303001	**B3MW-101315**	EPA 8260B	AH2	7	PASI-M
10326303002	**MW-8-101315**	Alaska 102/103	MT	3	PASI-M
		Alaska 101	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10326303003	**MW-13-101315**	Alaska 102/103	MT	3	PASI-M
		Alaska 101	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10326303004	**MW-12-101315**	Alaska 102/103	MT	3	PASI-M
		Alaska 101	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10326303005	**MW-5R-101315**	Alaska 102/103	MT	3	PASI-M
		Alaska 101	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10326303006	**MW-7-101315**	Alaska 102/103	MT	3	PASI-M
		Alaska 101	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10326303007	**MW-6-101315**	EPA 8260B	AH2	7	PASI-M
10326303008	**MW-10-101315**	Alaska 102/103	MT	3	PASI-M
		Alaska 101	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10326303009	**MW-11-101315**	Alaska 102/103	MT	3	PASI-M
		Alaska 101	KMZ	2	PASI-M
		EPA 8270D by SIM	AS1	20	PASI-M
		EPA 8260B	AH2	7	PASI-M
10326303010	**DUP-1-101315**	Alaska 102/103	MT	3	PASI-M
		Alaska 101	KMZ	2	PASI-M
		EPA 8270D by SIM	AS1	20	PASI-M
		EPA 8260B	AH2	7	PASI-M
10326303011	**Trip Blank-1-101315**	Alaska 101	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M

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PROJECT NARRATIVE

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Date: October 27, 2015

A portion of the samples were received outside of required temperature range, see SCUR exceptions form. Analysis was completed upon client approval on 10/19/15.

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PROJECT NARRATIVE

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Method: **Alaska 102/103**
Description: RRO by AK102/103
Client: GHD_Dillingham Alaska
Date: October 27, 2015

General Information:
8 samples were analyzed for Alaska 102/103. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: OEXT/31372

B: Analyte was detected in the associated method blank.

- BLANK for HBN 385157 [OEXT/313 (Lab ID: 2116146)
  - DRO by AK 102

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/31372

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Method: **Alaska 101**
Description: AK101 GCV
Client: GHD_Dillingham Alaska
Date: October 27, 2015

General Information:
9 samples were analyzed for Alaska 101. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: GCV/14556

S0: Surrogate recovery outside laboratory control limits.
- LCS (Lab ID: 2116250)
  - a,a,a-Trifluorotoluene (S)
- LCSD (Lab ID: 2116251)
  - a,a,a-Trifluorotoluene (S)

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
- BLANK (Lab ID: 2116249)
  - a,a,a-Trifluorotoluene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Method: **Alaska 101**
Description: AK101 GCV
Client: GHD_Dillingham Alaska
Date: October 27, 2015

Analyte Comments:

QC Batch: GCV/14556

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 2116249)
  - AK101 Gasoline Range Organics
- LCS (Lab ID: 2116250)
  - AK101 Gasoline Range Organics
- LCSD (Lab ID: 2116251)
  - AK101 Gasoline Range Organics
- MW-12-101315 (Lab ID: 10326303004)
  - AK101 Gasoline Range Organics
- MW-13-101315 (Lab ID: 10326303003)
  - AK101 Gasoline Range Organics
- Trip Blank-1-101315 (Lab ID: 10326303011)
  - AK101 Gasoline Range Organics

QC Batch: GCV/14558

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 2117736)
  - AK101 Gasoline Range Organics
- DUP-1-101315 (Lab ID: 10326303010)
  - AK101 Gasoline Range Organics
- LCS (Lab ID: 2117737)
  - AK101 Gasoline Range Organics
- LCSD (Lab ID: 2117738)
  - AK101 Gasoline Range Organics
- MW-10-101315 (Lab ID: 10326303008)
  - AK101 Gasoline Range Organics
- MW-11-101315 (Lab ID: 10326303009)
  - AK101 Gasoline Range Organics
- MW-5R-101315 (Lab ID: 10326303005)
  - AK101 Gasoline Range Organics
- MW-7-101315 (Lab ID: 10326303006)
  - AK101 Gasoline Range Organics
- MW-8-101315 (Lab ID: 10326303002)
  - AK101 Gasoline Range Organics

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PROJECT NARRATIVE

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: GHD_Dillingham Alaska
Date: October 27, 2015

General Information:
2 samples were analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/31300

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Method: **EPA 8260B**
Description: 8260B MSV UST
Client: GHD_Dillingham Alaska
Date: October 27, 2015

General Information:
11 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Sample: B3MW-101315 **Lab ID: 10326303001** Collected: 10/13/15 12:55 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV UST	Analytical Method: EPA 8260B								
Benzene	**0.0069**	mg/L	0.0010	0.00021	1		10/20/15 01:18	71-43-2	
Ethylbenzene	**0.045**	mg/L	0.0010	0.00023	1		10/20/15 01:18	100-41-4	
Toluene	**0.0038**	mg/L	0.0010	0.00013	1		10/20/15 01:18	108-88-3	
Xylene (Total)	**0.11**	mg/L	0.0030	0.00060	1		10/20/15 01:18	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	101	%.	75-125		1		10/20/15 01:18	17060-07-0	
Toluene-d8 (S)	107	%.	75-125		1		10/20/15 01:18	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/20/15 01:18	460-00-4	

Sample: MW-8-101315 **Lab ID: 10326303002** Collected: 10/13/15 13:10 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RRO by AK102/103	Analytical Method: Alaska 102/103 Preparation Method: EPA 3510C								
DRO by AK 102	**3.7**	mg/L	0.43	0.013	1	10/23/15 12:33	10/26/15 19:28		
Surrogates									
o-Terphenyl (S)	80	%.	50-150		1	10/23/15 12:33	10/26/15 19:28	84-15-1	
n-Triacontane (S)	82	%.	50-150		1	10/23/15 12:33	10/26/15 19:28	638-68-6	
AK101 GCV	Analytical Method: Alaska 101								
AK101 Gasoline Range Organics	**2.3**	mg/L	0.10	0.050	1		10/26/15 14:12		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	91	%.	50-150		1		10/26/15 14:12	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B								
Benzene	**0.0050**	mg/L	0.0010	0.00021	1		10/19/15 23:24	71-43-2	
Ethylbenzene	**0.13**	mg/L	0.0010	0.00023	1		10/19/15 23:24	100-41-4	
Toluene	**0.0020**	mg/L	0.0010	0.00013	1		10/19/15 23:24	108-88-3	
Xylene (Total)	**0.50**	mg/L	0.0030	0.00060	1		10/19/15 23:24	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	100	%.	75-125		1		10/19/15 23:24	17060-07-0	
Toluene-d8 (S)	106	%.	75-125		1		10/19/15 23:24	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	75-125		1		10/19/15 23:24	460-00-4	

Sample: MW-13-101315 **Lab ID: 10326303003** Collected: 10/13/15 13:20 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RRO by AK102/103	Analytical Method: Alaska 102/103 Preparation Method: EPA 3510C								
DRO by AK 102	**0.31J**	mg/L	0.40	0.012	1	10/23/15 12:33	10/26/15 19:50		
Surrogates									
o-Terphenyl (S)	77	%.	50-150		1	10/23/15 12:33	10/26/15 19:50	84-15-1	
n-Triacontane (S)	78	%.	50-150		1	10/23/15 12:33	10/26/15 19:50	638-68-6	

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ANALYTICAL RESULTS

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Sample: MW-13-101315 **Lab ID: 10326303003** Collected: 10/13/15 13:20 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
AK101 GCV	Analytical Method: Alaska 101								
AK101 Gasoline Range Organics	**<0.050**	mg/L	0.10	0.050	1		10/23/15 16:44		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	135	%.	50-150		1		10/23/15 16:44	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B								
Benzene	**0.0023**	mg/L	0.0010	0.00021	1		10/20/15 01:35	71-43-2	
Ethylbenzene	**<0.00023**	mg/L	0.0010	0.00023	1		10/20/15 01:35	100-41-4	
Toluene	**0.00036J**	mg/L	0.0010	0.00013	1		10/20/15 01:35	108-88-3	
Xylene (Total)	**<0.00060**	mg/L	0.0030	0.00060	1		10/20/15 01:35	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	97	%.	75-125		1		10/20/15 01:35	17060-07-0	
Toluene-d8 (S)	106	%.	75-125		1		10/20/15 01:35	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/20/15 01:35	460-00-4	

Sample: MW-12-101315 **Lab ID: 10326303004** Collected: 10/13/15 13:35 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RRO by AK102/103	Analytical Method: Alaska 102/103 Preparation Method: EPA 3510C								
DRO by AK 102	**0.23J**	mg/L	0.40	0.012	1	10/23/15 12:33	10/26/15 20:12		B
Surrogates									
o-Terphenyl (S)	77	%.	50-150		1	10/23/15 12:33	10/26/15 20:12	84-15-1	
n-Triacontane (S)	79	%.	50-150		1	10/23/15 12:33	10/26/15 20:12	638-68-6	
AK101 GCV	Analytical Method: Alaska 101								
AK101 Gasoline Range Organics	**<0.050**	mg/L	0.10	0.050	1		10/23/15 17:06		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	132	%.	50-150		1		10/23/15 17:06	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B								
Benzene	**0.0050**	mg/L	0.0010	0.00021	1		10/20/15 01:51	71-43-2	
Ethylbenzene	**<0.00023**	mg/L	0.0010	0.00023	1		10/20/15 01:51	100-41-4	
Toluene	**<0.00013**	mg/L	0.0010	0.00013	1		10/20/15 01:51	108-88-3	
Xylene (Total)	**<0.00060**	mg/L	0.0030	0.00060	1		10/20/15 01:51	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	101	%.	75-125		1		10/20/15 01:51	17060-07-0	
Toluene-d8 (S)	105	%.	75-125		1		10/20/15 01:51	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/20/15 01:51	460-00-4	

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ANALYTICAL RESULTS

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Sample: MW-5R-101315 **Lab ID: 10326303005** Collected: 10/13/15 13:45 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RRO by AK102/103	Analytical Method: Alaska 102/103 Preparation Method: EPA 3510C								
DRO by AK 102	**1.6**	mg/L	0.40	0.012	1	10/23/15 12:33	10/26/15 20:34		
Surrogates									
o-Terphenyl (S)	83	%.	50-150		1	10/23/15 12:33	10/26/15 20:34	84-15-1	
n-Triacontane (S)	82	%.	50-150		1	10/23/15 12:33	10/26/15 20:34	638-68-6	
AK101 GCV	Analytical Method: Alaska 101								
AK101 Gasoline Range Organics	**1.3**	mg/L	0.10	0.050	1		10/26/15 13:52		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%.	50-150		1		10/26/15 13:52	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B								
Benzene	**0.12**	mg/L	0.0010	0.00021	1		10/20/15 02:08	71-43-2	
Ethylbenzene	**0.046**	mg/L	0.0010	0.00023	1		10/20/15 02:08	100-41-4	
Toluene	**0.0044**	mg/L	0.0010	0.00013	1		10/20/15 02:08	108-88-3	
Xylene (Total)	**0.10**	mg/L	0.0030	0.00060	1		10/20/15 02:08	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	101	%.	75-125		1		10/20/15 02:08	17060-07-0	
Toluene-d8 (S)	105	%.	75-125		1		10/20/15 02:08	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/20/15 02:08	460-00-4	

Sample: MW-7-101315 **Lab ID: 10326303006** Collected: 10/13/15 13:55 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RRO by AK102/103	Analytical Method: Alaska 102/103 Preparation Method: EPA 3510C								
DRO by AK 102	**0.55**	mg/L	0.43	0.013	1	10/23/15 12:33	10/26/15 20:56		
Surrogates									
o-Terphenyl (S)	76	%.	50-150		1	10/23/15 12:33	10/26/15 20:56	84-15-1	
n-Triacontane (S)	75	%.	50-150		1	10/23/15 12:33	10/26/15 20:56	638-68-6	
AK101 GCV	Analytical Method: Alaska 101								
AK101 Gasoline Range Organics	**1.3**	mg/L	0.10	0.050	1		10/26/15 13:32		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%.	50-150		1		10/26/15 13:32	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B								
Benzene	**0.14**	mg/L	0.0010	0.00021	1		10/20/15 02:40	71-43-2	
Ethylbenzene	**0.0057**	mg/L	0.0010	0.00023	1		10/20/15 02:40	100-41-4	
Toluene	**0.0044**	mg/L	0.0010	0.00013	1		10/20/15 02:40	108-88-3	
Xylene (Total)	**0.029**	mg/L	0.0030	0.00060	1		10/20/15 02:40	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	101	%.	75-125		1		10/20/15 02:40	17060-07-0	
Toluene-d8 (S)	105	%.	75-125		1		10/20/15 02:40	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/20/15 02:40	460-00-4	

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ANALYTICAL RESULTS

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Sample: MW-6-101315 **Lab ID: 10326303007** Collected: 10/13/15 14:15 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV UST	Analytical Method: EPA 8260B								
Benzene	**0.0084**	mg/L	0.0010	0.00021	1		10/20/15 02:57	71-43-2	
Ethylbenzene	**<0.00023**	mg/L	0.0010	0.00023	1		10/20/15 02:57	100-41-4	
Toluene	**<0.00013**	mg/L	0.0010	0.00013	1		10/20/15 02:57	108-88-3	
Xylene (Total)	**<0.00060**	mg/L	0.0030	0.00060	1		10/20/15 02:57	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	100	%.	75-125		1		10/20/15 02:57	17060-07-0	
Toluene-d8 (S)	106	%.	75-125		1		10/20/15 02:57	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/20/15 02:57	460-00-4	

Sample: MW-10-101315 **Lab ID: 10326303008** Collected: 10/13/15 14:20 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RRO by AK102/103	Analytical Method: Alaska 102/103 Preparation Method: EPA 3510C								
DRO by AK 102	**8.9**	mg/L	0.42	0.012	1	10/23/15 12:33	10/26/15 19:07		
Surrogates									
o-Terphenyl (S)	77	%.	50-150		1	10/23/15 12:33	10/26/15 19:07	84-15-1	
n-Triacontane (S)	80	%.	50-150		1	10/23/15 12:33	10/26/15 19:07	638-68-6	
AK101 GCV	Analytical Method: Alaska 101								
AK101 Gasoline Range Organics	**0.84**	mg/L	0.10	0.050	1		10/26/15 13:12		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	93	%.	50-150		1		10/26/15 13:12	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B								
Benzene	**0.085**	mg/L	0.0010	0.00021	1		10/20/15 03:13	71-43-2	
Ethylbenzene	**0.073**	mg/L	0.0010	0.00023	1		10/20/15 03:13	100-41-4	
Toluene	**0.0018**	mg/L	0.0010	0.00013	1		10/20/15 03:13	108-88-3	
Xylene (Total)	**0.10**	mg/L	0.0030	0.00060	1		10/20/15 03:13	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	99	%.	75-125		1		10/20/15 03:13	17060-07-0	
Toluene-d8 (S)	106	%.	75-125		1		10/20/15 03:13	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/20/15 03:13	460-00-4	

Sample: MW-11-101315 **Lab ID: 10326303009** Collected: 10/13/15 14:35 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RRO by AK102/103	Analytical Method: Alaska 102/103 Preparation Method: EPA 3510C								
DRO by AK 102	**4.5**	mg/L	0.40	0.012	1	10/23/15 12:33	10/26/15 18:45		
Surrogates									
o-Terphenyl (S)	79	%.	50-150		1	10/23/15 12:33	10/26/15 18:45	84-15-1	
n-Triacontane (S)	81	%.	50-150		1	10/23/15 12:33	10/26/15 18:45	638-68-6	

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ANALYTICAL RESULTS

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Sample: MW-11-101315 **Lab ID: 10326303009** Collected: 10/13/15 14:35 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
AK101 GCV	Analytical Method: Alaska 101								
AK101 Gasoline Range Organics	**12.5**	mg/L	2.0	1.0	20		10/26/15 14:32		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	97	%.	50-150		20		10/26/15 14:32	98-08-8	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C								
1-Methylnaphthalene	**0.00031**	mg/L	0.000042	0.0000045	1	10/20/15 11:36	10/21/15 11:25	90-12-0	
2-Methylnaphthalene	**0.00018**	mg/L	0.000042	0.0000043	1	10/20/15 11:36	10/21/15 11:25	91-57-6	
Acenaphthene	**0.000039J**	mg/L	0.000042	0.0000034	1	10/20/15 11:36	10/21/15 11:25	83-32-9	
Acenaphthylene	**0.000016J**	mg/L	0.000042	0.0000041	1	10/20/15 11:36	10/21/15 11:25	208-96-8	
Anthracene	**0.000048**	mg/L	0.000042	0.0000046	1	10/20/15 11:36	10/21/15 11:25	120-12-7	
Benzo(a)anthracene	**0.0000064J**	mg/L	0.000042	0.0000031	1	10/20/15 11:36	10/21/15 11:25	56-55-3	
Benzo(a)pyrene	**<0.0000031**	mg/L	0.000042	0.0000031	1	10/20/15 11:36	10/21/15 11:25	50-32-8	
Benzo(b)fluoranthene	**<0.0000080**	mg/L	0.000042	0.0000080	1	10/20/15 11:36	10/21/15 11:25	205-99-2	
Benzo(g,h,i)perylene	**<0.0000056**	mg/L	0.000042	0.0000056	1	10/20/15 11:36	10/21/15 11:25	191-24-2	
Benzo(k)fluoranthene	**<0.0000039**	mg/L	0.000042	0.0000039	1	10/20/15 11:36	10/21/15 11:25	207-08-9	
Chrysene	**<0.0000055**	mg/L	0.000042	0.0000055	1	10/20/15 11:36	10/21/15 11:25	218-01-9	
Dibenz(a,h)anthracene	**<0.000010**	mg/L	0.000042	0.000010	1	10/20/15 11:36	10/21/15 11:25	53-70-3	
Fluoranthene	**<0.0000059**	mg/L	0.000042	0.0000059	1	10/20/15 11:36	10/21/15 11:25	206-44-0	
Fluorene	**0.000035J**	mg/L	0.000042	0.0000059	1	10/20/15 11:36	10/21/15 11:25	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0000058**	mg/L	0.000042	0.0000058	1	10/20/15 11:36	10/21/15 11:25	193-39-5	
Naphthalene	**0.0026**	mg/L	0.000042	0.0000095	1	10/20/15 11:36	10/21/15 11:25	91-20-3	
Phenanthrene	**0.000015J**	mg/L	0.000042	0.000013	1	10/20/15 11:36	10/21/15 11:25	85-01-8	
Pyrene	**<0.0000067**	mg/L	0.000042	0.0000067	1	10/20/15 11:36	10/21/15 11:25	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	79	%.	52-125		1	10/20/15 11:36	10/21/15 11:25	321-60-8	
p-Terphenyl-d14 (S)	75	%.	62-125		1	10/20/15 11:36	10/21/15 11:25	1718-51-0	
8260B MSV UST	Analytical Method: EPA 8260B								
Benzene	**2.7**	mg/L	0.025	0.0054	25		10/20/15 04:02	71-43-2	
Ethylbenzene	**0.056**	mg/L	0.025	0.0057	25		10/20/15 04:02	100-41-4	
Toluene	**<0.0034**	mg/L	0.025	0.0034	25		10/20/15 04:02	108-88-3	
Xylene (Total)	**0.27**	mg/L	0.075	0.015	25		10/20/15 04:02	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	97	%.	75-125		25		10/20/15 04:02	17060-07-0	
Toluene-d8 (S)	105	%.	75-125		25		10/20/15 04:02	2037-26-5	

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ANALYTICAL RESULTS

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Sample: MW-11-101315 **Lab ID: 10326303009** Collected: 10/13/15 14:35 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV UST	Analytical Method: EPA 8260B								
Surrogates									
4-Bromofluorobenzene (S)	100	%.	75-125		25		10/20/15 04:02	460-00-4	

Sample: DUP-1-101315 **Lab ID: 10326303010** Collected: 10/13/15 00:00 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RRO by AK102/103	Analytical Method: Alaska 102/103 Preparation Method: EPA 3510C								
DRO by AK 102	**5.1**	mg/L	0.43	0.013	1	10/23/15 12:33	10/26/15 21:18		
Surrogates									
o-Terphenyl (S)	85	%.	50-150		1	10/23/15 12:33	10/26/15 21:18	84-15-1	
n-Triacontane (S)	86	%.	50-150		1	10/23/15 12:33	10/26/15 21:18	638-68-6	
AK101 GCV	Analytical Method: Alaska 101								
AK101 Gasoline Range Organics	**11.2**	mg/L	2.0	1.0	20		10/26/15 14:52		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	87	%.	50-150		20		10/26/15 14:52	98-08-8	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C								
1-Methylnaphthalene	**0.00038**	mg/L	0.000040	0.0000043	1	10/20/15 11:36	10/21/15 11:47	90-12-0	
2-Methylnaphthalene	**0.00023**	mg/L	0.000040	0.0000042	1	10/20/15 11:36	10/21/15 11:47	91-57-6	
Acenaphthene	**0.000040J**	mg/L	0.000040	0.0000032	1	10/20/15 11:36	10/21/15 11:47	83-32-9	
Acenaphthylene	**0.0000097J**	mg/L	0.000040	0.0000040	1	10/20/15 11:36	10/21/15 11:47	208-96-8	
Anthracene	**0.000046**	mg/L	0.000040	0.0000044	1	10/20/15 11:36	10/21/15 11:47	120-12-7	
Benzo(a)anthracene	**0.0000055J**	mg/L	0.000040	0.0000030	1	10/20/15 11:36	10/21/15 11:47	56-55-3	
Benzo(a)pyrene	**<0.0000030**	mg/L	0.000040	0.0000030	1	10/20/15 11:36	10/21/15 11:47	50-32-8	
Benzo(b)fluoranthene	**<0.0000076**	mg/L	0.000040	0.0000076	1	10/20/15 11:36	10/21/15 11:47	205-99-2	
Benzo(g,h,i)perylene	**<0.0000054**	mg/L	0.000040	0.0000054	1	10/20/15 11:36	10/21/15 11:47	191-24-2	
Benzo(k)fluoranthene	**<0.0000038**	mg/L	0.000040	0.0000038	1	10/20/15 11:36	10/21/15 11:47	207-08-9	
Chrysene	**<0.0000053**	mg/L	0.000040	0.0000053	1	10/20/15 11:36	10/21/15 11:47	218-01-9	
Dibenz(a,h)anthracene	**<0.0000096**	mg/L	0.000040	0.0000096	1	10/20/15 11:36	10/21/15 11:47	53-70-3	
Fluoranthene	**<0.0000057**	mg/L	0.000040	0.0000057	1	10/20/15 11:36	10/21/15 11:47	206-44-0	
Fluorene	**0.000034J**	mg/L	0.000040	0.0000056	1	10/20/15 11:36	10/21/15 11:47	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0000056**	mg/L	0.000040	0.0000056	1	10/20/15 11:36	10/21/15 11:47	193-39-5	

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ANALYTICAL RESULTS

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Sample: DUP-1-101315 **Lab ID: 10326303010** Collected: 10/13/15 00:00 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C								
Naphthalene	**0.0033**	mg/L	0.000040	0.0000091	1	10/20/15 11:36	10/21/15 11:47	91-20-3	
Phenanthrene	**0.000015J**	mg/L	0.000040	0.000012	1	10/20/15 11:36	10/21/15 11:47	85-01-8	
Pyrene	**<0.0000064**	mg/L	0.000040	0.0000064	1	10/20/15 11:36	10/21/15 11:47	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	72	%.	52-125		1	10/20/15 11:36	10/21/15 11:47	321-60-8	
p-Terphenyl-d14 (S)	71	%.	62-125		1	10/20/15 11:36	10/21/15 11:47	1718-51-0	
8260B MSV UST	Analytical Method: EPA 8260B								
Benzene	**2.6**	mg/L	0.020	0.0043	20		10/20/15 04:18	71-43-2	
Ethylbenzene	**0.047**	mg/L	0.020	0.0045	20		10/20/15 04:18	100-41-4	
Toluene	**<0.0027**	mg/L	0.020	0.0027	20		10/20/15 04:18	108-88-3	
Xylene (Total)	**0.21**	mg/L	0.060	0.012	20		10/20/15 04:18	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	101	%.	75-125		20		10/20/15 04:18	17060-07-0	
Toluene-d8 (S)	107	%.	75-125		20		10/20/15 04:18	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125		20		10/20/15 04:18	460-00-4	

Sample: Trip Blank-1-101315 **Lab ID: 10326303011** Collected: 10/13/15 00:00 Received: 10/15/15 17:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
AK101 GCV	Analytical Method: Alaska 101								
AK101 Gasoline Range Organics	**<0.050**	mg/L	0.10	0.050	1		10/23/15 16:01		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	132	%.	50-150		1		10/23/15 16:01	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B								
Benzene	**<0.00021**	mg/L	0.0010	0.00021	1		10/19/15 23:08	71-43-2	
Ethylbenzene	**<0.00023**	mg/L	0.0010	0.00023	1		10/19/15 23:08	100-41-4	
Toluene	**0.00019J**	mg/L	0.0010	0.00013	1		10/19/15 23:08	108-88-3	
Xylene (Total)	**<0.00060**	mg/L	0.0030	0.00060	1		10/19/15 23:08	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	100	%.	75-125		1		10/19/15 23:08	17060-07-0	
Toluene-d8 (S)	114	%.	75-125		1		10/19/15 23:08	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125		1		10/19/15 23:08	460-00-4	

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QUALITY CONTROL DATA

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

QC Batch: GCV/14556 Analysis Method: Alaska 101
QC Batch Method: Alaska 101 Analysis Description: AK101W GCV Water
Associated Lab Samples: 10326303003, 10326303004, 10326303011

METHOD BLANK: 2116249 Matrix: Water
Associated Lab Samples: 10326303003, 10326303004, 10326303011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
AK101 Gasoline Range Organics	mg/L	<0.050	0.10	0.050	10/23/15 15:13	N2
a,a,a-Trifluorotoluene (S)	%.	133	60-120		10/23/15 15:13	S3

LABORATORY CONTROL SAMPLE & LCSD: 2116250 2116251

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
AK101 Gasoline Range Organics	mg/L	1	0.82	0.79	82	79	60-120	5	20	N2
a,a,a-Trifluorotoluene (S)	%.				146	147	60-120			S0

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QUALITY CONTROL DATA

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

QC Batch: GCV/14558 — Analysis Method: Alaska 101
QC Batch Method: Alaska 101 — Analysis Description: AK101W GCV Water
Associated Lab Samples: 10326303002, 10326303005, 10326303006, 10326303008, 10326303009, 10326303010

METHOD BLANK: 2117736 — Matrix: Water
Associated Lab Samples: 10326303002, 10326303005, 10326303006, 10326303008, 10326303009, 10326303010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
AK101 Gasoline Range Organics	mg/L	<0.050	0.10	0.050	10/26/15 12:52	N2
a,a,a-Trifluorotoluene (S)	%.	89	60-120		10/26/15 12:52	

LABORATORY CONTROL SAMPLE & LCSD: 2117737 2117738

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
AK101 Gasoline Range Organics	mg/L	1	1.1	1.0	107	105	60-120	2	20	N2
a,a,a-Trifluorotoluene (S)	%.				108	94	60-120			

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QUALITY CONTROL DATA

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

QC Batch: MSV/33483 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 10326303001, 10326303002, 10326303003, 10326303004, 10326303005, 10326303006, 10326303007, 10326303008, 10326303009, 10326303010, 10326303011

METHOD BLANK: 2112009 Matrix: Water
Associated Lab Samples: 10326303001, 10326303002, 10326303003, 10326303004, 10326303005, 10326303006, 10326303007, 10326303008, 10326303009, 10326303010, 10326303011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	mg/L	<0.00021	0.0010	0.00021	10/19/15 22:52	
Ethylbenzene	mg/L	<0.00023	0.0010	0.00023	10/19/15 22:52	
Toluene	mg/L	<0.00013	0.0010	0.00013	10/19/15 22:52	
Xylene (Total)	mg/L	<0.00060	0.0030	0.00060	10/19/15 22:52	
1,2-Dichloroethane-d4 (S)	%.	101	75-125		10/19/15 22:52	
4-Bromofluorobenzene (S)	%.	99	75-125		10/19/15 22:52	
Toluene-d8 (S)	%.	106	75-125		10/19/15 22:52	

LABORATORY CONTROL SAMPLE: 2112010

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	mg/L	.02	0.018	89	71-125	
Ethylbenzene	mg/L	.02	0.021	103	75-125	
Toluene	mg/L	.02	0.018	90	74-125	
Xylene (Total)	mg/L	.06	0.065	109	75-125	
1,2-Dichloroethane-d4 (S)	%.			102	75-125	
4-Bromofluorobenzene (S)	%.			98	75-125	
Toluene-d8 (S)	%.			106	75-125	

MATRIX SPIKE SAMPLE: 2112011

Parameter	Units	10326303002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	mg/L	0.0050	.02	0.023	90	53-139	
Ethylbenzene	mg/L	0.13	.02	0.15	133	55-139	
Toluene	mg/L	0.0020	.02	0.022	99	52-148	
Xylene (Total)	mg/L	0.50	.06	0.58	143	54-144	
1,2-Dichloroethane-d4 (S)	%.				101	75-125	
4-Bromofluorobenzene (S)	%.				97	75-125	
Toluene-d8 (S)	%.				107	75-125	

SAMPLE DUPLICATE: 2112012

Parameter	Units	10326303005 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	mg/L	0.12	0.12	1	30	
Ethylbenzene	mg/L	0.046	0.046	0	30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

SAMPLE DUPLICATE: 2112012

Parameter	Units	10326303005 Result	Dup Result	RPD	Max RPD	Qualifiers
Toluene	mg/L	0.0044	0.0044	1	30	
Xylene (Total)	mg/L	0.10	0.10	1	30	
1,2-Dichloroethane-d4 (S)	%.	101	102	1		
4-Bromofluorobenzene (S)	%.	99	99	0		
Toluene-d8 (S)	%.	105	106	1		

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QUALITY CONTROL DATA

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

QC Batch: OEXT/31300 | Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3510C | Analysis Description: 8270D PAH by SIM MSSV
Associated Lab Samples: 10326303009, 10326303010

METHOD BLANK: 2112541 | Matrix: Water
Associated Lab Samples: 10326303009, 10326303010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	mg/L	<0.0000043	0.000040	0.0000043	10/21/15 08:07	
2-Methylnaphthalene	mg/L	<0.0000042	0.000040	0.0000042	10/21/15 08:07	
Acenaphthene	mg/L	<0.0000032	0.000040	0.0000032	10/21/15 08:07	
Acenaphthylene	mg/L	<0.0000040	0.000040	0.0000040	10/21/15 08:07	
Anthracene	mg/L	<0.0000044	0.000040	0.0000044	10/21/15 08:07	
Benzo(a)anthracene	mg/L	<0.0000030	0.000040	0.0000030	10/21/15 08:07	
Benzo(a)pyrene	mg/L	<0.0000030	0.000040	0.0000030	10/21/15 08:07	
Benzo(b)fluoranthene	mg/L	<0.0000076	0.000040	0.0000076	10/21/15 08:07	
Benzo(g,h,i)perylene	mg/L	<0.0000054	0.000040	0.0000054	10/21/15 08:07	
Benzo(k)fluoranthene	mg/L	<0.0000038	0.000040	0.0000038	10/21/15 08:07	
Chrysene	mg/L	<0.0000053	0.000040	0.0000053	10/21/15 08:07	
Dibenz(a,h)anthracene	mg/L	<0.0000096	0.000040	0.0000096	10/21/15 08:07	
Fluoranthene	mg/L	<0.0000057	0.000040	0.0000057	10/21/15 08:07	
Fluorene	mg/L	<0.0000056	0.000040	0.0000056	10/21/15 08:07	
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000056	0.000040	0.0000056	10/21/15 08:07	
Naphthalene	mg/L	<0.0000091	0.000040	0.0000091	10/21/15 08:07	
Phenanthrene	mg/L	<0.000012	0.000040	0.000012	10/21/15 08:07	
Pyrene	mg/L	<0.0000064	0.000040	0.0000064	10/21/15 08:07	
2-Fluorobiphenyl (S)	%.	77	52-125		10/21/15 08:07	
p-Terphenyl-d14 (S)	%.	86	62-125		10/21/15 08:07	

LABORATORY CONTROL SAMPLE & LCSD: 2112542 2112543

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	mg/L	.001	0.00082	0.00070	82	70	37-125	17	20	
2-Methylnaphthalene	mg/L	.001	0.00081	0.00069	81	69	37-125	17	20	
Acenaphthene	mg/L	.001	0.00080	0.00069	80	69	44-125	15	20	
Acenaphthylene	mg/L	.001	0.00077	0.00066	77	66	44-125	15	20	
Anthracene	mg/L	.001	0.00089	0.00081	89	81	55-125	10	20	
Benzo(a)anthracene	mg/L	.001	0.00080	0.00080	80	80	56-125	0	20	
Benzo(a)pyrene	mg/L	.001	0.00086	0.00086	86	86	61-125	0	20	
Benzo(b)fluoranthene	mg/L	.001	0.00085	0.00085	85	85	60-125	0	20	
Benzo(g,h,i)perylene	mg/L	.001	0.00086	0.00083	86	83	53-125	3	20	
Benzo(k)fluoranthene	mg/L	.001	0.00085	0.00087	85	87	59-125	2	20	
Chrysene	mg/L	.001	0.00084	0.00084	84	84	61-125	0	20	
Dibenz(a,h)anthracene	mg/L	.001	0.00083	0.00081	83	81	51-125	3	20	
Fluoranthene	mg/L	.001	0.00088	0.00087	88	87	64-125	2	20	
Fluorene	mg/L	.001	0.00080	0.00075	80	75	52-125	6	20	
Indeno(1,2,3-cd)pyrene	mg/L	.001	0.00083	0.00084	83	84	54-125	1	20	
Naphthalene	mg/L	.001	0.00083	0.00071	83	71	35-125	16	20	

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QUALITY CONTROL DATA

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

LABORATORY CONTROL SAMPLE & LCSD: 2112542 2112543

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Phenanthrene	mg/L	.001	0.00086	0.00079	86	79	55-125	8	20	
Pyrene	mg/L	.001	0.00083	0.00083	83	83	59-125	1	20	
2-Fluorobiphenyl (S)	%.				78	65	52-125			
p-Terphenyl-d14 (S)	%.				81	81	62-125			

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QUALITY CONTROL DATA

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

QC Batch: OEXT/31372 — Analysis Method: Alaska 102/103
QC Batch Method: EPA 3510C — Analysis Description: AK1023 GCS
Associated Lab Samples: 10326303002, 10326303003, 10326303004, 10326303005, 10326303006, 10326303008, 10326303009, 10326303010

METHOD BLANK: 2116146 — Matrix: Water
Associated Lab Samples: 10326303002, 10326303003, 10326303004, 10326303005, 10326303006, 10326303008, 10326303009, 10326303010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
DRO by AK 102	mg/L	0.024J	0.40	0.012	10/26/15 17:39	
n-Triacontane (S)	%.	77	60-120		10/26/15 17:39	
o-Terphenyl (S)	%.	88	60-120		10/26/15 17:39	

LABORATORY CONTROL SAMPLE & LCSD: 2116147 2116148

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
DRO by AK 102	mg/L	2	1.6	1.6	78	79	75-125	2	20	
n-Triacontane (S)	%.				77	78	60-120			
o-Terphenyl (S)	%.				93	81	60-120			

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QUALIFIERS

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

WORKORDER QUALIFIERS

WO: 10326303

[1]	A portion of the samples were received outside of required temperature range, see SCUR exceptions form. Analysis was completed upon client approval on 10/19/15.

BATCH QUALIFIERS

Batch: MSSV/13295

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: GCSV/17109

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
N2	The lab does not hold TNI accreditation for this parameter.
S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

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METHOD CROSS REFERENCE TABLE

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Parameter	Matrix	Analytical Method	Preparation Method
8260B MSV UST	Water	SW-846 8260B/5030B	N/A

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 073011-2015-02 DeltaWestern DA
Pace Project No.: 10326303

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10326303002	**MW-8-101315**	EPA 3510C	OEXT/31372	Alaska 102/103	GCSV/17109
10326303003	**MW-13-101315**	EPA 3510C	OEXT/31372	Alaska 102/103	GCSV/17109
10326303004	**MW-12-101315**	EPA 3510C	OEXT/31372	Alaska 102/103	GCSV/17109
10326303005	**MW-5R-101315**	EPA 3510C	OEXT/31372	Alaska 102/103	GCSV/17109
10326303006	**MW-7-101315**	EPA 3510C	OEXT/31372	Alaska 102/103	GCSV/17109
10326303008	**MW-10-101315**	EPA 3510C	OEXT/31372	Alaska 102/103	GCSV/17109
10326303009	**MW-11-101315**	EPA 3510C	OEXT/31372	Alaska 102/103	GCSV/17109
10326303010	**DUP-1-101315**	EPA 3510C	OEXT/31372	Alaska 102/103	GCSV/17109
10326303002	**MW-8-101315**	Alaska 101	GCV/14558		
10326303003	**MW-13-101315**	Alaska 101	GCV/14556		
10326303004	**MW-12-101315**	Alaska 101	GCV/14556		
10326303005	**MW-5R-101315**	Alaska 101	GCV/14558		
10326303006	**MW-7-101315**	Alaska 101	GCV/14558		
10326303008	**MW-10-101315**	Alaska 101	GCV/14558		
10326303009	**MW-11-101315**	Alaska 101	GCV/14558		
10326303010	**DUP-1-101315**	Alaska 101	GCV/14558		
10326303011	**Trip Blank-1-101315**	Alaska 101	GCV/14556		
10326303009	**MW-11-101315**	EPA 3510C	OEXT/31300	EPA 8270D by SIM	MSSV/13295
10326303010	**DUP-1-101315**	EPA 3510C	OEXT/31300	EPA 8270D by SIM	MSSV/13295
10326303001	**B3MW-101315**	EPA 8260B	MSV/33483		
10326303002	**MW-8-101315**	EPA 8260B	MSV/33483		
10326303003	**MW-13-101315**	EPA 8260B	MSV/33483		
10326303004	**MW-12-101315**	EPA 8260B	MSV/33483		
10326303005	**MW-5R-101315**	EPA 8260B	MSV/33483		
10326303006	**MW-7-101315**	EPA 8260B	MSV/33483		
10326303007	**MW-6-101315**	EPA 8260B	MSV/33483		
10326303008	**MW-10-101315**	EPA 8260B	MSV/33483		
10326303009	**MW-11-101315**	EPA 8260B	MSV/33483		
10326303010	**DUP-1-101315**	EPA 8260B	MSV/33483		
10326303011	**Trip Blank-1-101315**	EPA 8260B	MSV/33483		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10326303

Page: 1 of 1

Section A Required Client Information:

Company: GHD Services Delta Western Dillingham Auto
Address: 309 Main Street, Dillingham, AK 99576
Email: JOHN.RIGGI@GHD.COM
Phone: 720.974.0946 Fax:
Requested Due Date:

Section B Required Project Information:

Report To: Jack Riggi / Jeff Cloud / Sarah Gillette/ Chase W.
Copy To:
Purchase Order #:
Project Name: Delta Western Dillingham Auto
Project #: 073011-2015-02

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: jennifer.gross@pacelabs.com
Pace Profile #: 31007 # 2

Regulatory Agency:
State / Location: AK / Dillingham

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	AK101 GRO	BTEX by 8260	AK102 DRO	PAH 8270/SIM	Residual Chlorine (Y/N)	
1	B3MW-101315			10/13/15	1255	—	—		3				X							X				01
2	MW-8-101315			10/13/15	1310	—	—		8				X						X	X	X			02
3	MW-13-101315			10/13/15	1320	—	—		8				X						X	X	X			03
4	MW-12-101315			10/13/15	1335	—	—		8				X						X	X	X			04
5	MW-5R-101315			10/13/15	1345	—	—		8				X						X	X	X			05
6	MW-7-101315			10/13/15	1355	—	—		8				X						X	X	X			06
7	MW-6-101315			10/13/15	1415	—	—		3				X							X				07
8	MW-10-101315			10/13/15	1420	—	—		8				X						X	X	X			08
9	MW-11-101315			10/13/15	1435	—	—		10	X			X						X	X	X	X		09
10	DUP-1-101315			10/13/15	—	—	—		10	X			X						X	X	X	X		10
11	TripBlank-1-101315			10/13/15	—	—	—		4										X	X				11
12																								

Matrix codes: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS

Additional Comments	Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time	Temp	Sample Conditions		
Report results in mg/L & Report to the MDL	Nick Greco / GHD	10/14/15	1000	Neil Barnack	10/15	1800	32	Y	Y	Y
Send Chomatograms with final report	Neil Barnack	10/15	1800	[illegible] / Pace	10.15.15	1700				
	[illegible] / Pace	10.15.15	1745	[illegible] / PAA	10/15/15	17.45	0.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nick Greco

SIGNATURE of SAMPLER: [signature] DATE Signed: 10/14/15

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Printing Error

Short Hold !

Project Manager Jenni Gross

received on wet ice

Cooler seal intact

Samples intact

temp 3.2°C

10/15/15 Barnack

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-MN-L-213-rev.13	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: GHD

Project #: WO#: 10326303 (10326303)

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ SpeeDee ☐ Other:

Tracking Number:

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: Temp Blank? ☐ Yes ☑ No

Thermometer Used: ☐ B88A9130516413 ☐ B88A912167504 ☑ B88A0143310098 Type of Ice: ☐ Wet ☑ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 0.5, 1.6 Cooler Temp Corrected (°C): 0.6, 1.7 Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C Correction Factor: +0.1 Date and Initials of Person Examining Contents: KAC 10/15/15

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☑ No	☐ N/A	12. ~~bottle count incorrect for sample #5 9210~~ KAC 10/15/15
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☑ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☑ Yes	☐ No	☐ N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☑ No	☐ N/A	14. Some are frozen, see exception sheet
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	15.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased): 091415-3BZA				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☑ No

Person Contacted: Jack Riggi Date/Time: 10/19/15

Comments/Resolution: Notified client of frozen vials, proceed per client. JR

Project Manager Review: Jenn Crapp Date: 10/16/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical®	Document Name: SCUR Exceptions Form	Document Revised: 16Apr2012 Page 1 of 1
	Document No.: F-MN-L-220-Rev.00	Issuing Authority: Pace Minnesota Quality Office

Workorder #: 10326303

Issue	Sample ID	Container Type/#
frozen sample	MW-8-101315	VG9H/1
frozen sample	MW-13-101315	VG9H/1
Frozen Sample	MW-7-101315	VG9H/2
frozen sample	MW-10-101315	VG9H/3
sample froze & broke	MW-10-101315	VG9H/1

Pace Analytical	Document Name: Sample Container Count	Document Revised: 30Jul2014 Page 1 of 1
	Document No.: F-MN-C-090-Rev.04	Issuing Authority: Pace Minnesota Quality Office

Client: GHD **Project #:** 10326303 **COC ID:** — **COC Page:** 1 of 1

Sample Line Item	BP1U	BP2U	BP3U	BP3S	BP3N	AG1U	AG2H	AG3S	AG1T	JGFU	JGCU	BJFU	WPDU	VG9M	VG9H	GN	SP5T	DWC
☐	Check the box to the left to indicate that the container(s) received for line items - are identical to the container(s) documented for line item 1 for this CoC.																	
1															3			
2-6							2								6			
3-7															3			
4-8							2								5			
9-10						2	2								6			
11															4-TB			
7																		
8																		
9																		
10																		
11																		
12																		

Comments:

Container Codes:

AG1H	1 L amber glass HCL	BP1N	1 L plastic HNO3	DG9C	40 mL vial with ascorbic acid	VG9B	40 mL clear VOA vial Na Bisulfate
AG1S	1 L amber glass H2SO4	BP1S	1 L plastic H2SO4	DG9T	40 mL amber VOA vial Na Thio	VG9H	40 mL clear VOA vial HCl
AG1T	1 L amber glass Na Thiosulfate	BP1U	1 L plastic unpreserved	DG9U	40 mL amber VOA vial	VG9M	40 mL clear VOA vial MeOH
AG1U	1 L amber glass unpreserved	BP1Z	1 L plastic NaOH, Zn Ac	DWC	Dry weight container	VG9S	40 mL clear VOA vial H2SO4
AG2H	500 mL amber glass HCl	BP2A	500 mL plastic NaOH	EZH	25 g Encore	VG9T	40 mL clear VOA vial Na Thiosulfate
AG2N	500 mL amber glass HNO3	BP2N	500 mL plastic HNO3	GJ	1 Gallon jug	VG9U	40 mL clear VOA vial
AG2S	500 mL amber glass H2SO4	BP2S	500 mL plastic H2SO4	GN	General unpreserved	VG9W	40 mL clear VOA vial DI Water/stir bar
AG2U	500 mL amber unpreserved	BP2U	500 mL plastic unpreserved	GNN	General preserved with Nitric Acid	VSG	Headspace septa vial and HCl
AO3H	250 mL amber glass HCl	BP2Z	500 mL NaOH, Zn Ac	GNS	General with H_2SO_4	WGFX	4 oz wide jar and wipe Hexane
AG3S	250 mL amber glass H2SO4	BP3A	250 mL plastic NaOH, Asc Acid	JGCU	8 oz clear wide jar	WPDU	16 oz clear wide mouth jar
AG3U	250 mL amber glass unpreserved	BP3N	250 mL plastic HNO3	JGFM	4 oz amber wide jar MeOH	XAD	XAD trap
AG4S	120 mL amber glass H2SO4	BP3S	250 mL plastic H2SO4	JGFU	4 oz wide jar		
AG4U	125 mL amber glass unpreserved	BP3U	250 mL plastic unpreserved	PB	Clear zip-lock bag		
BJFM	4 oz clear jar MeOH	BP3Z	250 mL plastic NaOH, Zn Ac	PUF	Polyurethane Foam		
BJFU	4 oz amber tared weight	BP4N	125 mL plastic HNO3	SP5T	120 mL Coliform NA Thiosulfate		
BJTM	2 oz clear MeOH	BP4U	125 mL plastic unpreserved	T	Tedlar Bag		
BJTU	2 oz clear wide jar	C	Air Cassettes	TDT	Thermal desorption tube		
BP1A	1 L plastic NaOH	DG9H	40 mL amber VOA vial HCl	U	Summa Can		

Analytical Data Package

Prepared by:

Pace Analytical Services

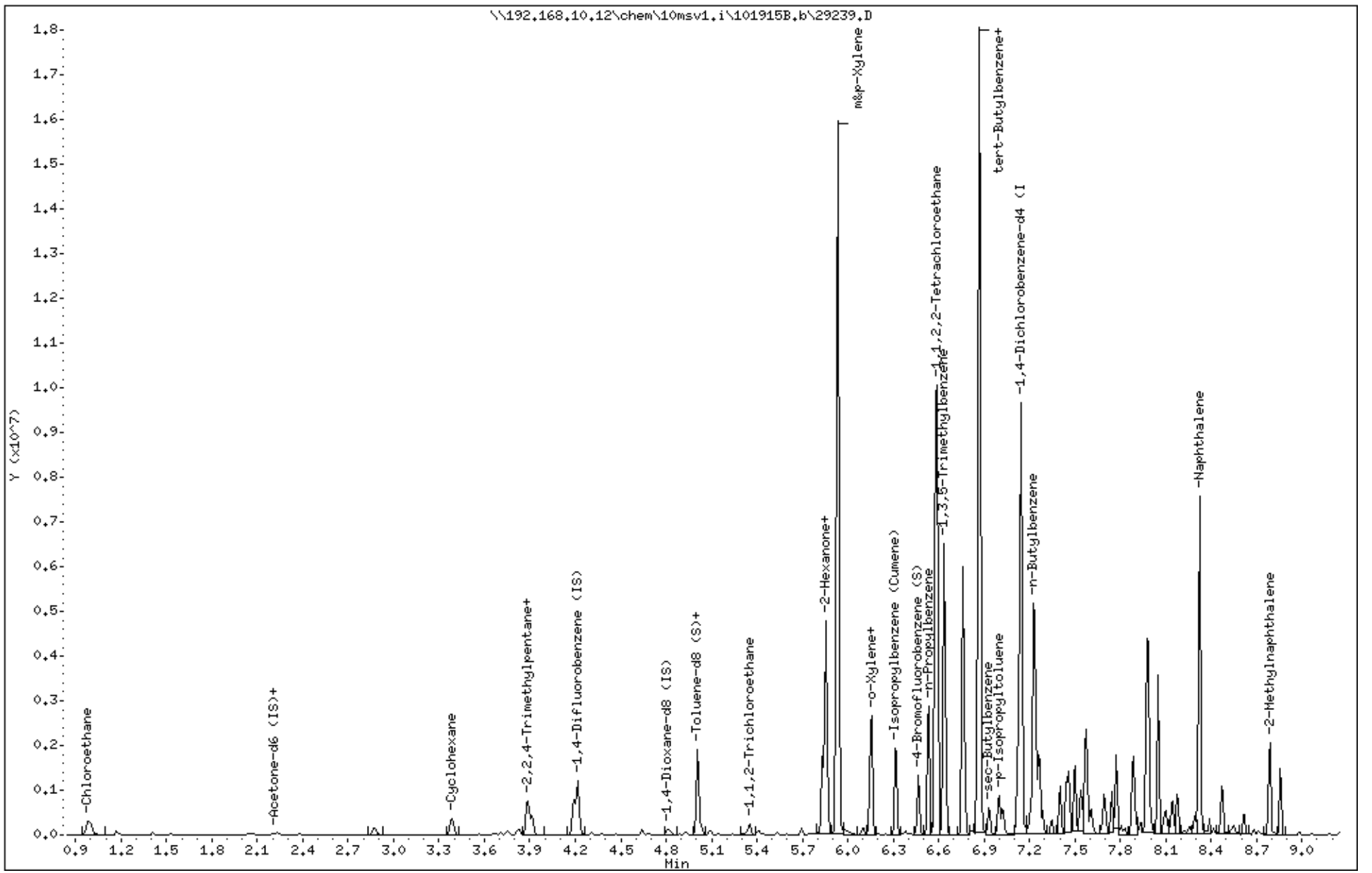
Pace Project No.: 10326303

Table Of Contents

Organic
GC-MS Volatiles
Chromatograms 1
GC-MS SIM PAH
Chromatograms 130
GC-FID GRO
Chromatograms 199
GC-FID DRO
Chromatograms 225

Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29239.D
Date : 19-OCT-2015 23:24
Client ID: MW8-101315
Sample Info: 10326303002
Purge Volume: 5.0
Column phase: Rtx-VMS

Instrument: 10msv1.i
Operator: AH2
Column diameter: 0.18



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Date : 19-OCT-2015 23:24

Client ID: MW8-101315

Instrument: 10msv1.i

Sample Info: 10326303002

Purge Volume: 5.0

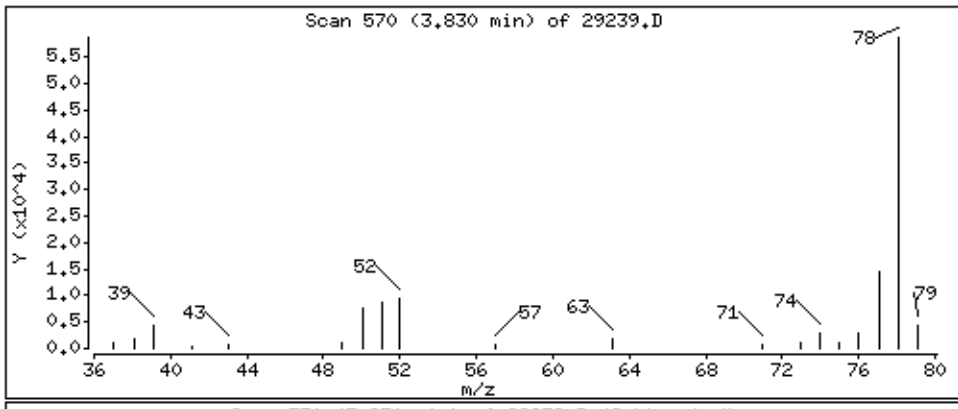
Operator: AH2

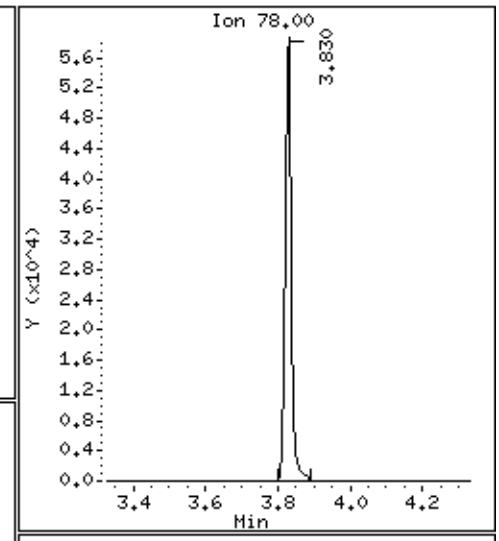
Column phase: Rtx-VMS

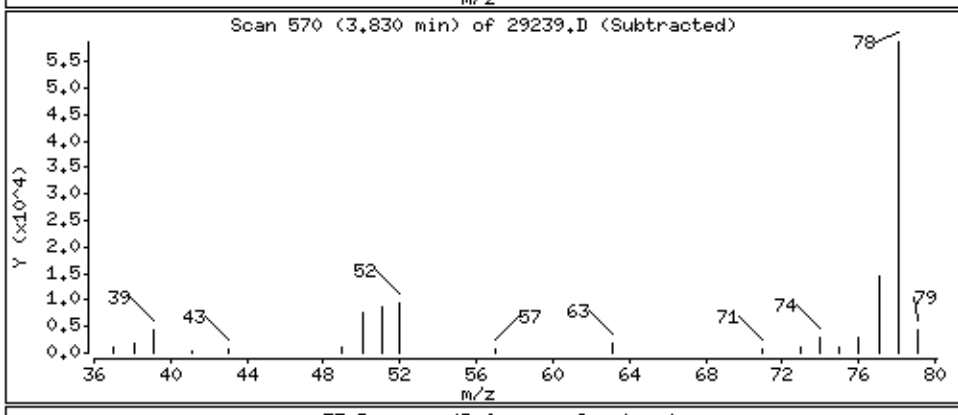
Column diameter: 0.18

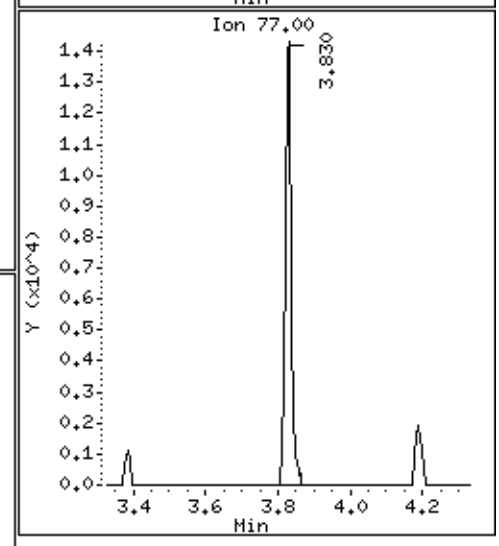
33 Benzene

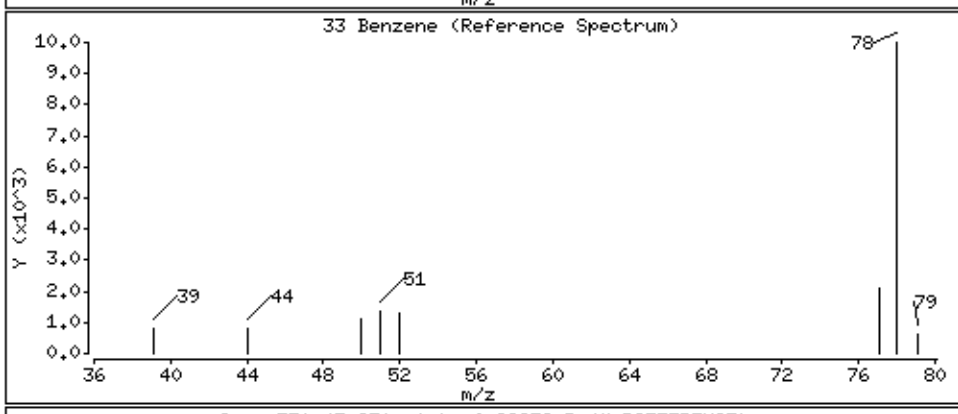
Concentration: 5.0 ug/L

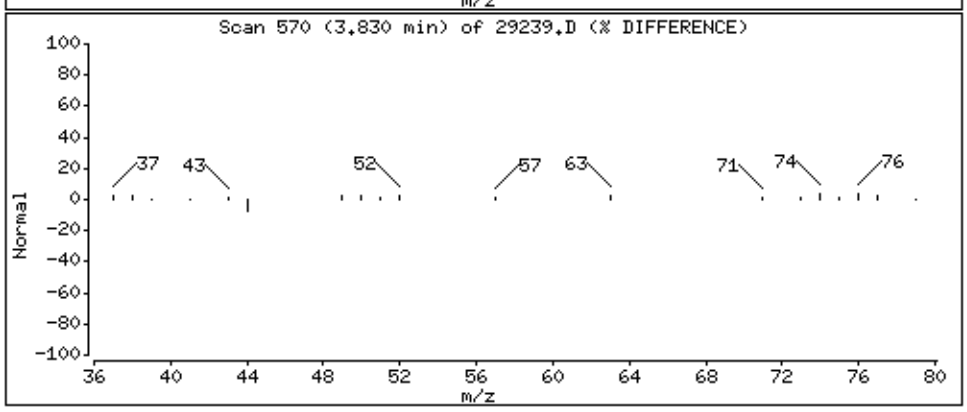












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Date : 19-OCT-2015 23:24

Client ID: MW8-101315

Instrument: 10msv1.i

Sample Info: 10326303002

Purge Volume: 5.0

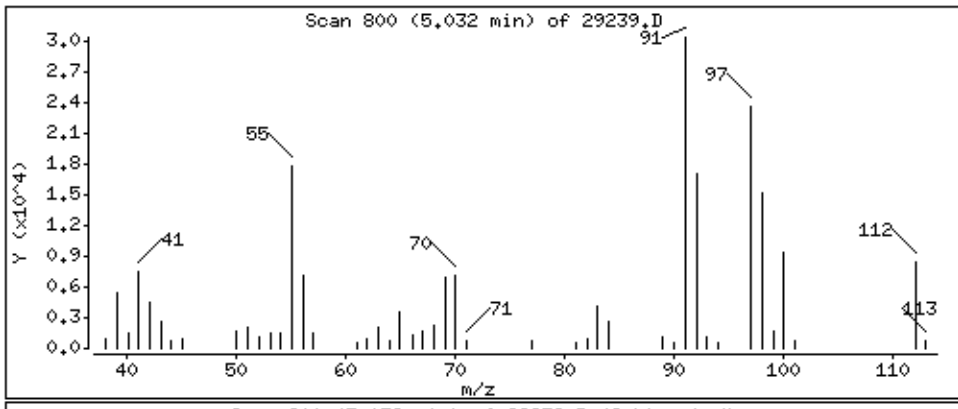
Operator: AH2

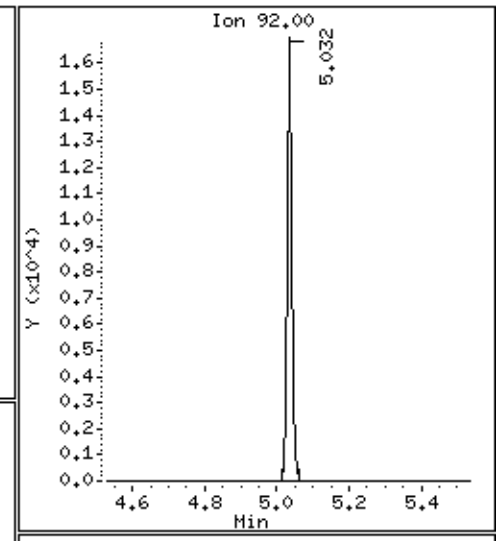
Column phase: Rtx-VMS

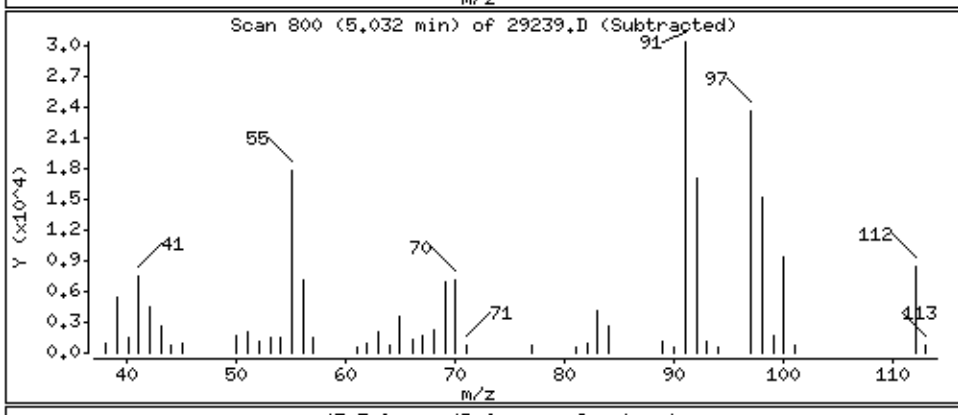
Column diameter: 0.18

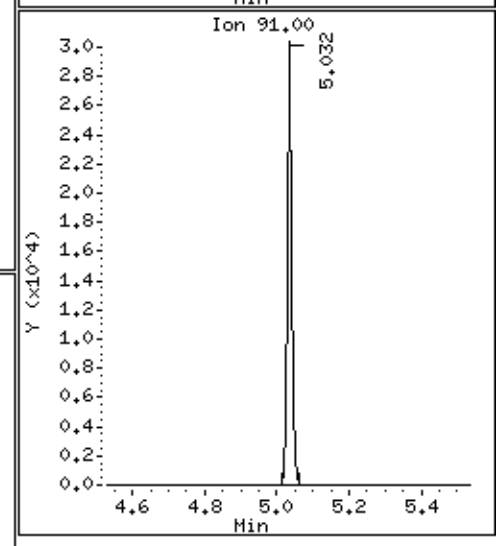
45 Toluene

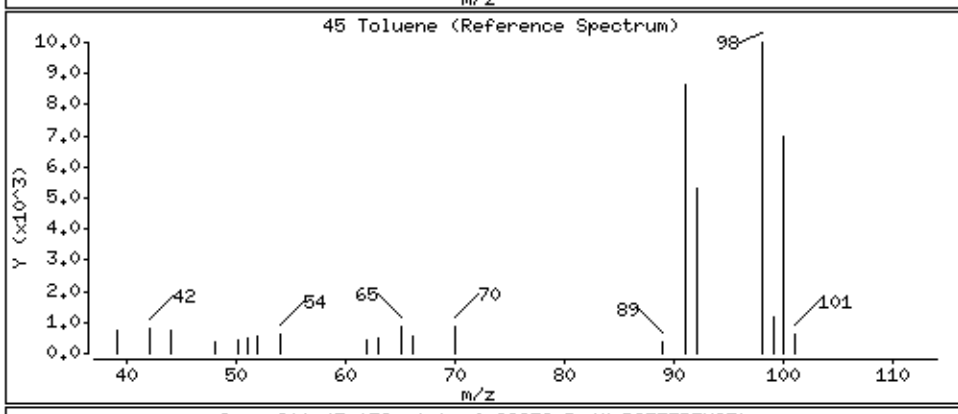
Concentration: 2.0 ug/L

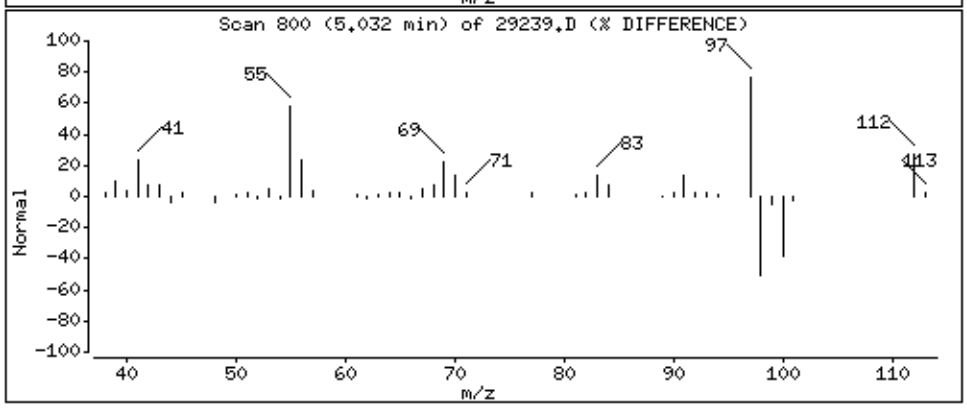












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Date : 19-OCT-2015 23:24

Client ID: MW8-101315

Instrument: 10msv1.i

Sample Info: 10326303002

Purge Volume: 5.0

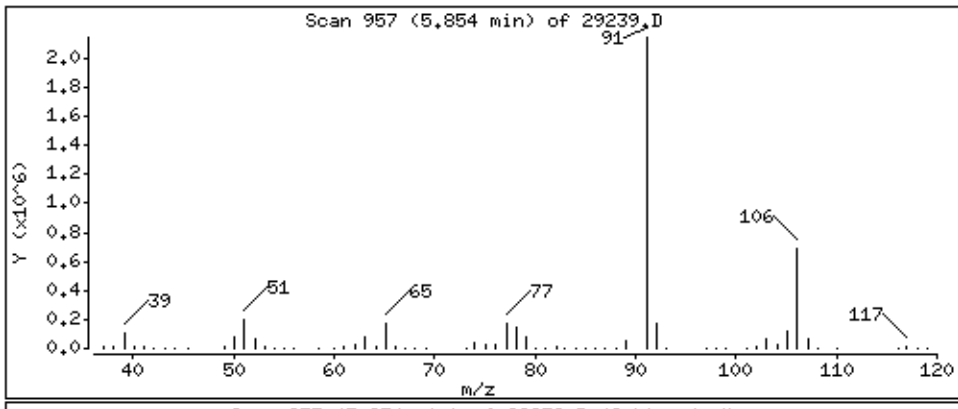
Operator: AH2

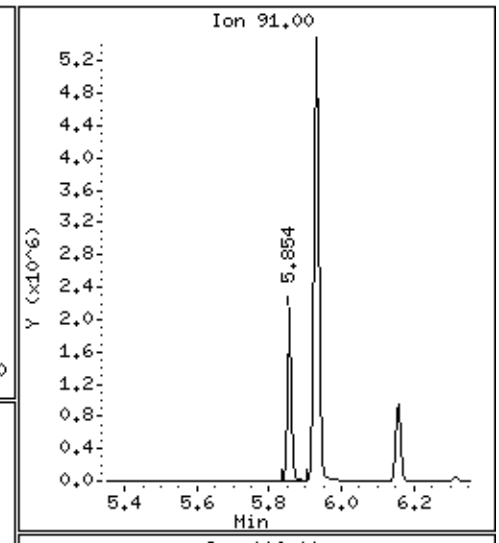
Column phase: Rtx-VMS

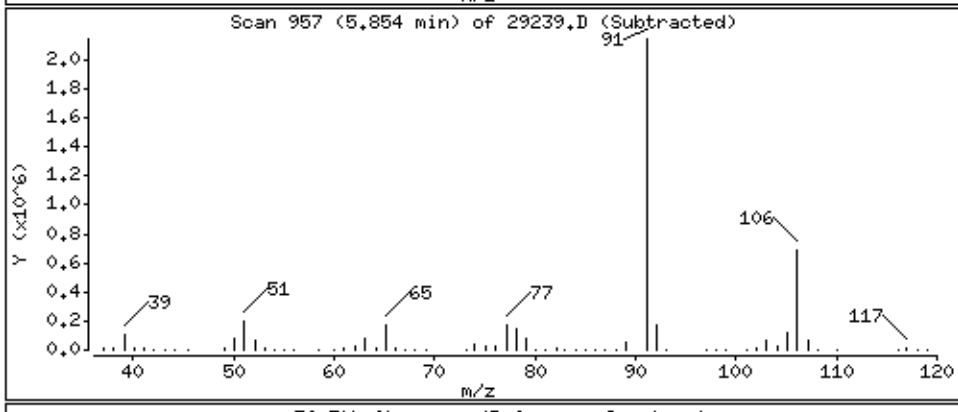
Column diameter: 0.18

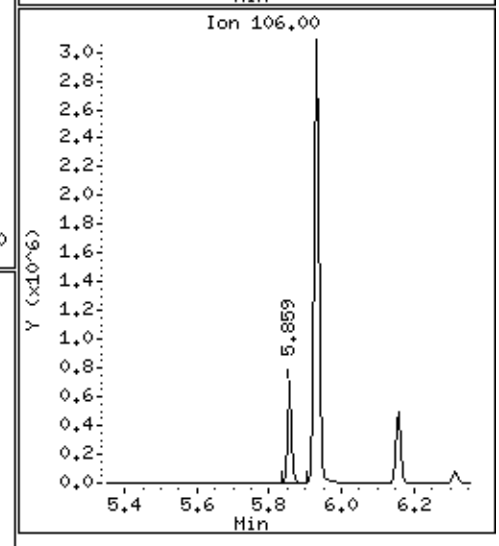
56 Ethylbenzene

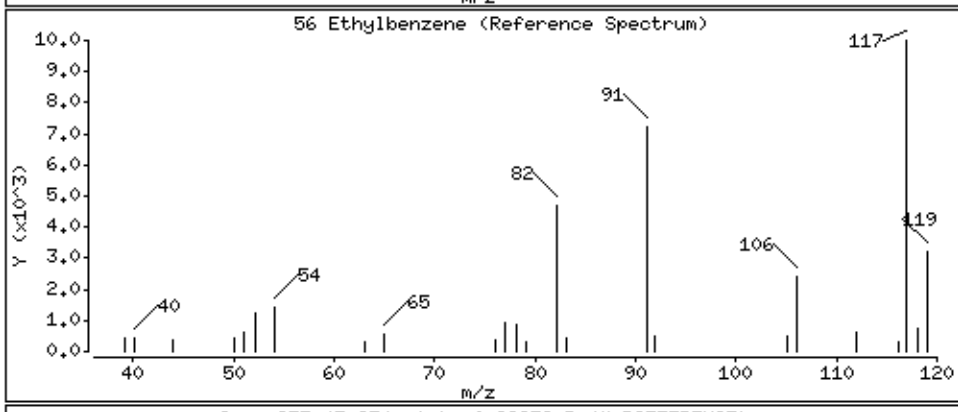
Concentration: 125 ug/L

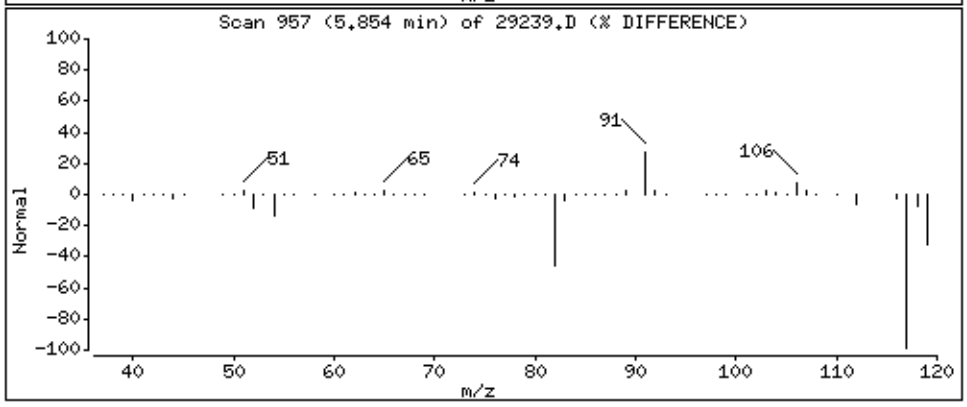












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Date : 19-OCT-2015 23:24

Client ID: MW8-101315

Instrument: 10msv1.i

Sample Info: 10326303002

Purge Volume: 5.0

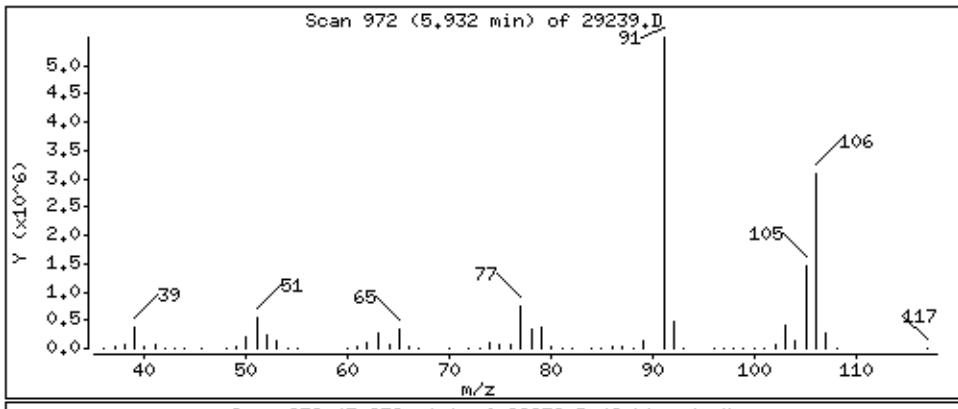
Operator: AH2

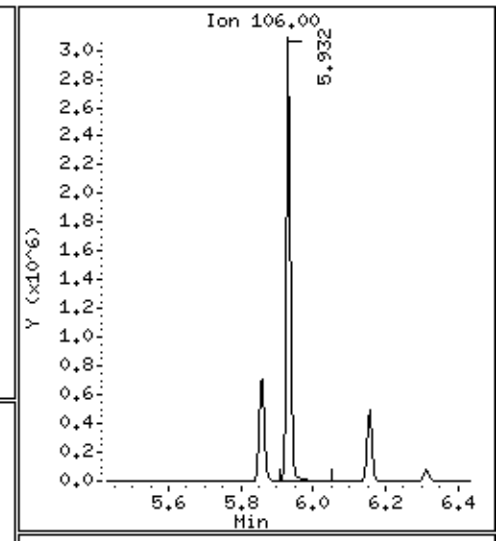
Column phase: Rtx-VMS

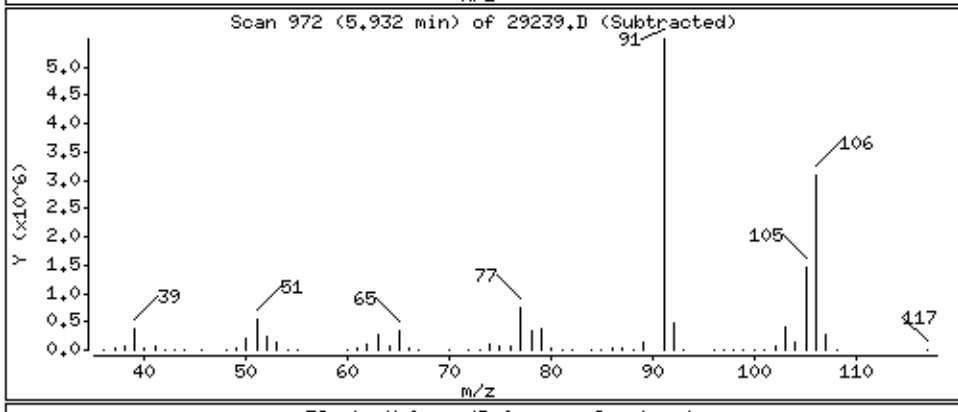
Column diameter: 0.18

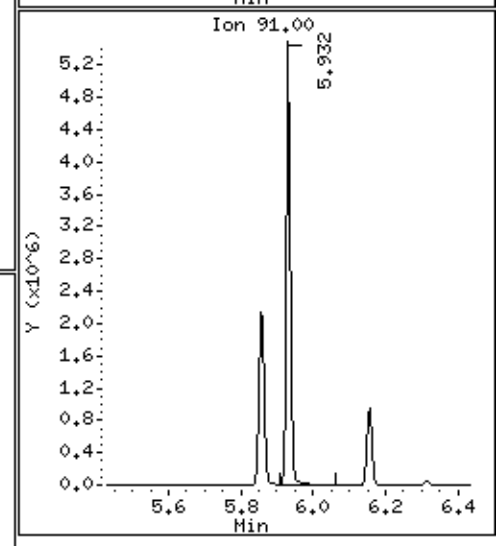
58 m&p-Xylene

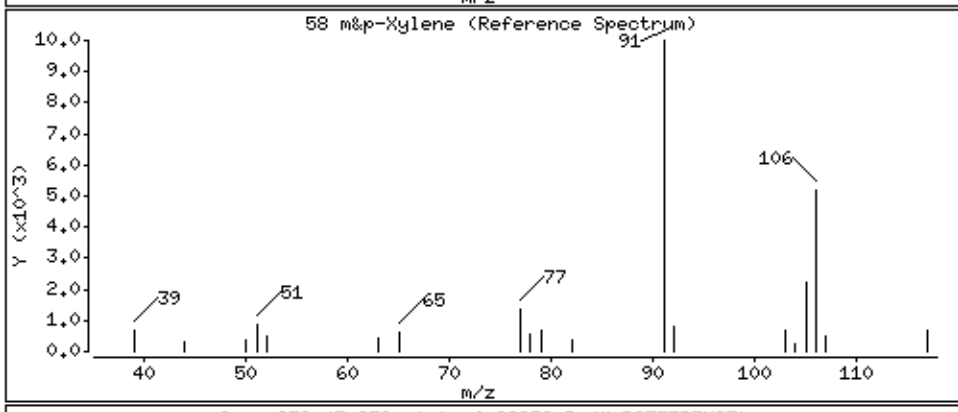
Concentration: 421 ug/L

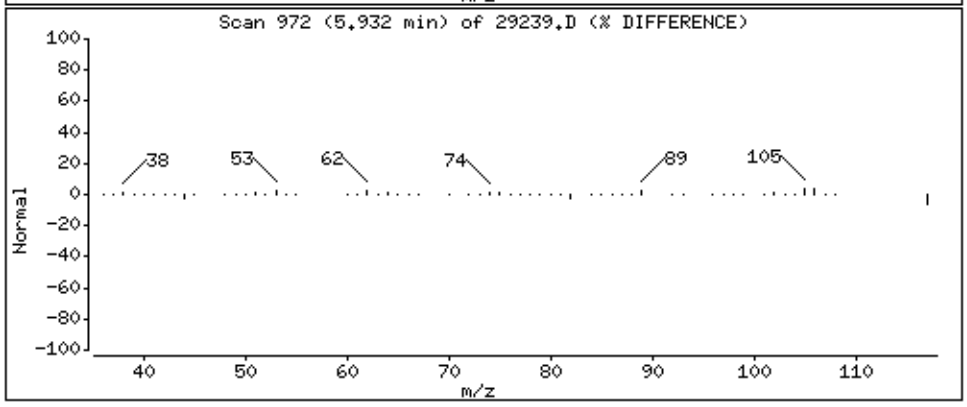












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Date : 19-OCT-2015 23:24

Client ID: MW8-101315

Instrument: 10msv1.i

Sample Info: 10326303002

Purge Volume: 5.0

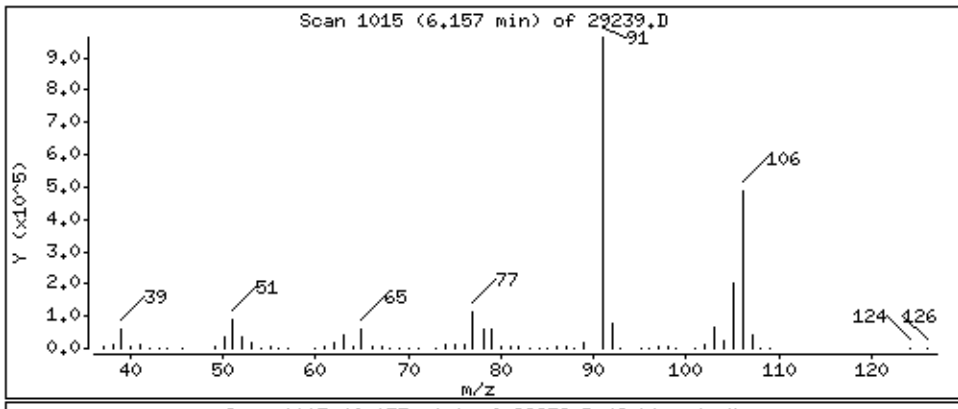
Operator: AH2

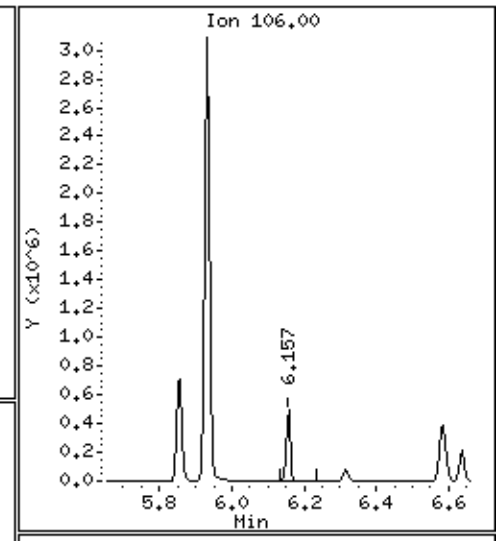
Column phase: Rtx-VMS

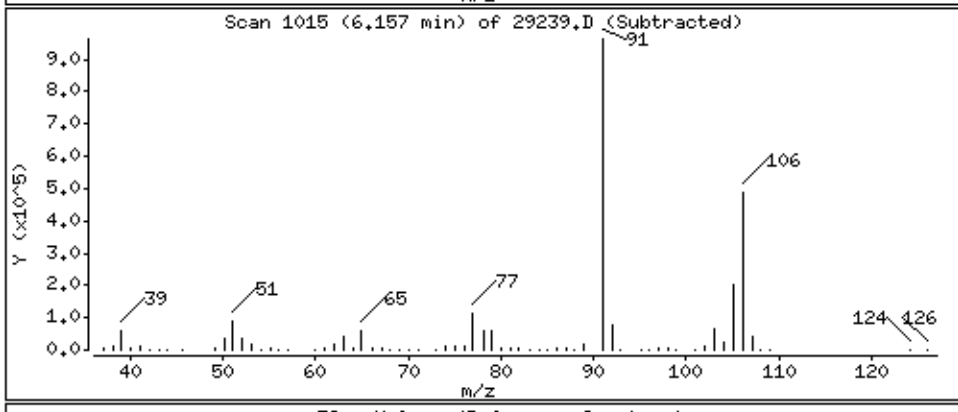
Column diameter: 0.18

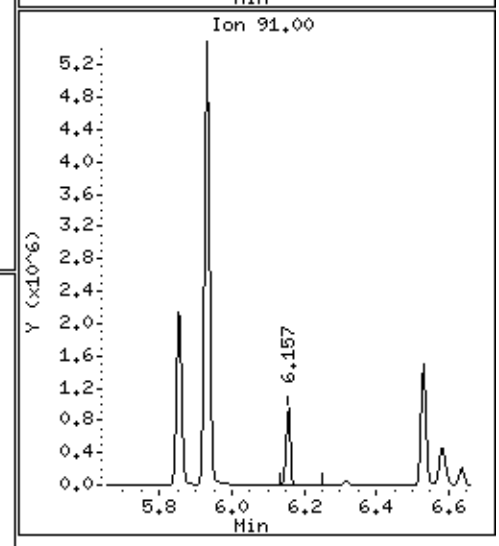
59 o-Xylene

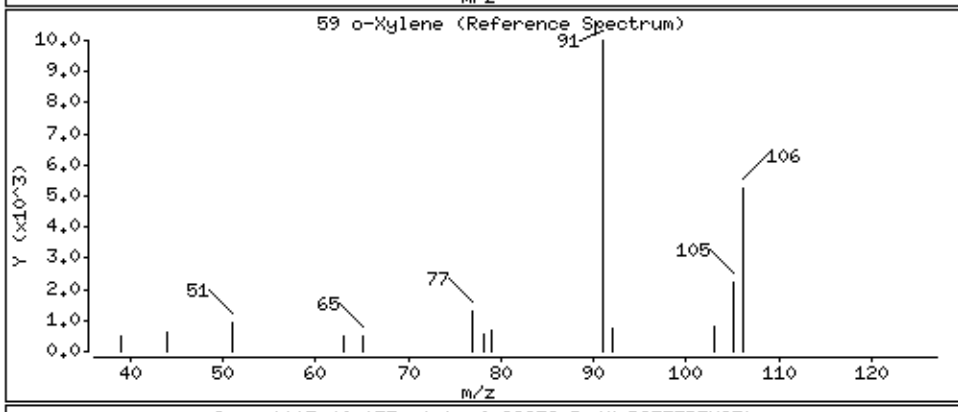
Concentration: 74.5 ug/L

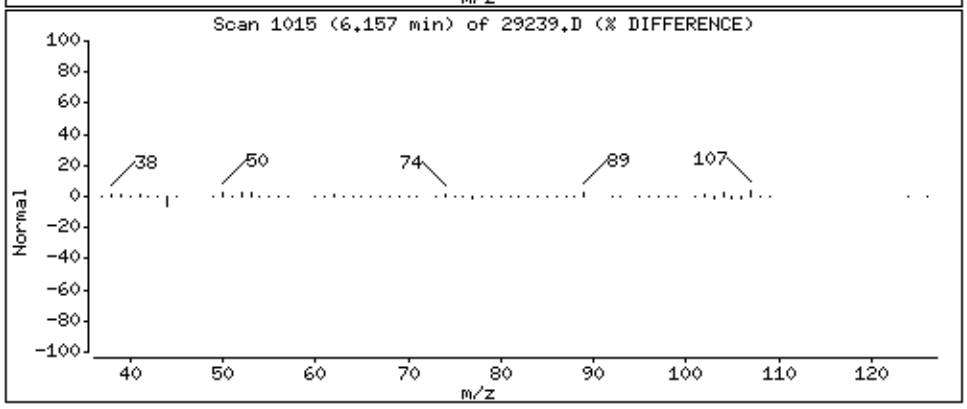












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Date : 19-OCT-2015 23:24

Client ID: MW8-101315

Instrument: 10msv1.i

Sample Info: 10326303002

Purge Volume: 5.0

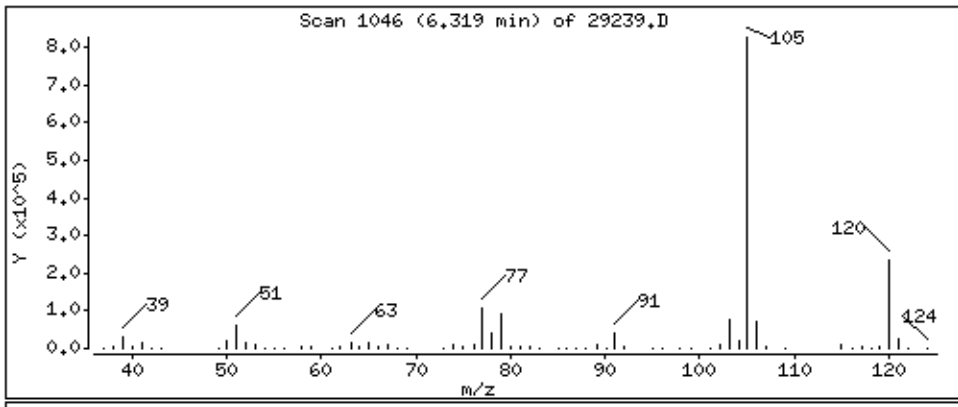
Operator: AH2

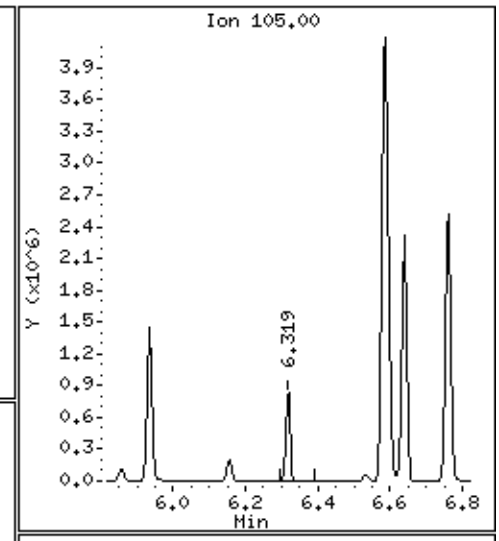
Column phase: Rtx-VMS

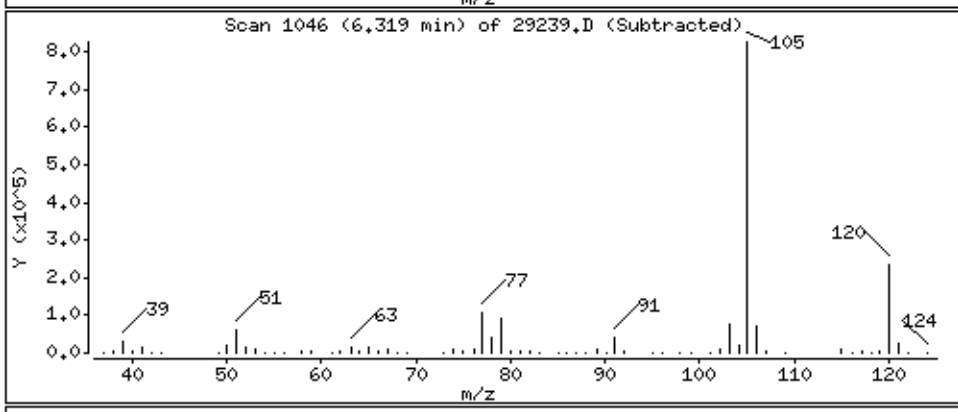
Column diameter: 0.18

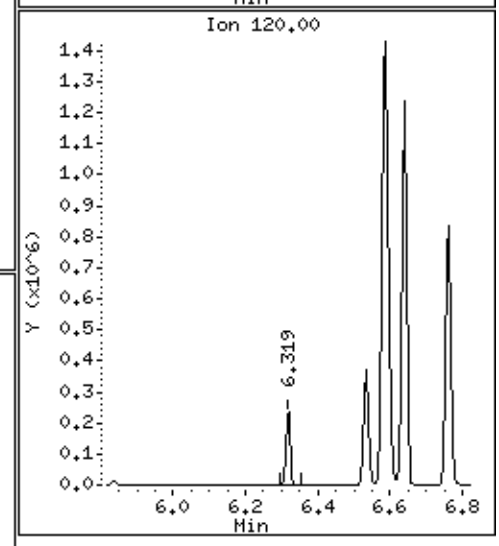
62 Isopropylbenzene (Cumene)

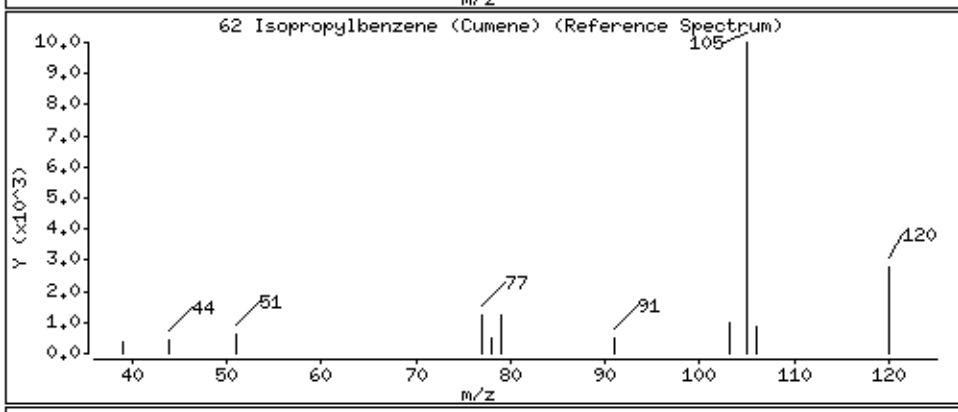
Concentration: 54.8 ug/L

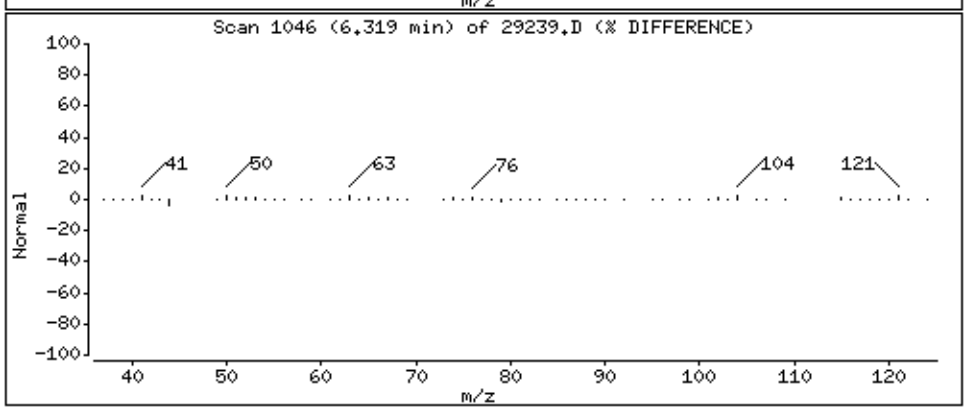












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29239.D

Date : 19-OCT-2015 23:24

Client ID: MW8-101315

Instrument: 10msv1.i

Sample Info: 10326303002

Purge Volume: 5.0

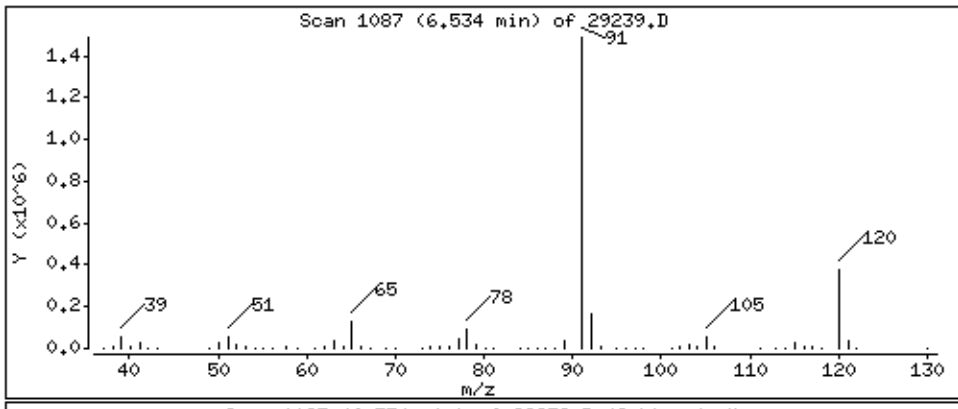
Operator: AH2

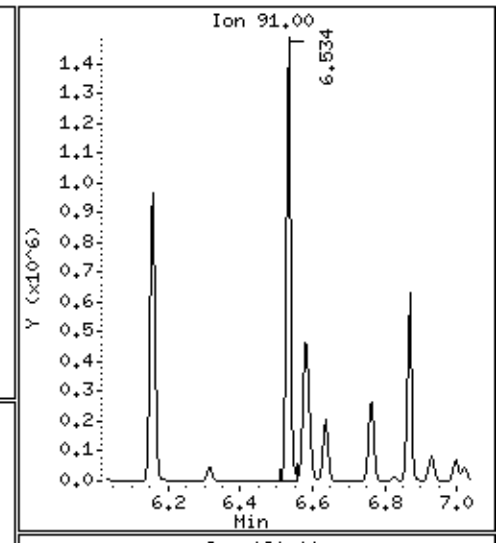
Column phase: Rtx-VMS

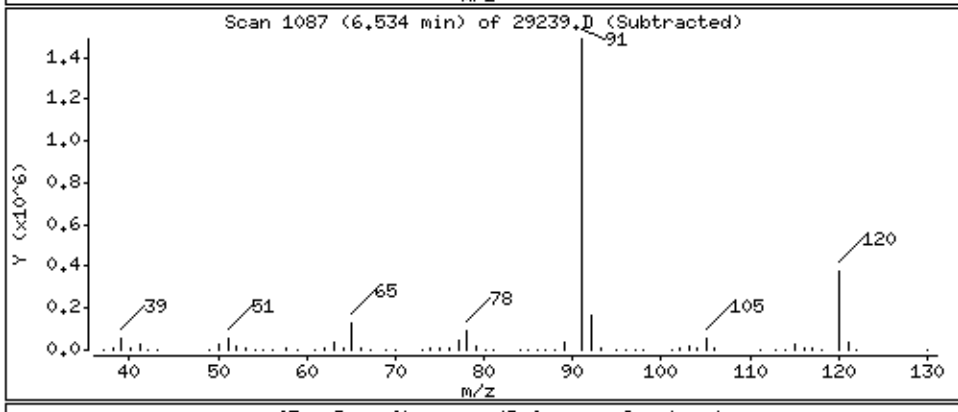
Column diameter: 0.18

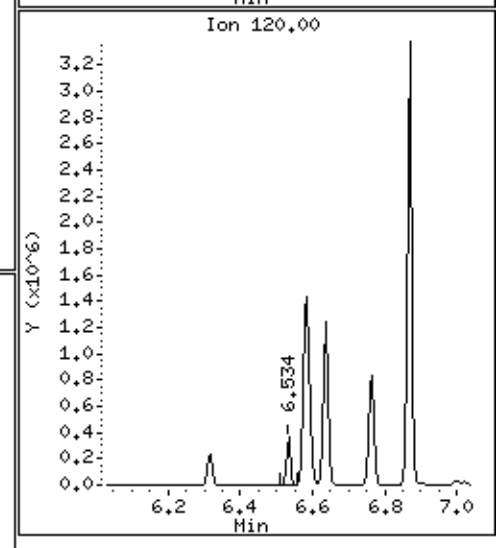
65 n-Propylbenzene

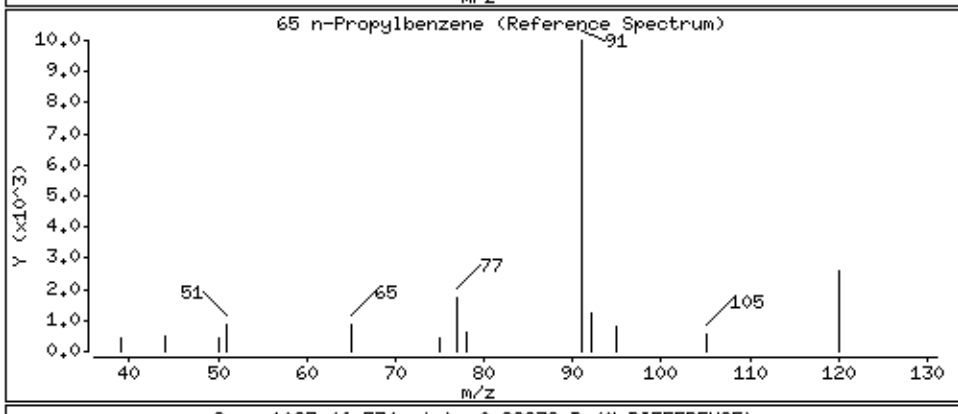
Concentration: 79.0 ug/L

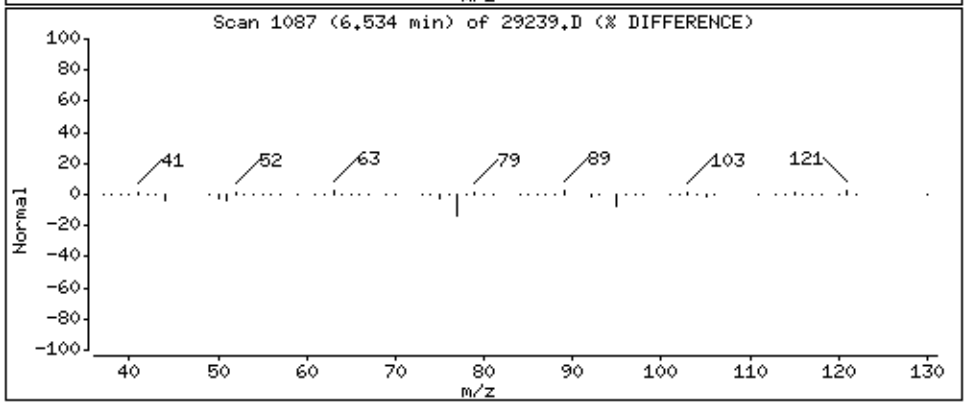












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29239.D

Date : 19-OCT-2015 23:24

Client ID: MW8-101315

Instrument: 10msv1.i

Sample Info: 10326303002

Purge Volume: 5.0

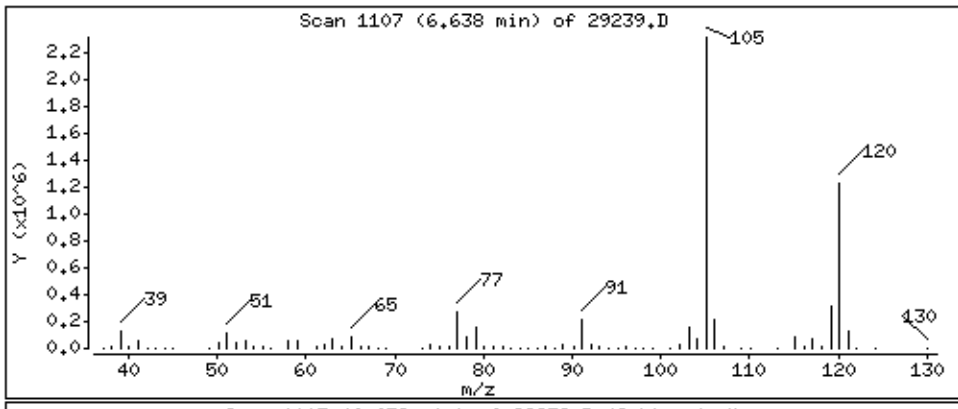
Operator: AH2

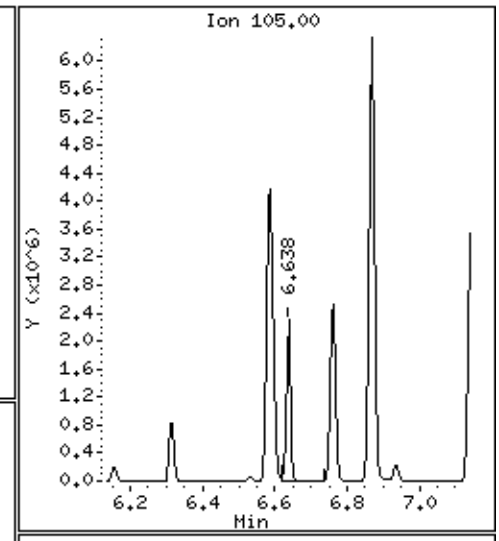
Column phase: Rtx-VMS

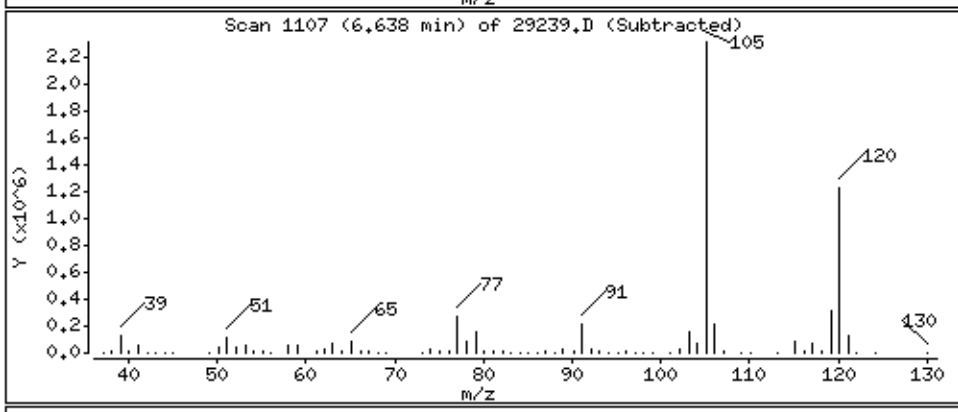
Column diameter: 0.18

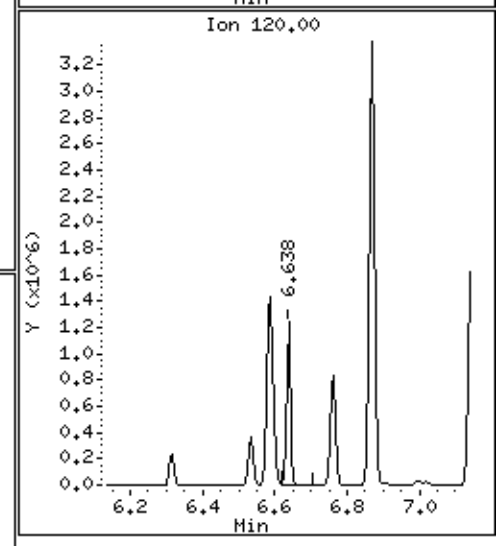
68 1,3,5-Trimethylbenzene

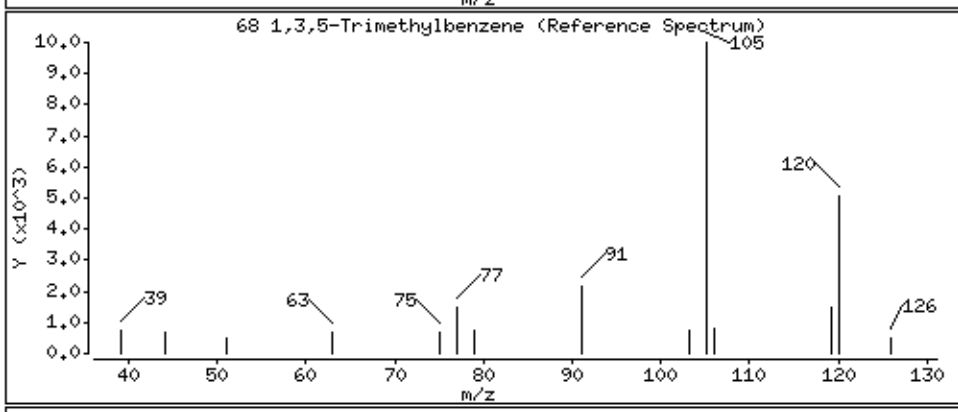
Concentration: 186 ug/L

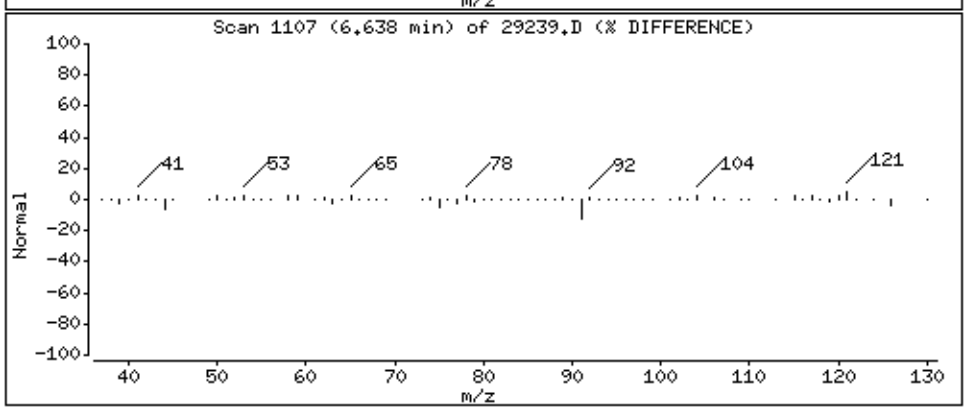












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29239.D

Date : 19-OCT-2015 23:24

Client ID: MW8-101315

Instrument: 10msv1.i

Sample Info: 10326303002

Purge Volume: 5.0

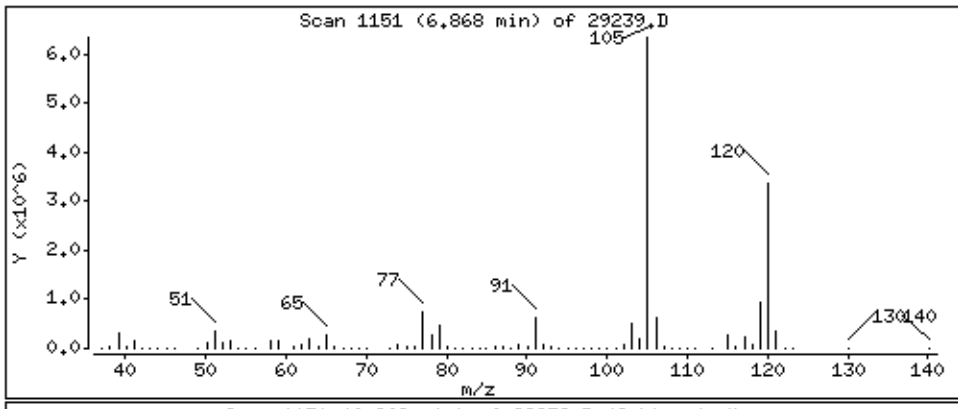
Operator: AH2

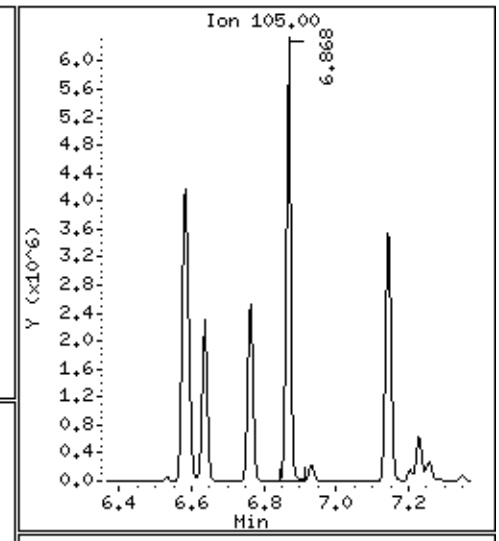
Column phase: Rtx-VMS

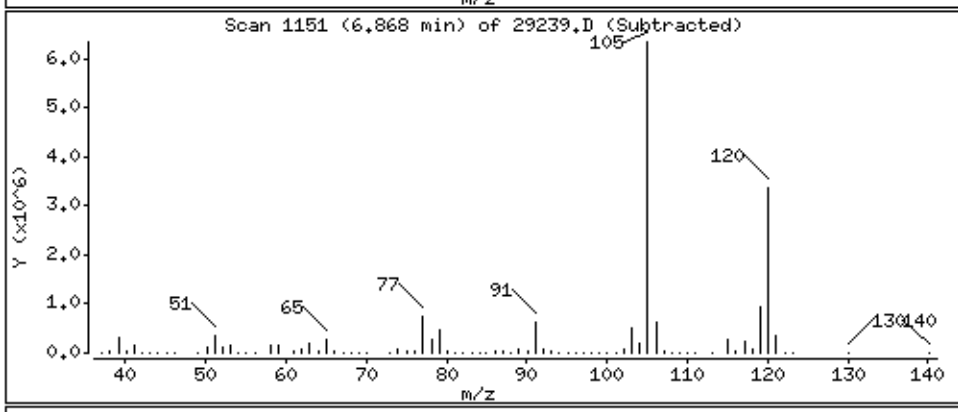
Column diameter: 0.18

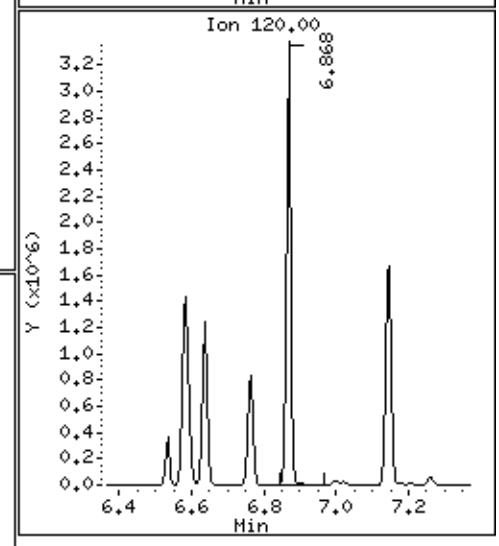
72 1,2,4-Trimethylbenzene

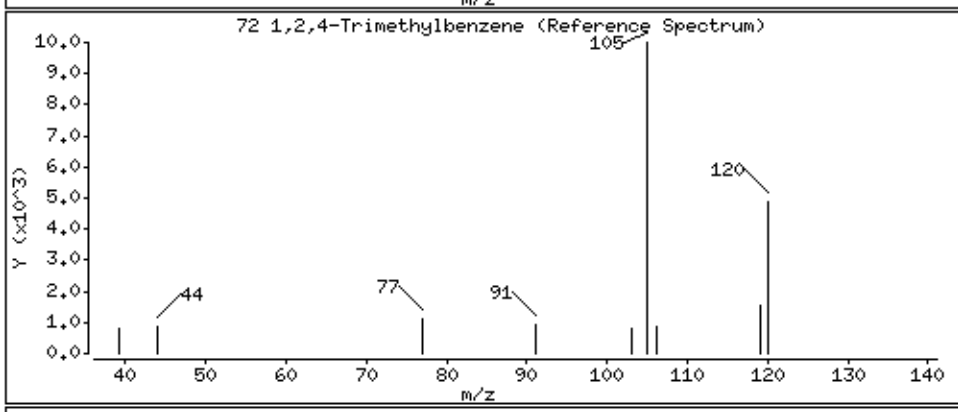
Concentration: 545 ug/L

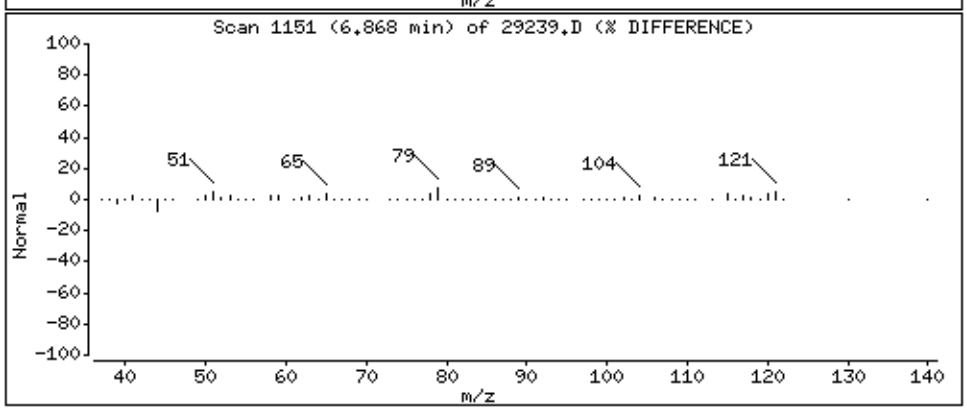












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29239.D

Date : 19-OCT-2015 23:24

Client ID: MW8-101315

Instrument: 10msv1.i

Sample Info: 10326303002

Purge Volume: 5.0

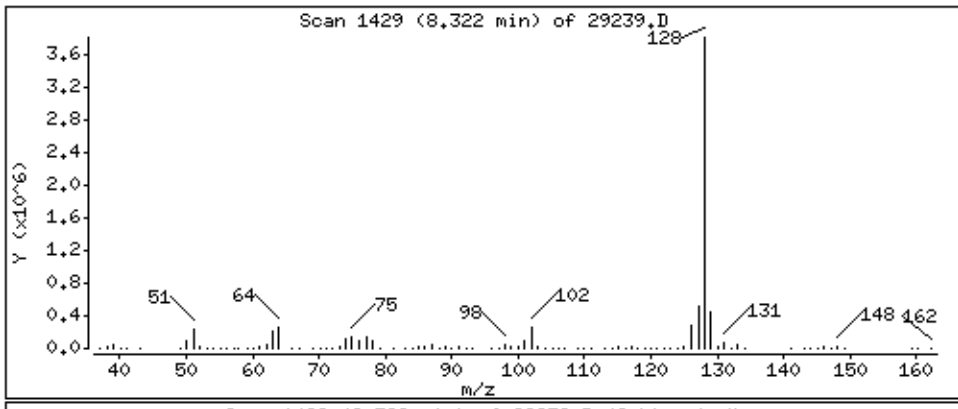
Operator: AH2

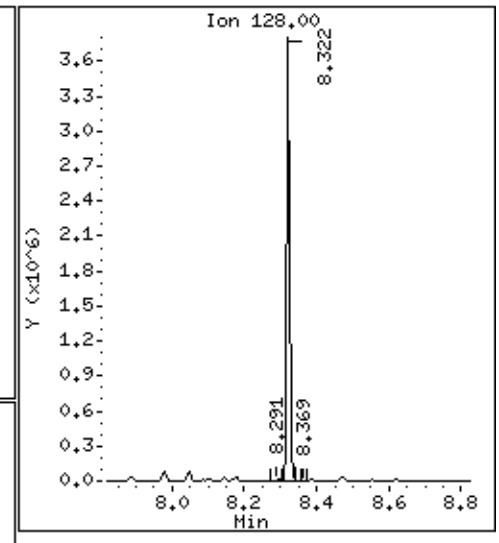
Column phase: Rtx-VMS

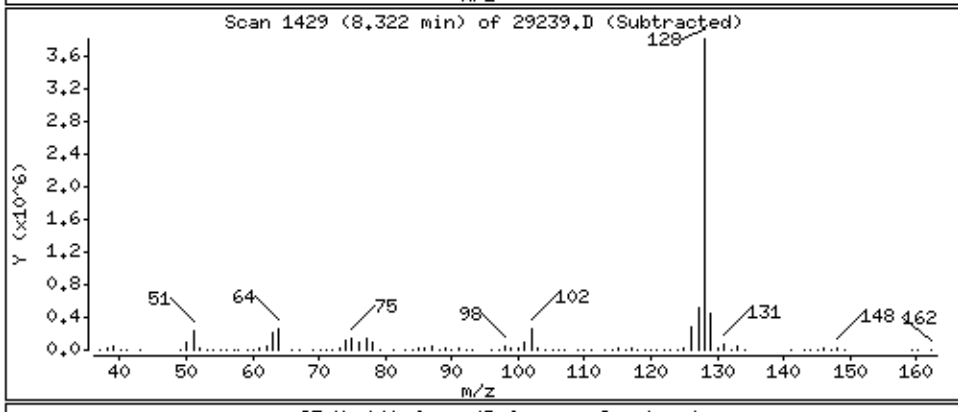
Column diameter: 0.18

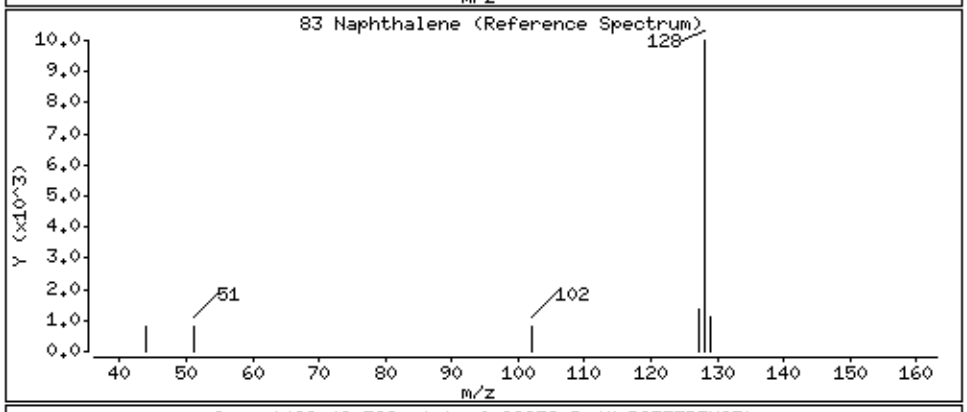
83 Naphthalene

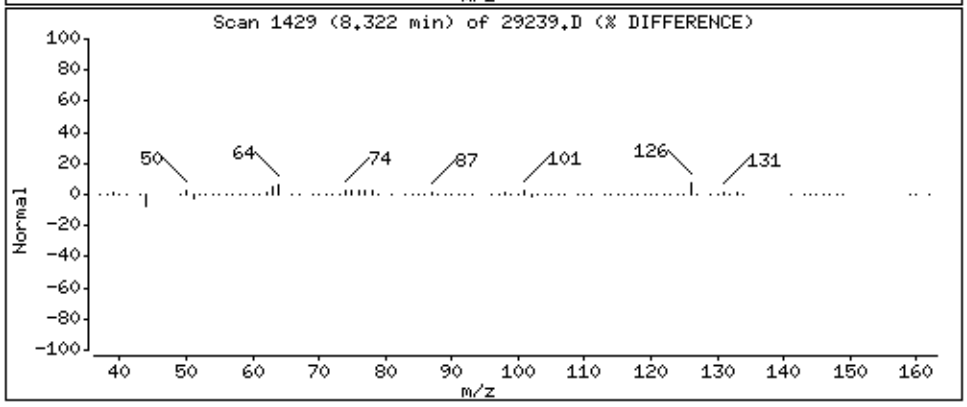
Concentration: 354 ug/L











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Date : 19-OCT-2015 23:24

Client ID: MW8-101315

Instrument: 10msv1.i

Sample Info: 10326303002

Purge Volume: 5.0

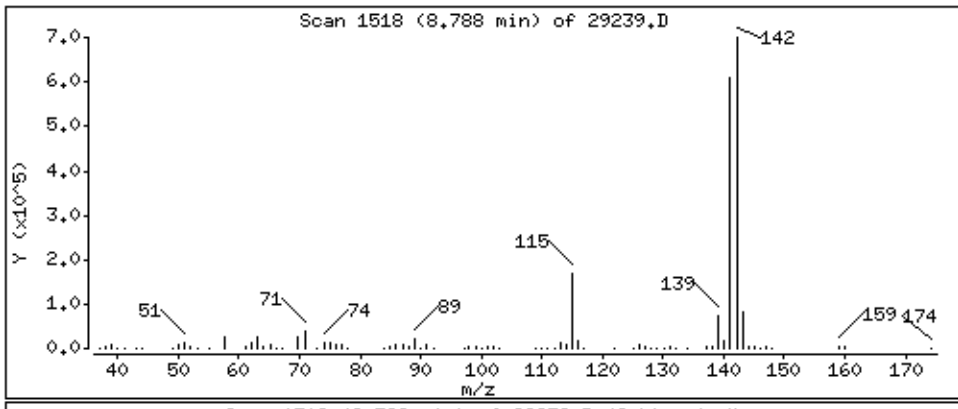
Operator: AH2

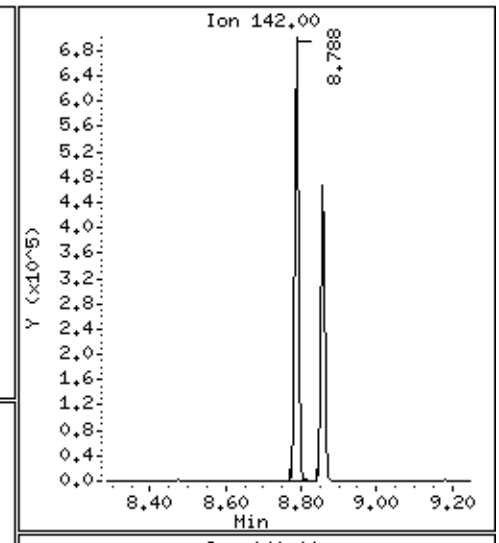
Column phase: Rtx-VMS

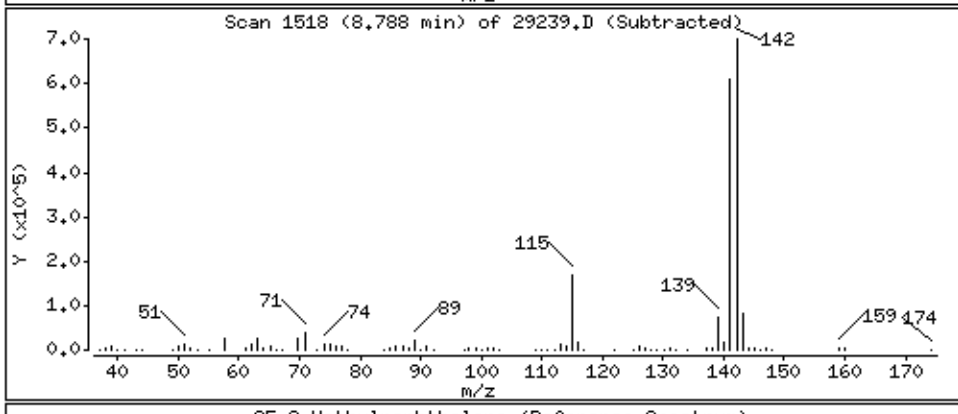
Column diameter: 0.18

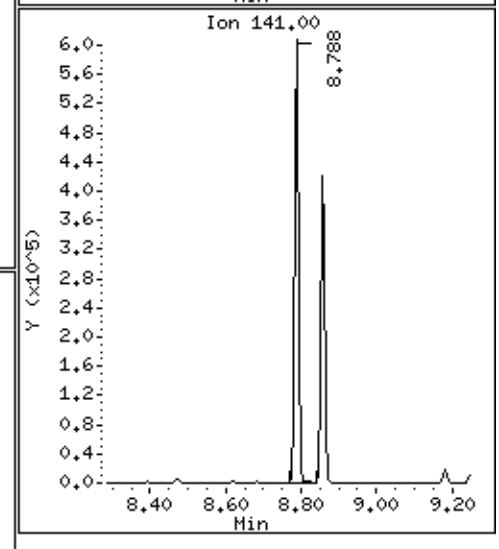
85 2-Methylnaphthalene

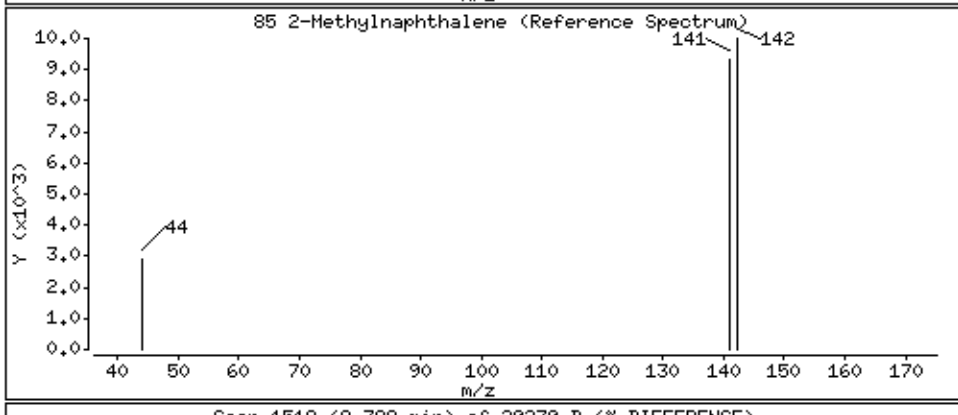
Concentration: 207 ug/L

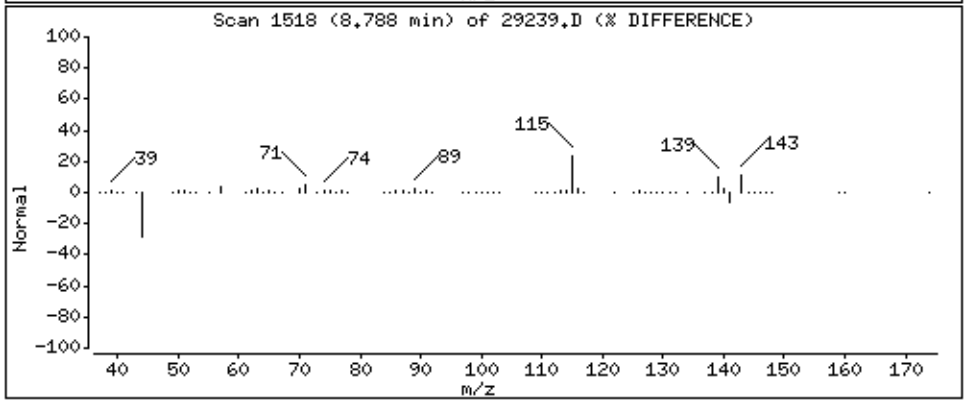












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b/29239.D
Injection Date: 19-OCT-2015 23:24
Instrument: 10msv1.i
Lab Sample ID: 10326303002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29246.D

Page 2

Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

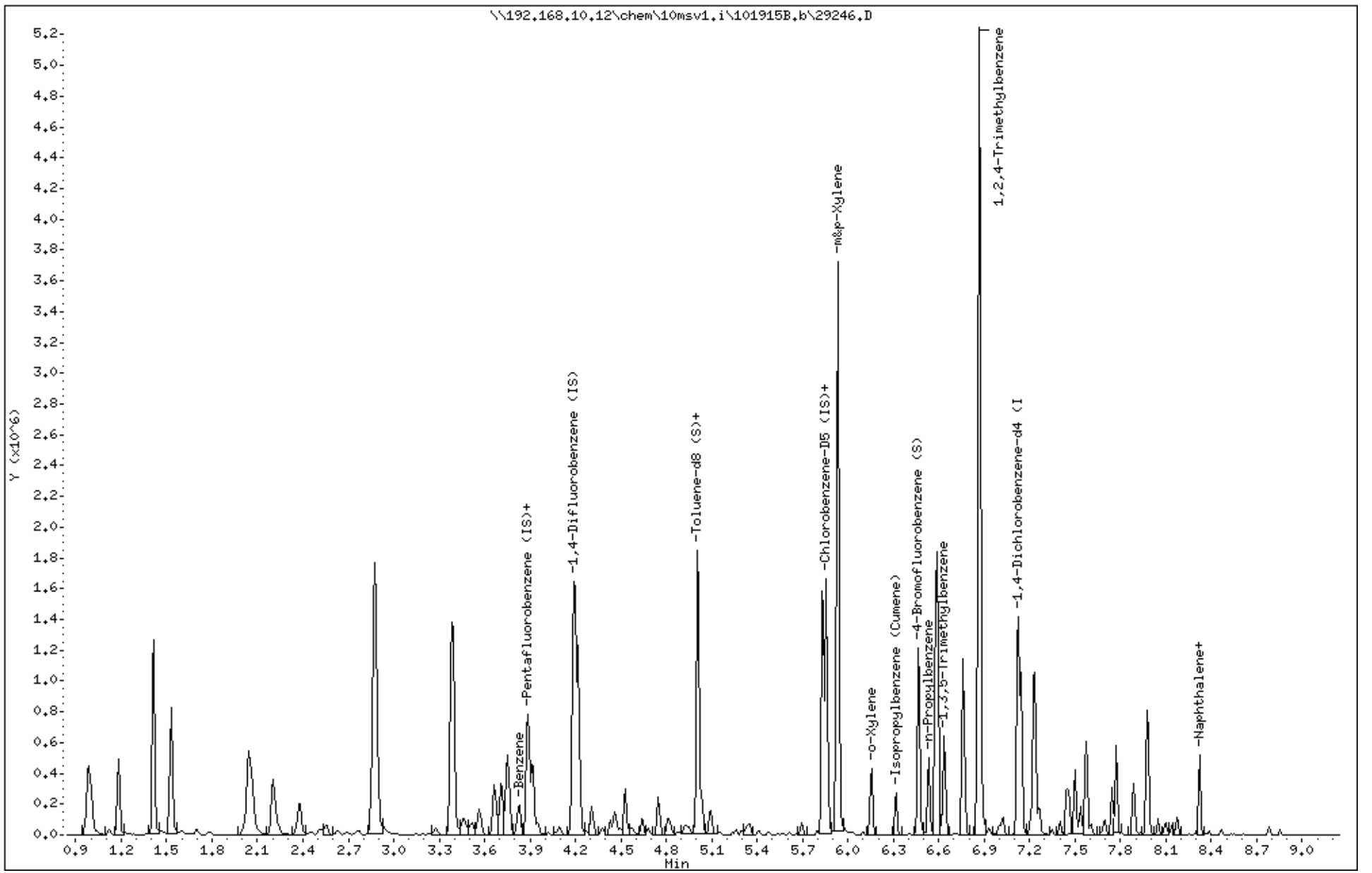
Sample Info: 10326303001

Purge Volume: 5.0

Operator: AH2

Column phase: Rtx-VMS

Column diameter: 0.18



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Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

Sample Info: 10326303001

Purge Volume: 5.0

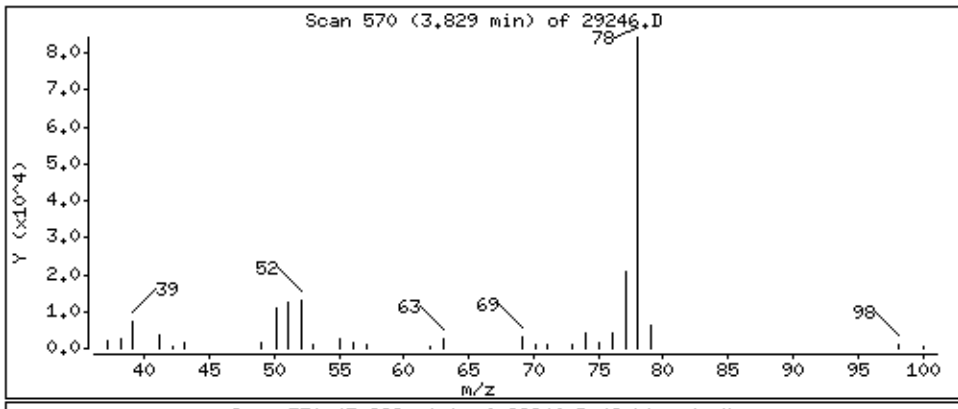
Operator: AH2

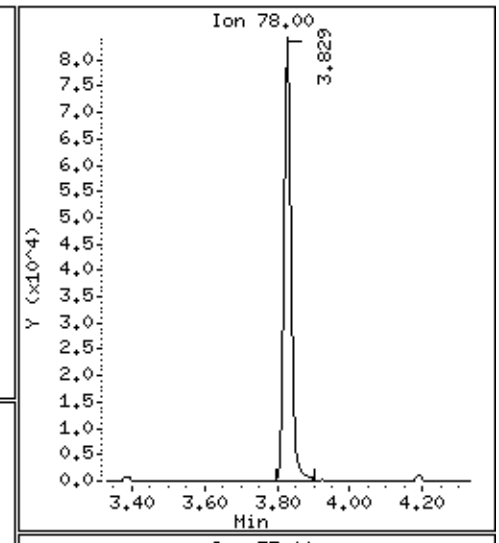
Column phase: Rtx-VMS

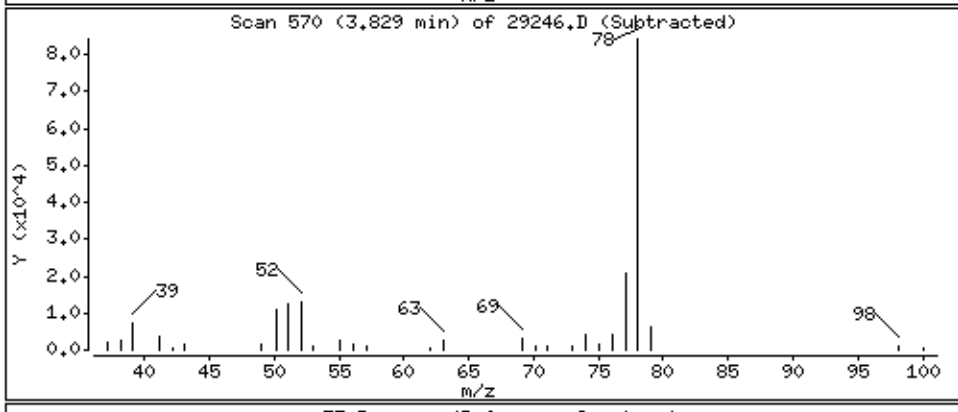
Column diameter: 0.18

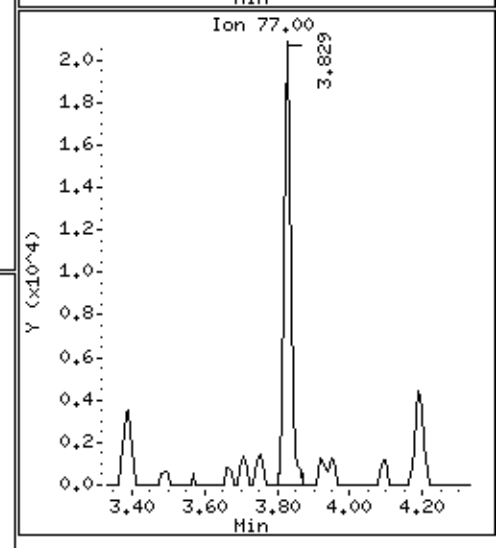
33 Benzene

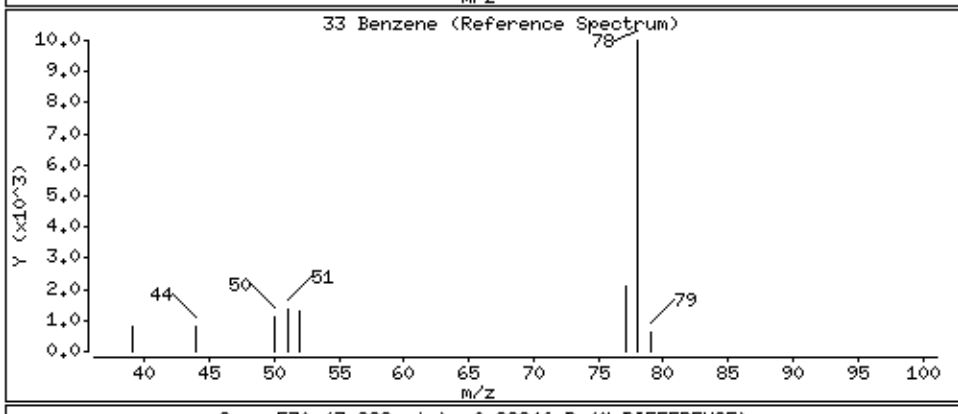
Concentration: 6.9 ug/L

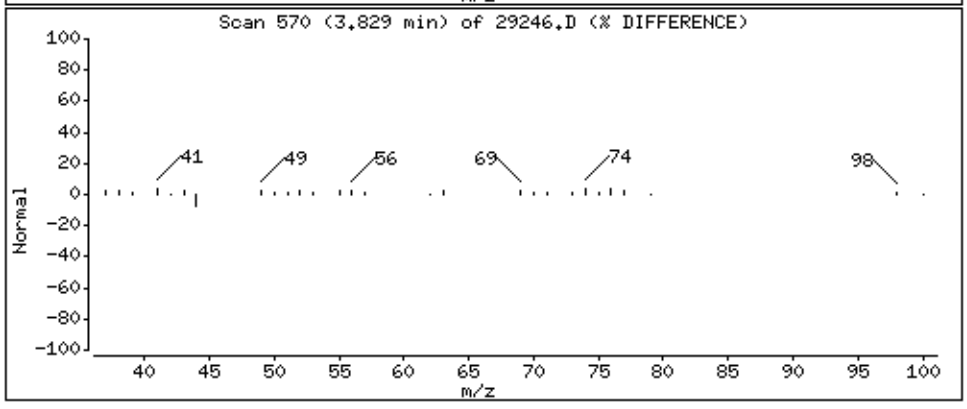












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Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

Sample Info: 10326303001

Purge Volume: 5.0

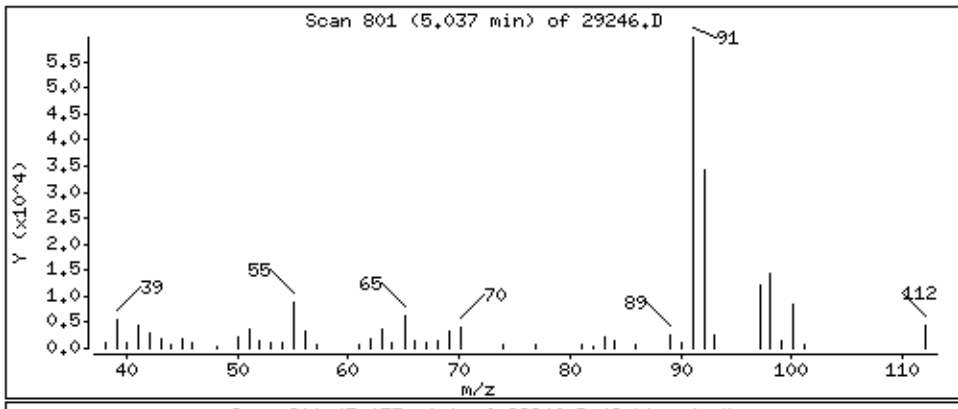
Operator: AH2

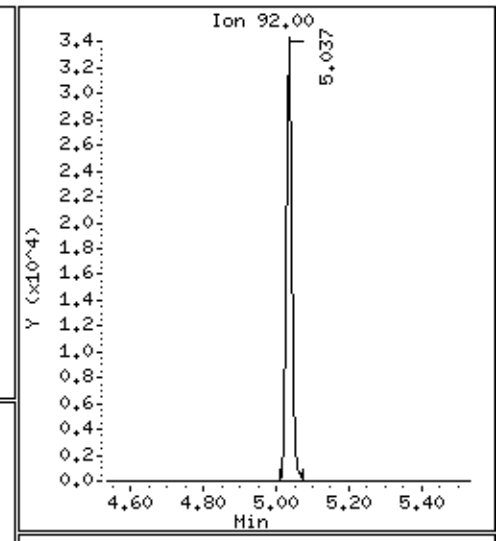
Column phase: Rtx-VMS

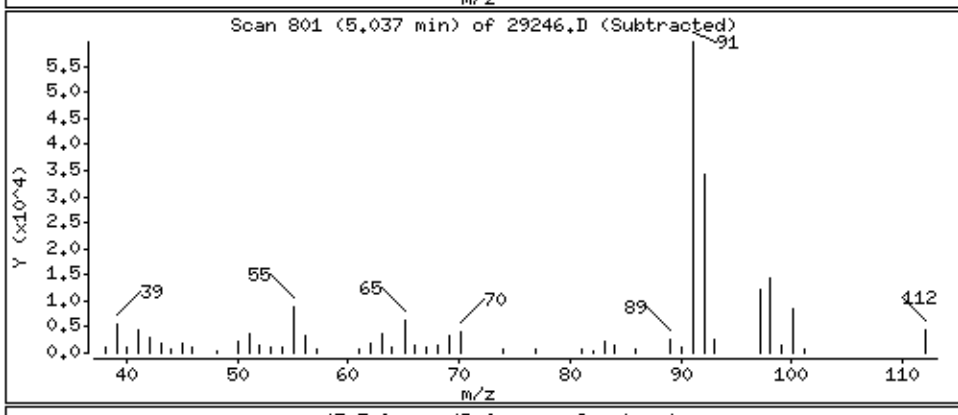
Column diameter: 0.18

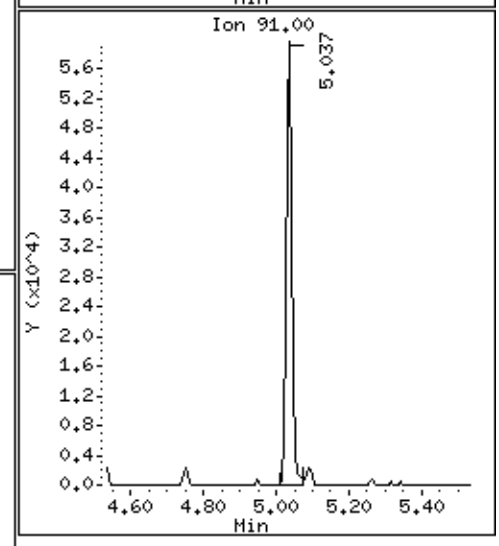
45 Toluene

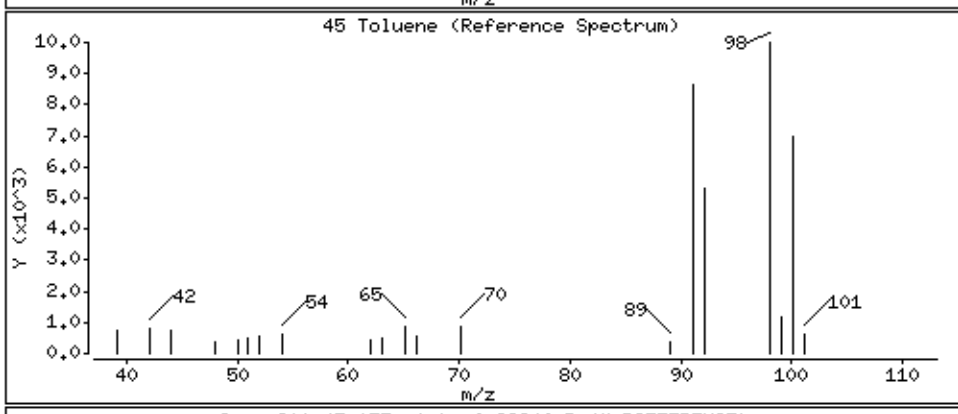
Concentration: 3.8 ug/L

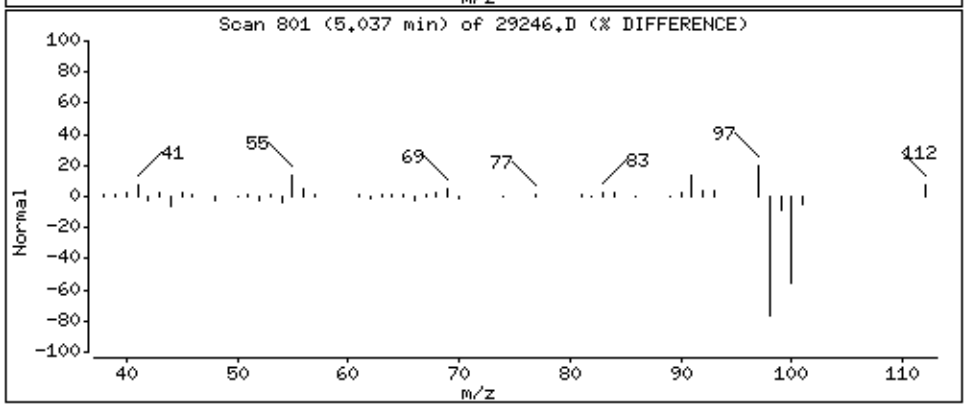












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29246.D

Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

Sample Info: 10326303001

Purge Volume: 5.0

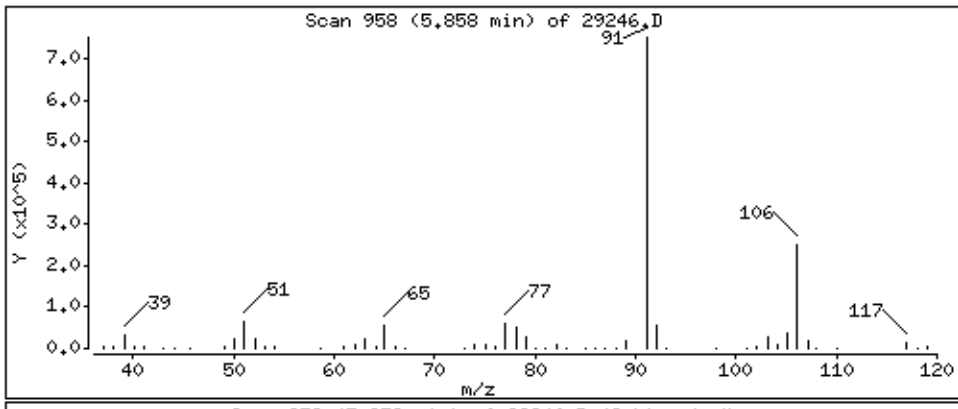
Operator: AH2

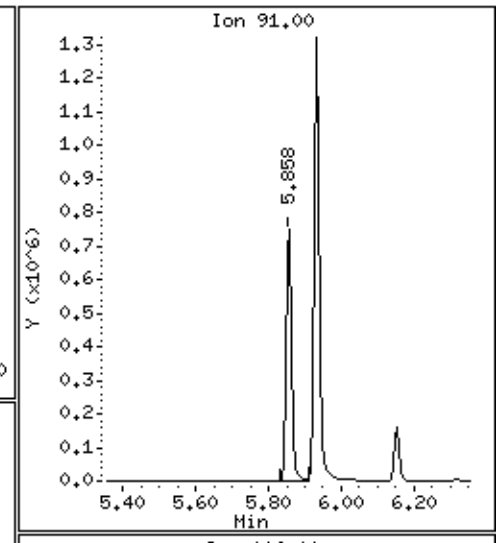
Column phase: Rtx-VMS

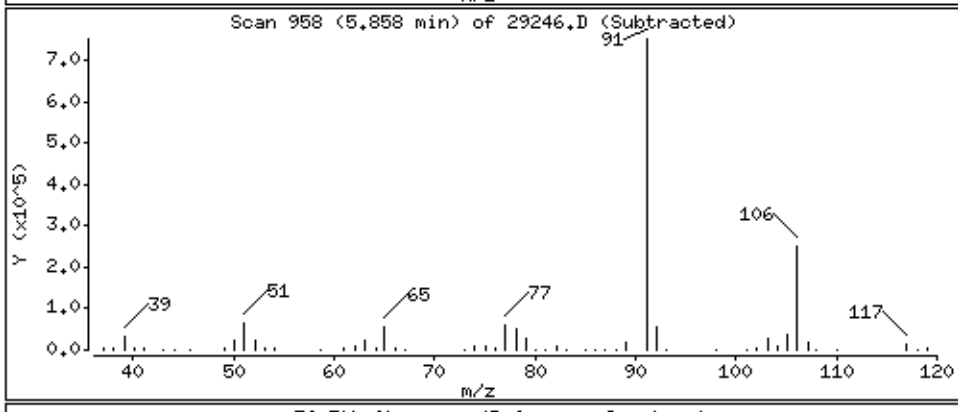
Column diameter: 0.18

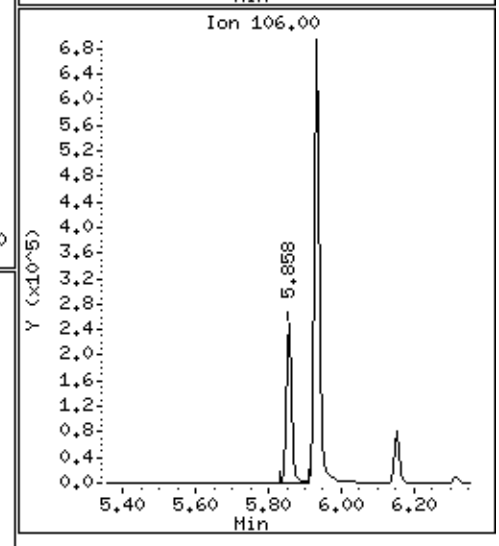
56 Ethylbenzene

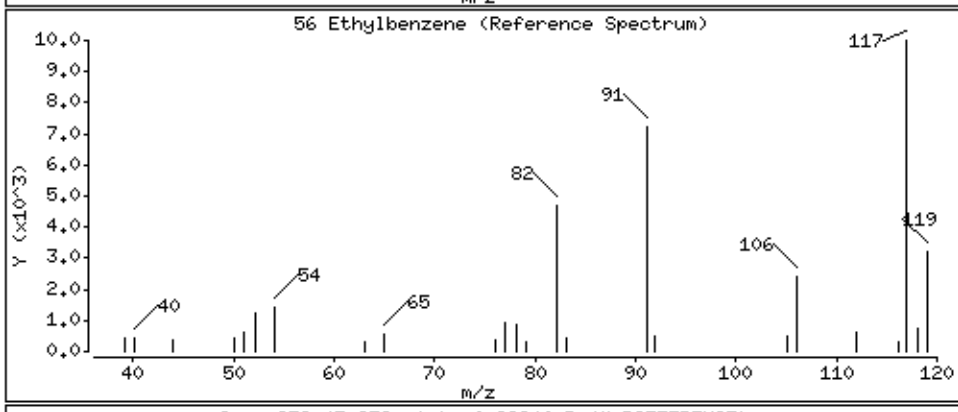
Concentration: 45.0 ug/L

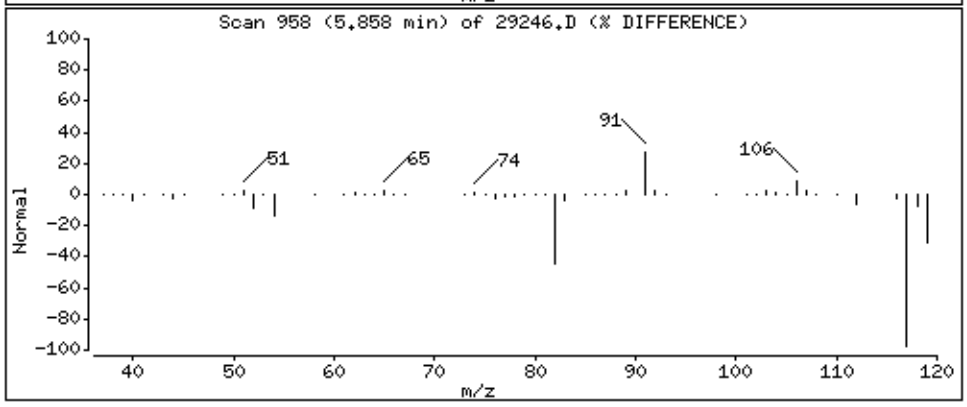












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29246.D

Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

Sample Info: 10326303001

Purge Volume: 5.0

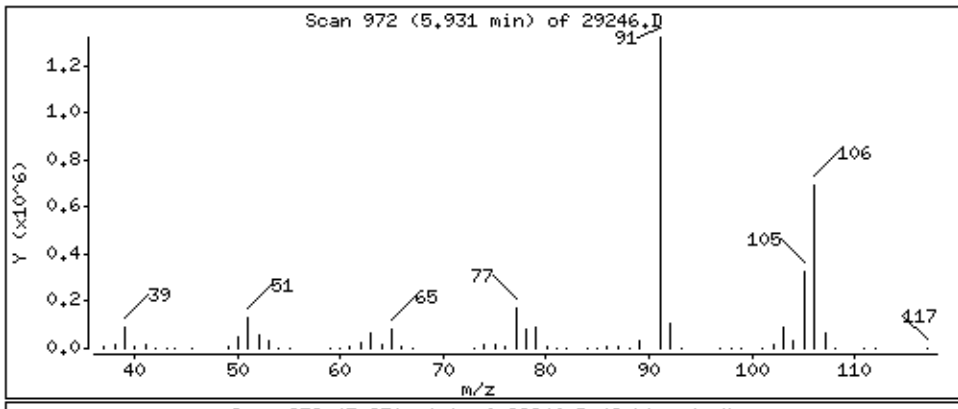
Operator: AH2

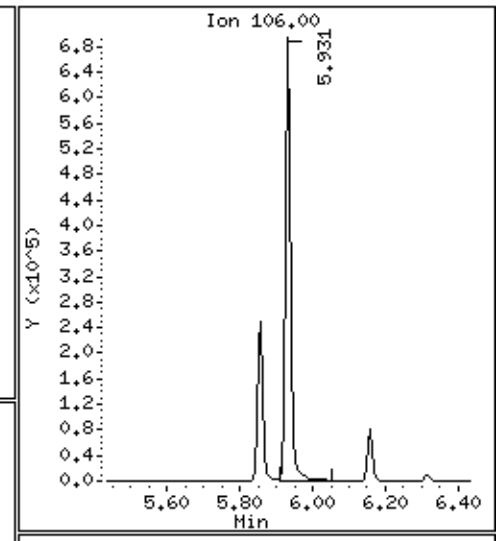
Column phase: Rtx-VMS

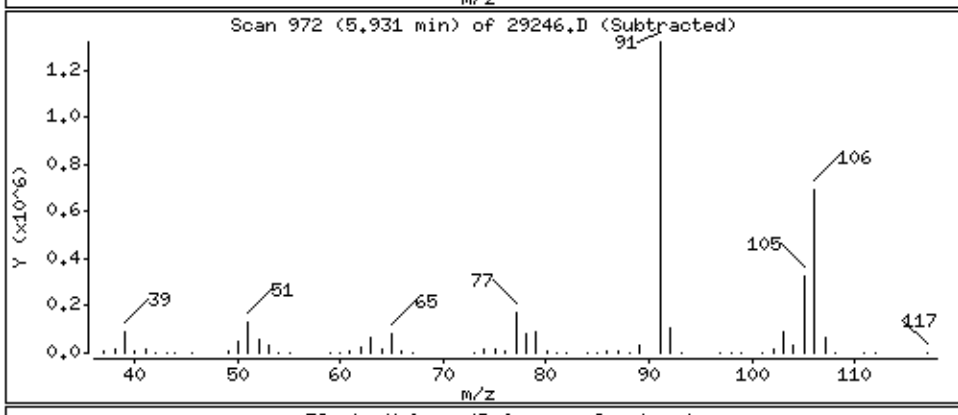
Column diameter: 0.18

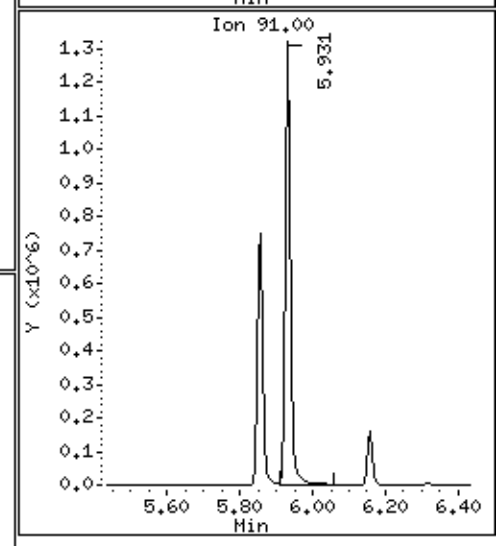
58 m&p-Xylene

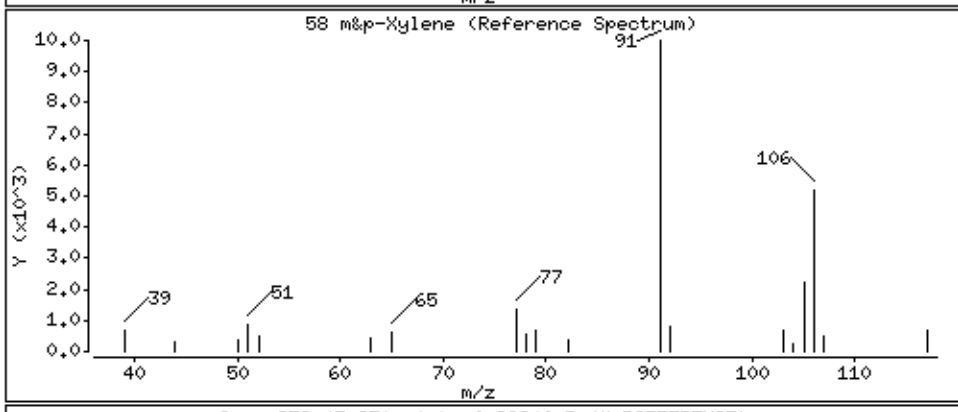
Concentration: 100 ug/L

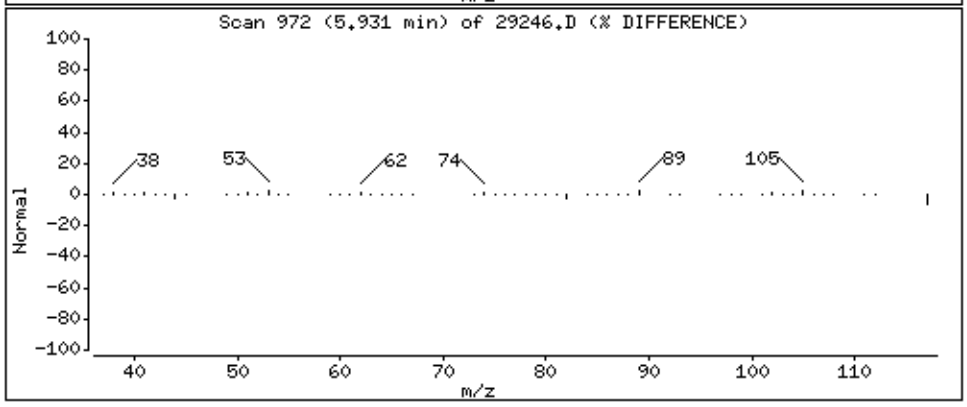












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29246.D

Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

Sample Info: 10326303001

Purge Volume: 5.0

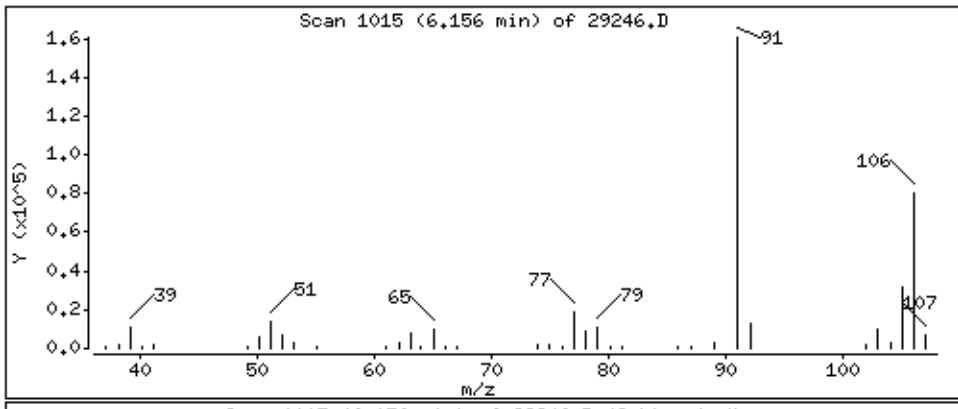
Operator: AH2

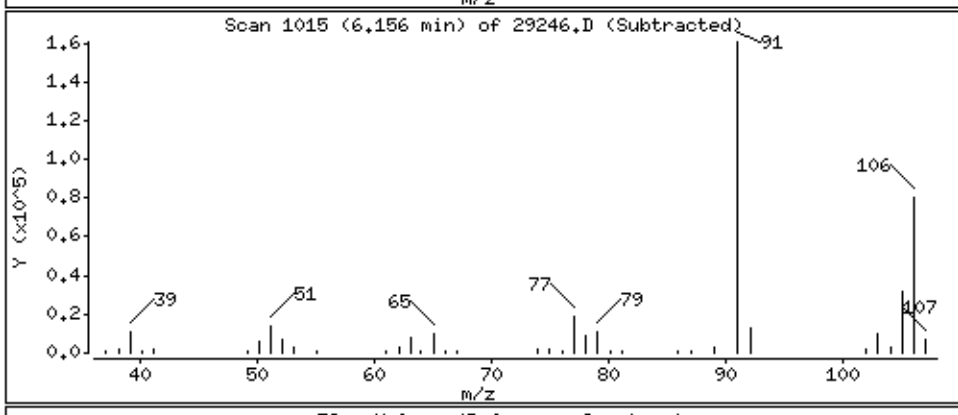
Column phase: Rtx-VMS

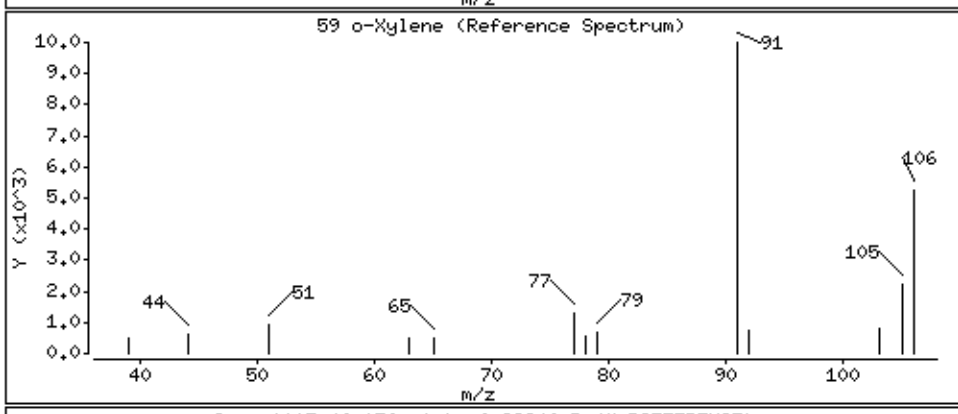
Column diameter: 0.18

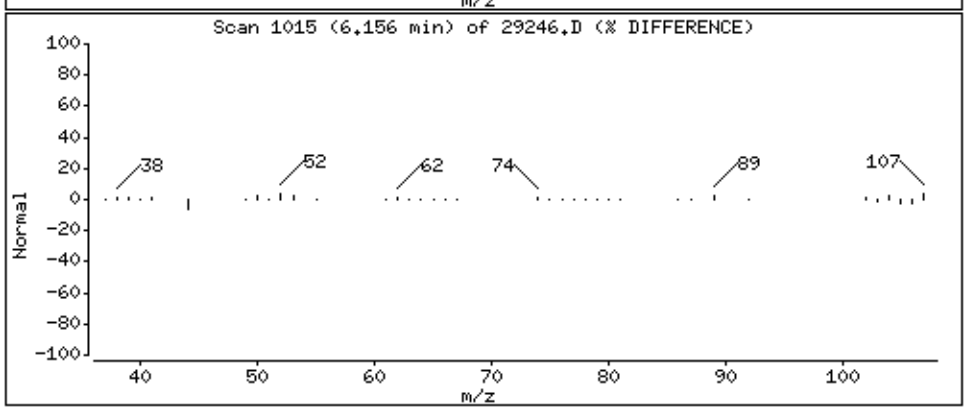
59 o-Xylene

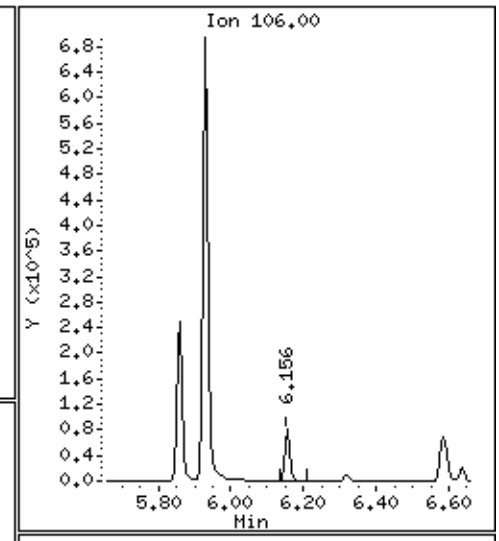
Concentration: 12.4 ug/L

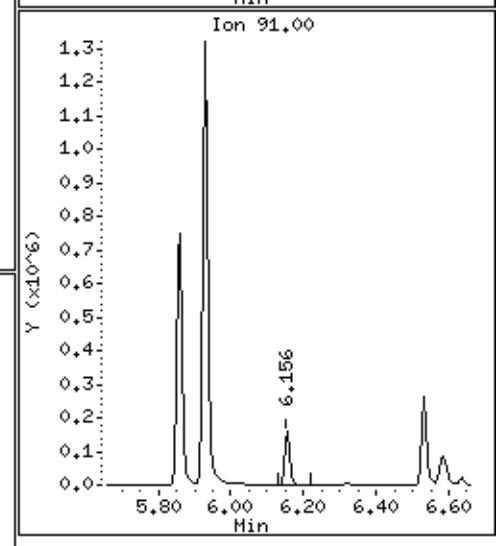












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29246.D

Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

Sample Info: 10326303001

Purge Volume: 5.0

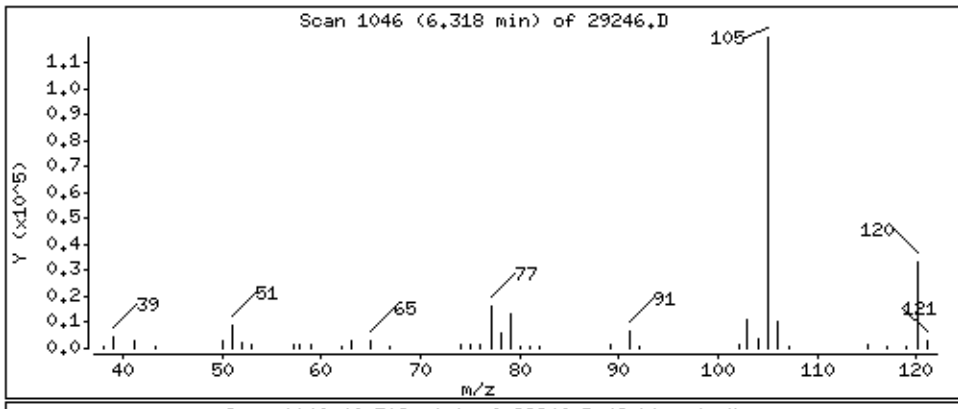
Operator: AH2

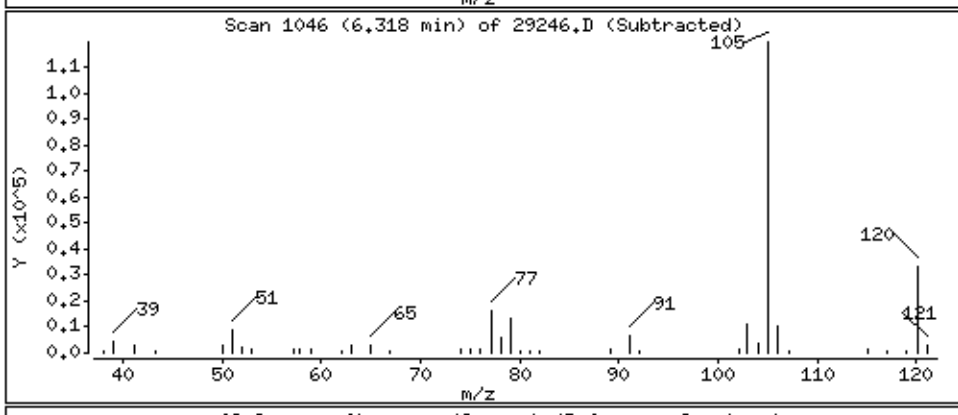
Column phase: Rtx-VMS

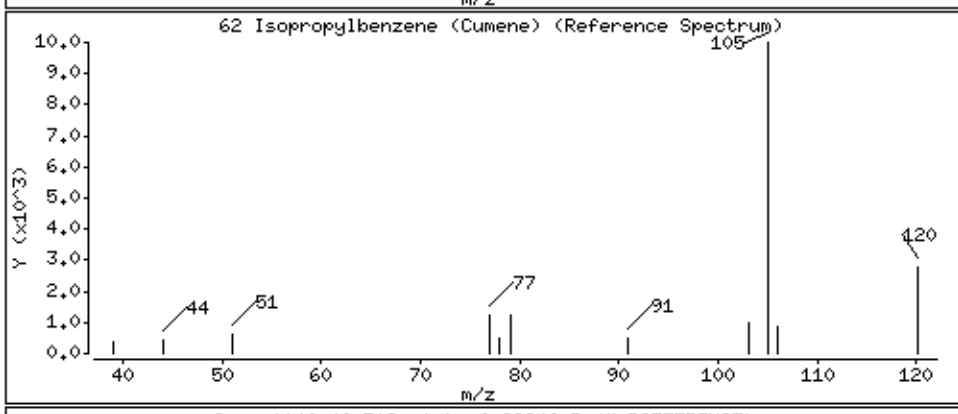
Column diameter: 0.18

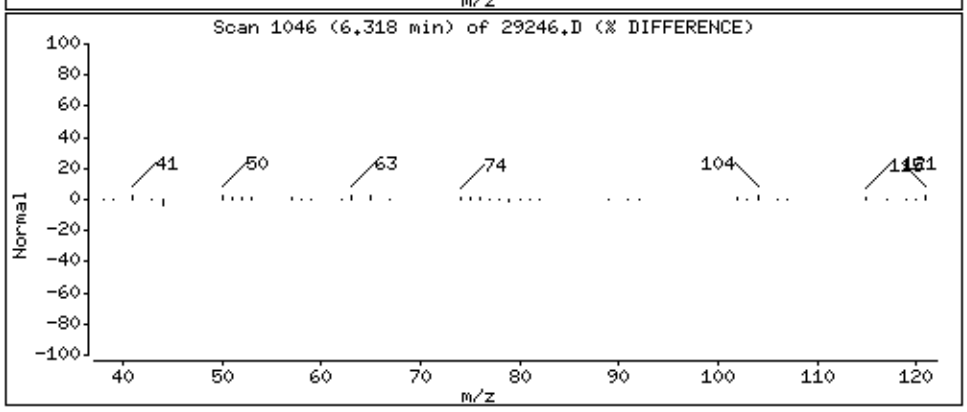
62 Isopropylbenzene (Cumene)

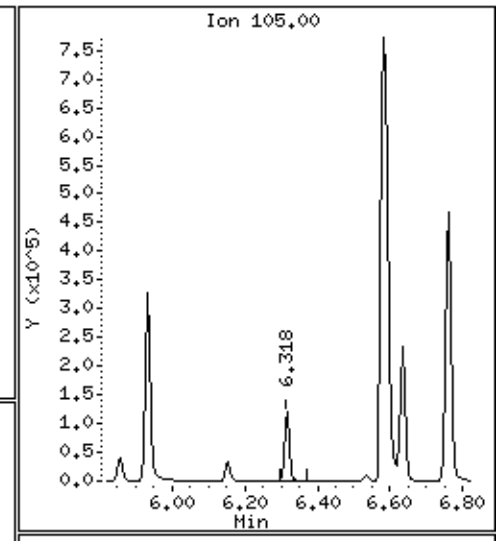
Concentration: 7.5 ug/L

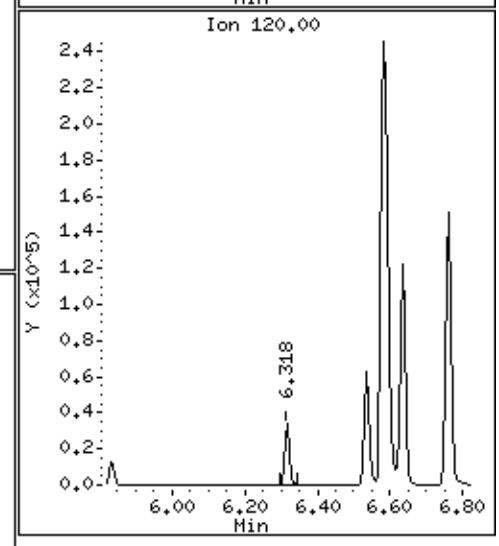












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29246.D

Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

Sample Info: 10326303001

Purge Volume: 5.0

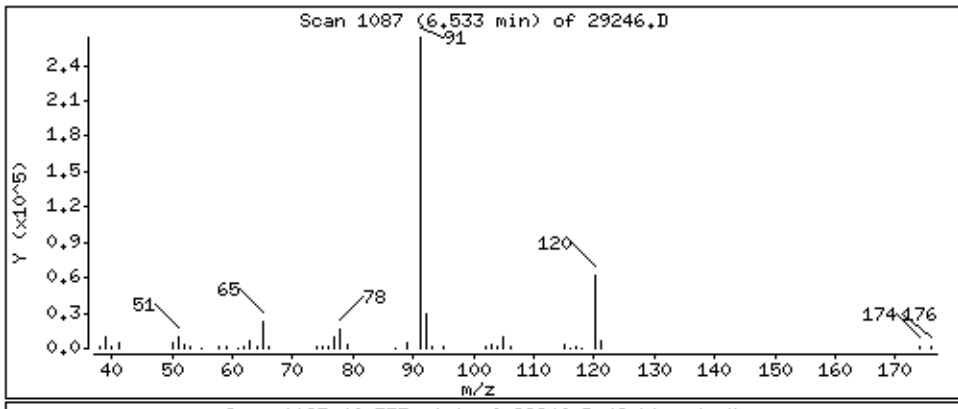
Operator: AH2

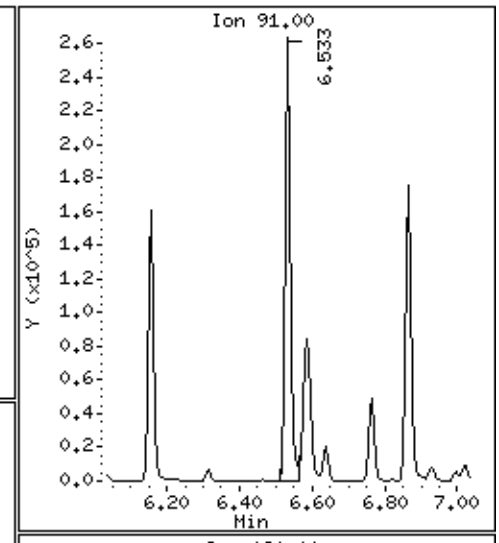
Column phase: Rtx-VMS

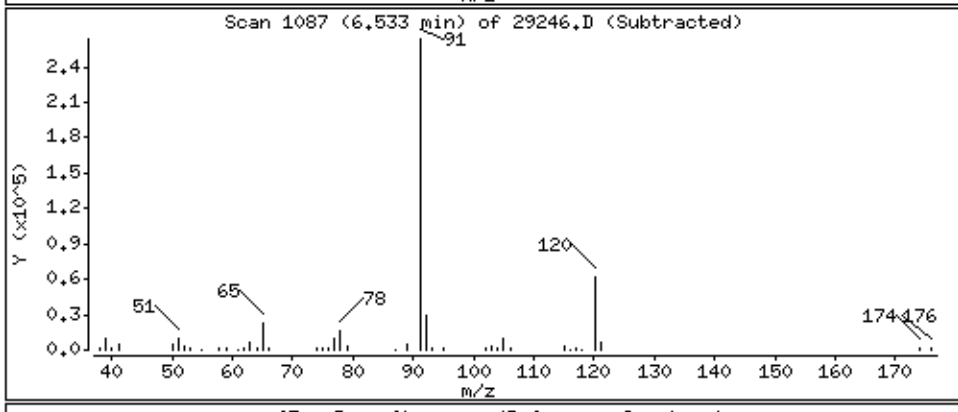
Column diameter: 0.18

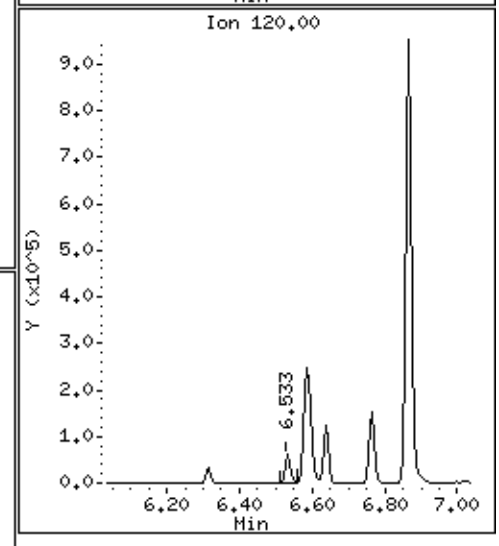
65 n-Propylbenzene

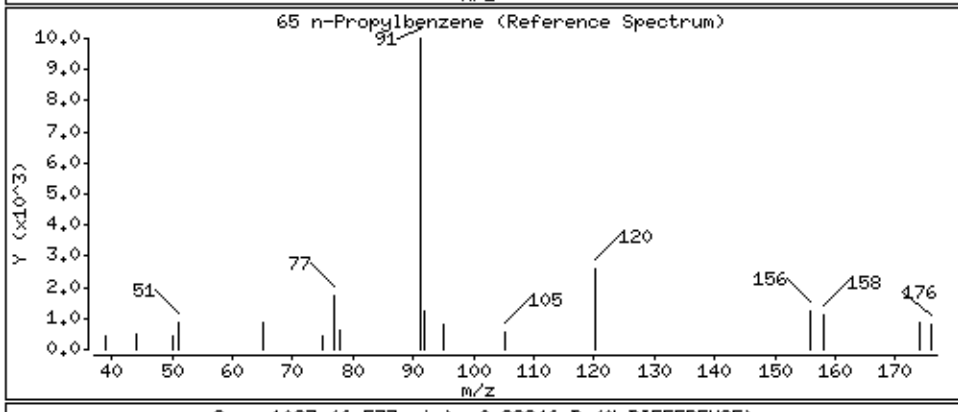
Concentration: 15.0 ug/L

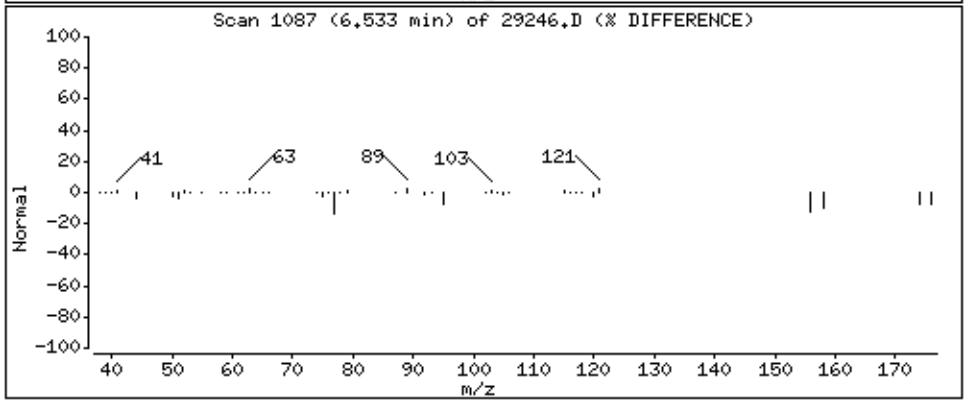












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29246.D

Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

Sample Info: 10326303001

Purge Volume: 5.0

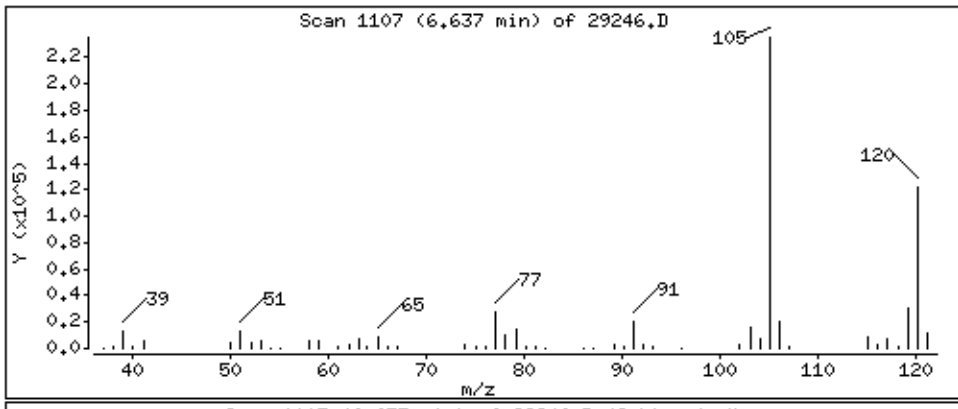
Operator: AH2

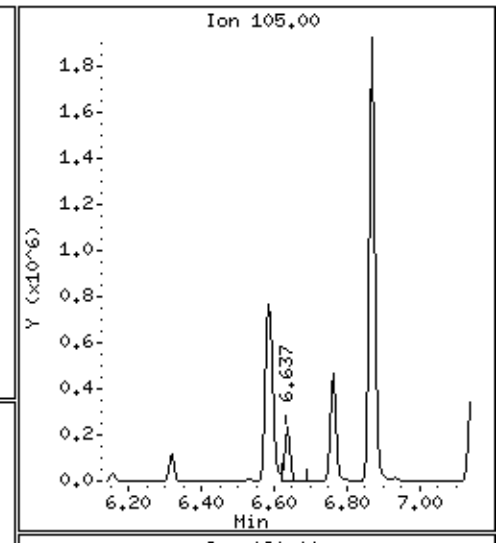
Column phase: Rtx-VMS

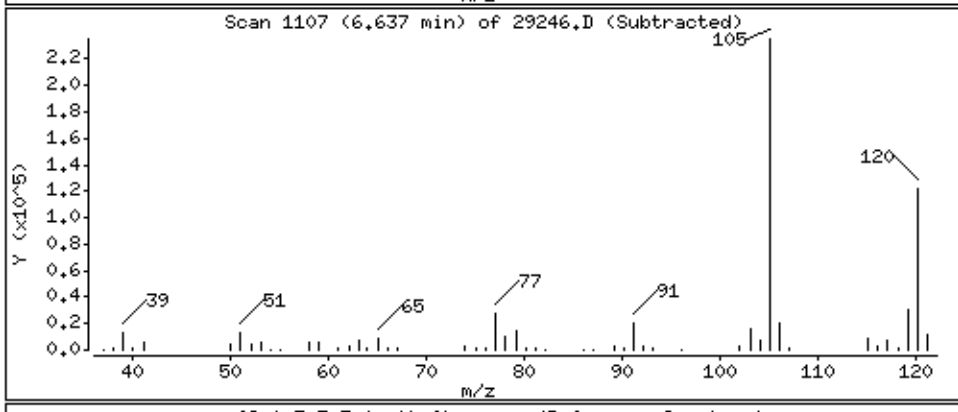
Column diameter: 0.18

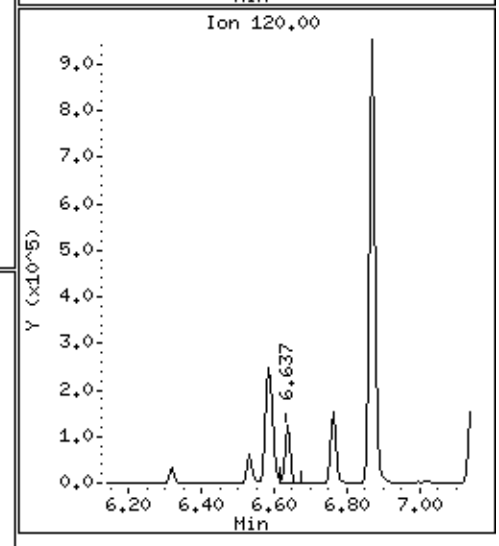
68 1,3,5-Trimethylbenzene

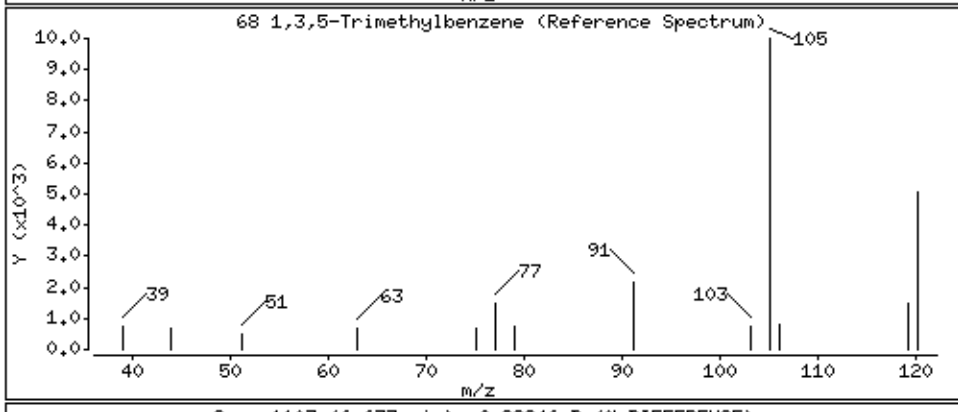
Concentration: 21.0 ug/L

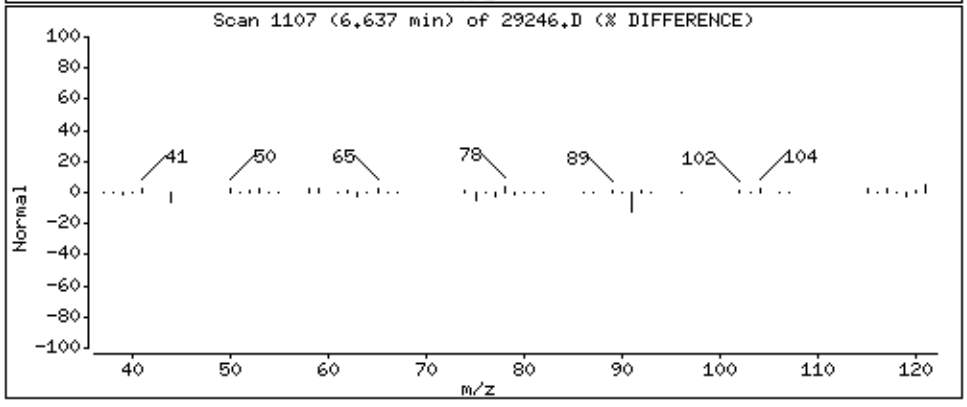












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29246.D

Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

Sample Info: 10326303001

Purge Volume: 5.0

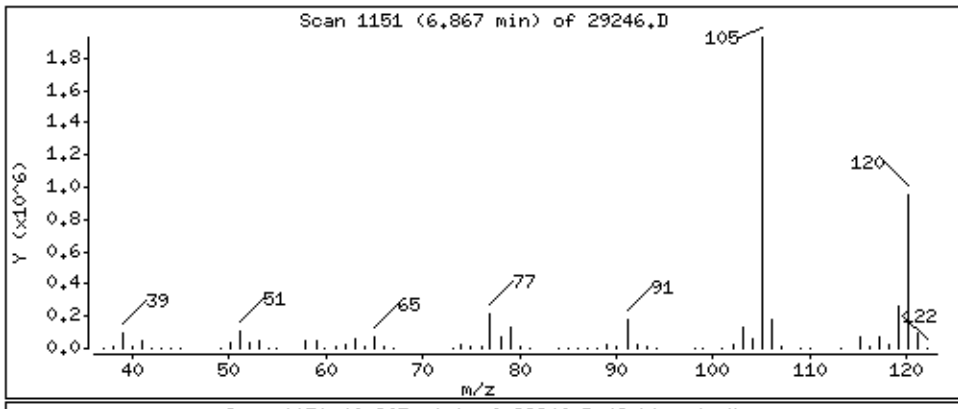
Operator: AH2

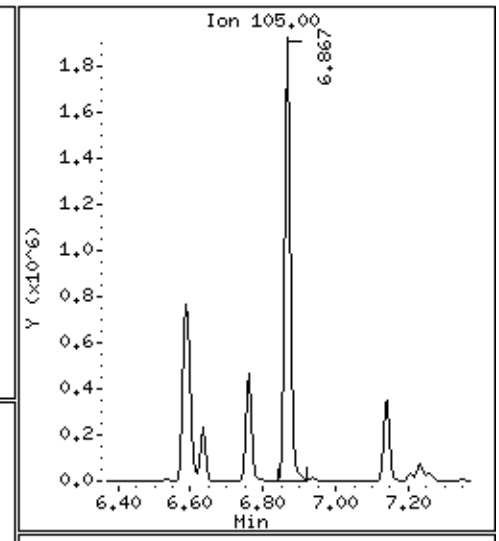
Column phase: Rtx-VMS

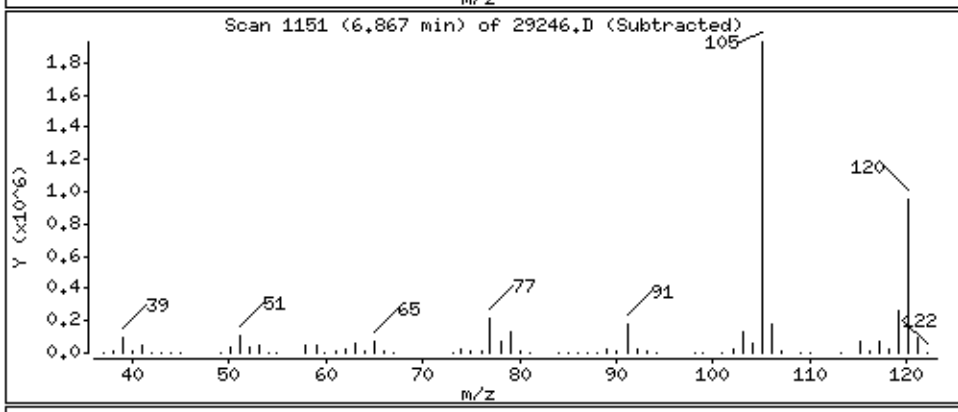
Column diameter: 0.18

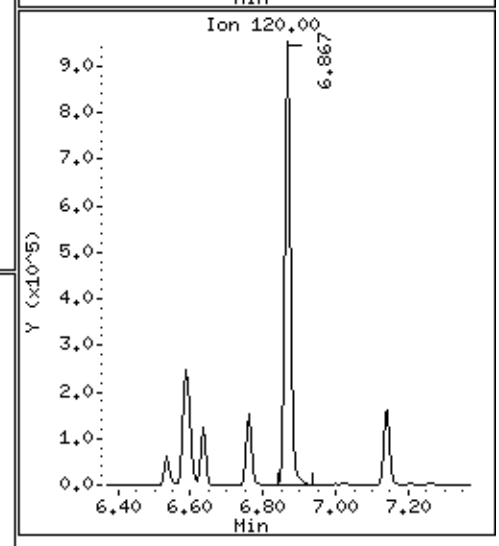
72 1,2,4-Trimethylbenzene

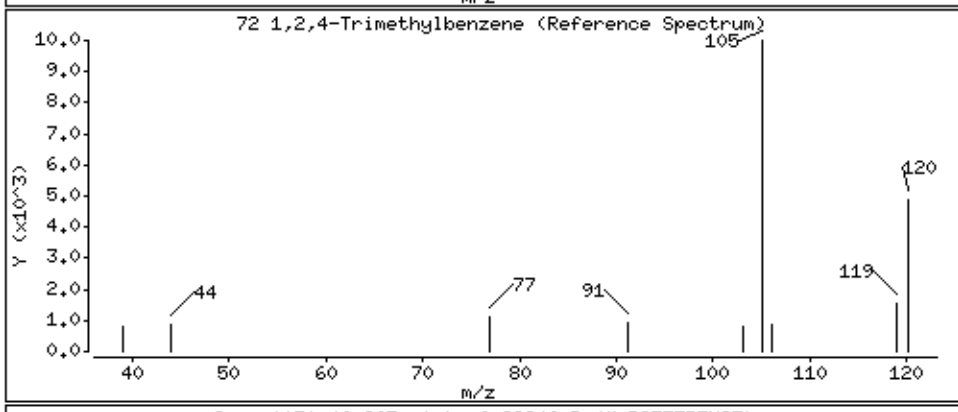
Concentration: 183 ug/L

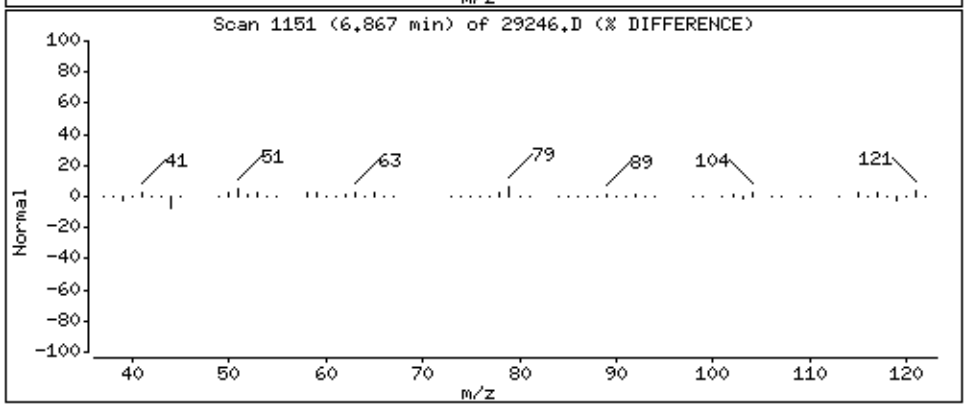












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29246.D

Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

Sample Info: 10326303001

Purge Volume: 5.0

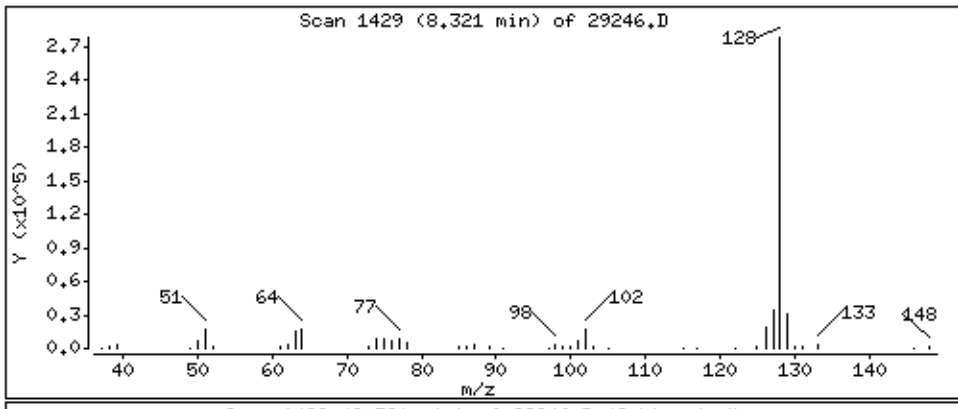
Operator: AH2

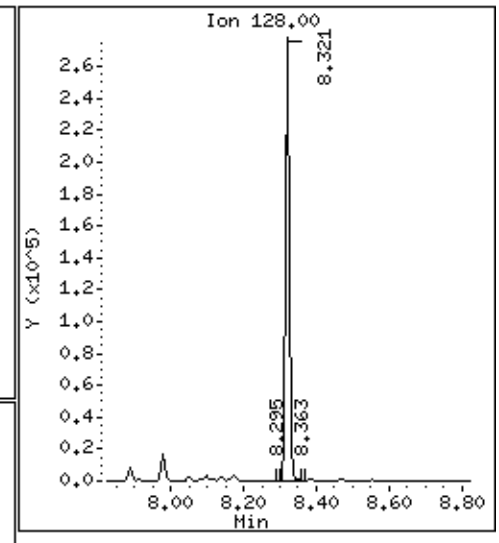
Column phase: Rtx-VMS

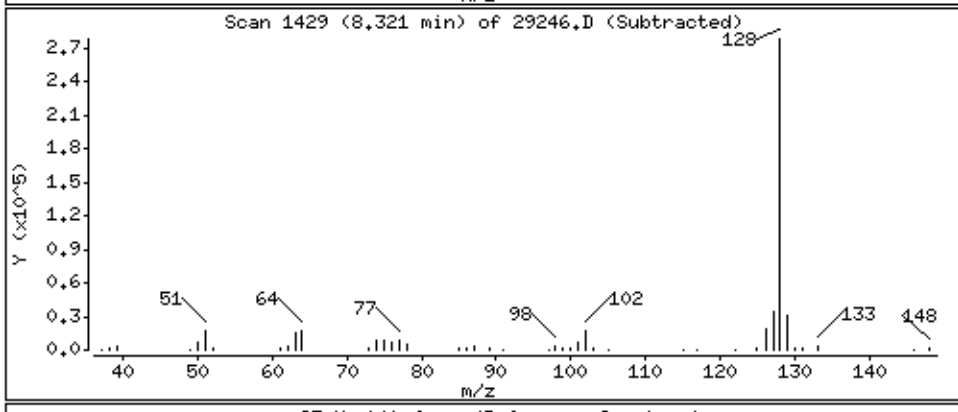
Column diameter: 0.18

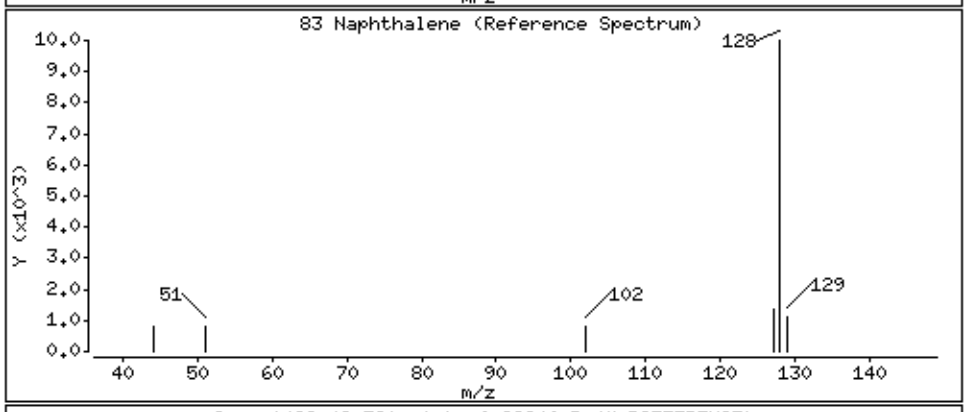
83 Naphthalene

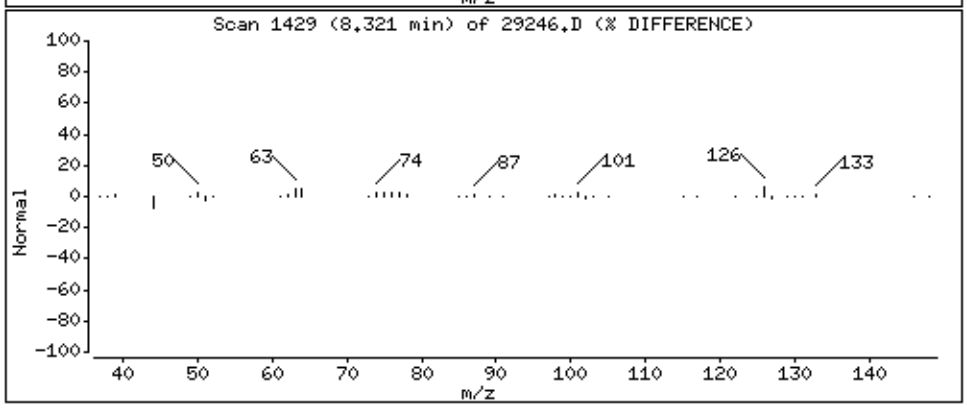
Concentration: 28.0 ug/L











Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29246.D

Date : 20-OCT-2015 01:18

Client ID: B3MW-101315

Instrument: 10msv1.i

Sample Info: 10326303001

Purge Volume: 5.0

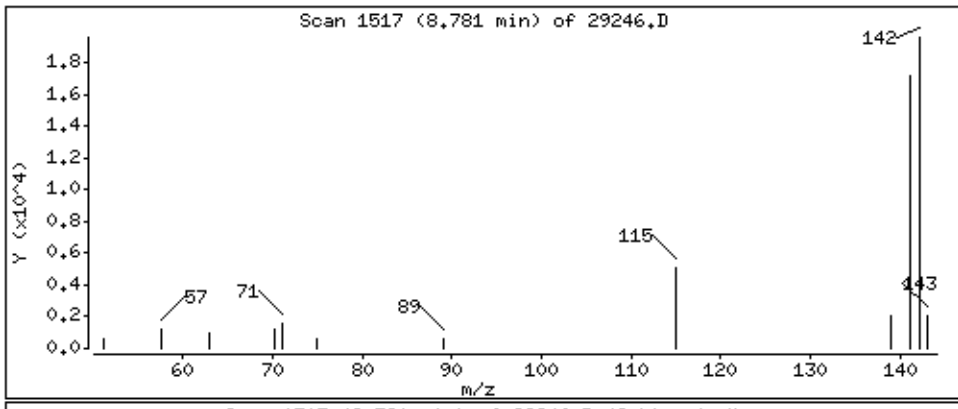
Operator: AH2

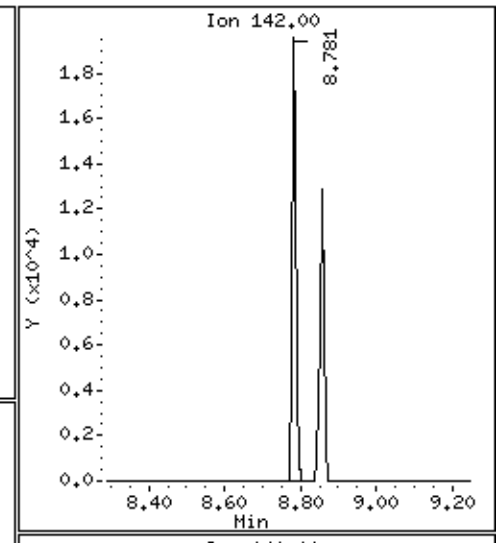
Column phase: Rtx-VMS

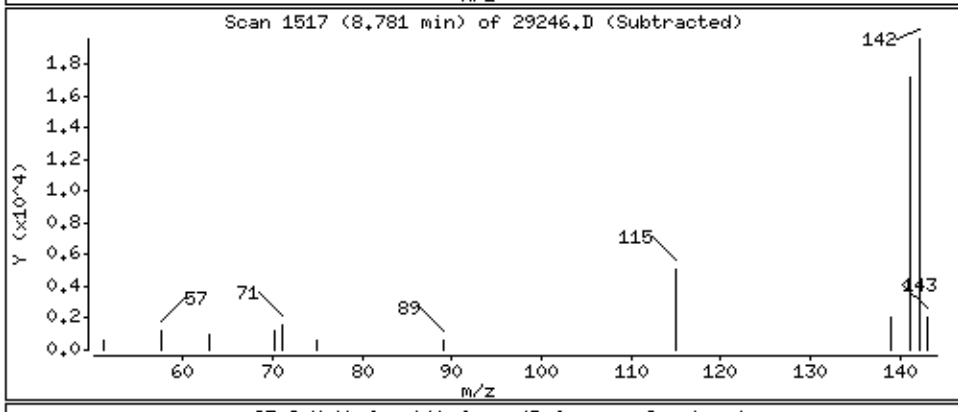
Column diameter: 0.18

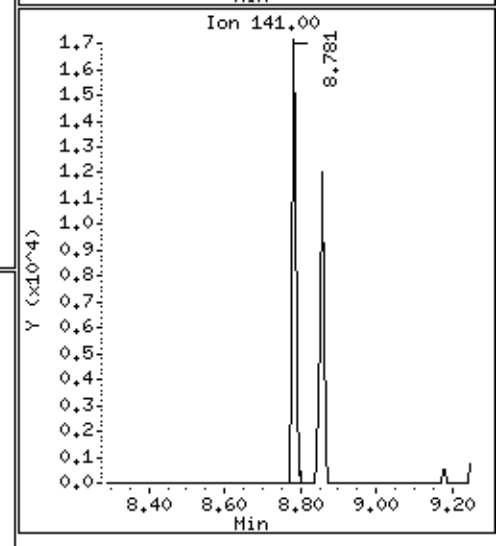
85 2-Methylnaphthalene

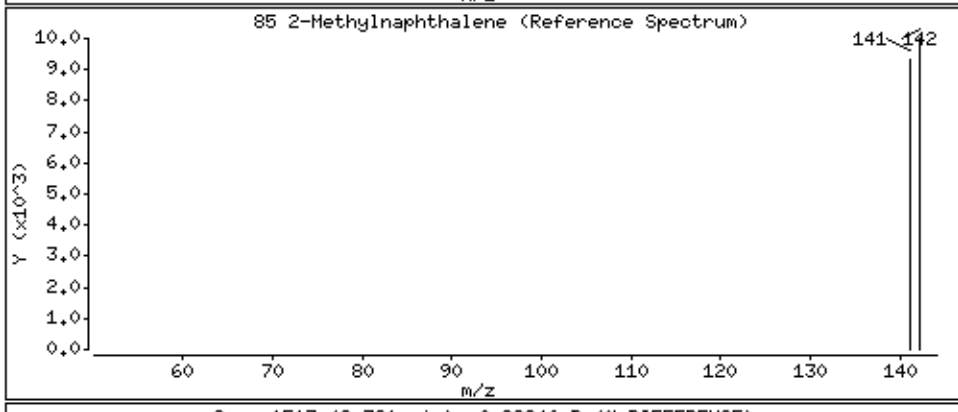
Concentration: 6.0 ug/L

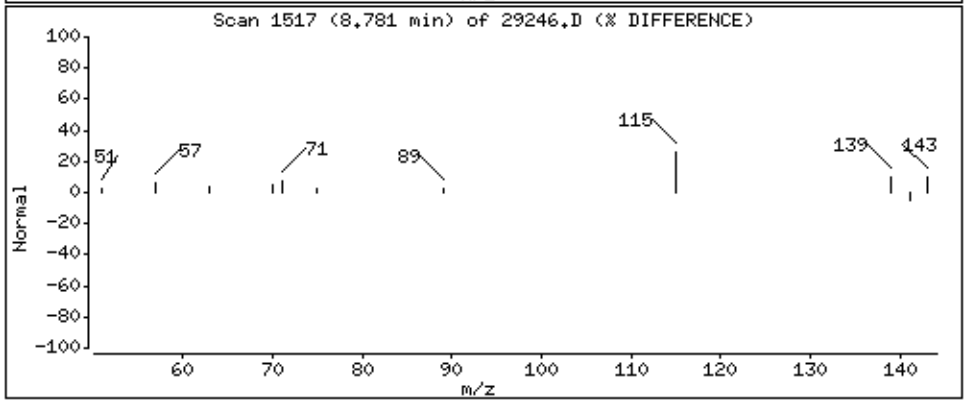








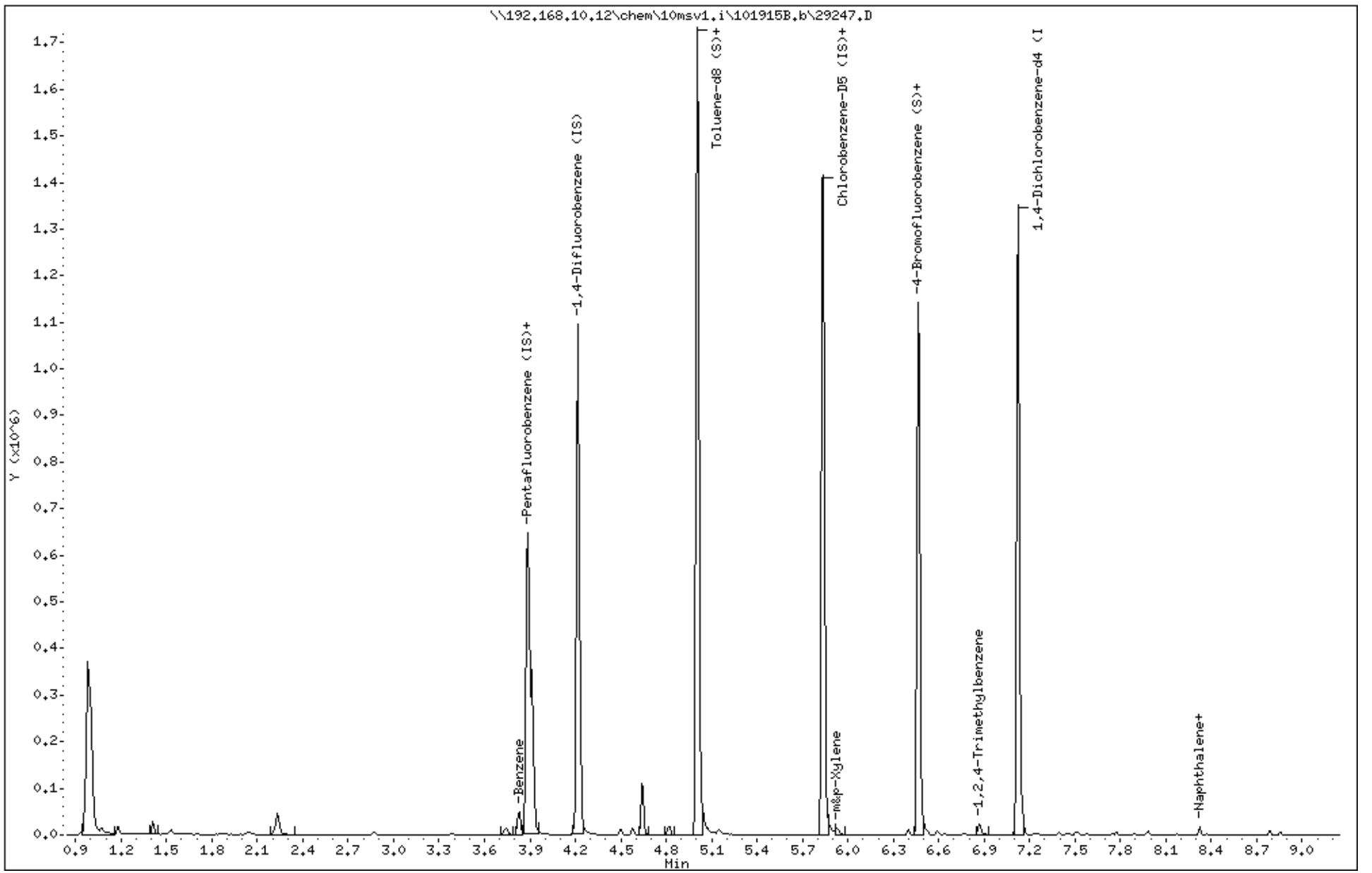




Data File: \\192.168.10.12\chem\10msv1.i\101915B.b/29246.D
Injection Date: 20-OCT-2015 01:18
Instrument: 10msv1.i
Lab Sample ID: 10326303001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29247.D
Date : 20-OCT-2015 01:35
Client ID: MW-13-101315
Sample Info: 10326303003
Purge Volume: 5.0
Column phase: Rtx-VMS

Instrument: 10msv1.i
Operator: AH2
Column diameter: 0.18



Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29247.D

Date : 20-OCT-2015 01:35

Client ID: MW-13-101315

Instrument: 10msv1.i

Sample Info: 10326303003

Purge Volume: 5.0

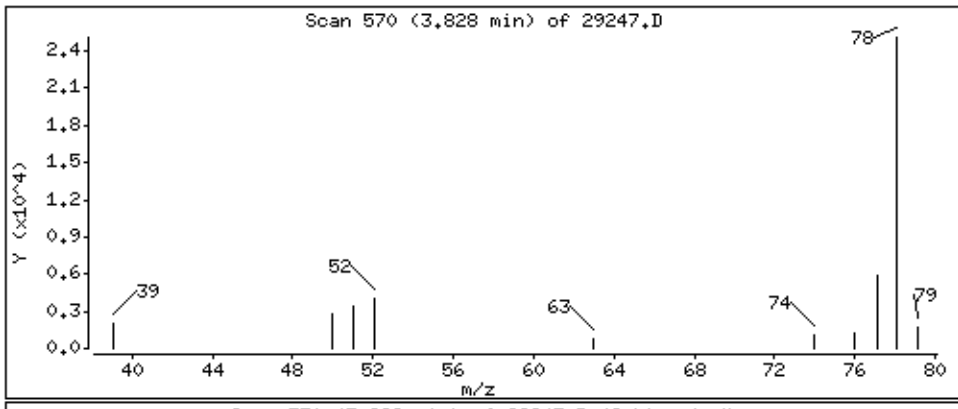
Operator: AH2

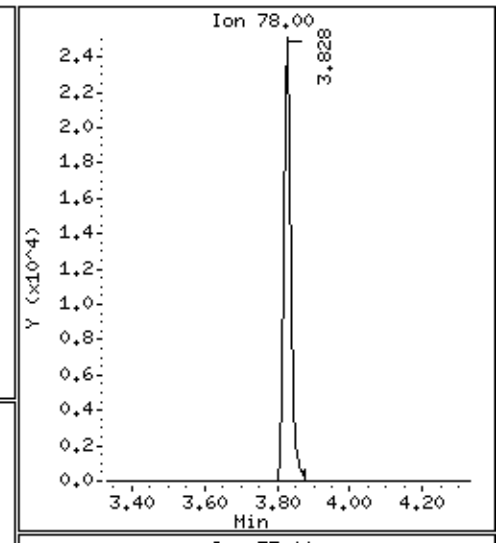
Column phase: Rtx-VMS

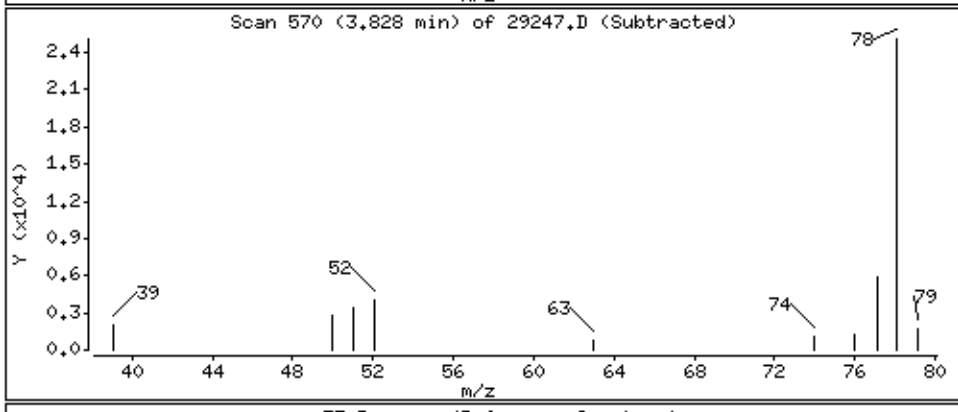
Column diameter: 0.18

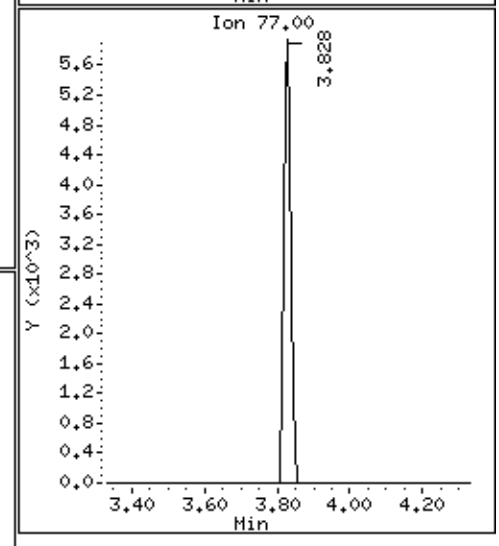
33 Benzene

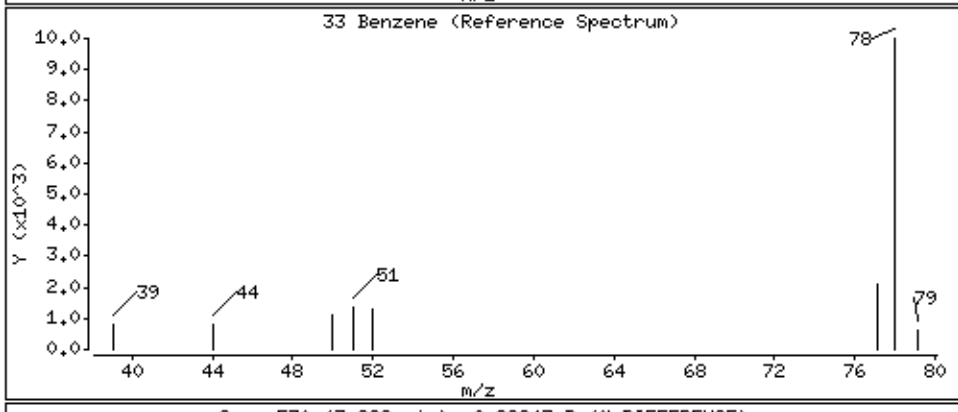
Concentration: 2.3 ug/L

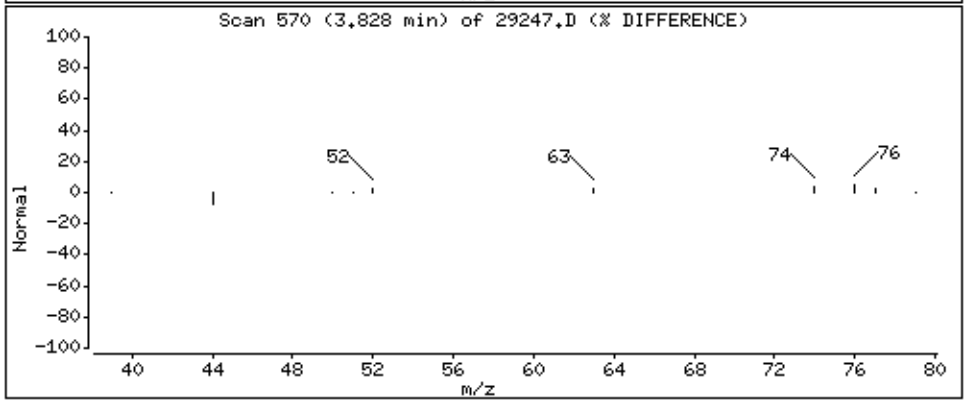












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29247.D

Date : 20-OCT-2015 01:35

Client ID: MW-13-101315

Instrument: 10msv1.i

Sample Info: 10326303003

Purge Volume: 5.0

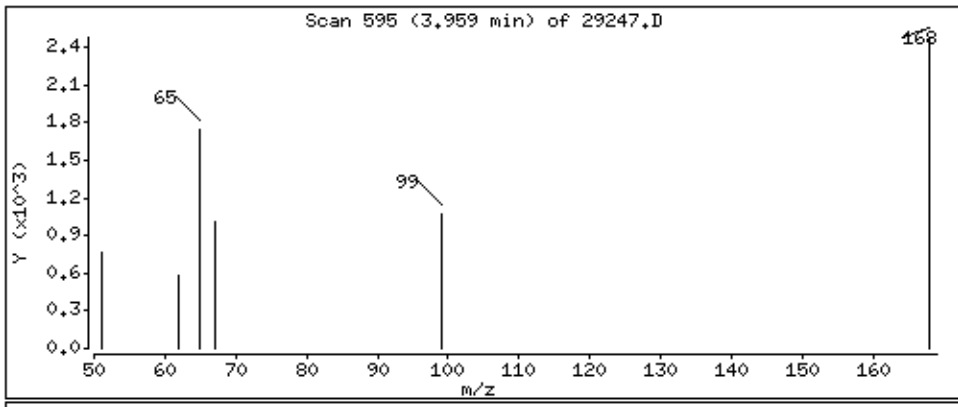
Operator: AH2

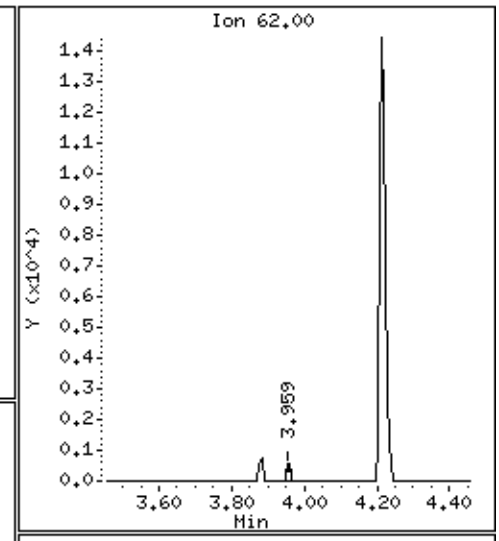
Column phase: Rtx-VMS

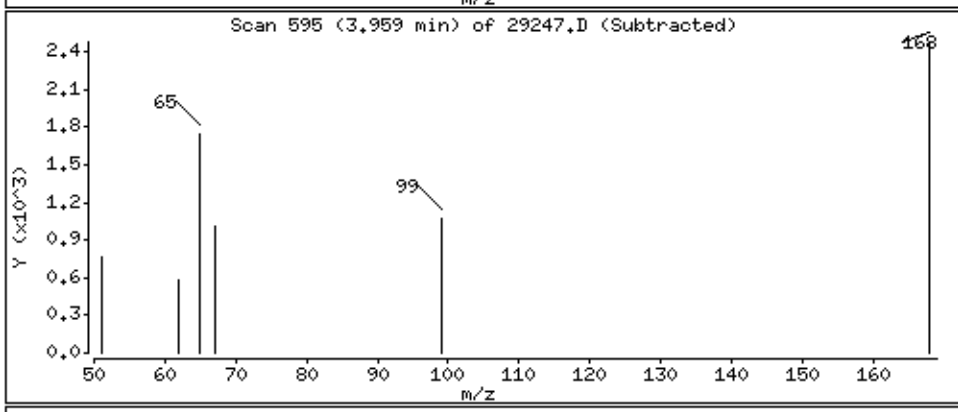
Column diameter: 0.18

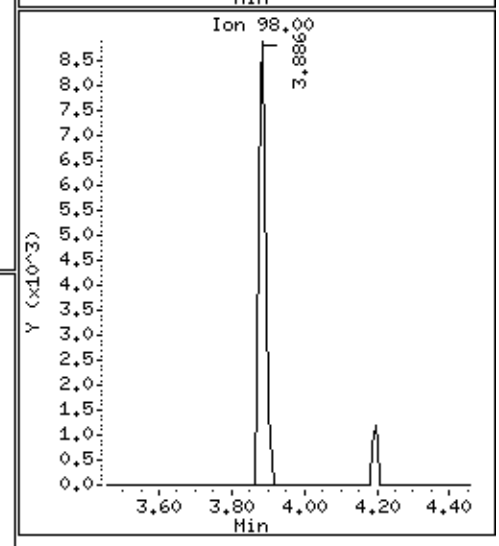
36 1,2-Dichloroethane

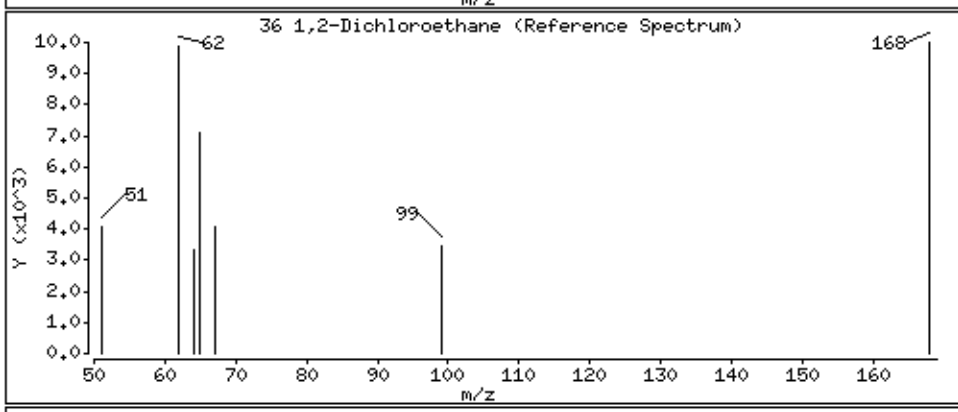
Concentration: 0.11 ug/L

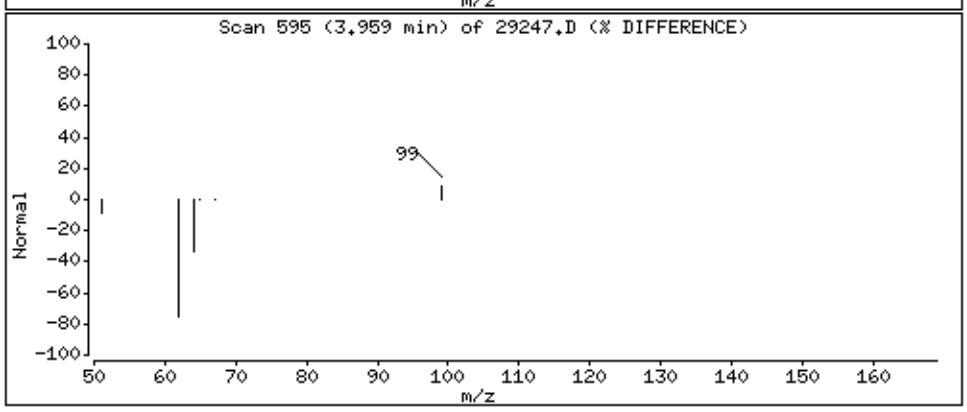












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29247.D

Date : 20-OCT-2015 01:35

Client ID: MW-13-101315

Instrument: 10msv1.i

Sample Info: 10326303003

Purge Volume: 5.0

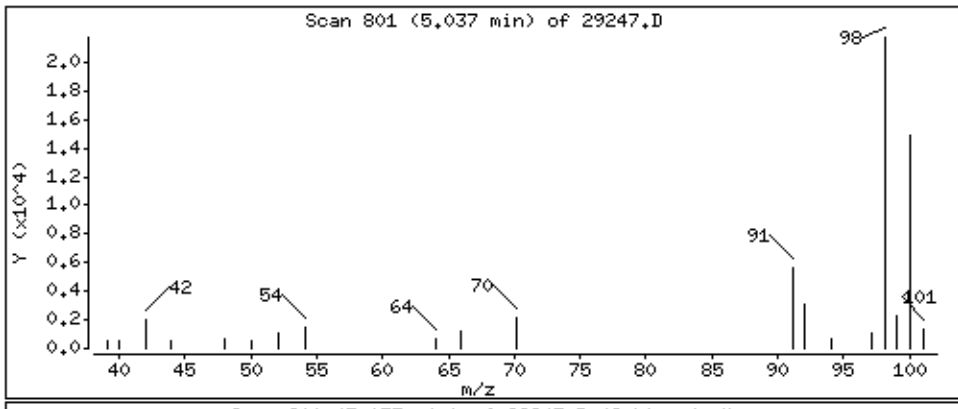
Operator: AH2

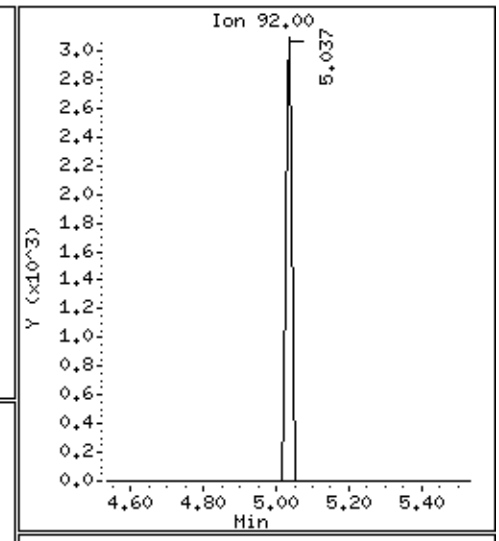
Column phase: Rtx-VMS

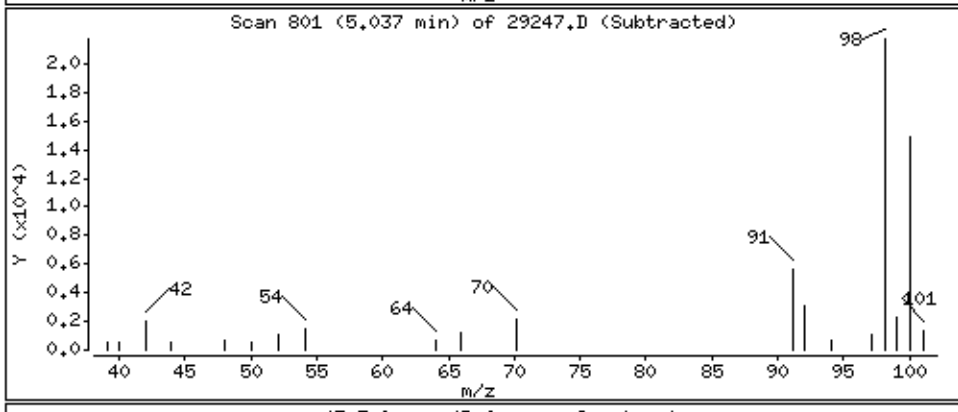
Column diameter: 0.18

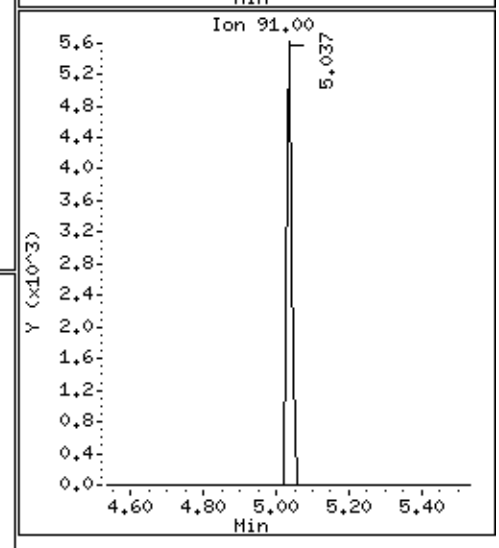
45 Toluene

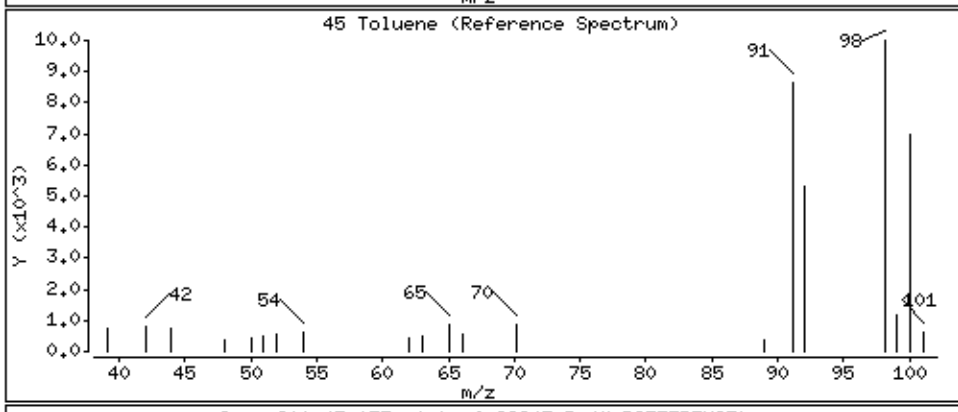
Concentration: 0.36 ug/L

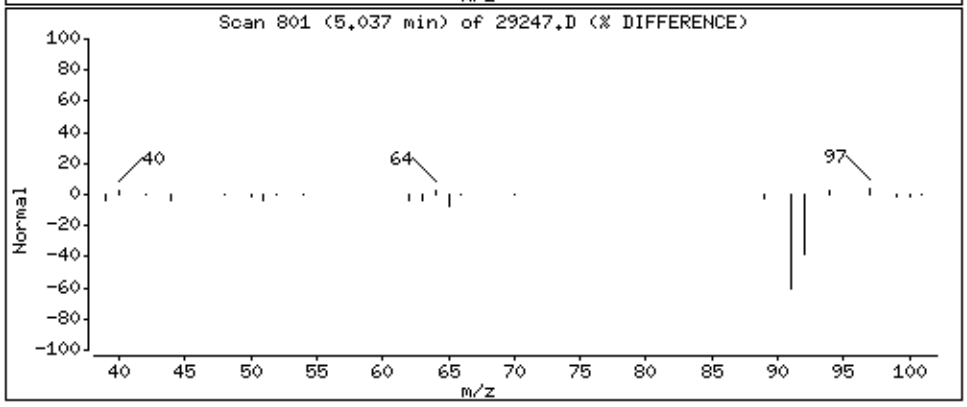












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29247.D

Date : 20-OCT-2015 01:35

Client ID: MW-13-101315

Instrument: 10msv1.i

Sample Info: 10326303003

Purge Volume: 5.0

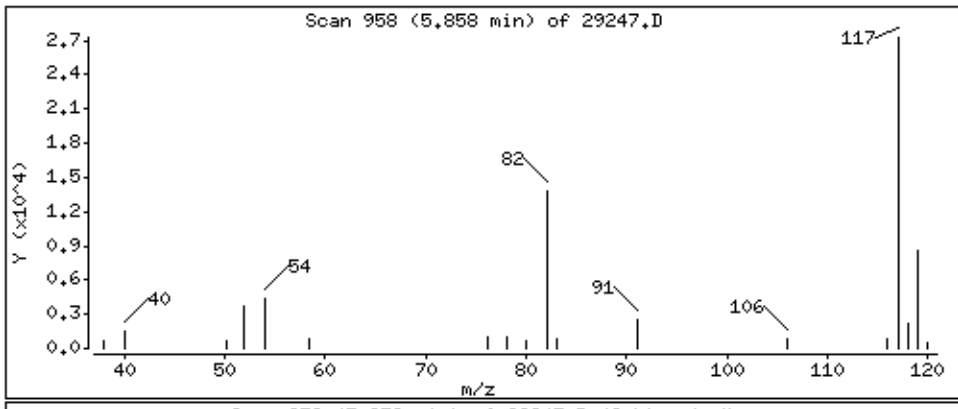
Operator: AH2

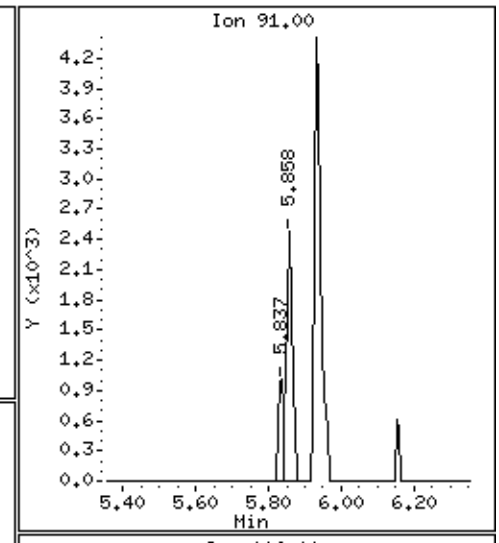
Column phase: Rtx-VMS

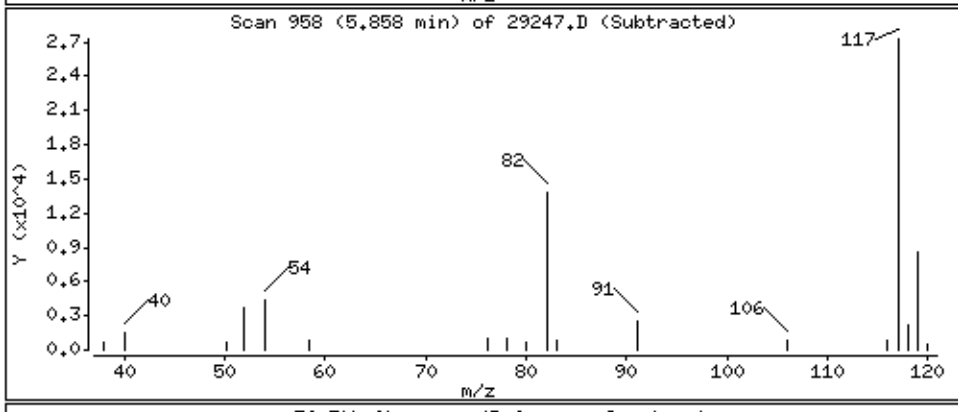
Column diameter: 0.18

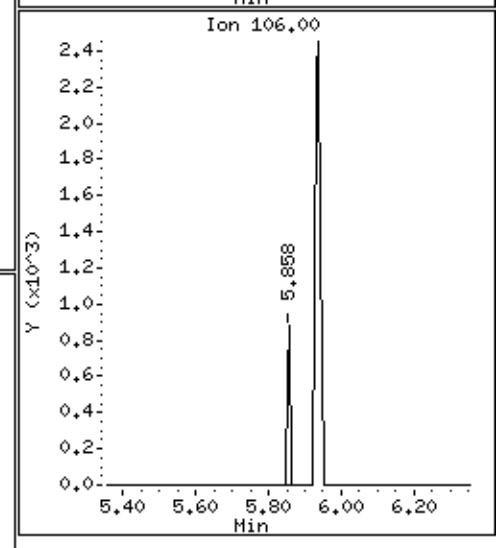
56 Ethylbenzene

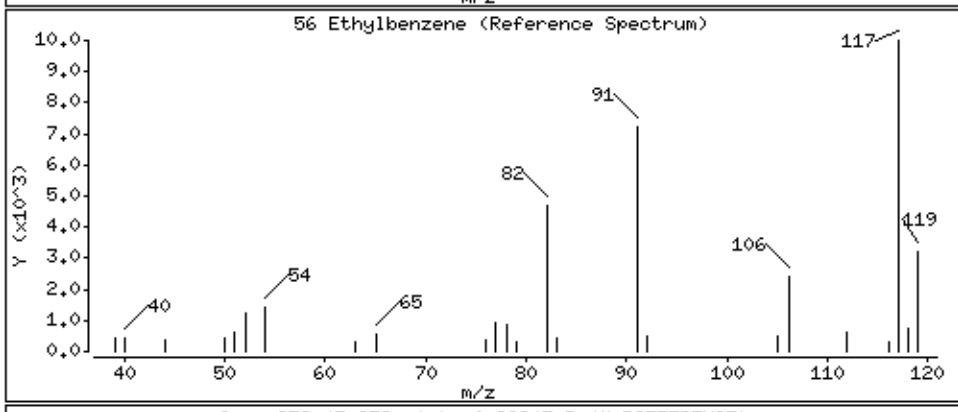
Concentration: 0.17 ug/L

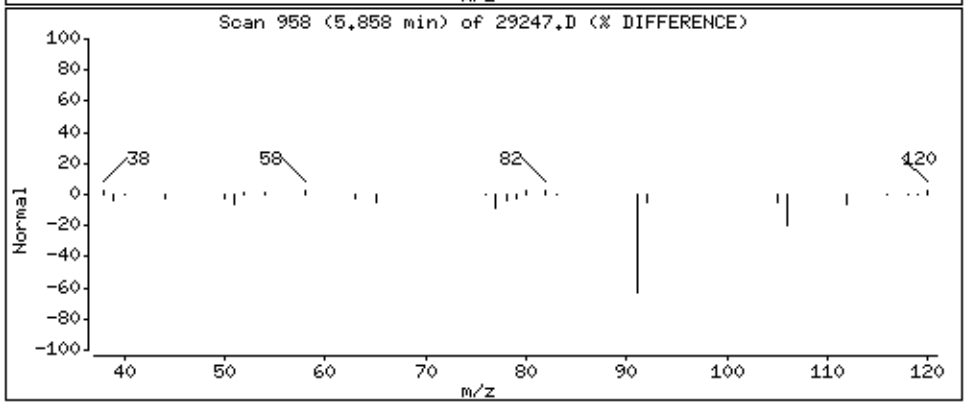












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29247.D

Date : 20-OCT-2015 01:35

Client ID: MW-13-101315

Instrument: 10msv1.i

Sample Info: 10326303003

Purge Volume: 5.0

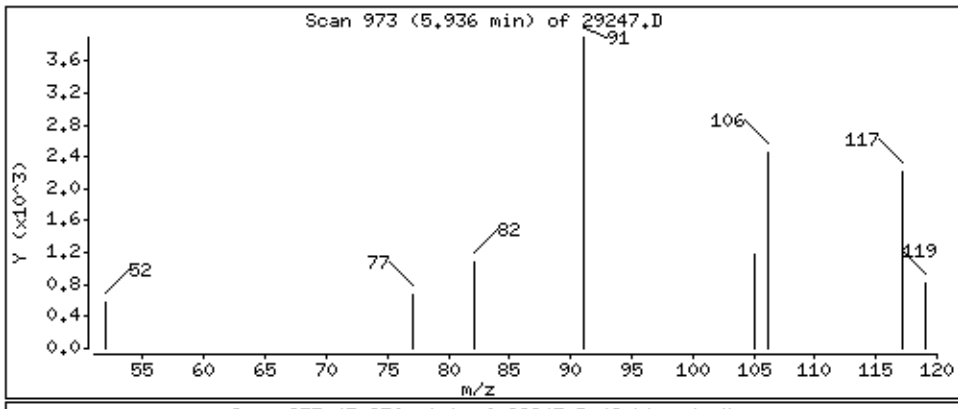
Operator: AH2

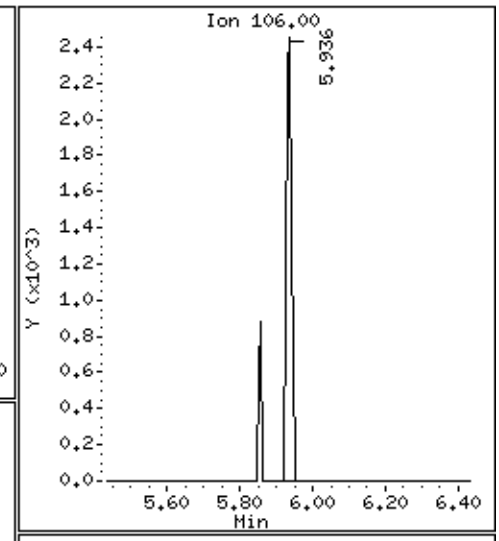
Column phase: Rtx-VMS

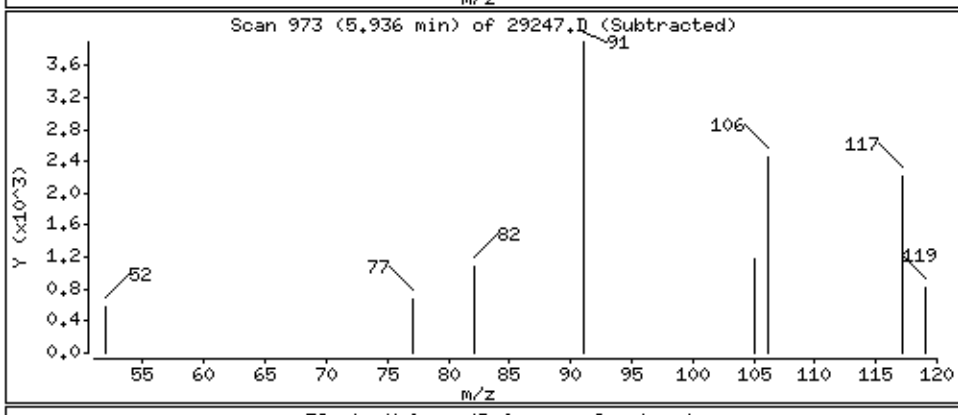
Column diameter: 0.18

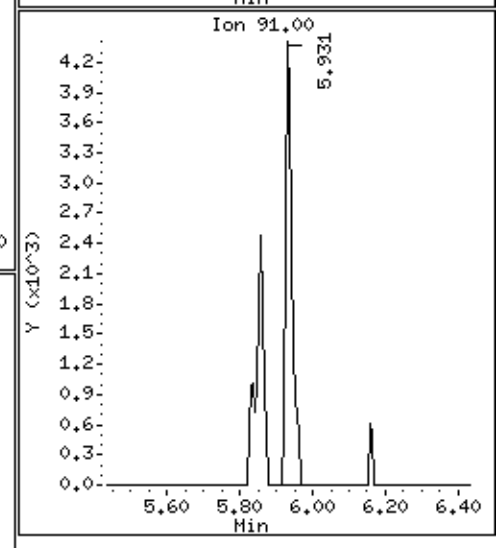
58 m&p-Xylene

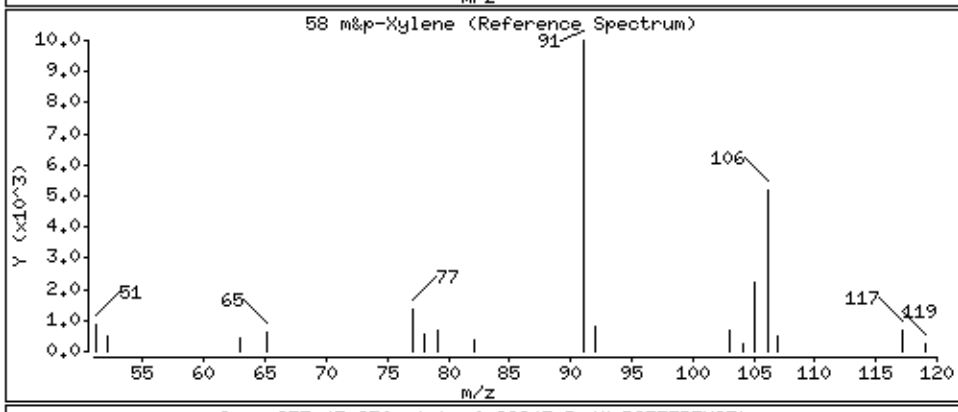
Concentration: 0.36 ug/L

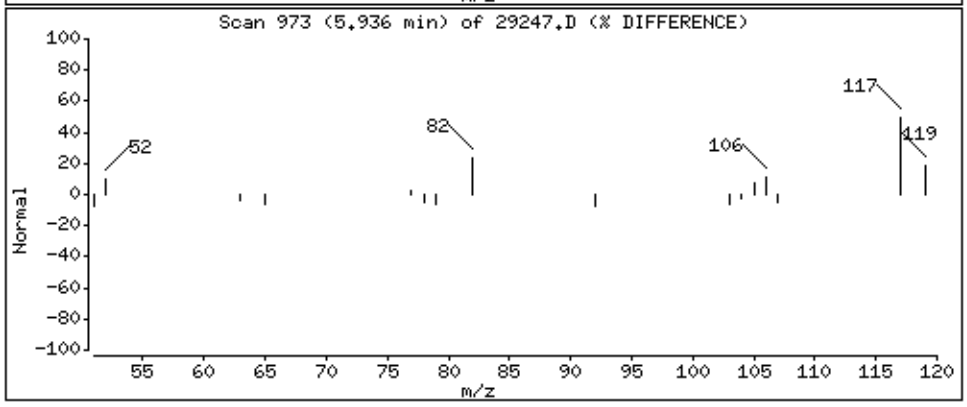












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29247.D

Date : 20-OCT-2015 01:35

Client ID: MW-13-101315

Instrument: 10msv1.i

Sample Info: 10326303003

Purge Volume: 5.0

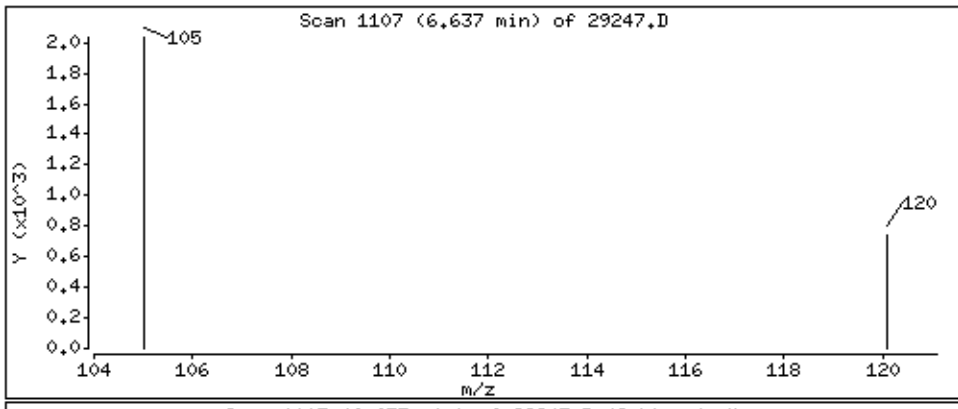
Operator: AH2

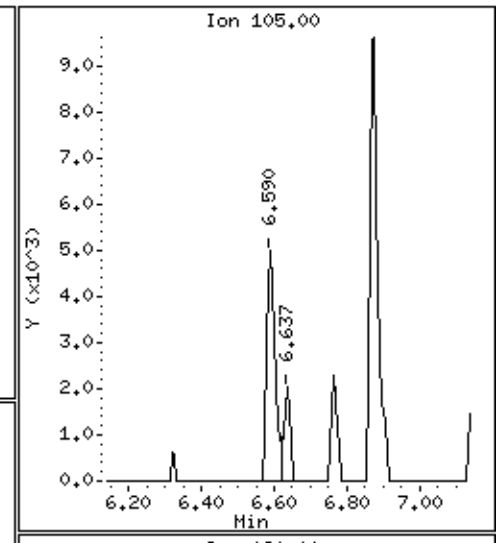
Column phase: Rtx-VMS

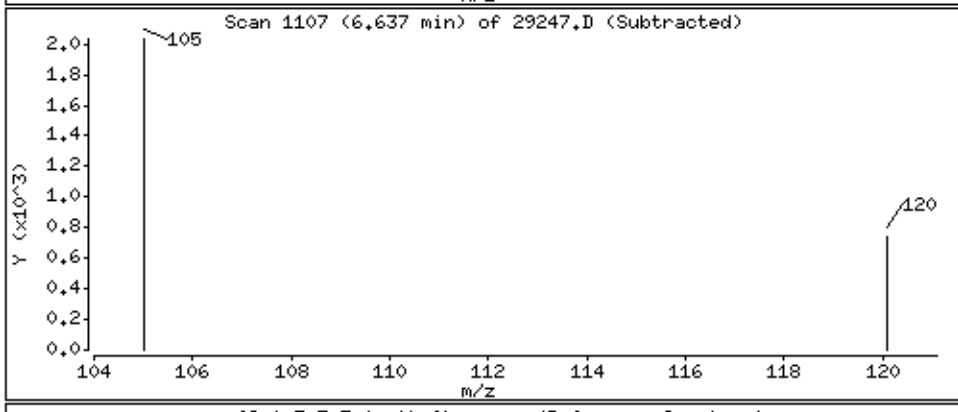
Column diameter: 0.18

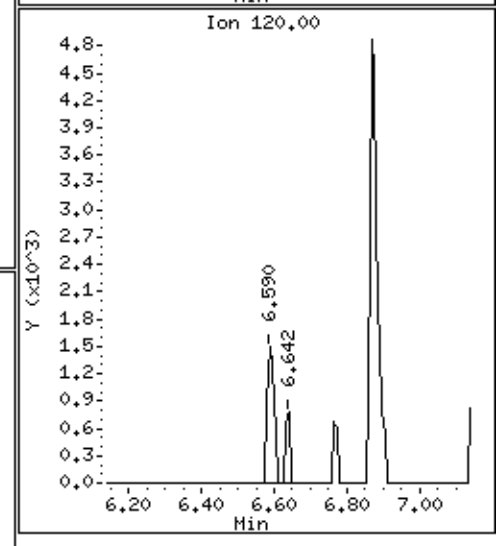
68 1,3,5-Trimethylbenzene

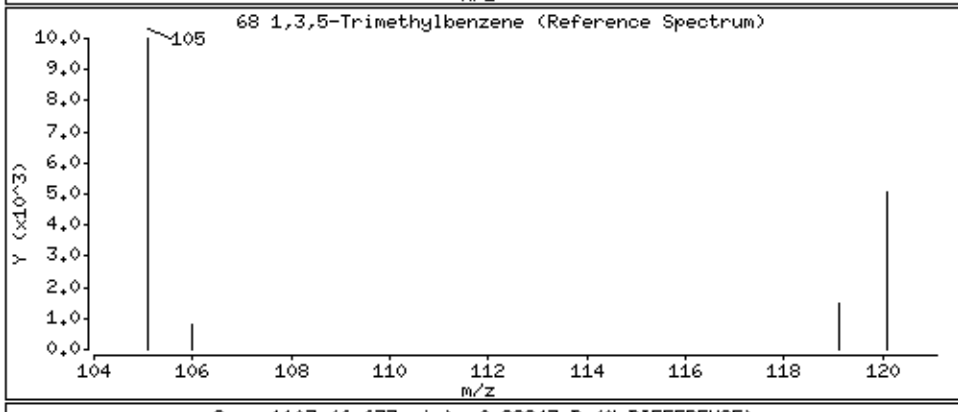
Concentration: 0.22 ug/L

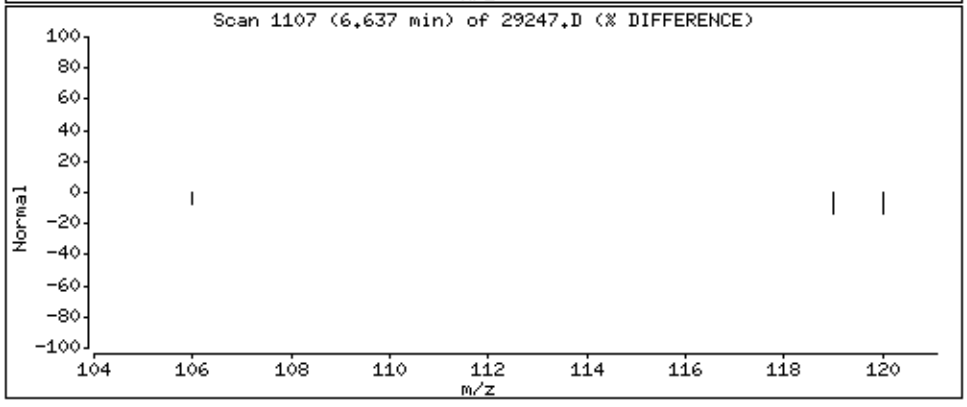












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29247.D

Date : 20-OCT-2015 01:35

Client ID: MW-13-101315

Instrument: 10msv1.i

Sample Info: 10326303003

Purge Volume: 5.0

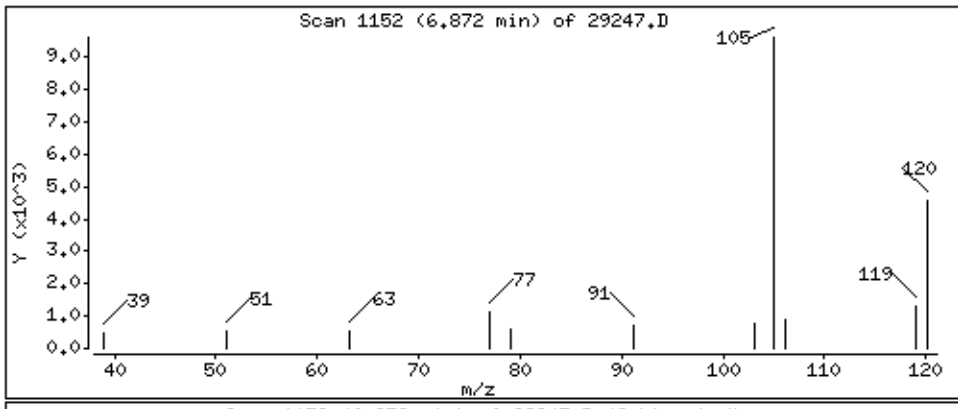
Operator: AH2

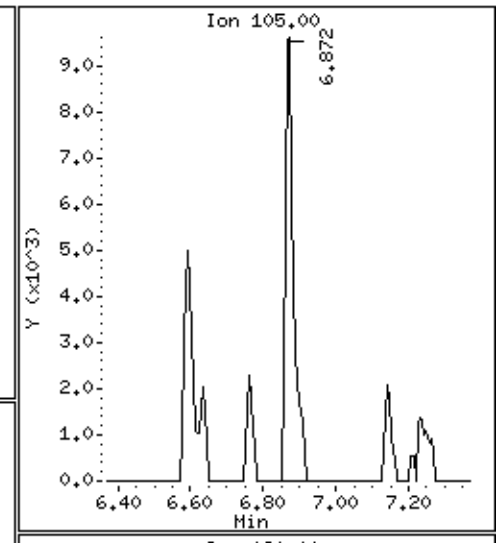
Column phase: Rtx-VMS

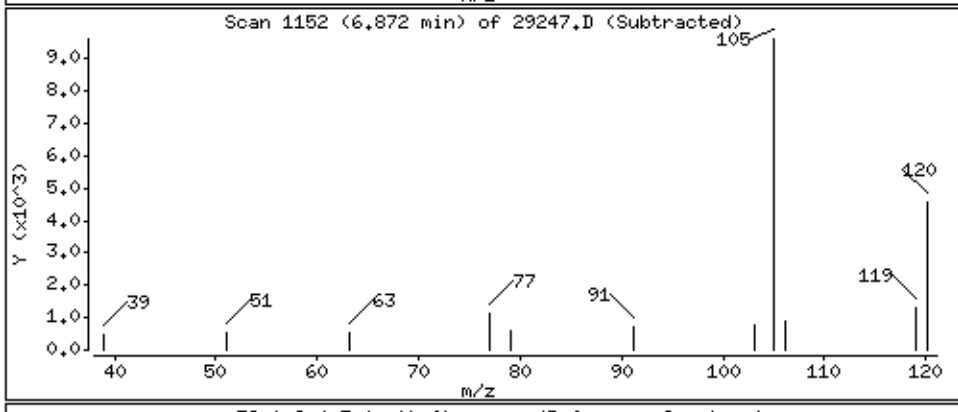
Column diameter: 0.18

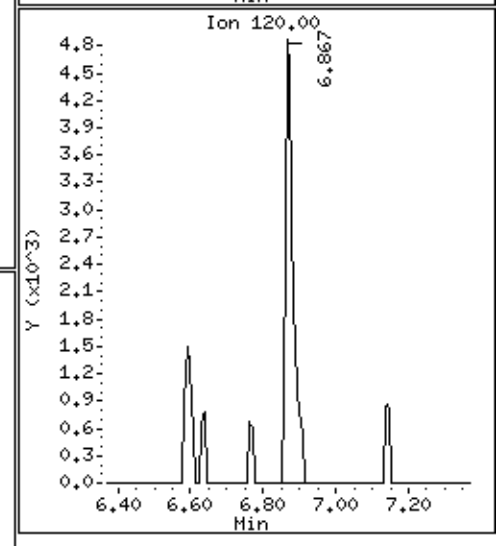
72 1,2,4-Trimethylbenzene

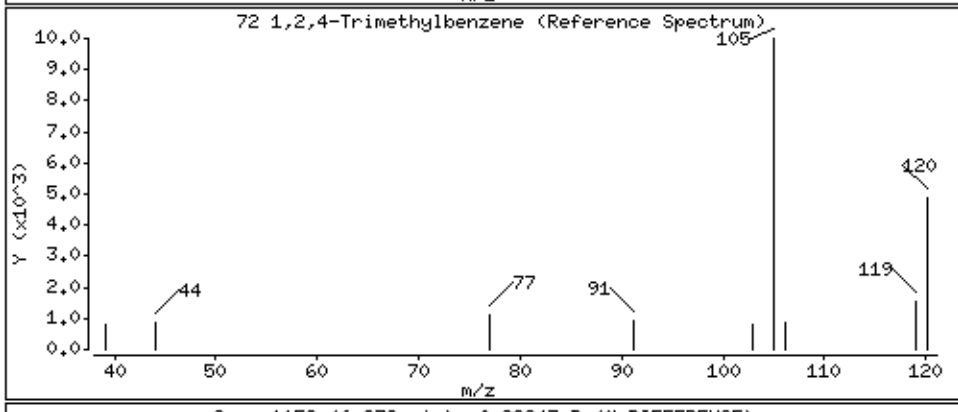
Concentration: 1.3 ug/L

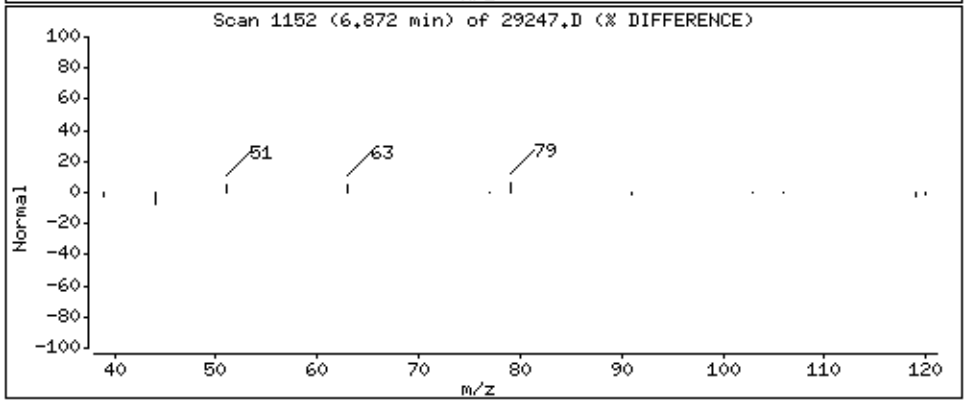












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29247.D

Date : 20-OCT-2015 01:35

Client ID: MW-13-101315

Instrument: 10msv1.i

Sample Info: 10326303003

Purge Volume: 5.0

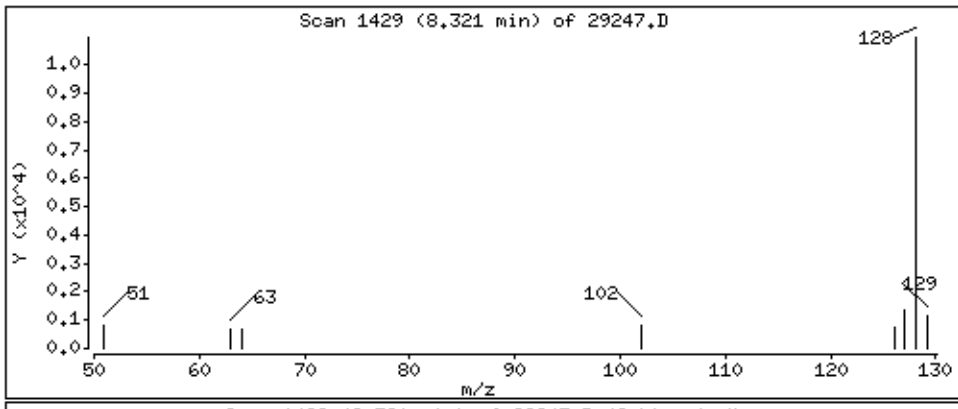
Operator: AH2

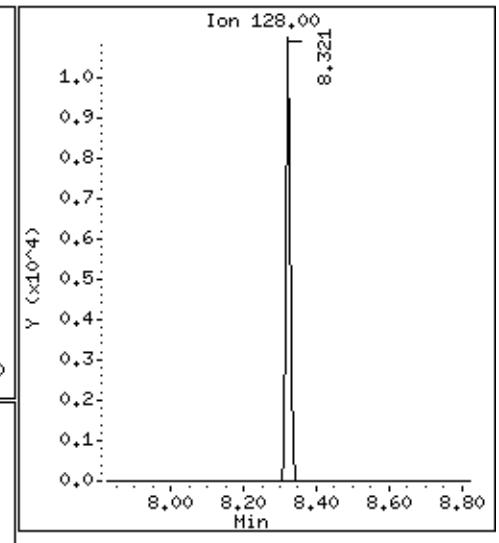
Column phase: Rtx-VMS

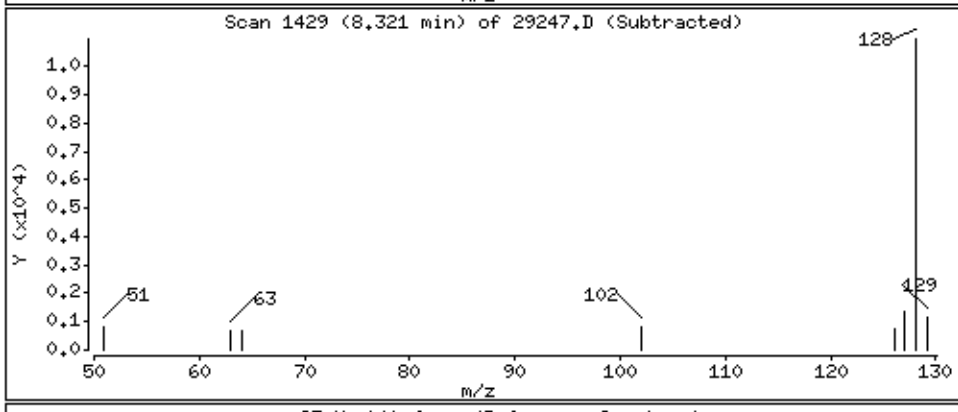
Column diameter: 0.18

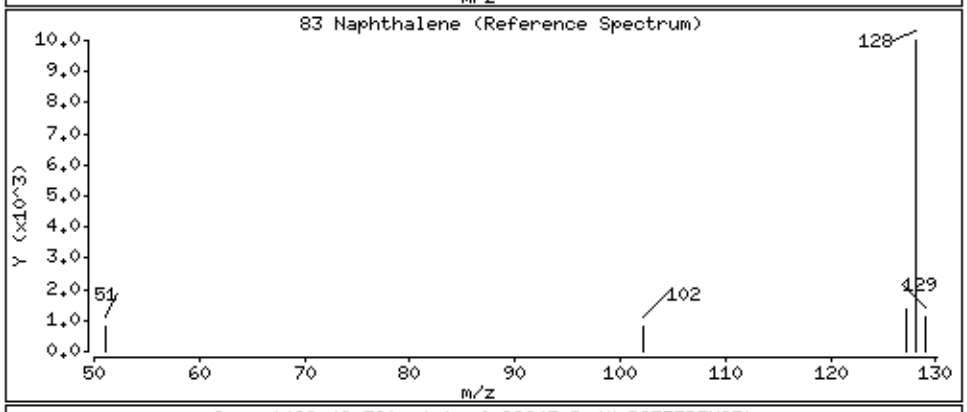
83 Naphthalene

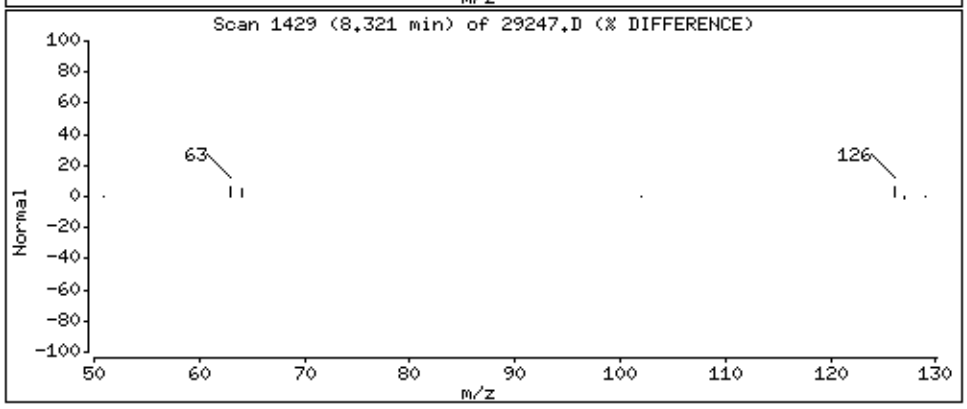
Concentration: 1.2 ug/L











Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29247.D

Date : 20-OCT-2015 01:35

Client ID: MW-13-101315

Instrument: 10msv1.i

Sample Info: 10326303003

Purge Volume: 5.0

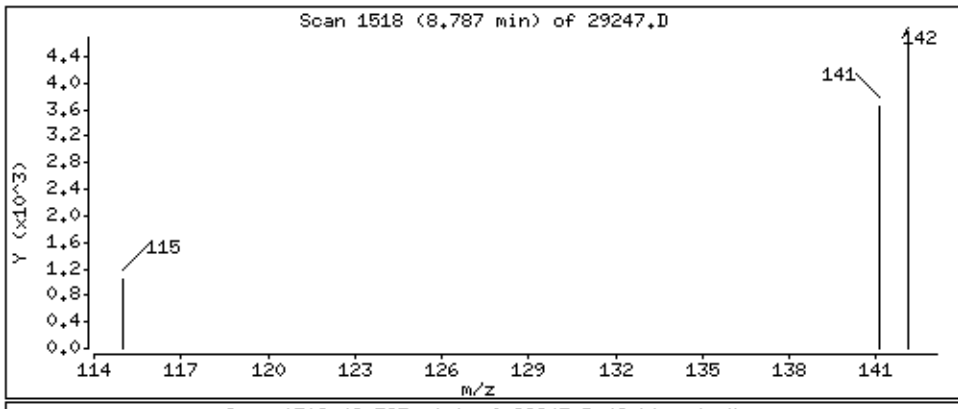
Operator: AH2

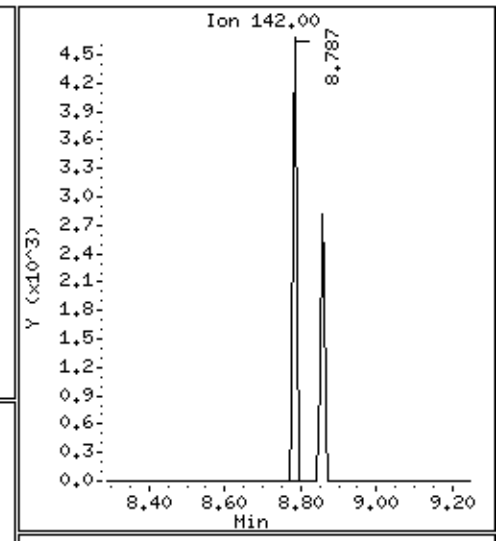
Column phase: Rtx-VMS

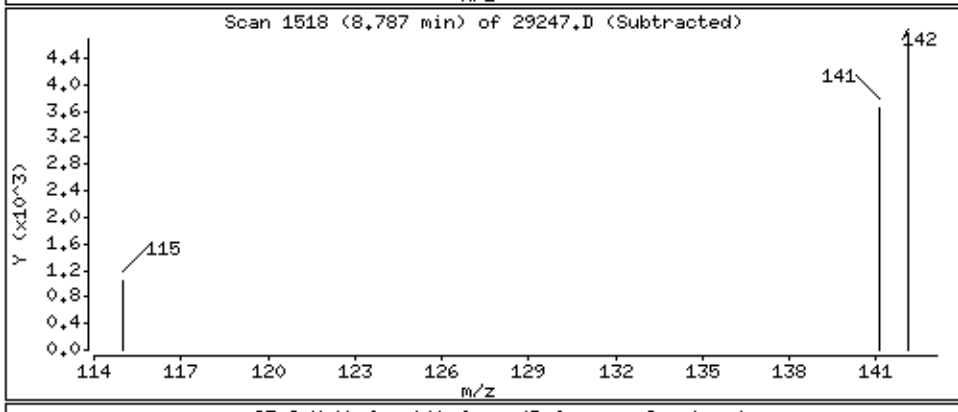
Column diameter: 0.18

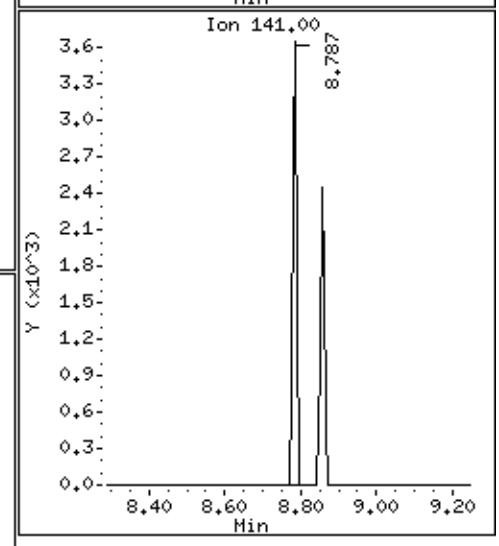
85 2-Methylnaphthalene

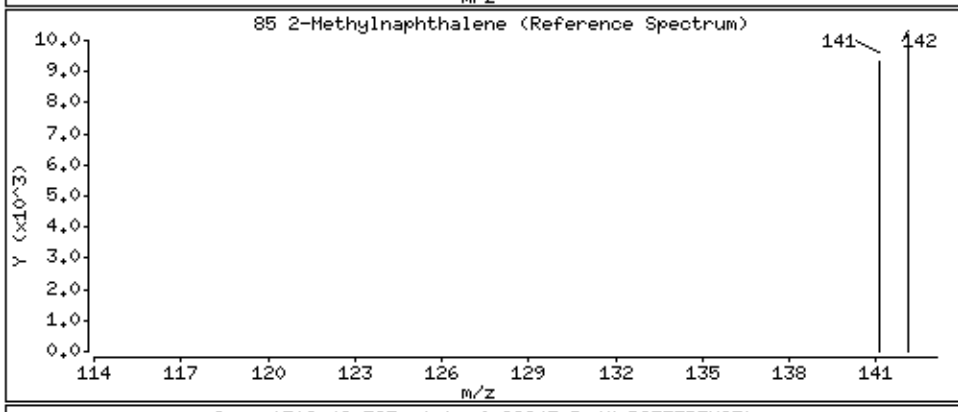
Concentration: 1.5 ug/L

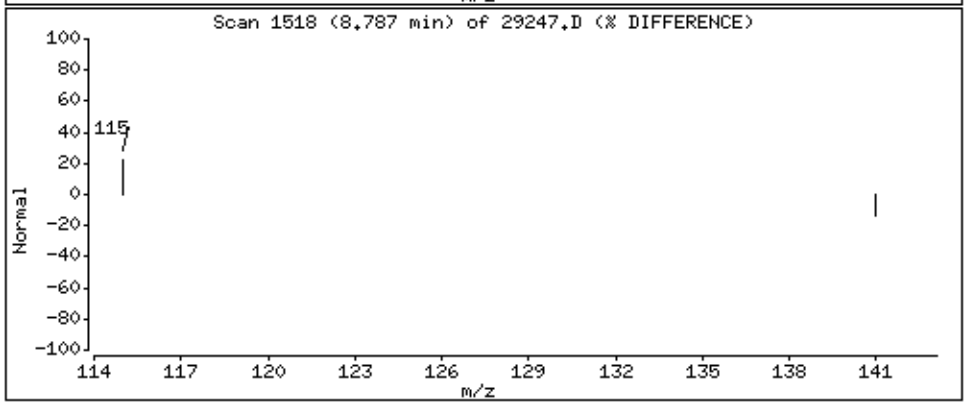












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b/29247.D
Injection Date: 20-OCT-2015 01:35
Instrument: 10msv1.i
Lab Sample ID: 10326303003
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29248.D

Page 3

Date : 20-OCT-2015 01:51

Client ID: MW-12-101315

Instrument: 10msv1.i

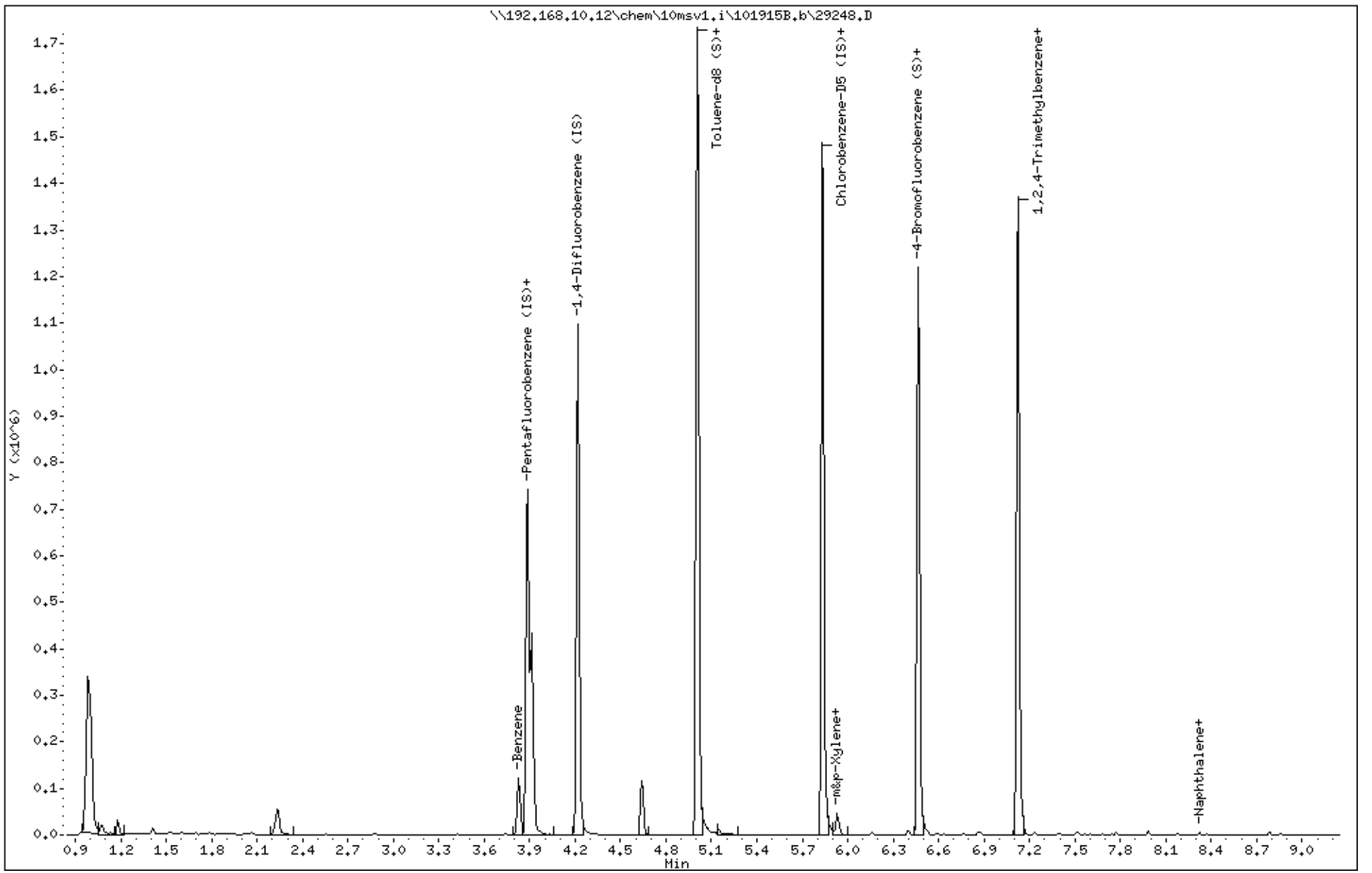
Sample Info: 10326303004

Purge Volume: 5.0

Operator: AH2

Column phase: Rtx-VMS

Column diameter: 0.18



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Date : 20-OCT-2015 01:51

Client ID: MW-12-101315

Instrument: 10msv1.i

Sample Info: 10326303004

Purge Volume: 5.0

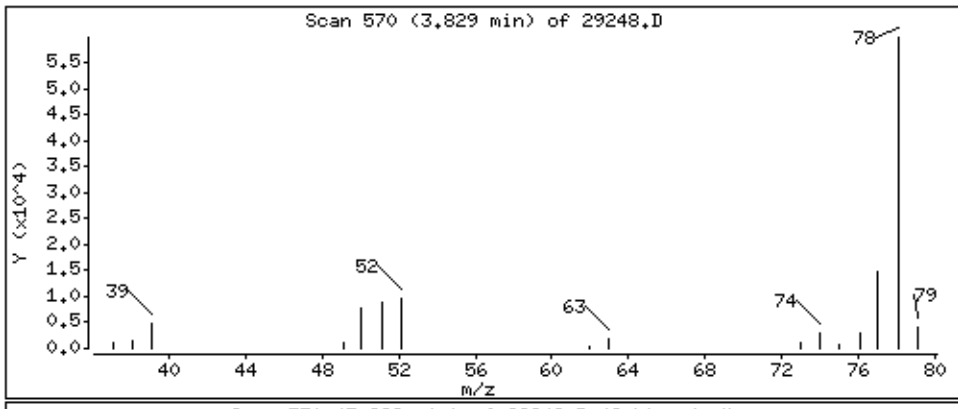
Operator: AH2

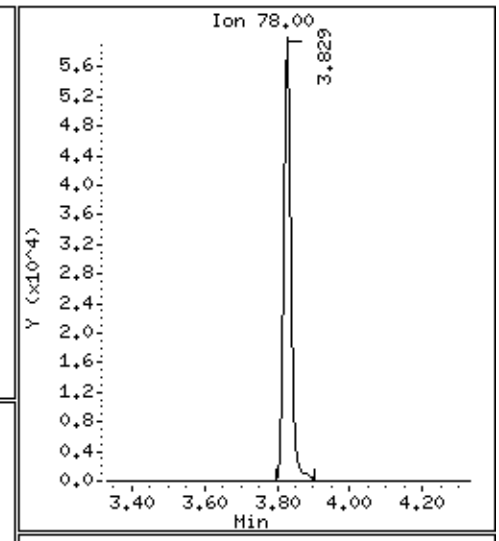
Column phase: Rtx-VMS

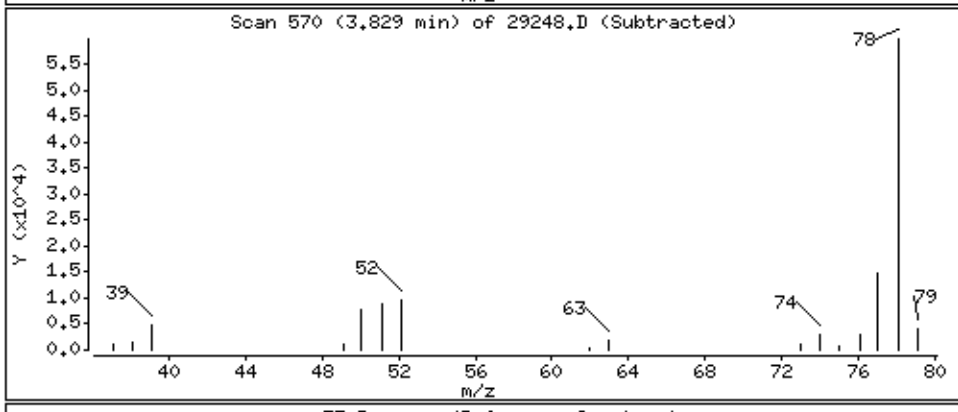
Column diameter: 0.18

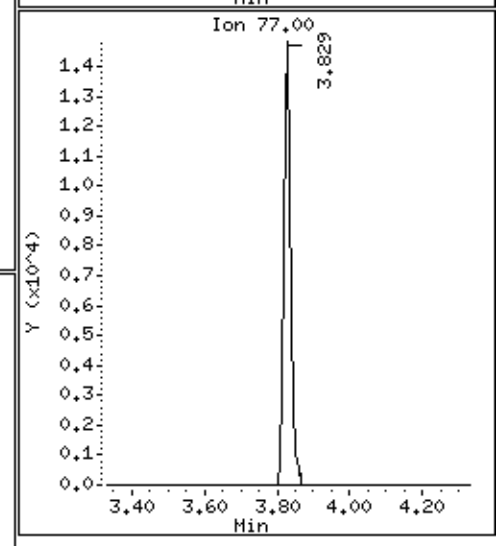
33 Benzene

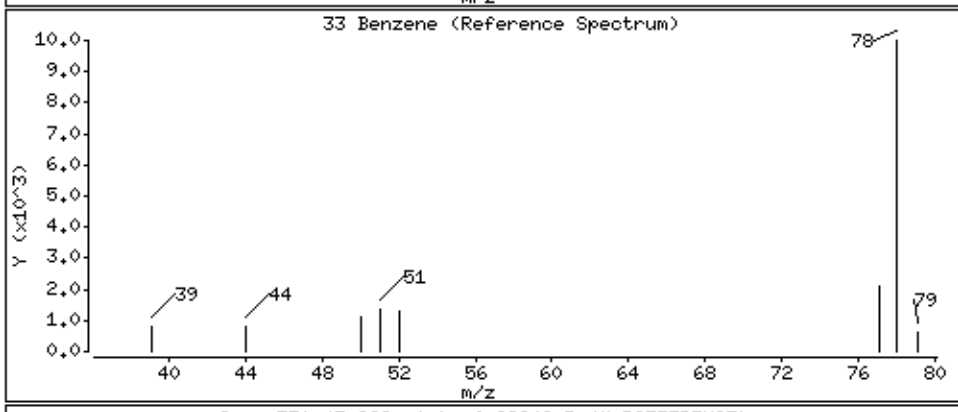
Concentration: 5.0 ug/L

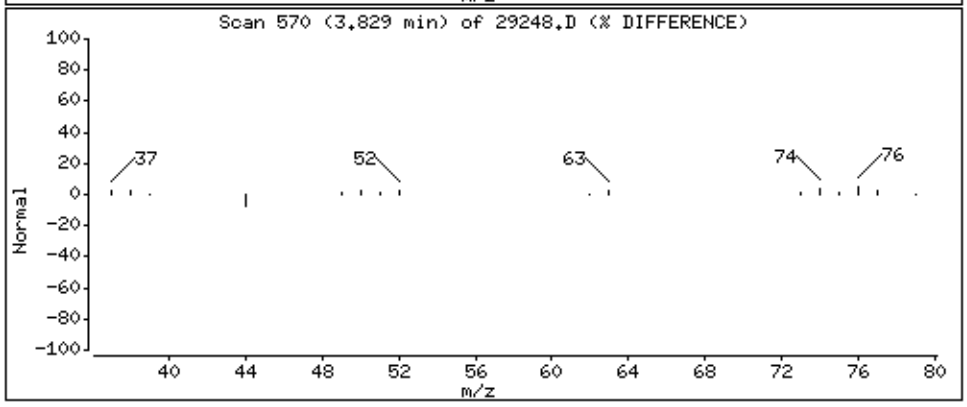












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29248.D

Date : 20-OCT-2015 01:51

Client ID: MW-12-101315

Instrument: 10msv1.i

Sample Info: 10326303004

Purge Volume: 5.0

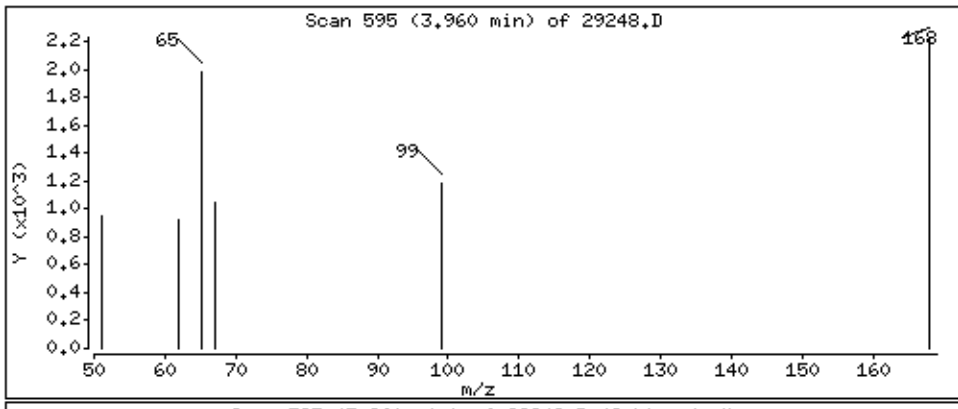
Operator: AH2

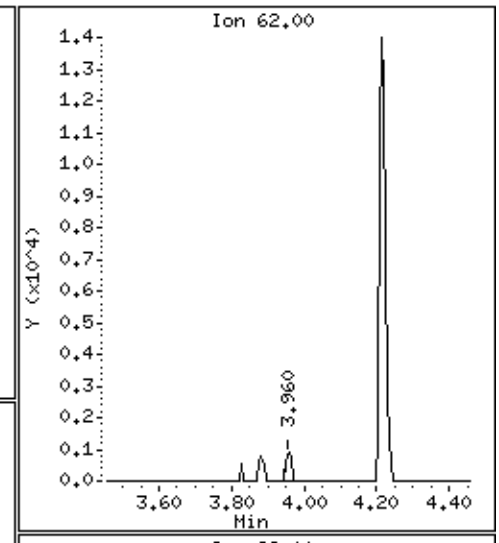
Column phase: Rtx-VMS

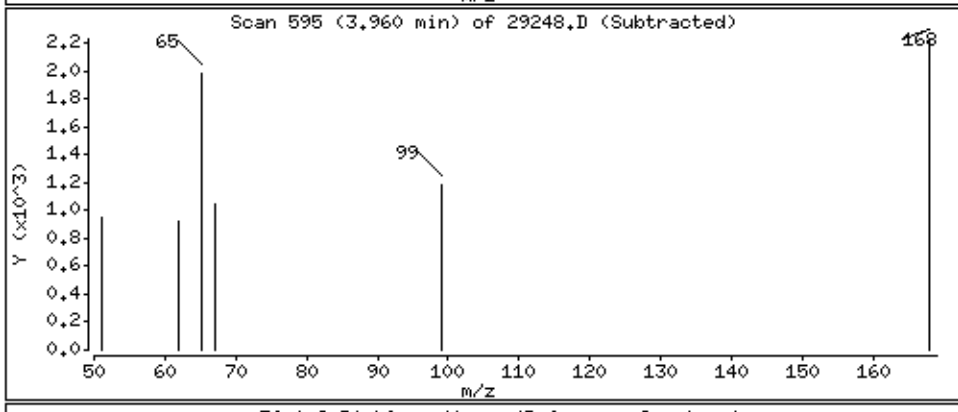
Column diameter: 0.18

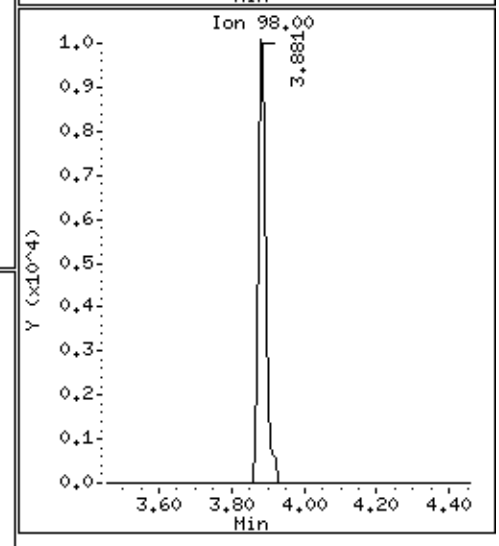
36 1,2-Dichloroethane

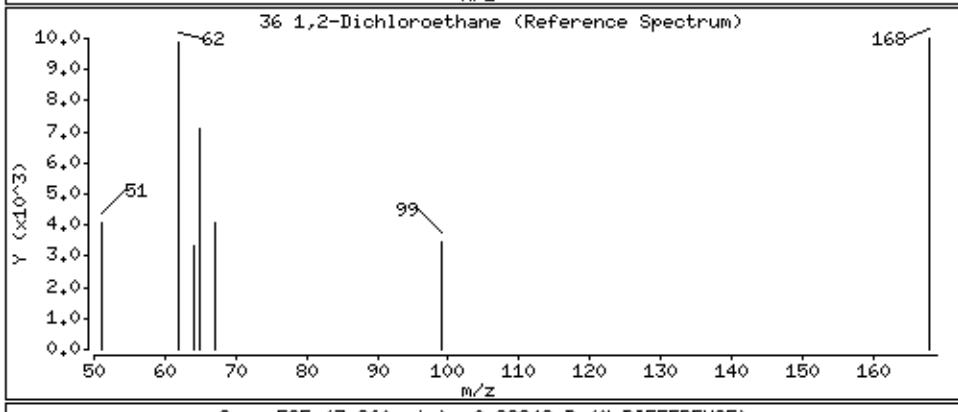
Concentration: 0.27 ug/L

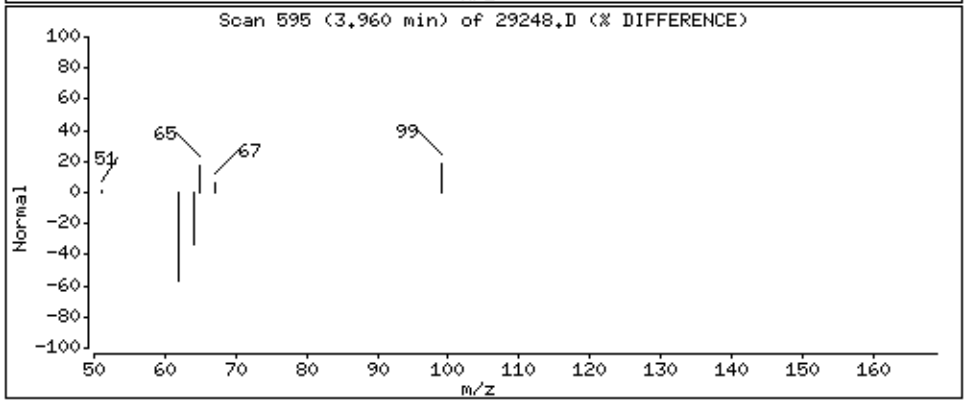












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29248.D

Date : 20-OCT-2015 01:51

Client ID: MW-12-101315

Instrument: 10msv1.i

Sample Info: 10326303004

Purge Volume: 5.0

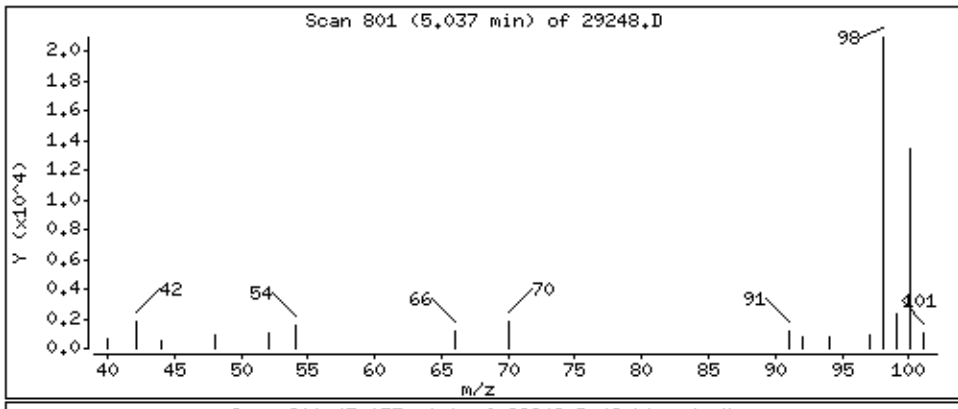
Operator: AH2

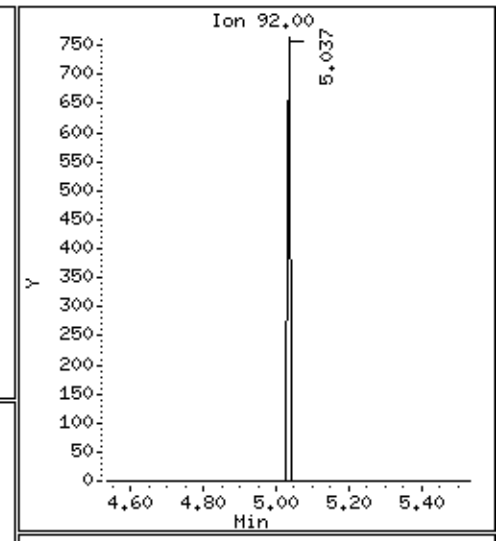
Column phase: Rtx-VMS

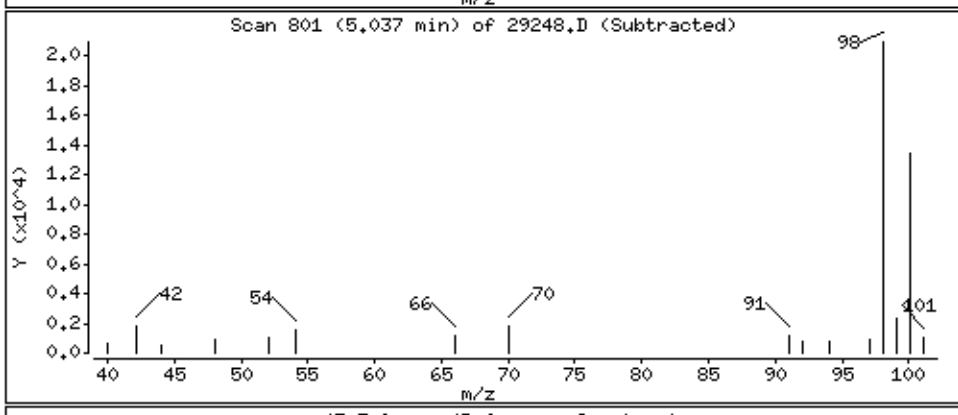
Column diameter: 0.18

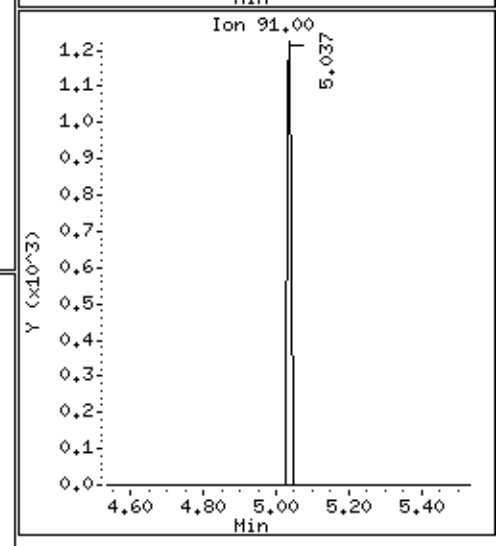
45 Toluene

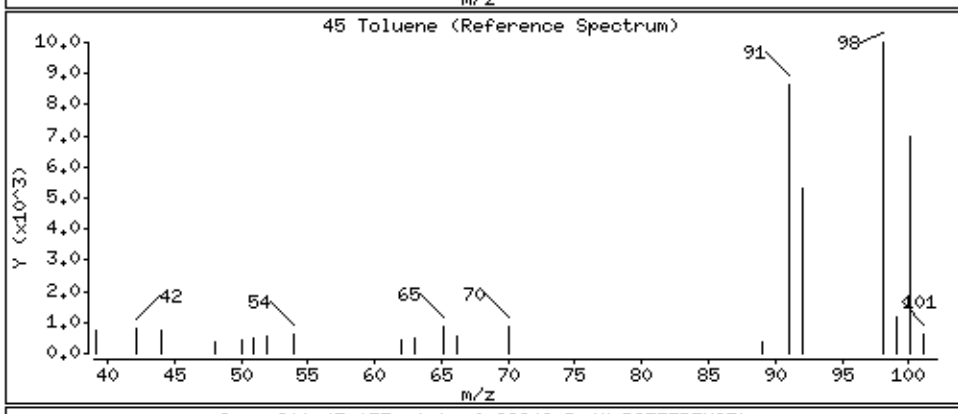
Concentration: 0.043 ug/L

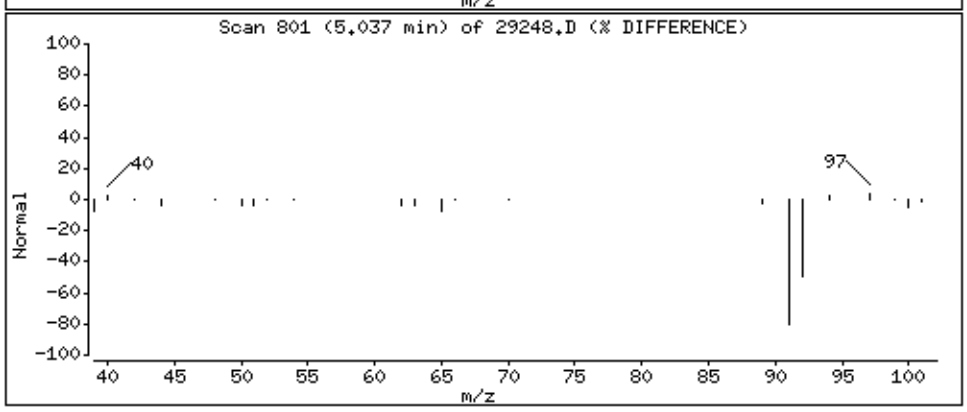












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29248.D

Date : 20-OCT-2015 01:51

Client ID: MW-12-101315

Instrument: 10msv1.i

Sample Info: 10326303004

Purge Volume: 5.0

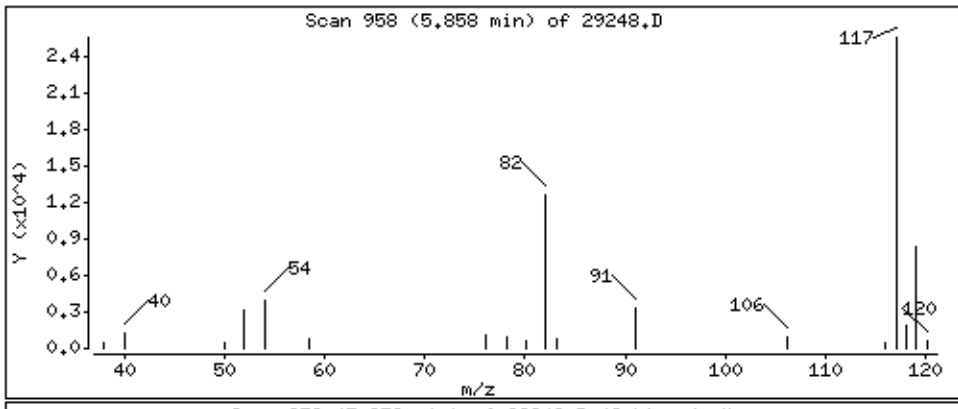
Operator: AH2

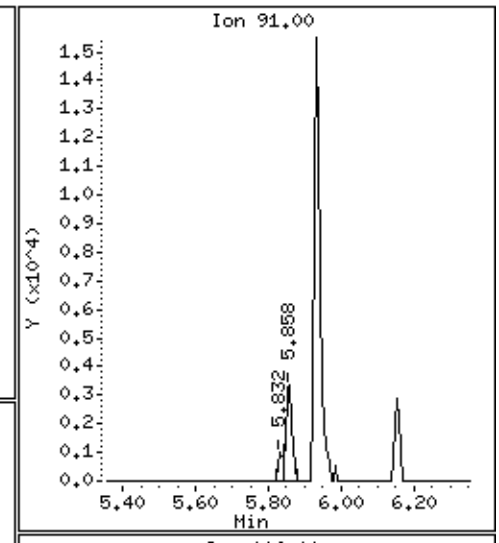
Column phase: Rtx-VMS

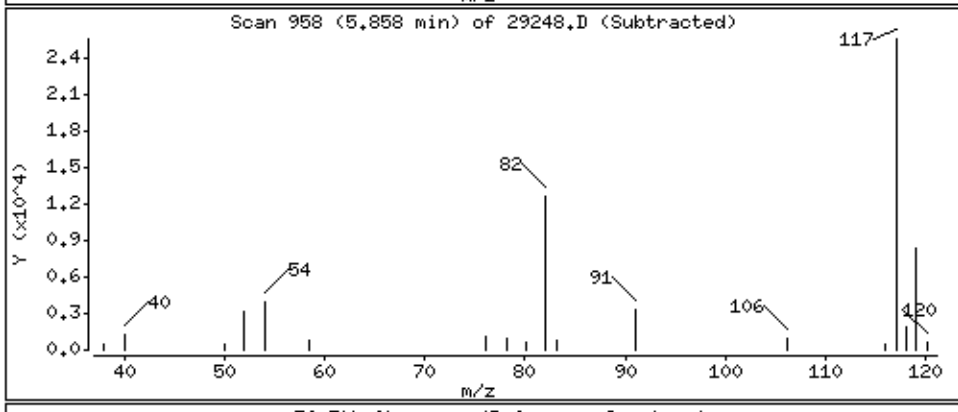
Column diameter: 0.18

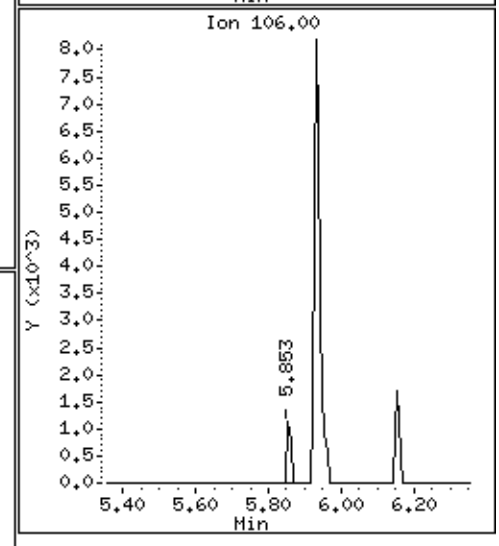
56 Ethylbenzene

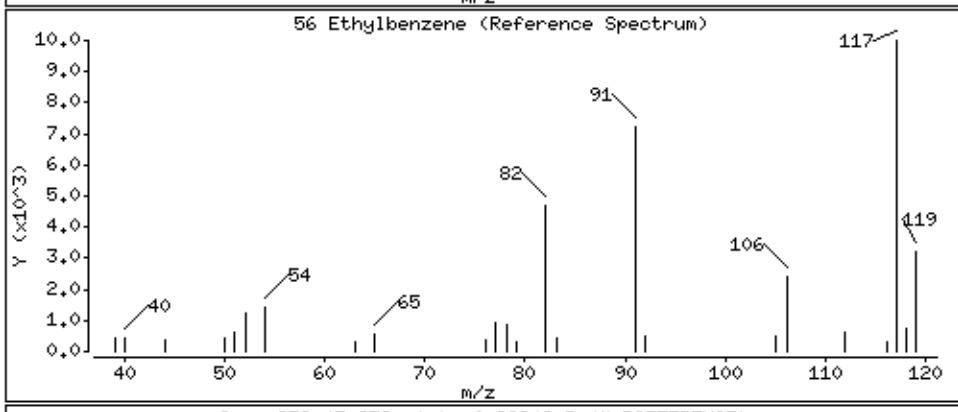
Concentration: 0.23 ug/L

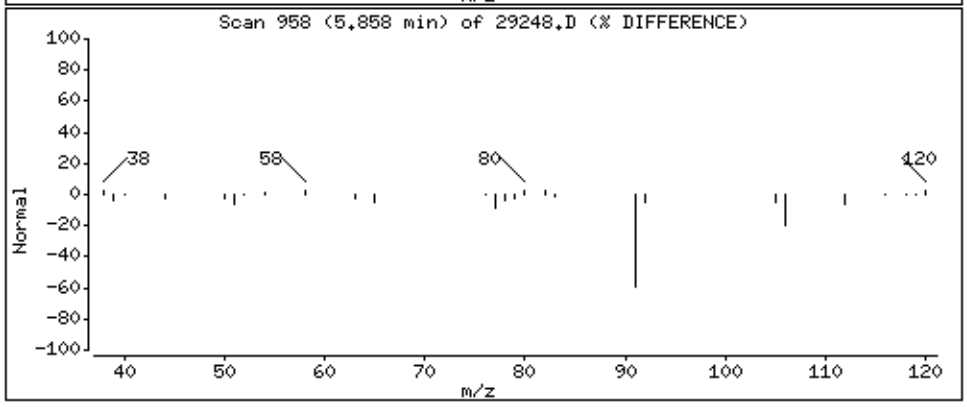












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29248.D

Date : 20-OCT-2015 01:51

Client ID: MW-12-101315

Instrument: 10msv1.i

Sample Info: 10326303004

Purge Volume: 5.0

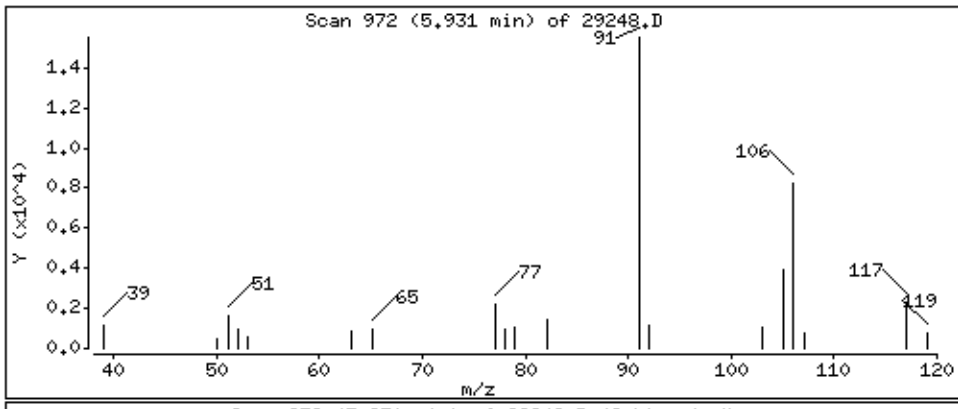
Operator: AH2

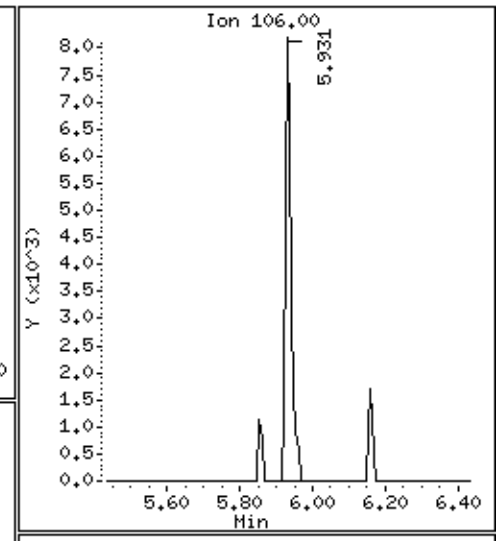
Column phase: Rtx-VMS

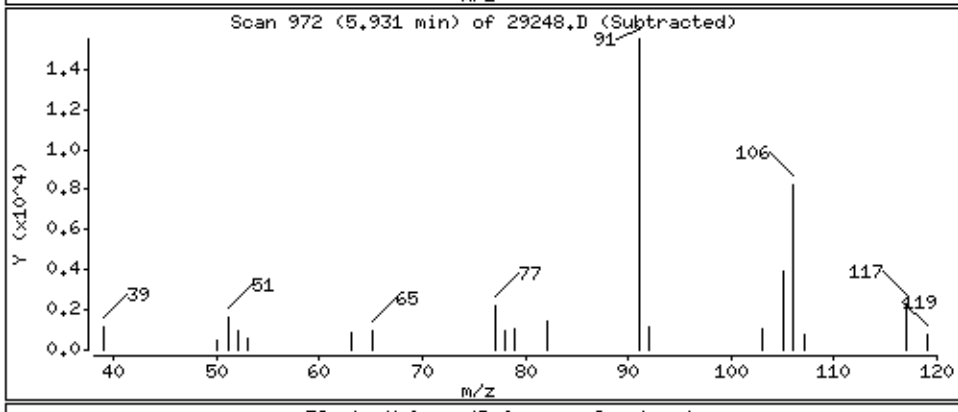
Column diameter: 0.18

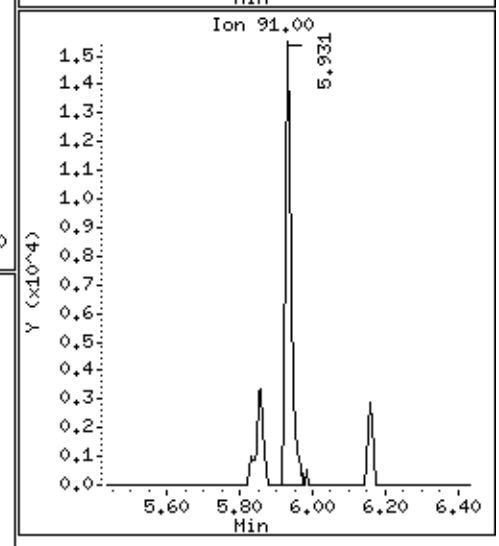
58 m&p-Xylene

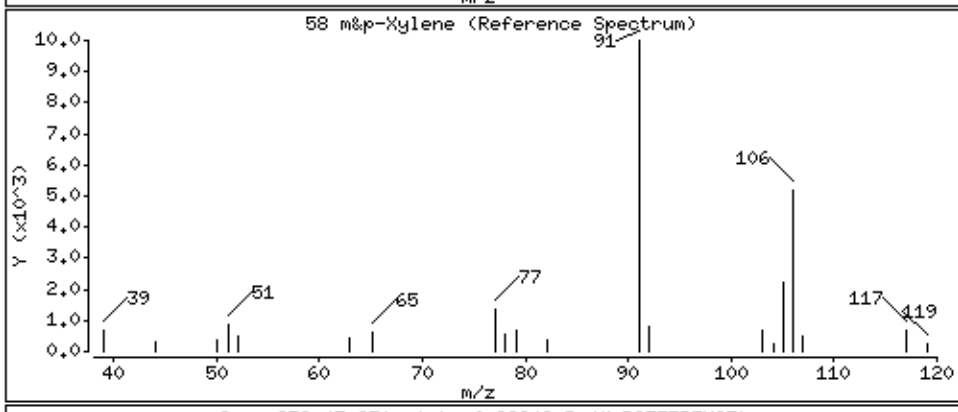
Concentration: 1.3 ug/L

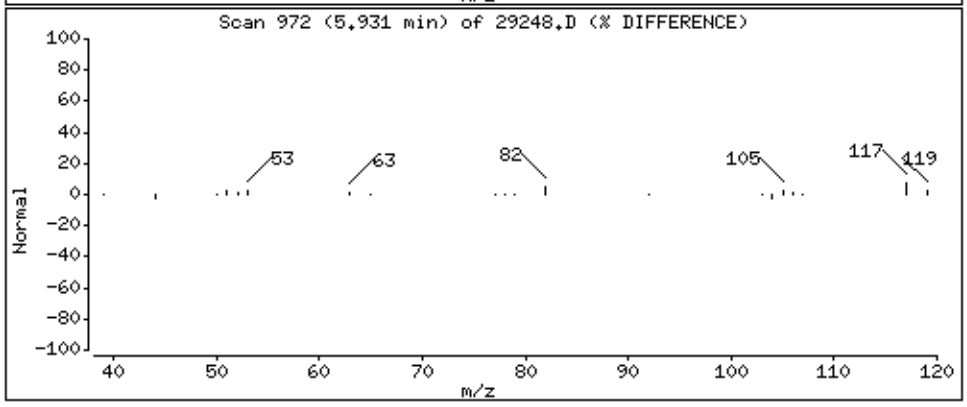












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29248.D

Date : 20-OCT-2015 01:51

Client ID: MW-12-101315

Instrument: 10msv1.i

Sample Info: 10326303004

Purge Volume: 5.0

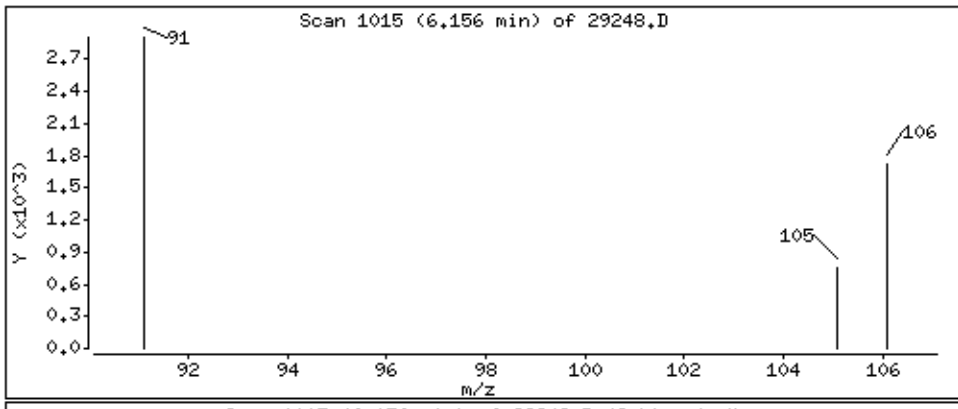
Operator: AH2

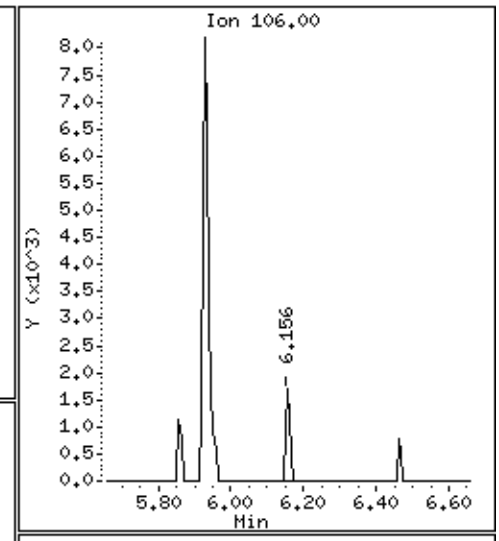
Column phase: Rtx-VMS

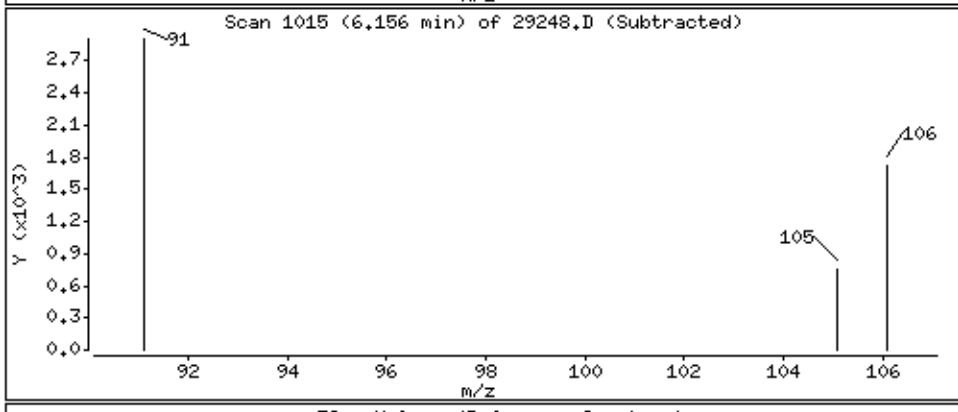
Column diameter: 0.18

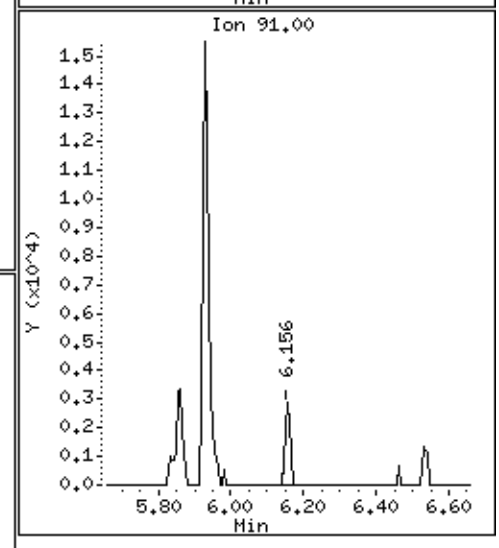
59 o-Xylene

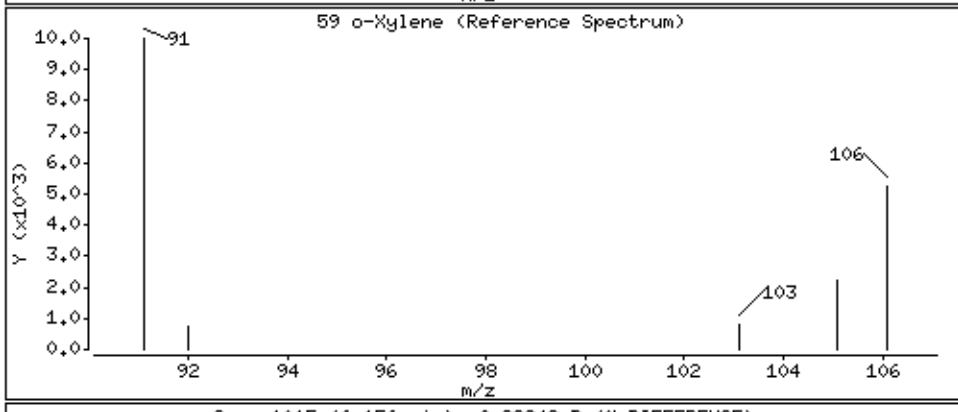
Concentration: 0.22 ug/L

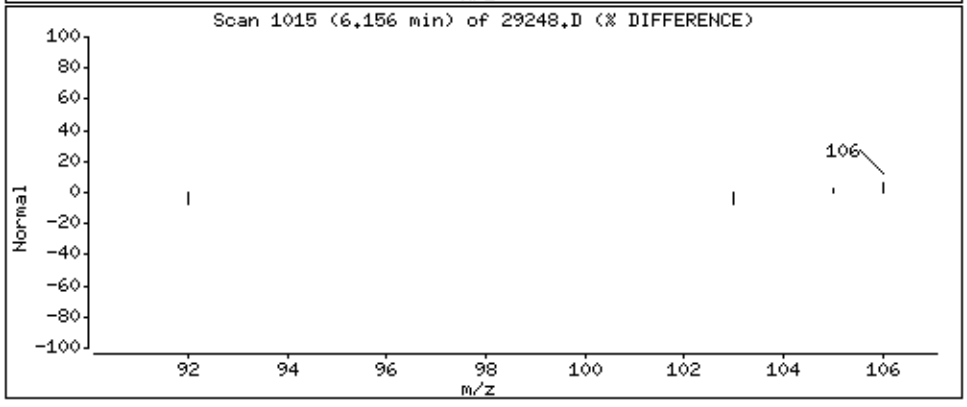












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29248.D

Date : 20-OCT-2015 01:51

Client ID: MW-12-101315

Instrument: 10msv1.i

Sample Info: 10326303004

Purge Volume: 5.0

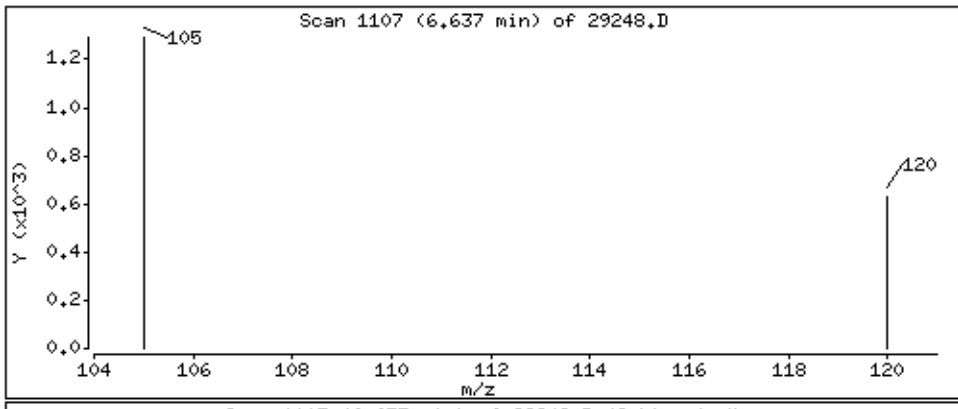
Operator: AH2

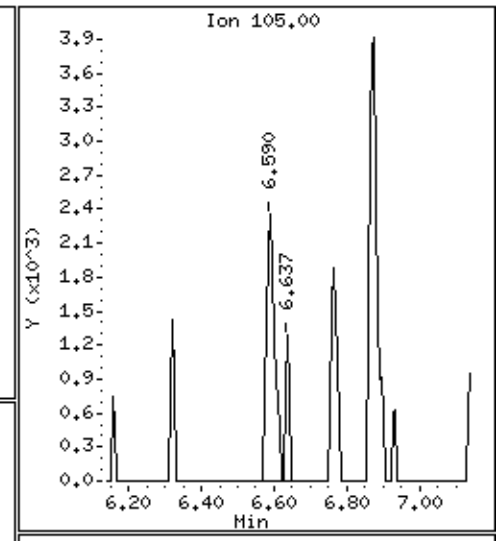
Column phase: Rtx-VMS

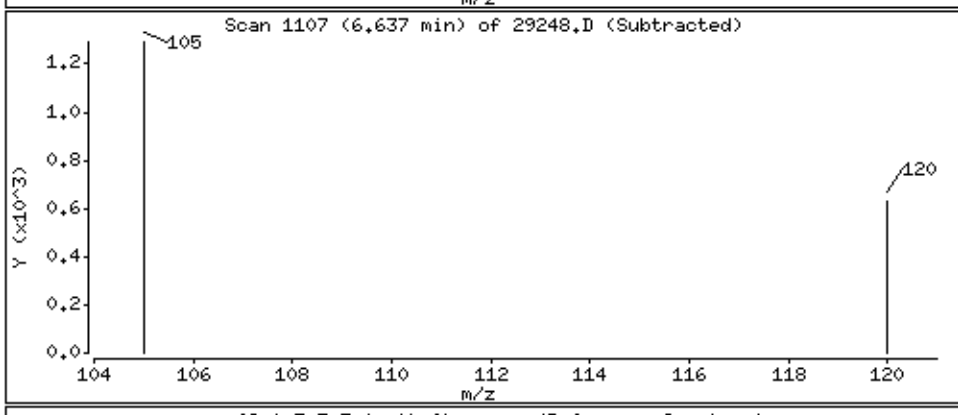
Column diameter: 0.18

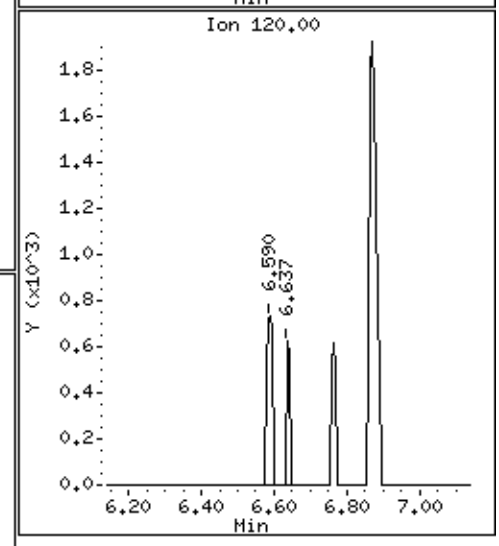
68 1,3,5-Trimethylbenzene

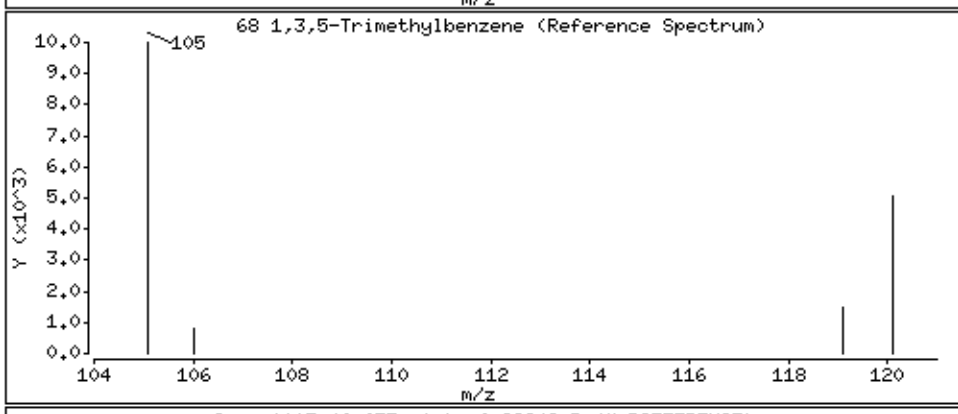
Concentration: 0.082 ug/L

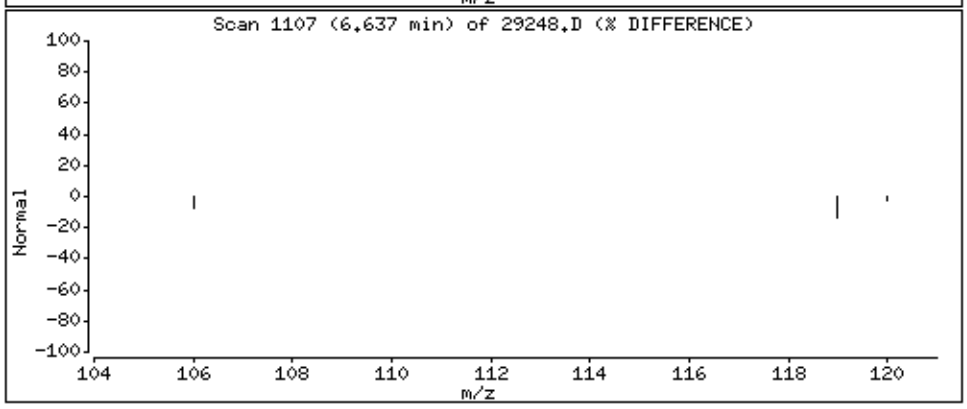












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29248.D

Date : 20-OCT-2015 01:51

Client ID: MW-12-101315

Instrument: 10msv1.i

Sample Info: 10326303004

Purge Volume: 5.0

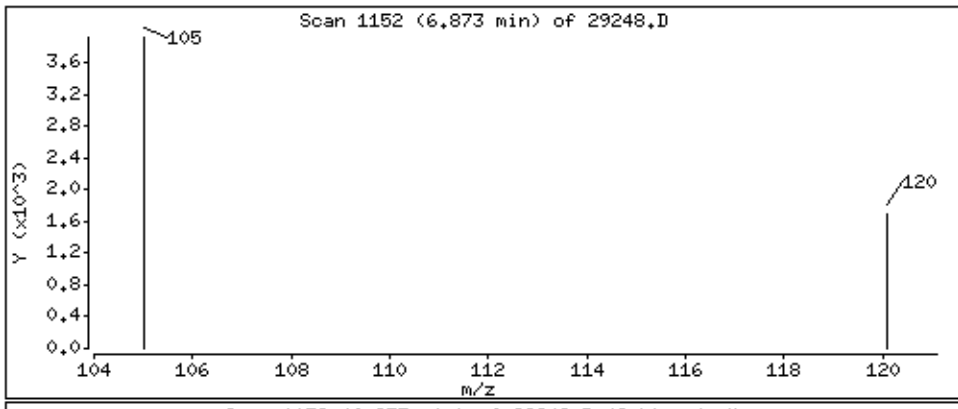
Operator: AH2

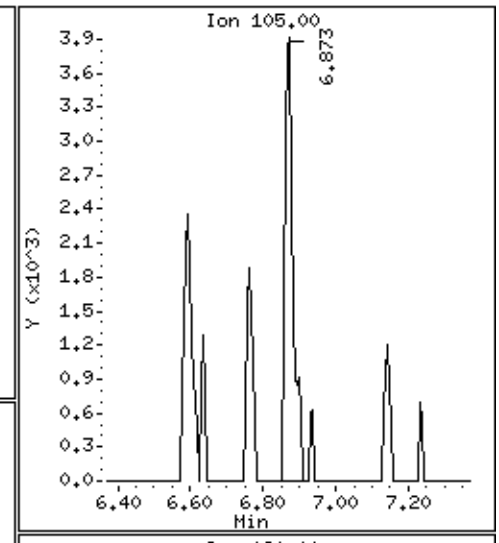
Column phase: Rtx-VMS

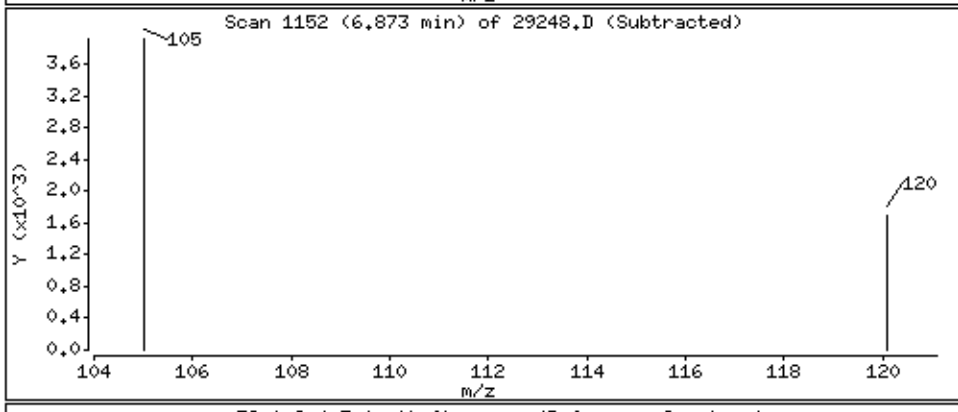
Column diameter: 0.18

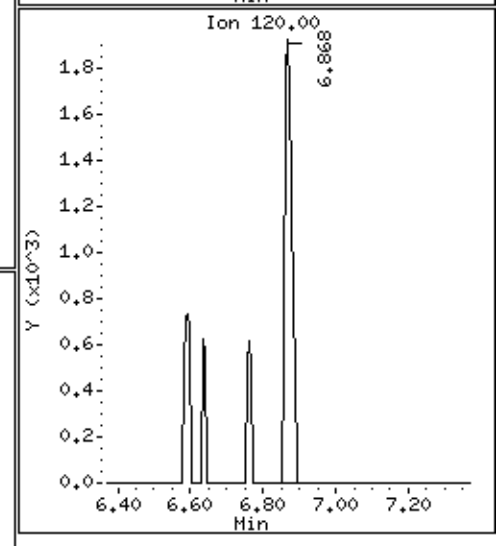
72 1,2,4-Trimethylbenzene

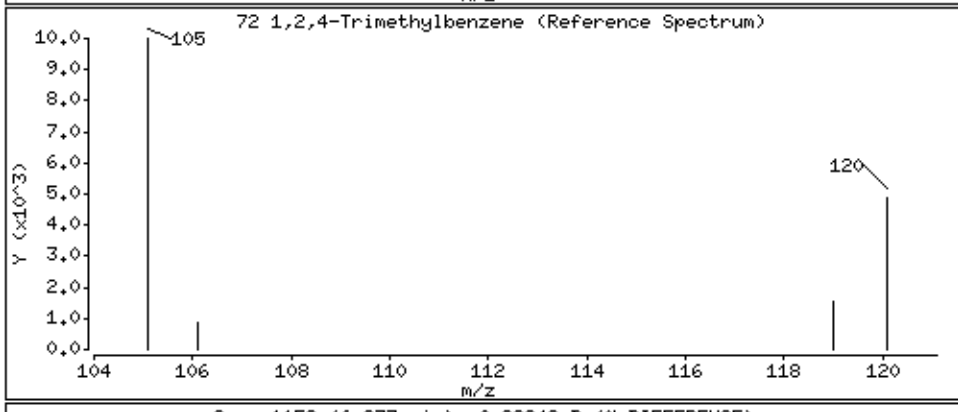
Concentration: 0.53 ug/L

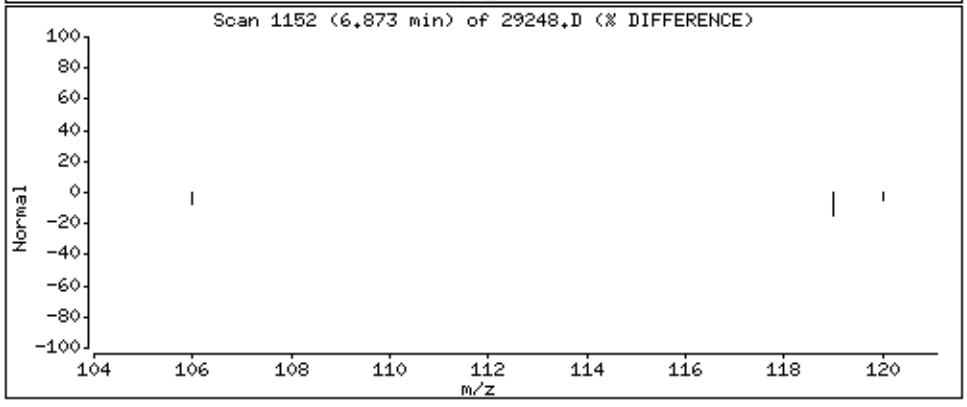












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29248.D

Date : 20-OCT-2015 01:51

Client ID: MW-12-101315

Instrument: 10msv1.i

Sample Info: 10326303004

Purge Volume: 5.0

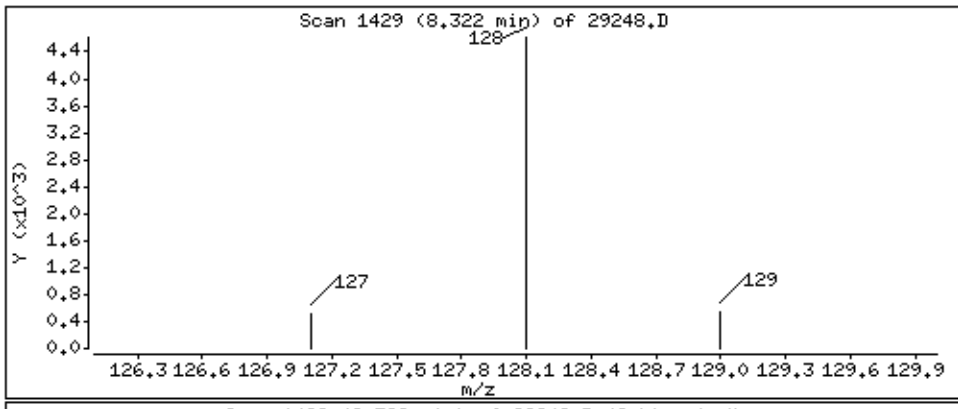
Operator: AH2

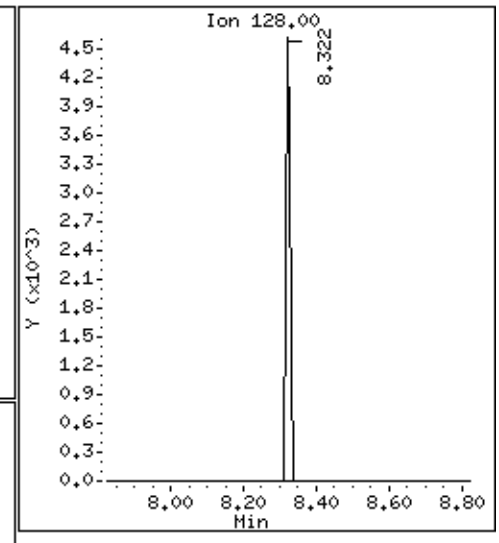
Column phase: Rtx-VMS

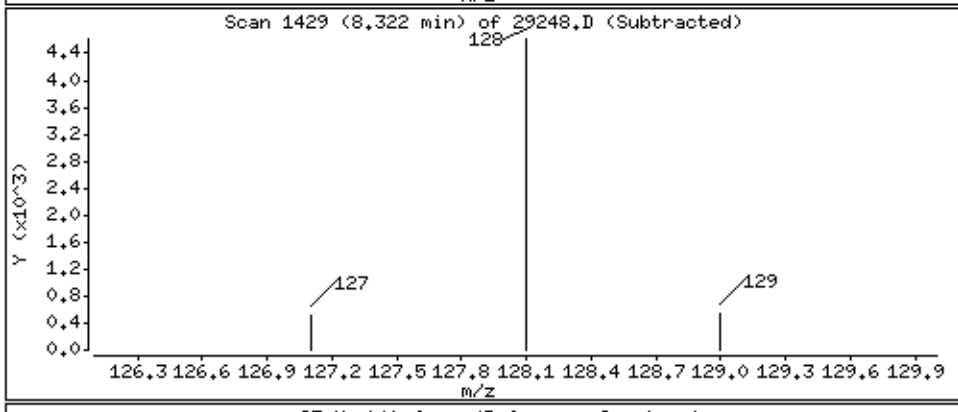
Column diameter: 0.18

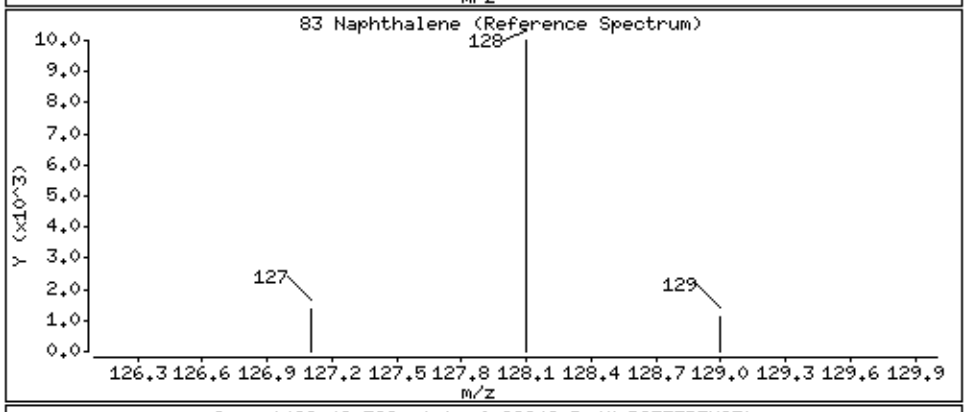
83 Naphthalene

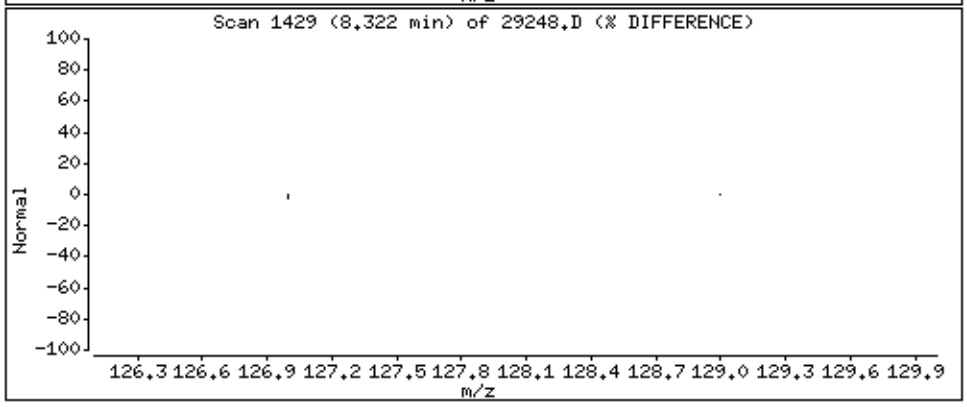
Concentration: 0.52 ug/L











Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29248.D

Date : 20-OCT-2015 01:51

Client ID: MW-12-101315

Instrument: 10msv1.i

Sample Info: 10326303004

Purge Volume: 5.0

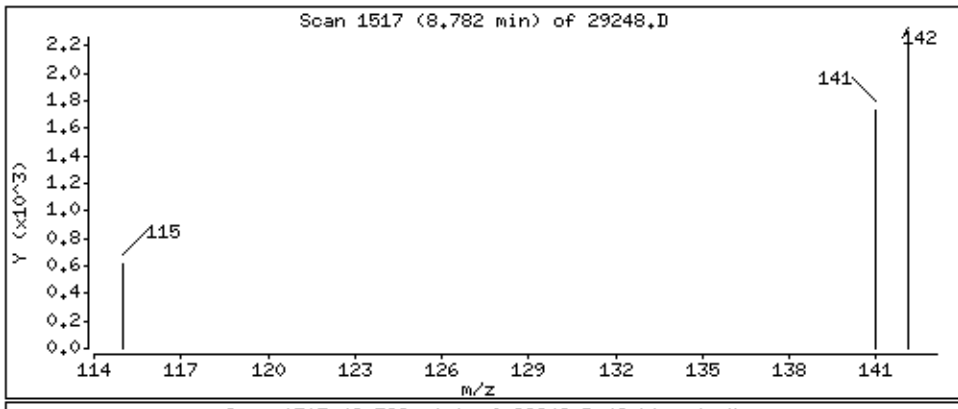
Operator: AH2

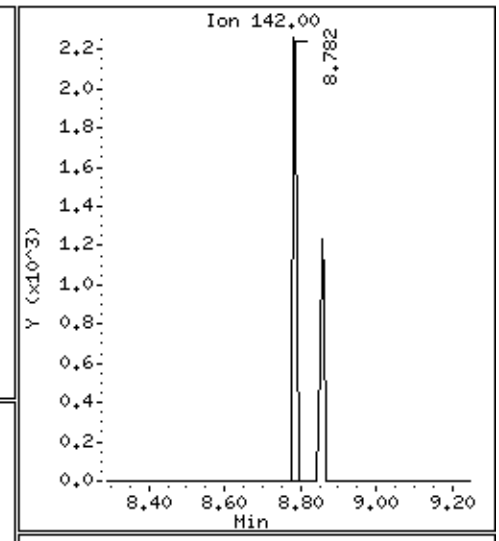
Column phase: Rtx-VMS

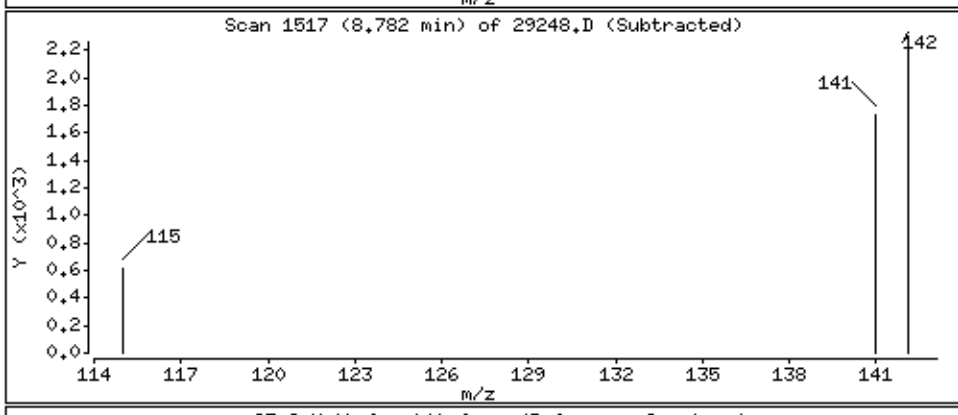
Column diameter: 0.18

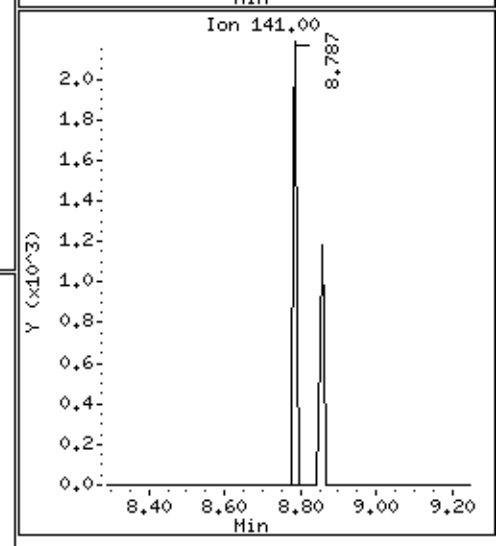
85 2-Methylnaphthalene

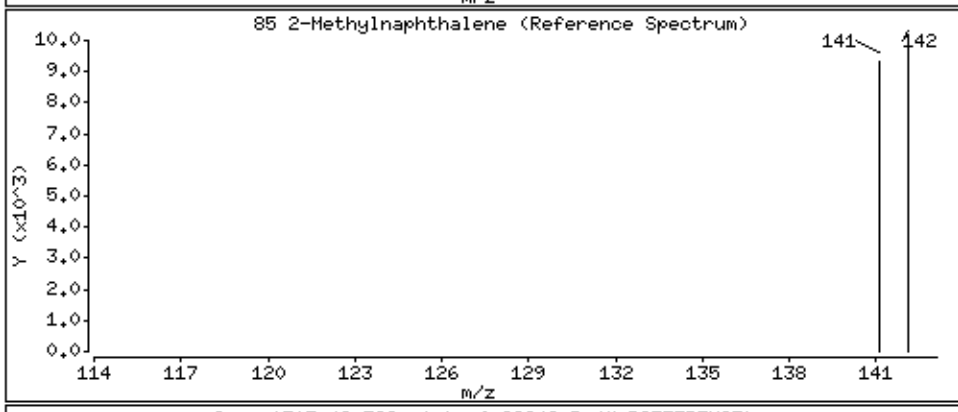
Concentration: 0.72 ug/L

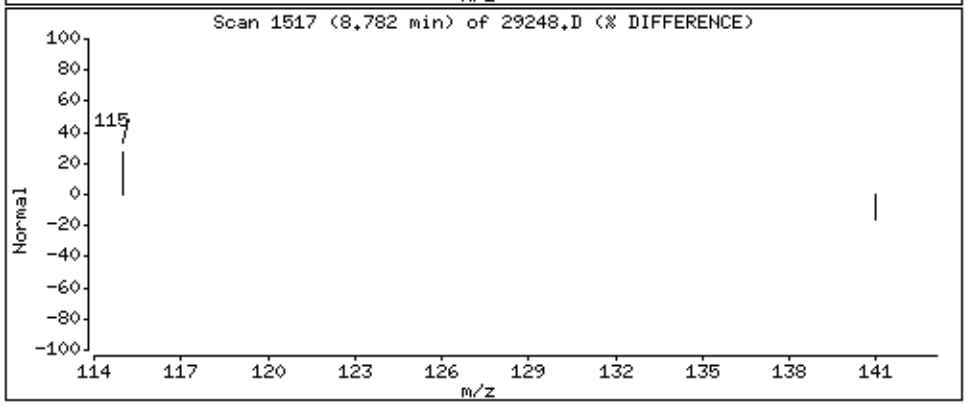












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b/29248.D
Injection Date: 20-OCT-2015 01:51
Instrument: 10msv1.i
Lab Sample ID: 10326303004
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Page 3

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

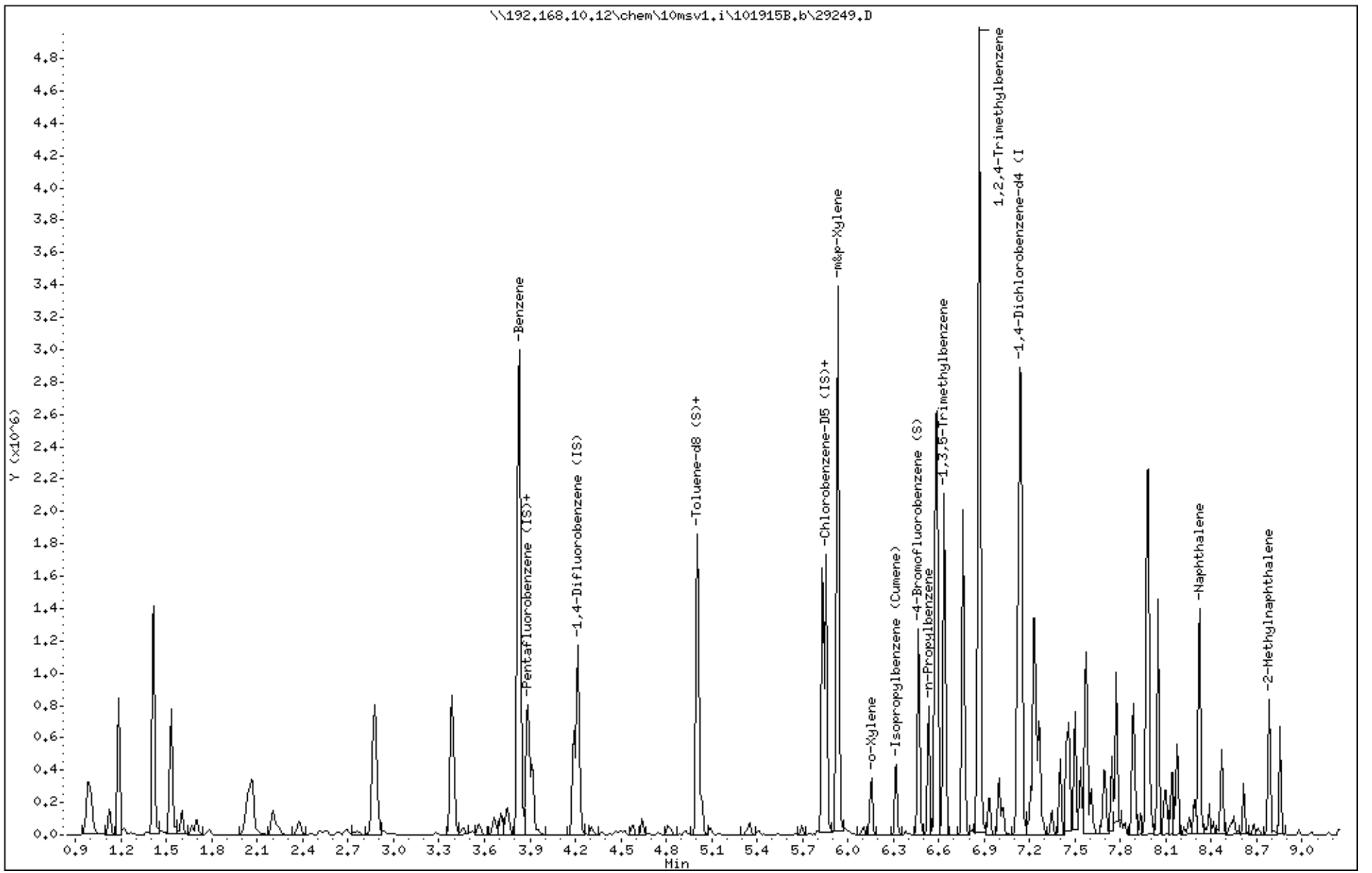
Sample Info: 10326303005

Purge Volume: 5.0

Operator: AH2

Column phase: Rtx-VMS

Column diameter: 0.18



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Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

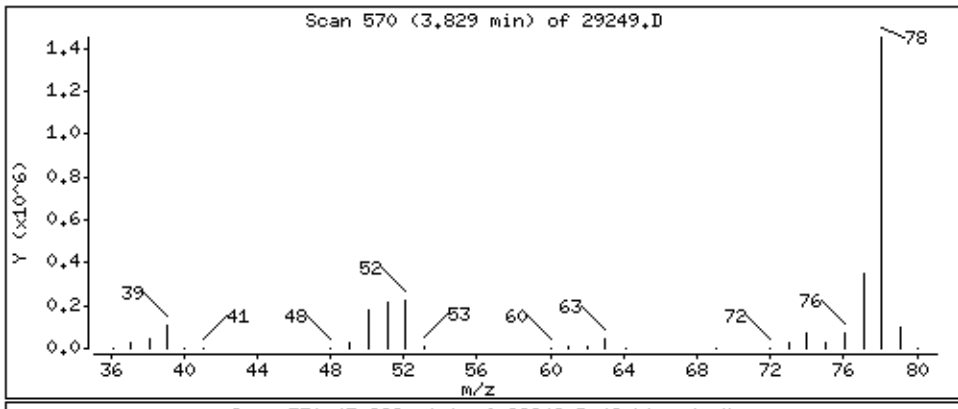
Operator: AH2

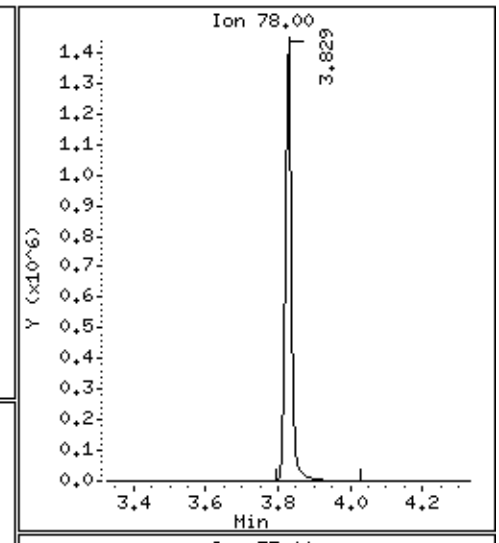
Column phase: Rtx-VMS

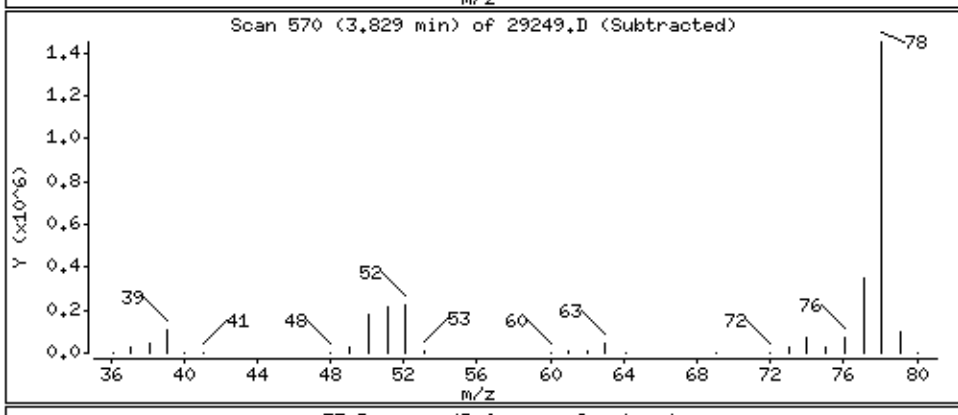
Column diameter: 0.18

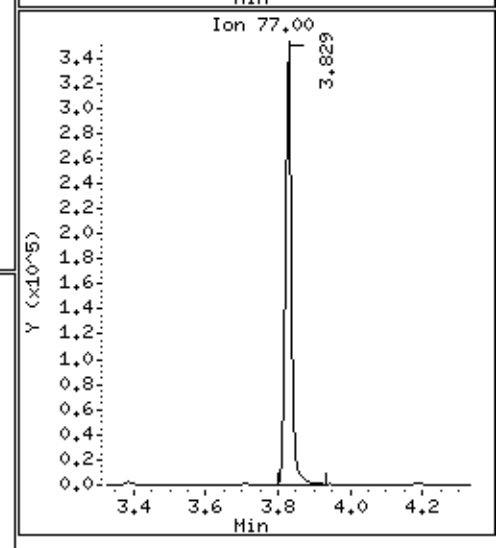
33 Benzene

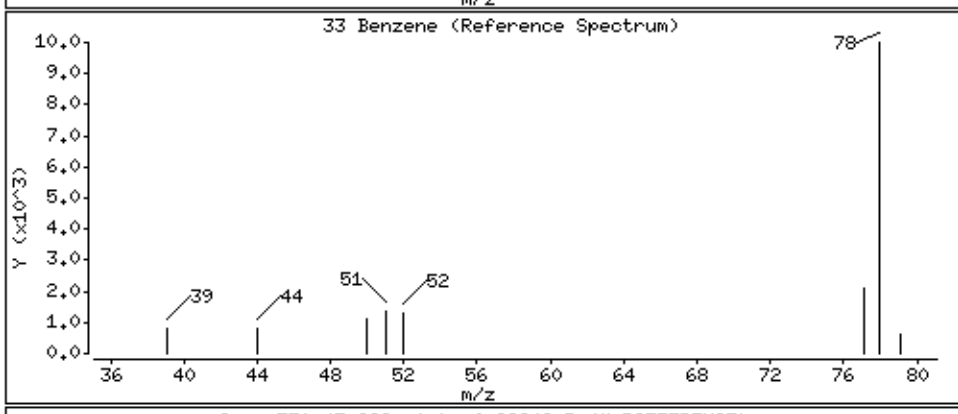
Concentration: 122 ug/L

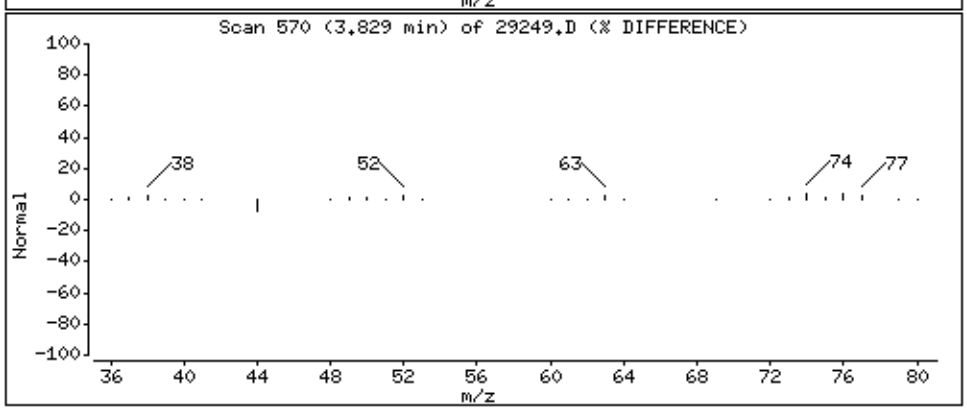












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

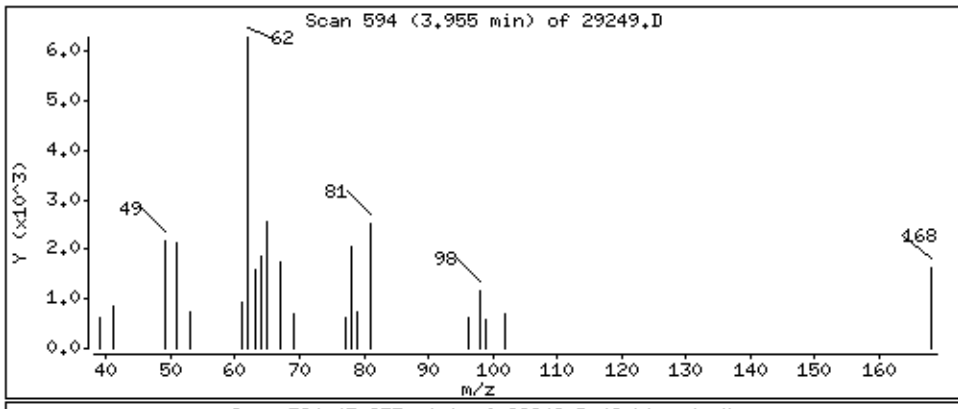
Operator: AH2

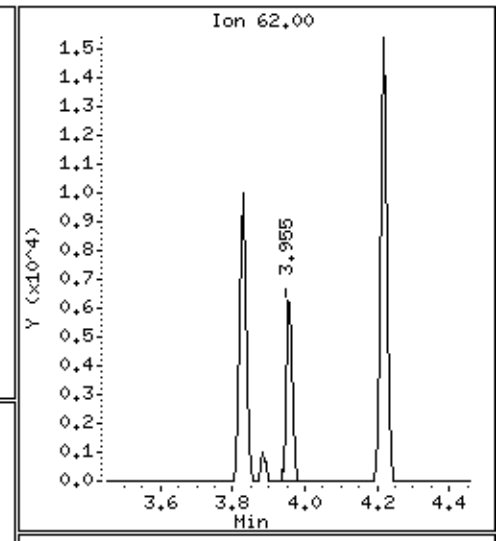
Column phase: Rtx-VMS

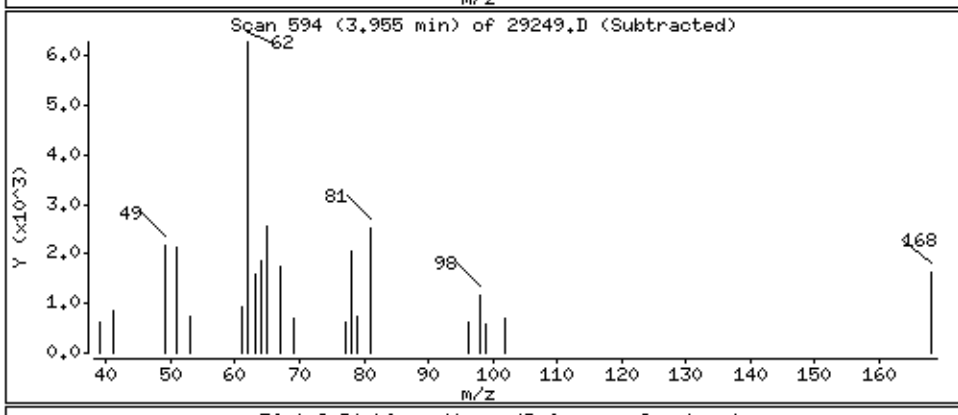
Column diameter: 0.18

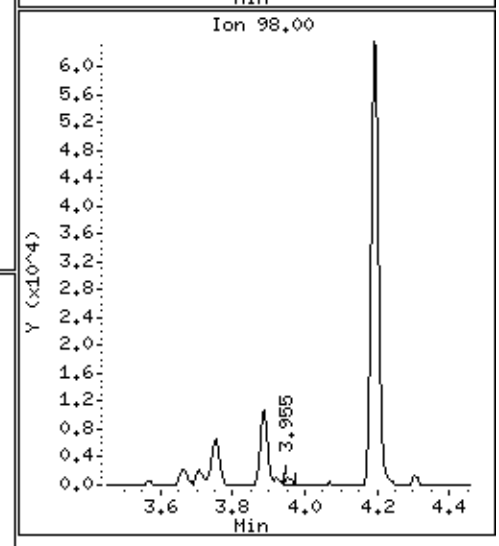
36 1,2-Dichloroethane

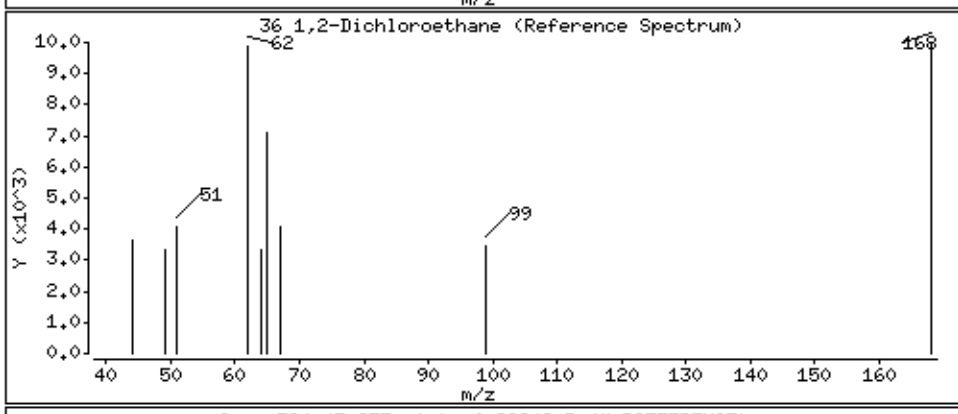
Concentration: 2.3 ug/L

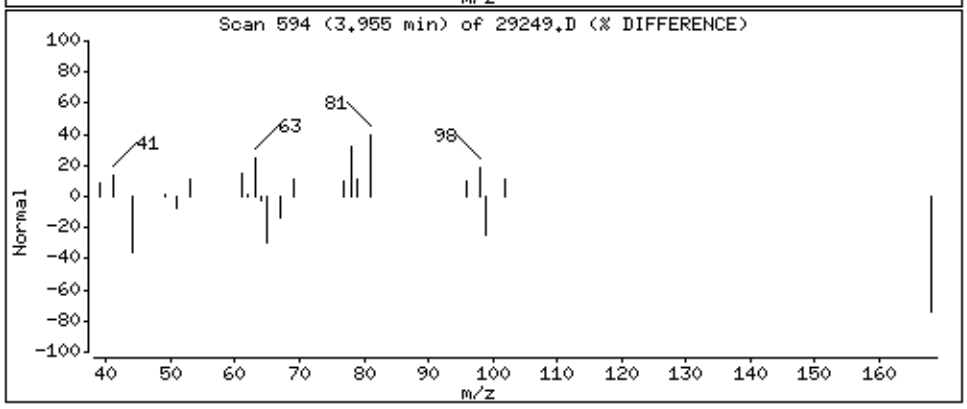












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

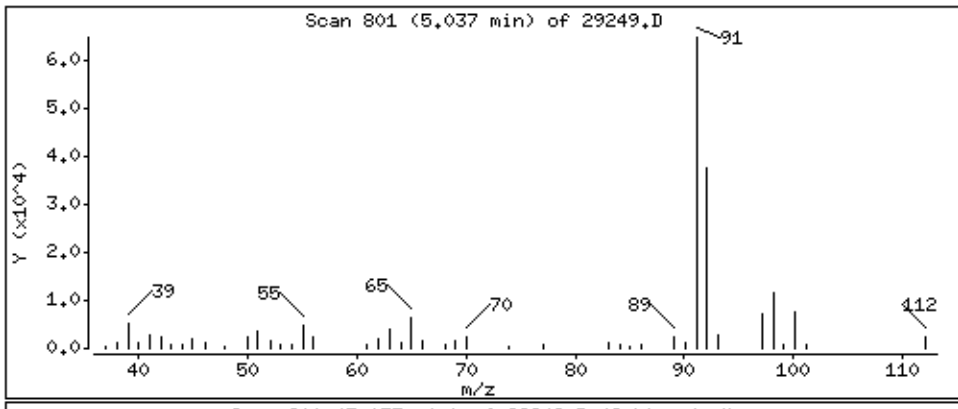
Operator: AH2

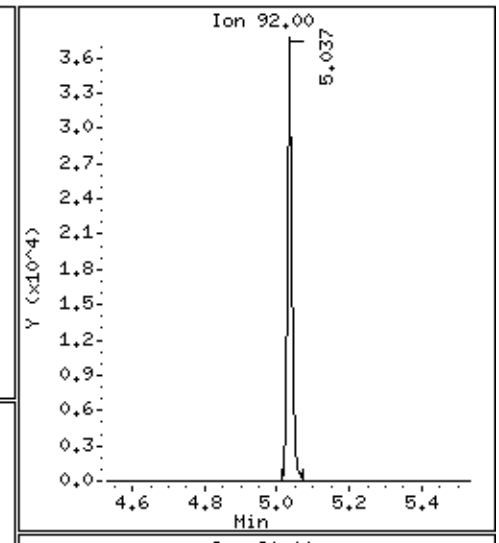
Column phase: Rtx-VMS

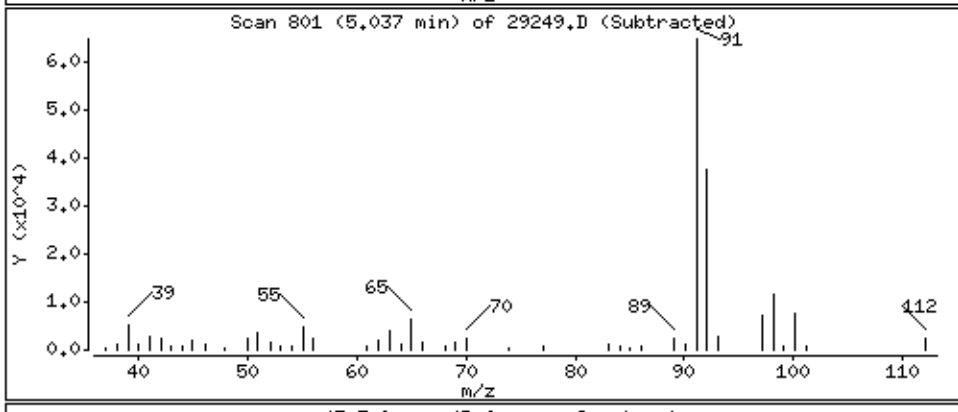
Column diameter: 0.18

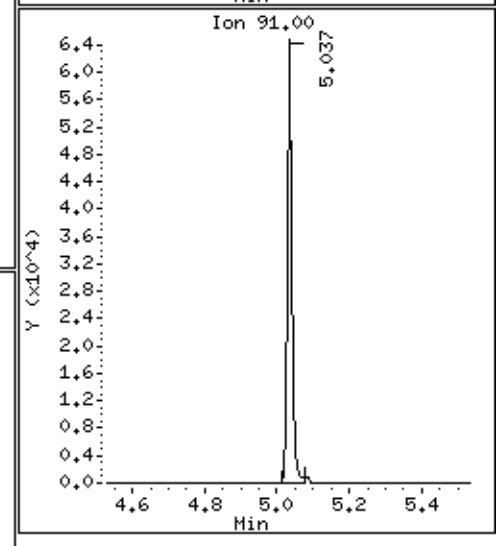
45 Toluene

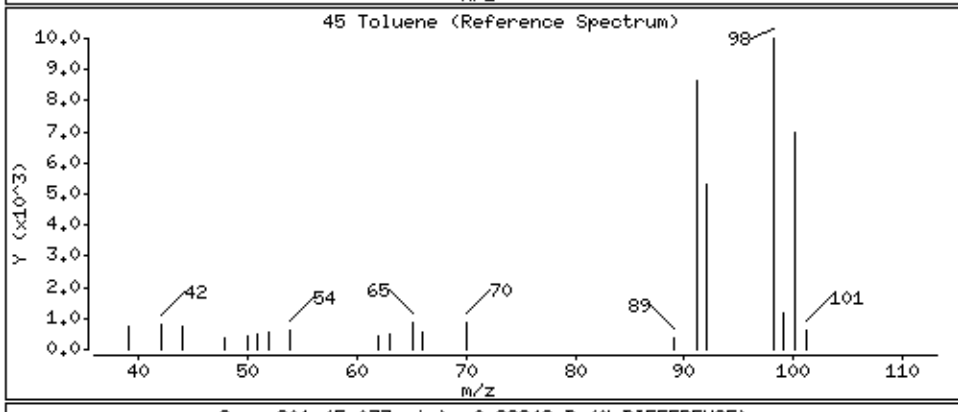
Concentration: 4.4 ug/L

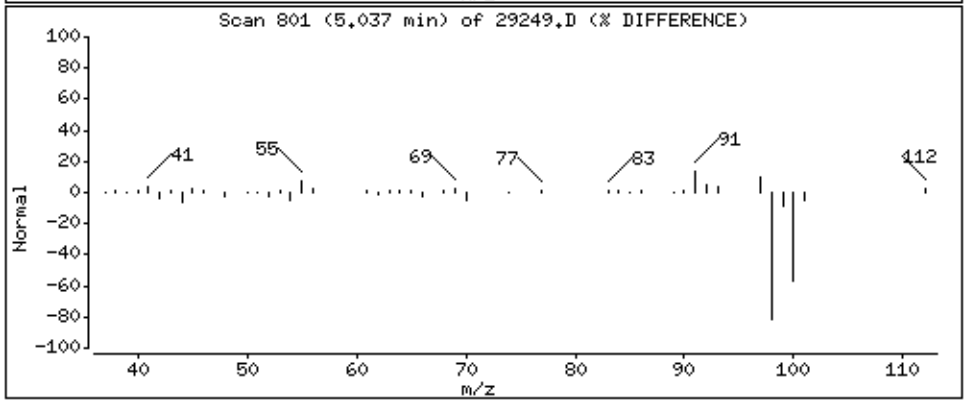












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

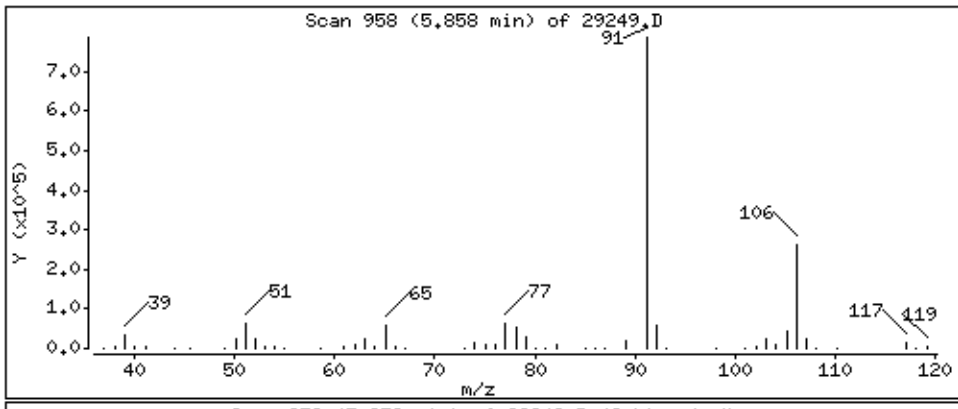
Operator: AH2

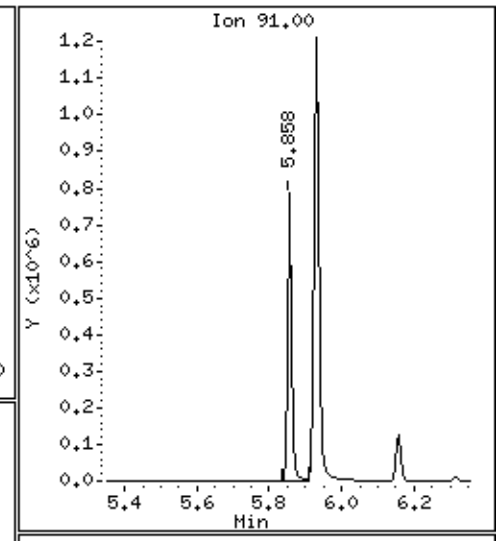
Column phase: Rtx-VMS

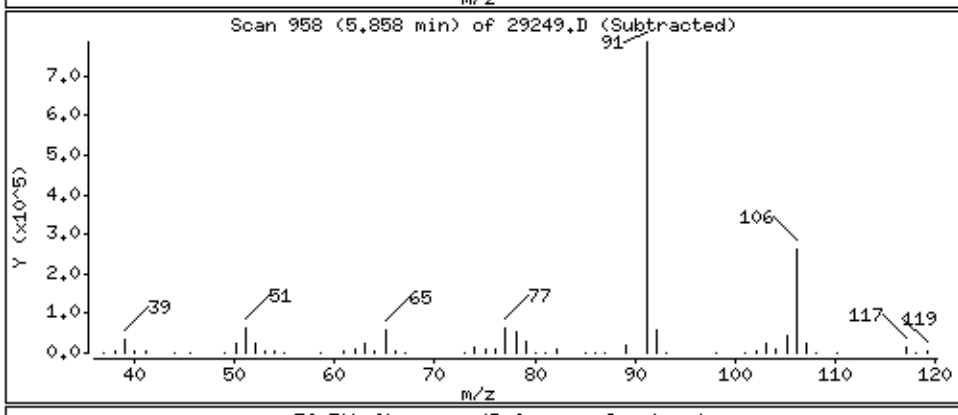
Column diameter: 0.18

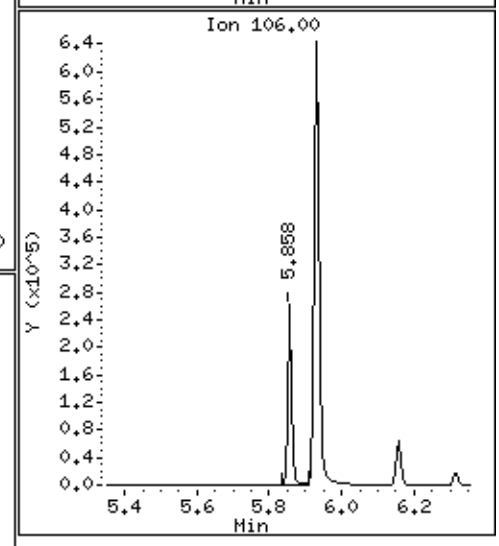
56 Ethylbenzene

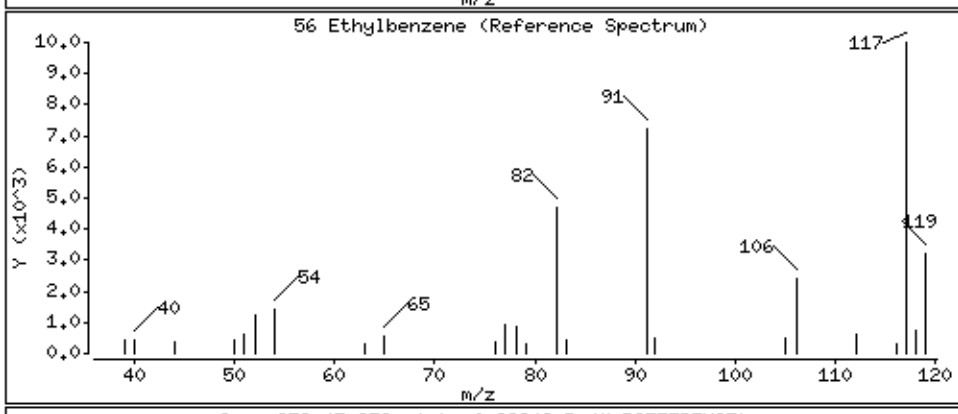
Concentration: 46.3 ug/L

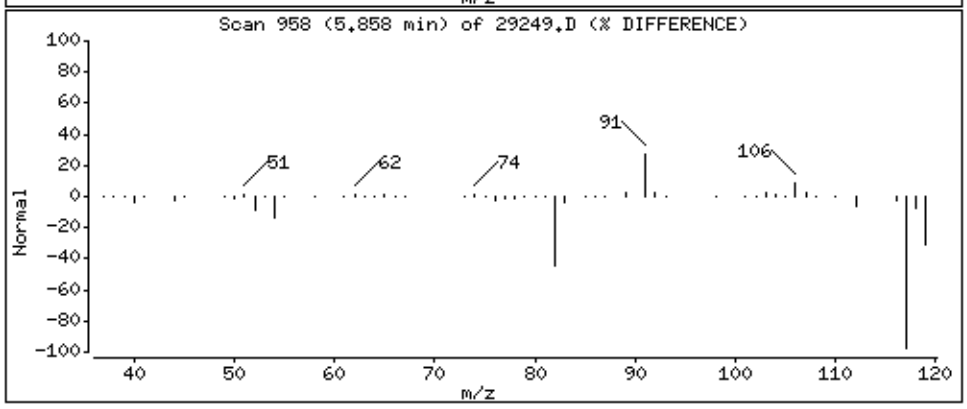












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

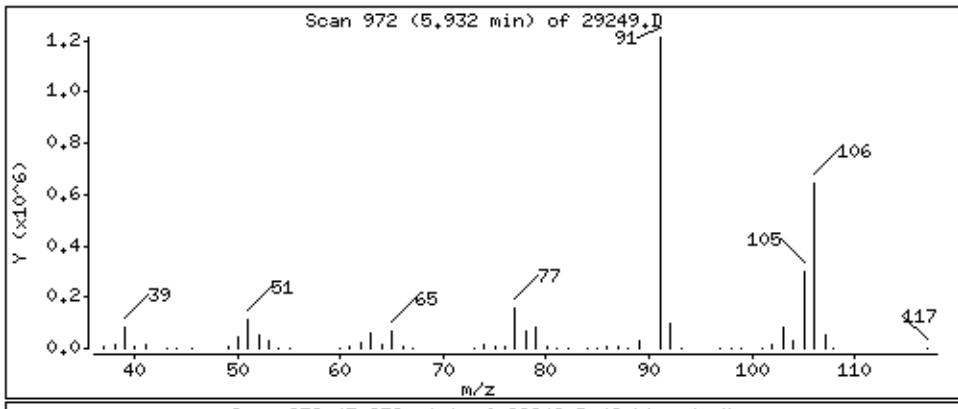
Operator: AH2

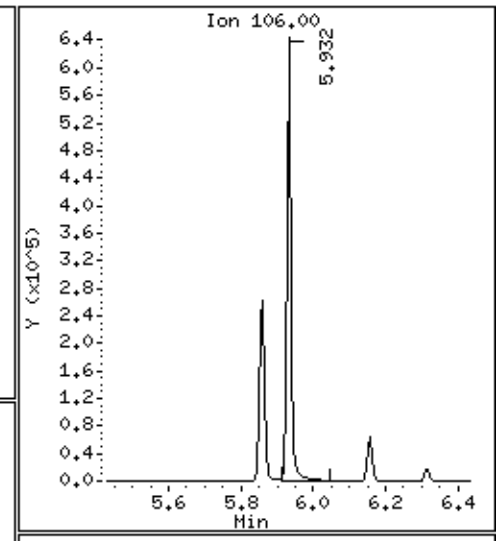
Column phase: Rtx-VMS

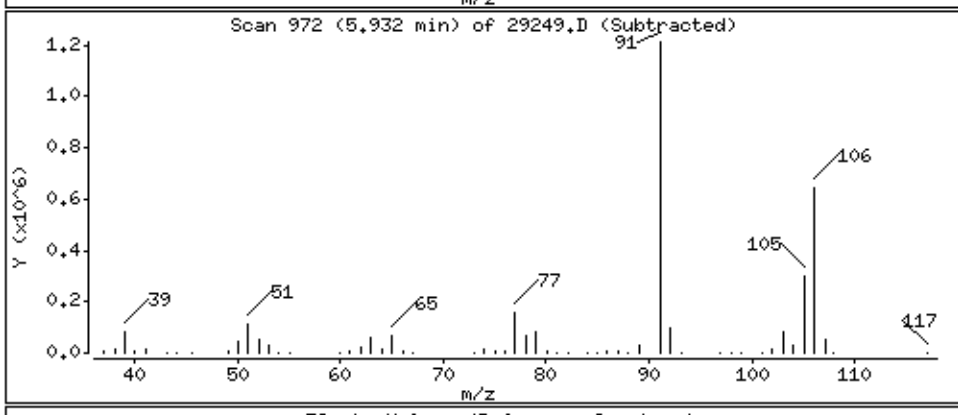
Column diameter: 0.18

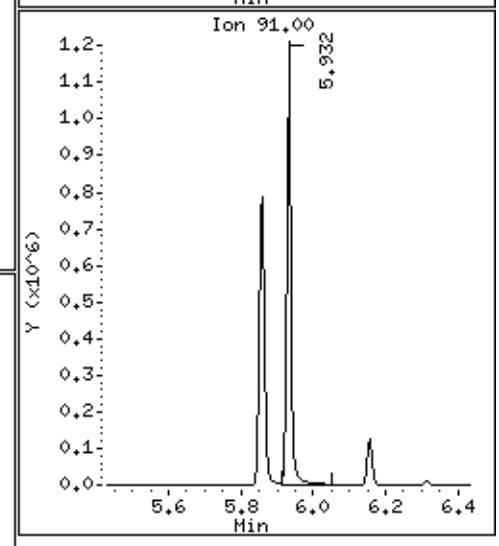
58 m&p-Xylene

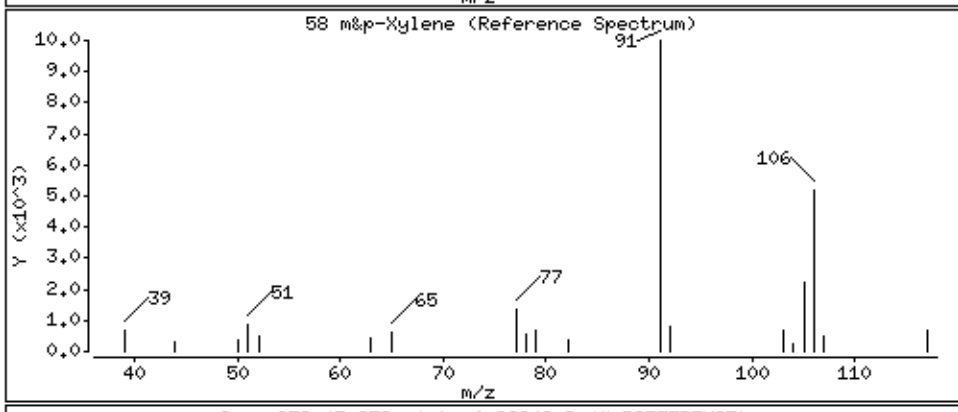
Concentration: 91.8 ug/L

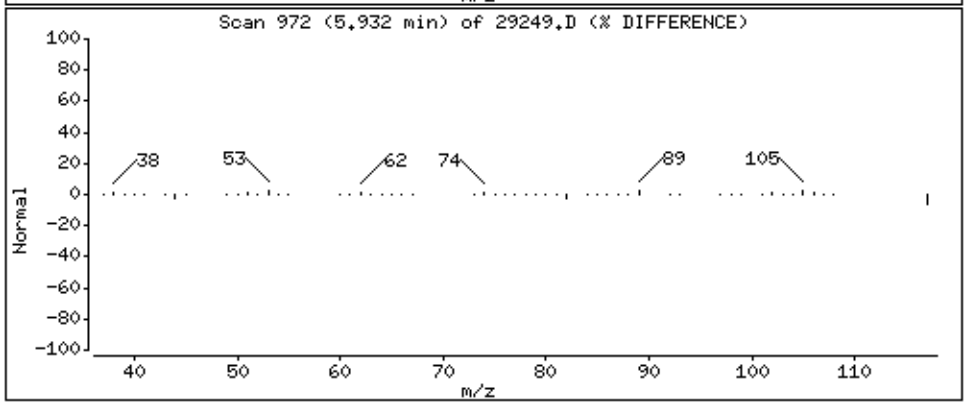












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

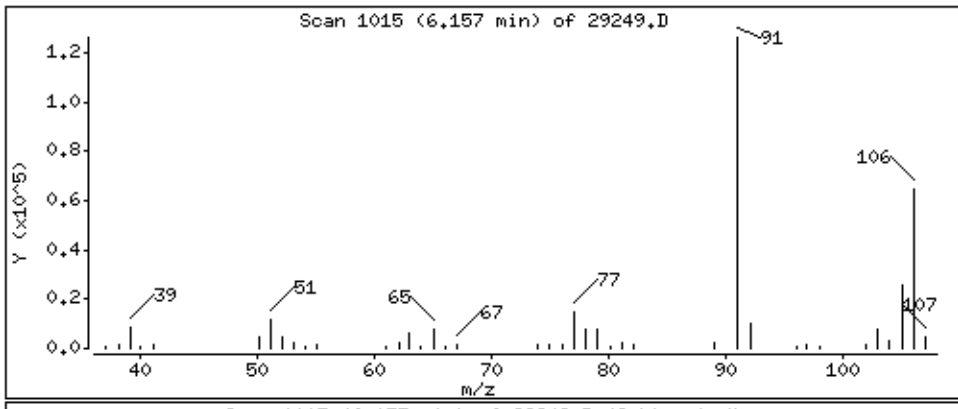
Operator: AH2

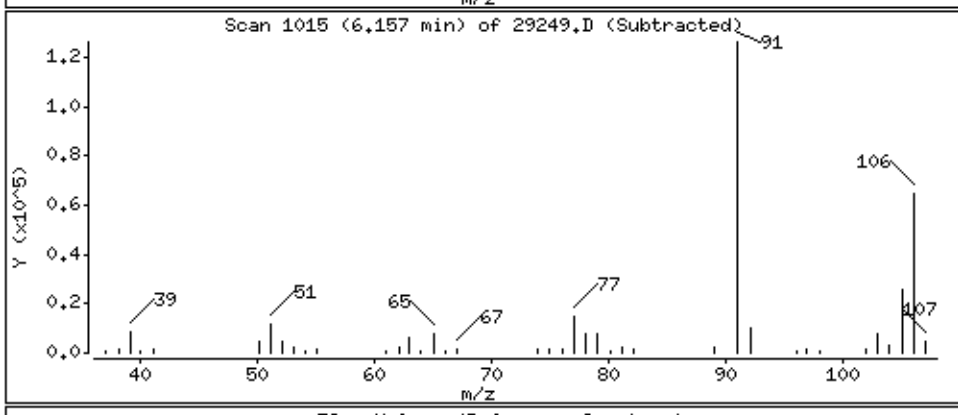
Column phase: Rtx-VMS

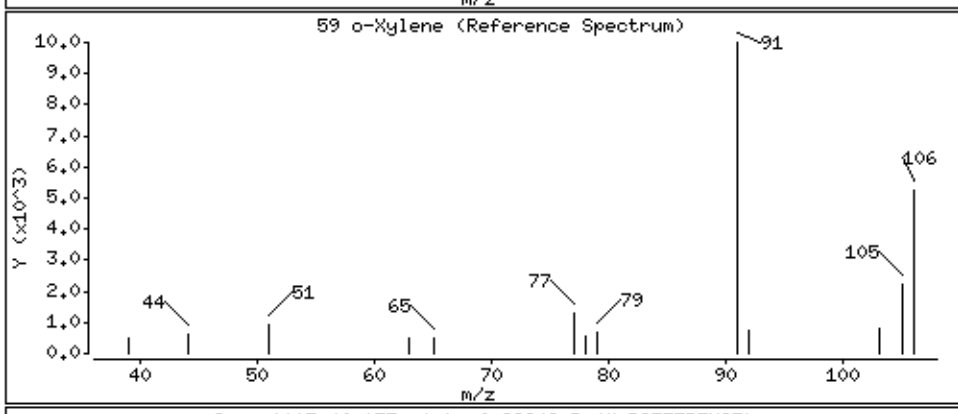
Column diameter: 0.18

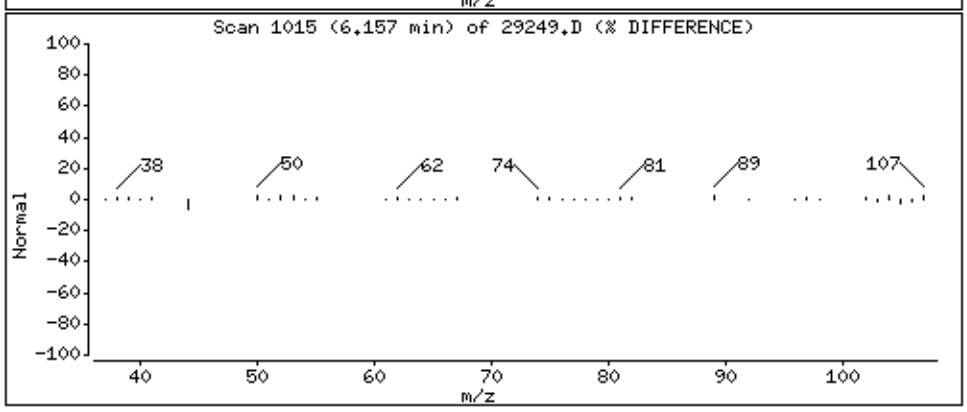
59 o-Xylene

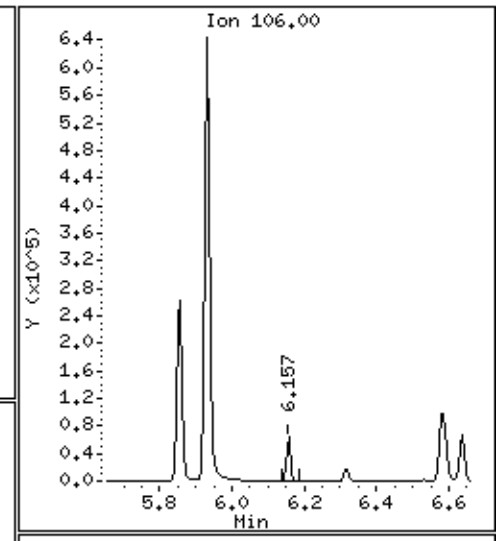
Concentration: 9.6 ug/L

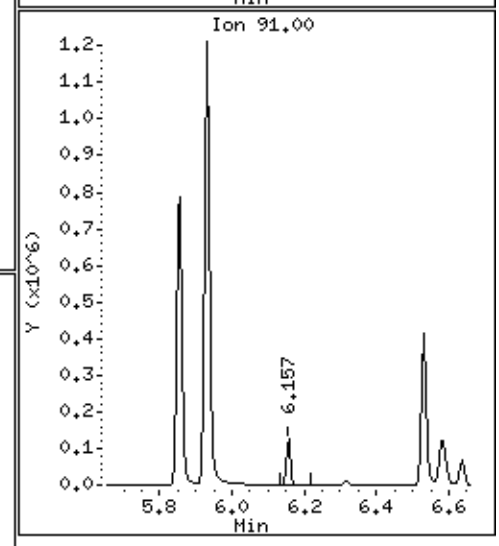












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

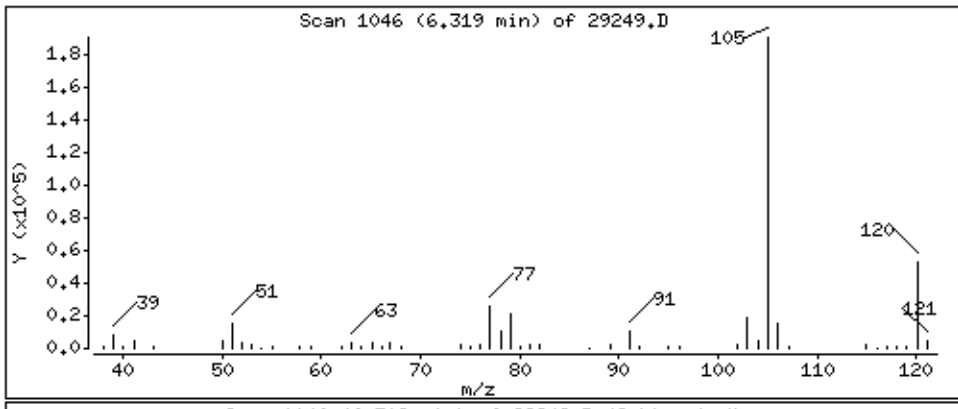
Operator: AH2

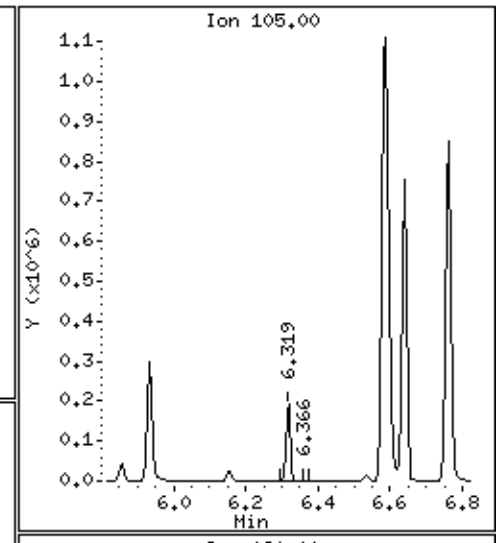
Column phase: Rtx-VMS

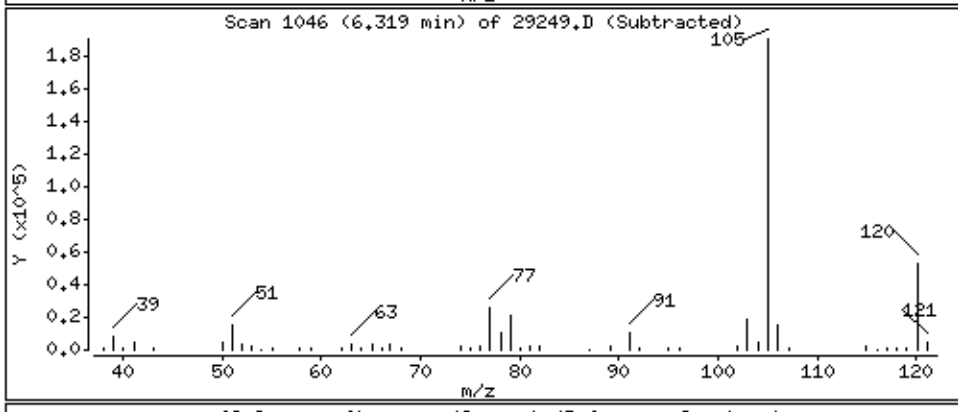
Column diameter: 0.18

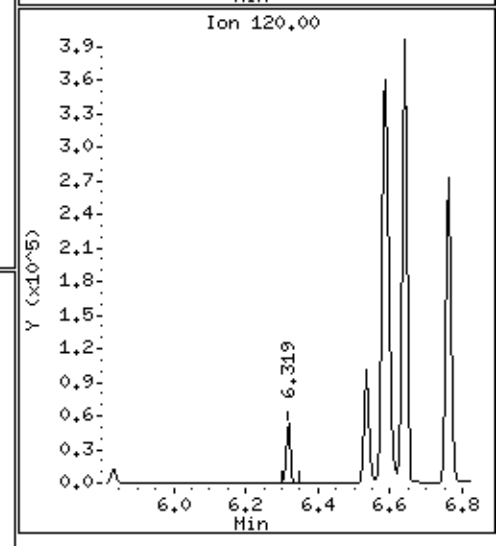
62 Isopropylbenzene (Cumene)

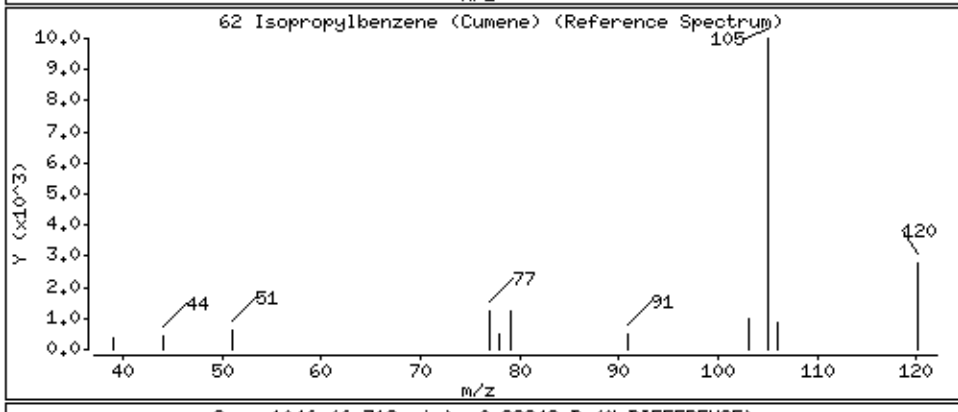
Concentration: 12.4 ug/L

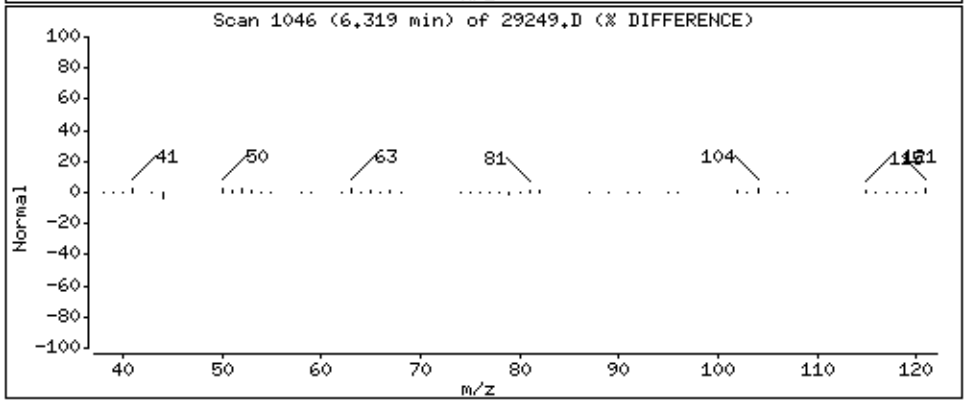












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

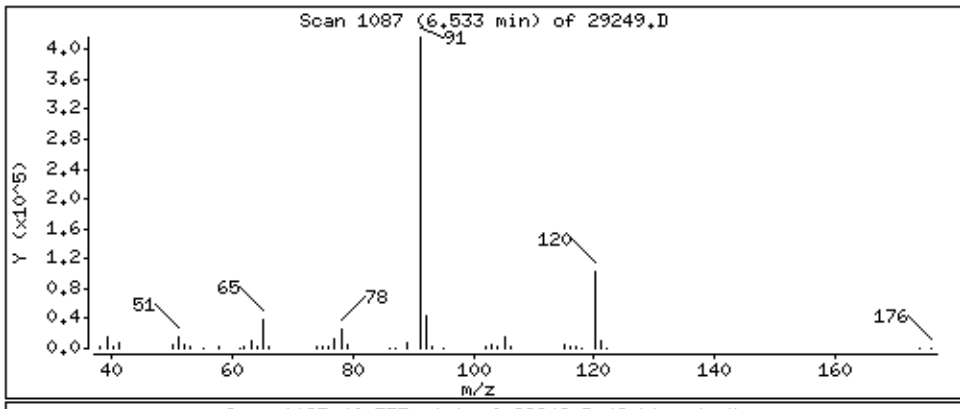
Operator: AH2

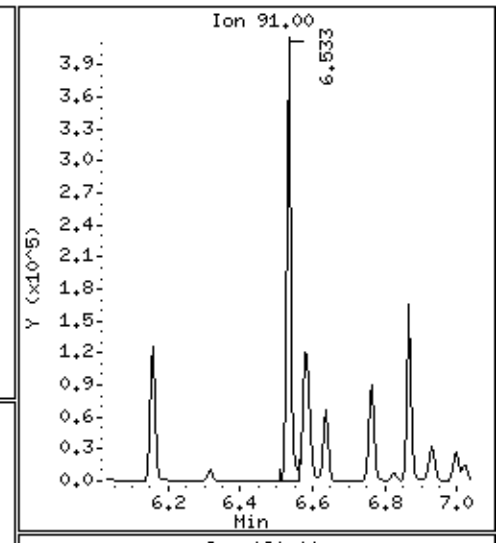
Column phase: Rtx-VMS

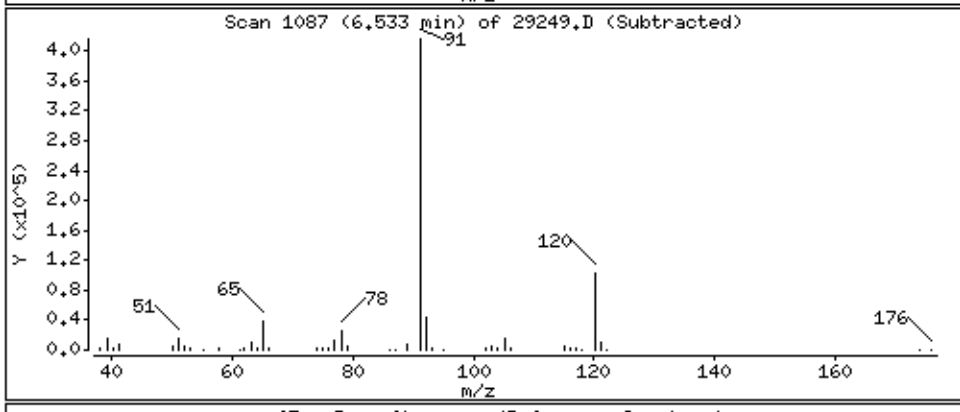
Column diameter: 0.18

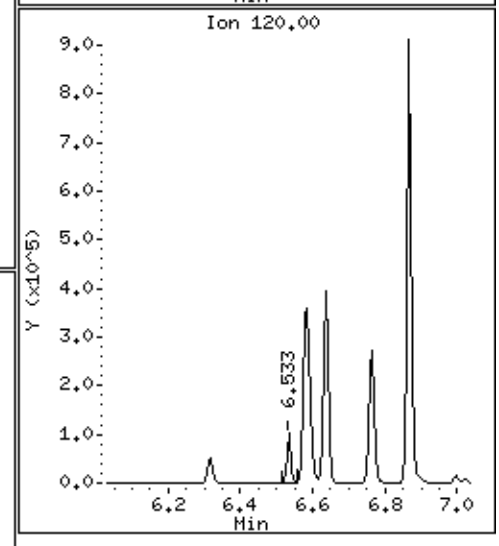
65 n-Propylbenzene

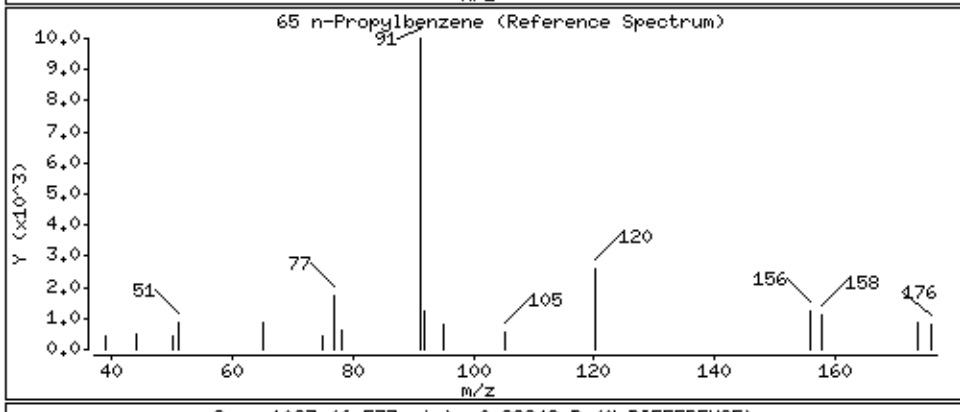
Concentration: 22.7 ug/L

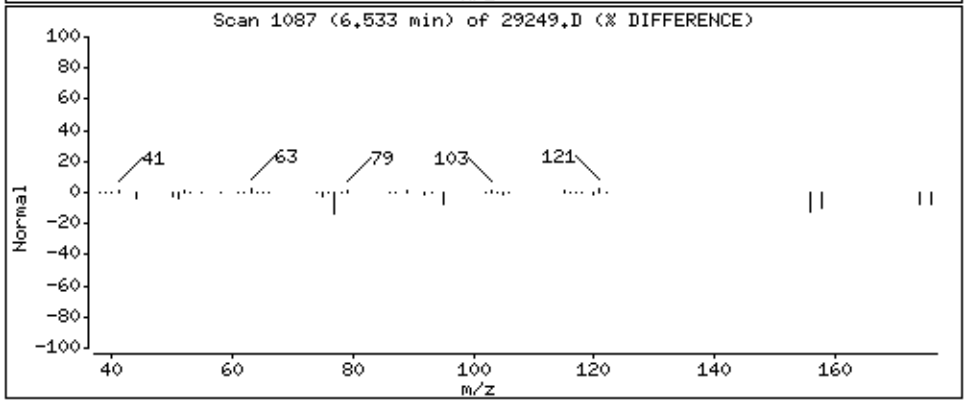












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

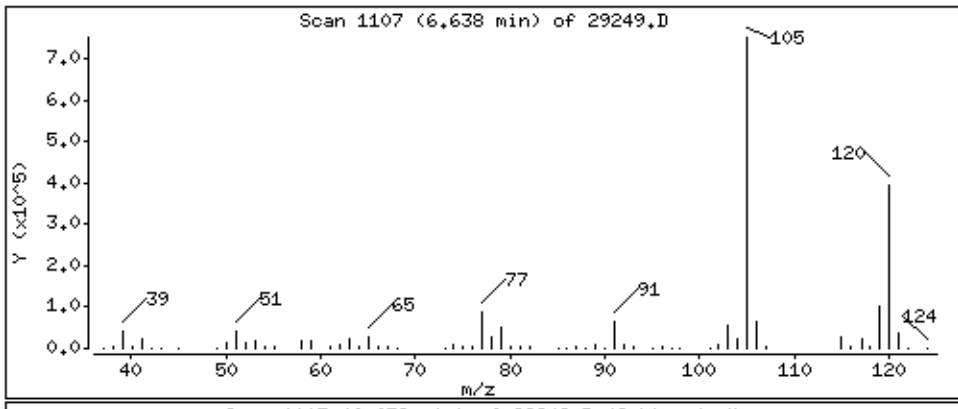
Operator: AH2

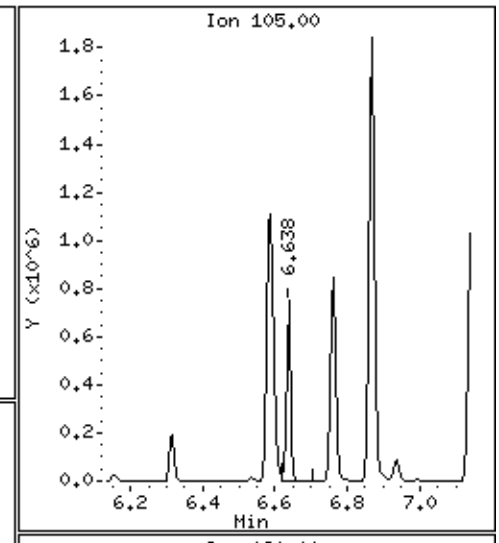
Column phase: Rtx-VMS

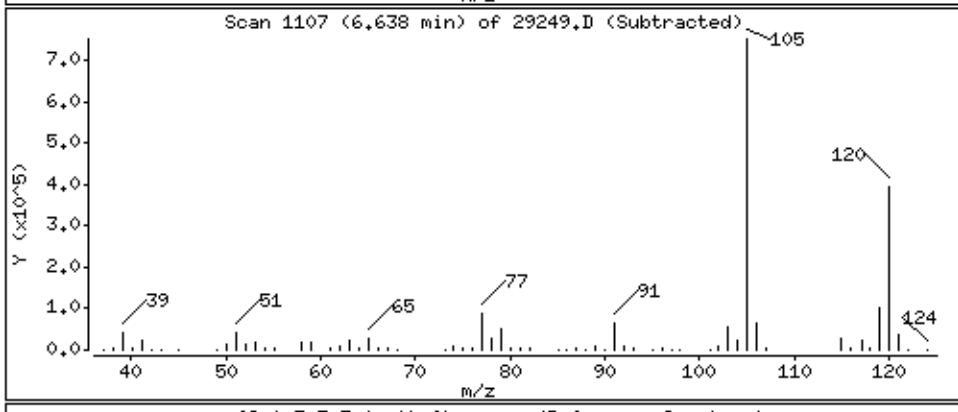
Column diameter: 0.18

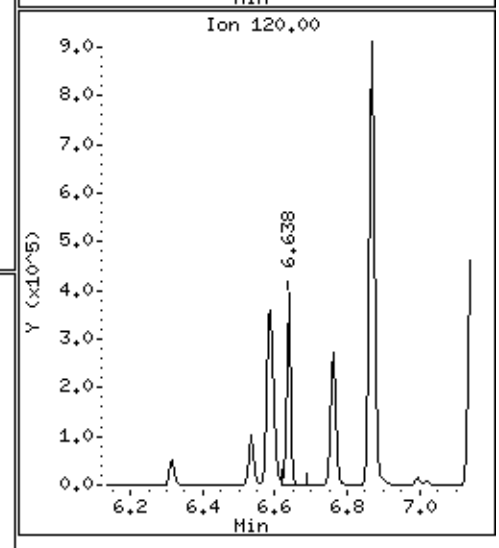
68 1,3,5-Trimethylbenzene

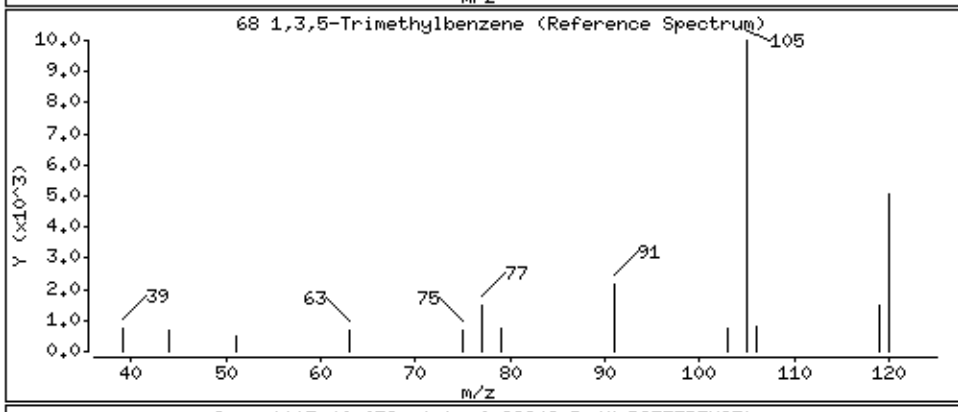
Concentration: 64.0 ug/L

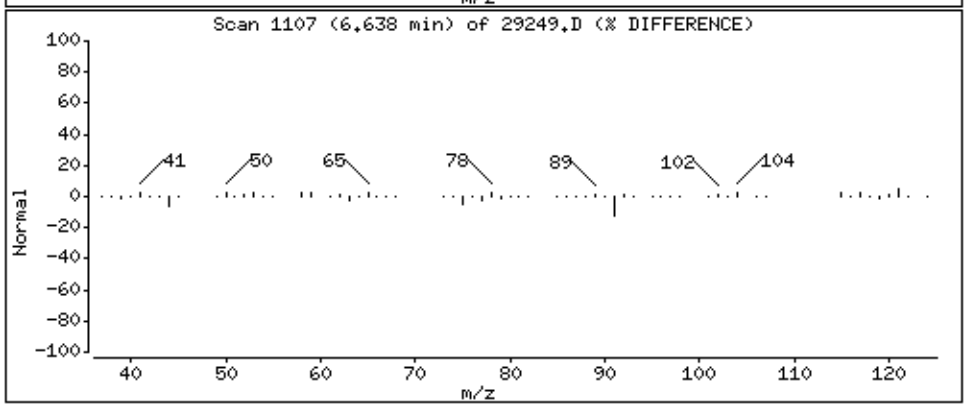












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

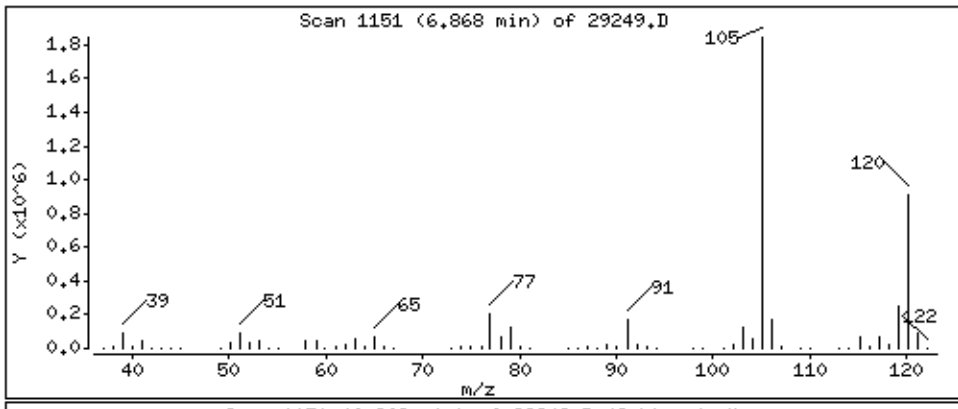
Operator: AH2

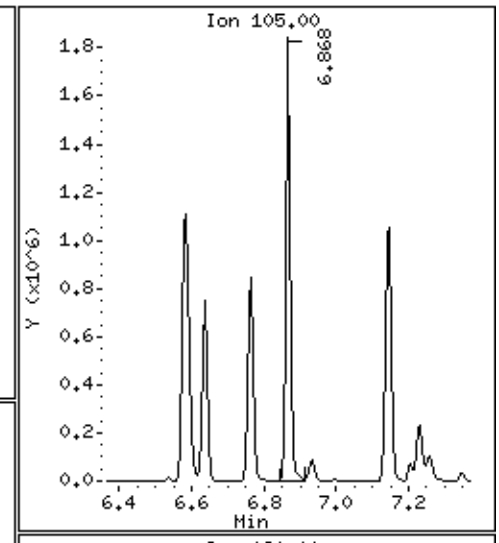
Column phase: Rtx-VMS

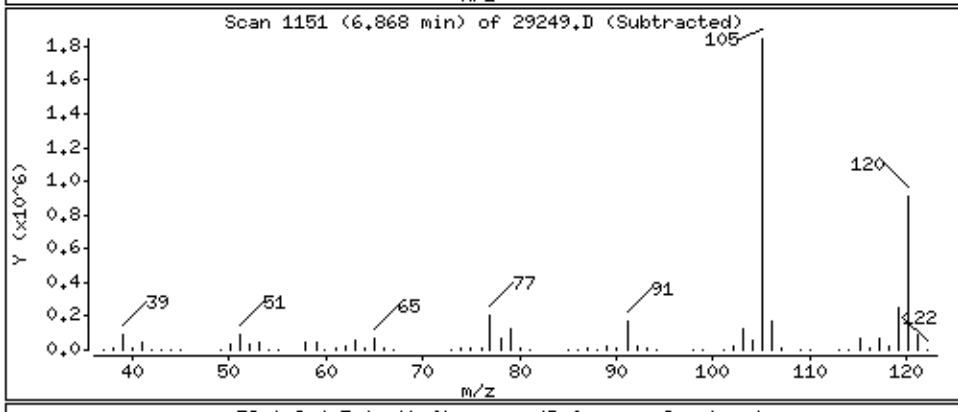
Column diameter: 0.18

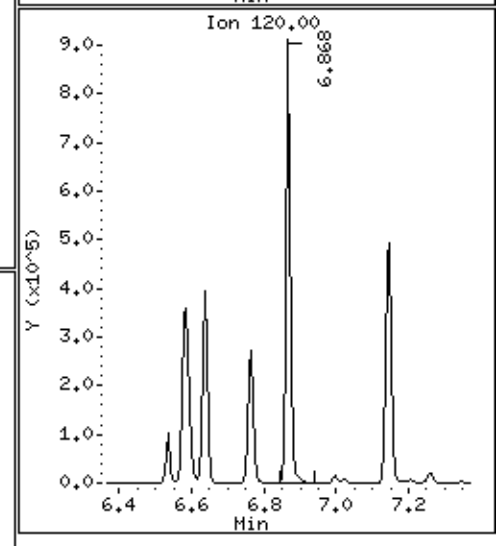
72 1,2,4-Trimethylbenzene

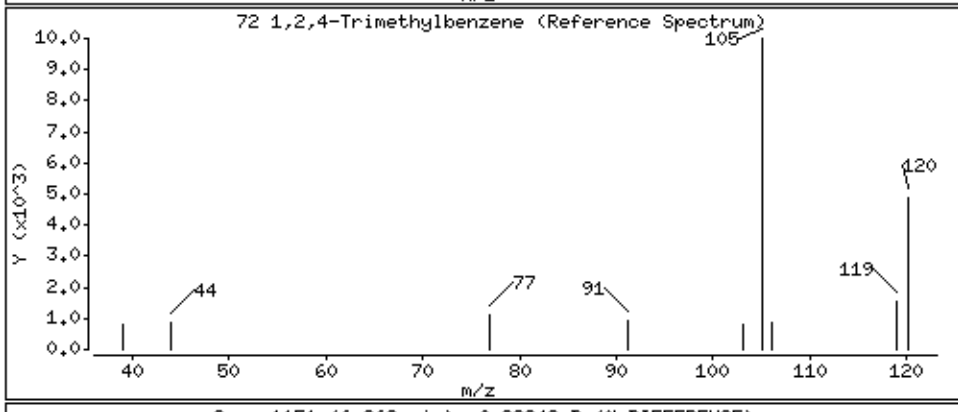
Concentration: 167 ug/L

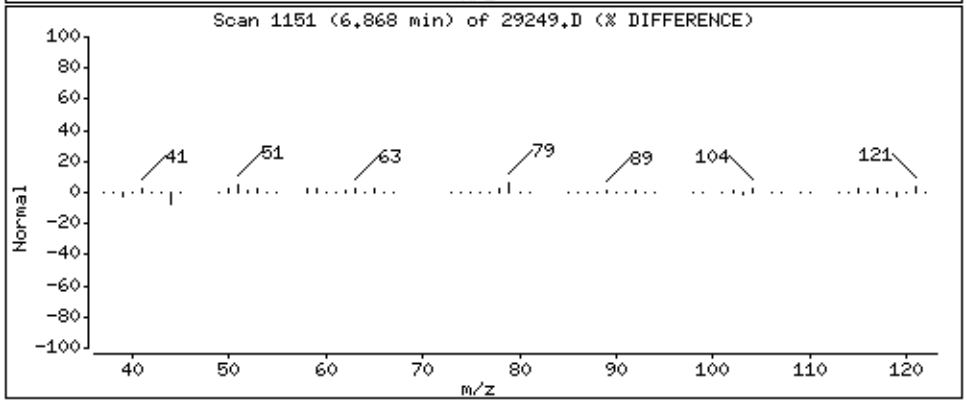












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

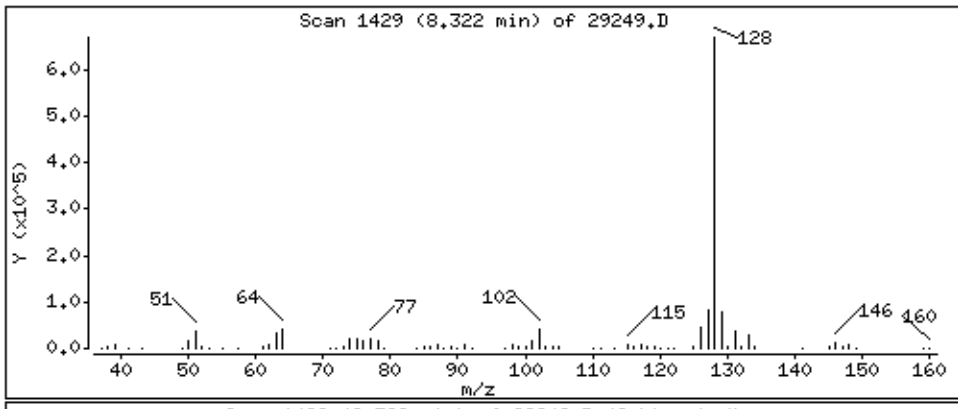
Operator: AH2

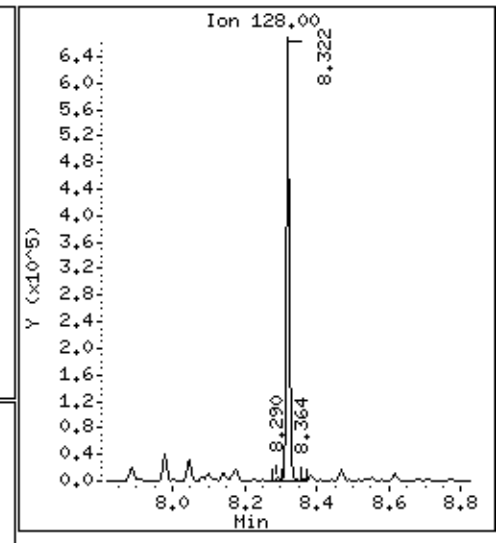
Column phase: Rtx-VMS

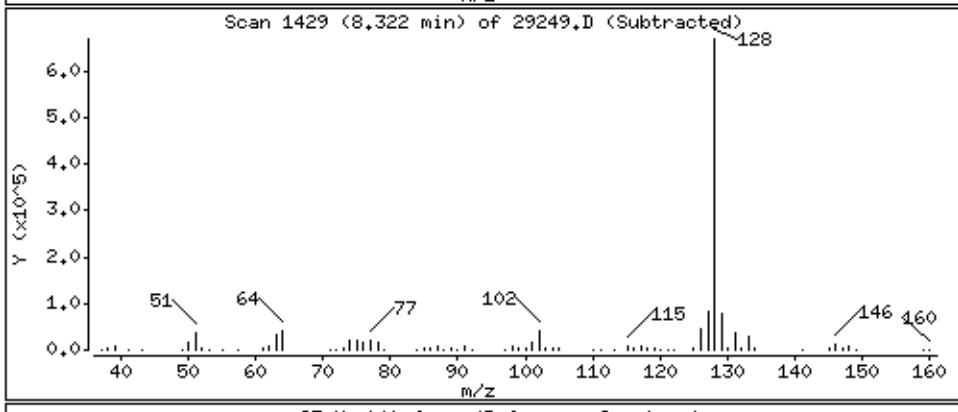
Column diameter: 0.18

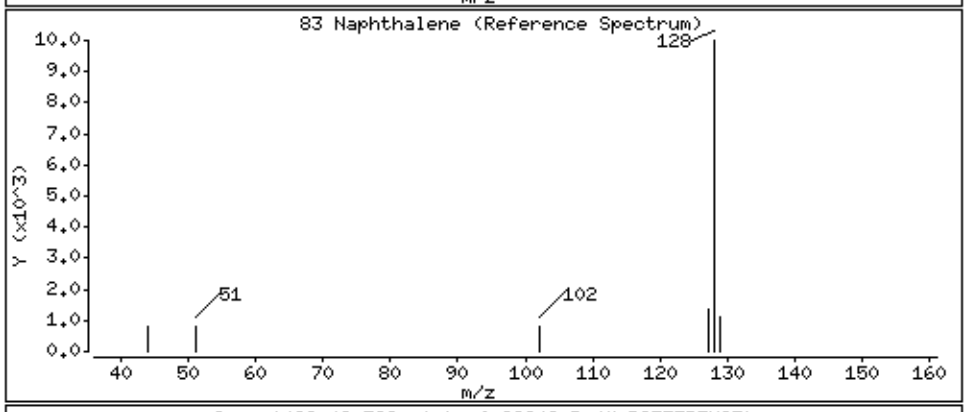
83 Naphthalene

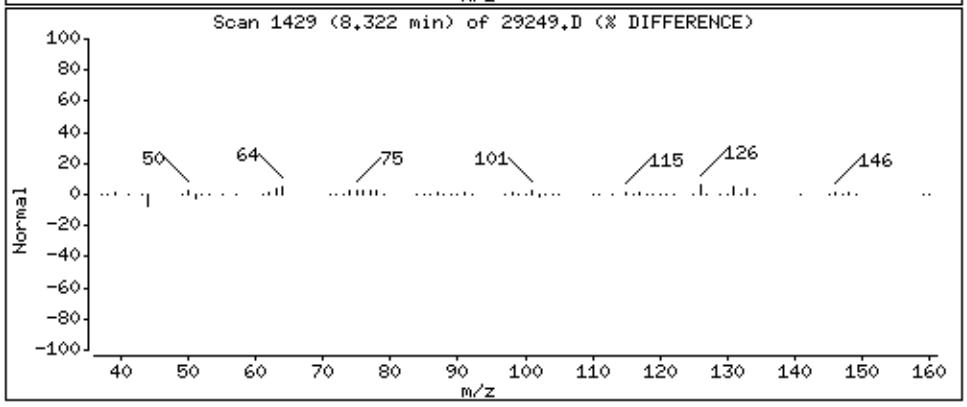
Concentration: 70.8 ug/L











Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29249.D

Date : 20-OCT-2015 02:08

Client ID: MW-5R-101315

Instrument: 10msv1.i

Sample Info: 10326303005

Purge Volume: 5.0

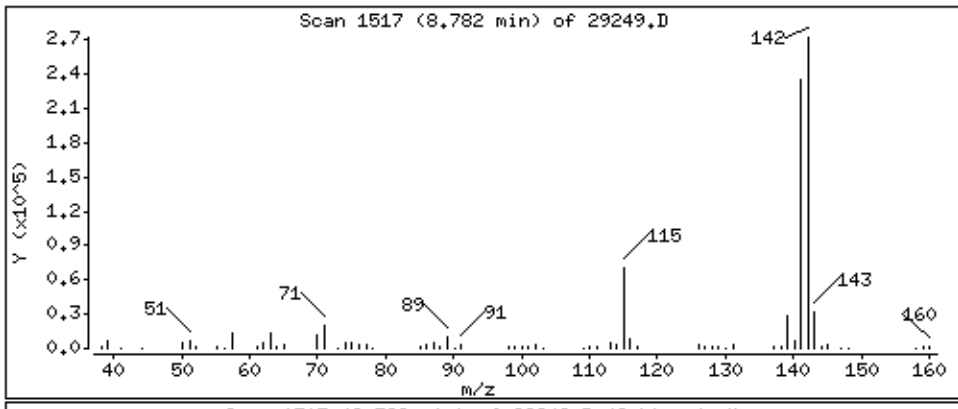
Operator: AH2

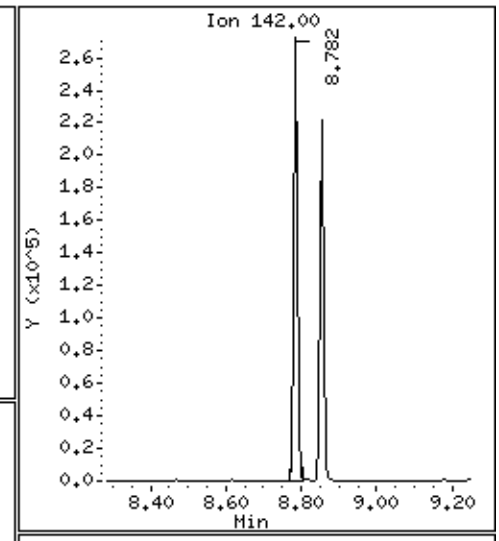
Column phase: Rtx-VMS

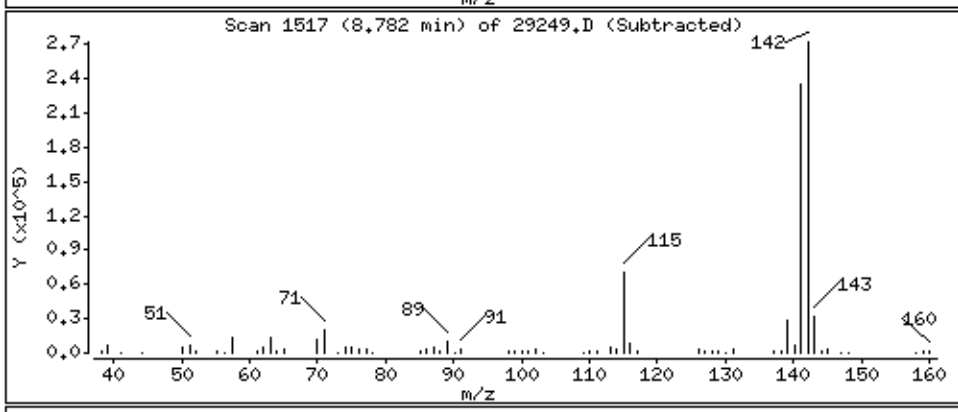
Column diameter: 0.18

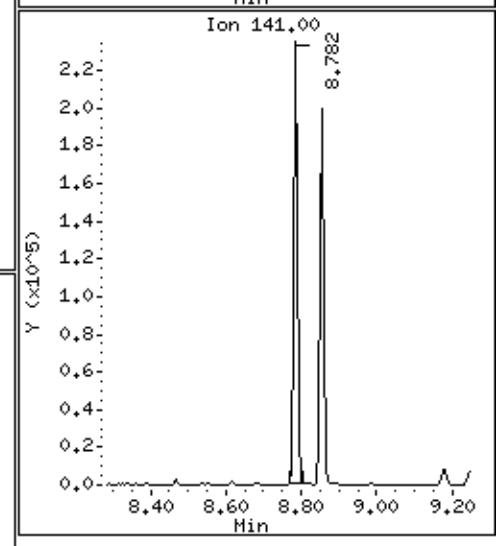
85 2-Methylnaphthalene

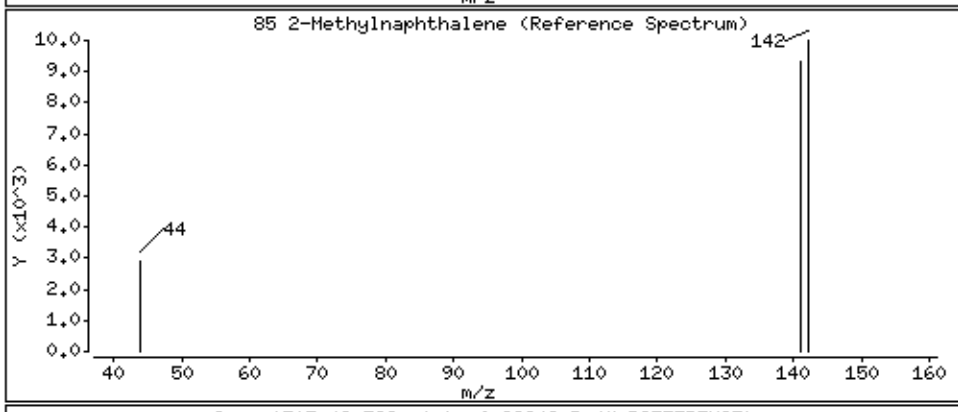
Concentration: 80.2 ug/L

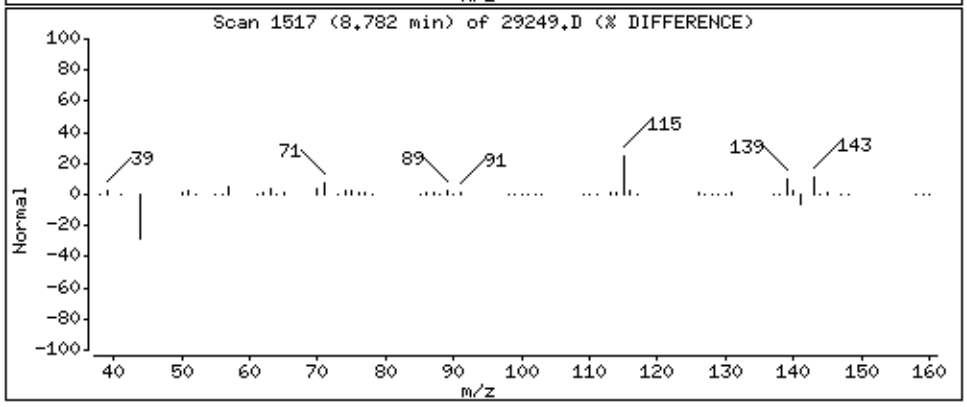












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b/29249.D
Injection Date: 20-OCT-2015 02:08
Instrument: 10msv1.i
Lab Sample ID: 10326303005
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Page 3

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

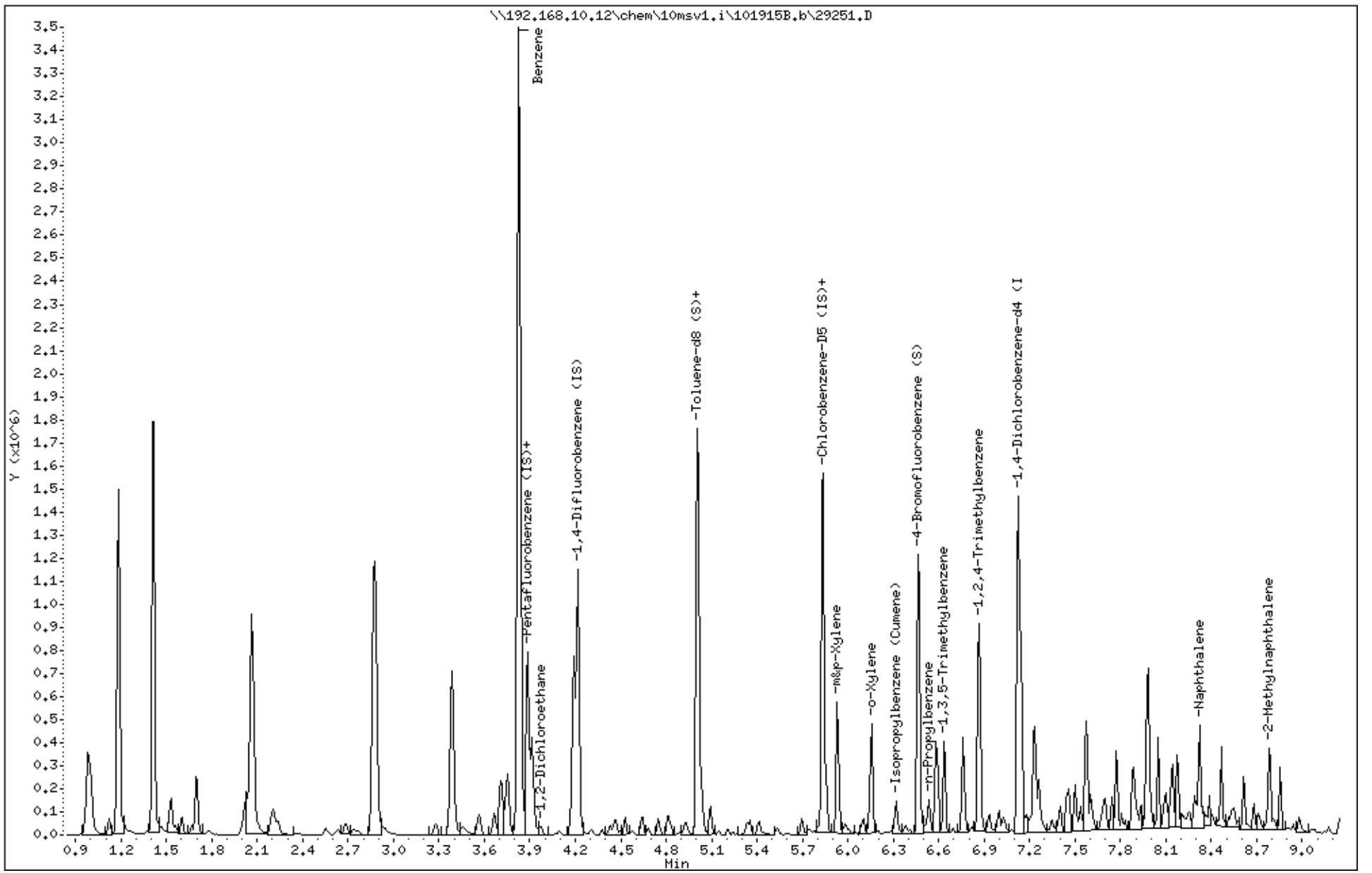
Sample Info: 10326303006

Purge Volume: 5.0

Operator: AH2

Column phase: Rtx-VMS

Column diameter: 0.18



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Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

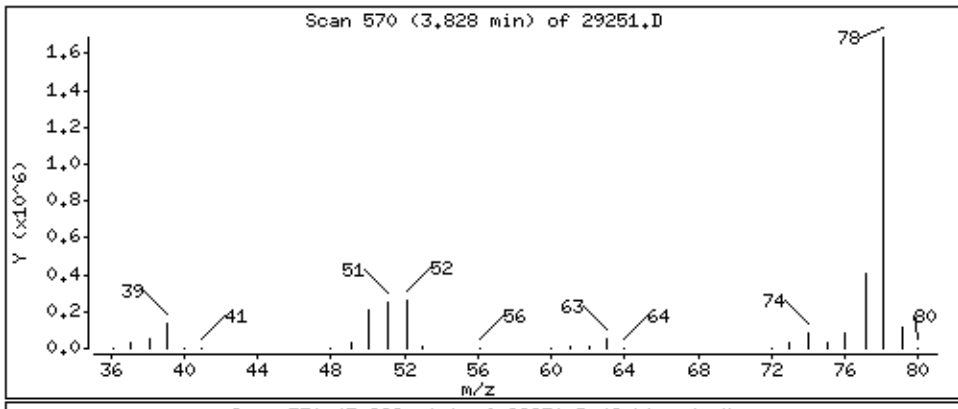
Operator: AH2

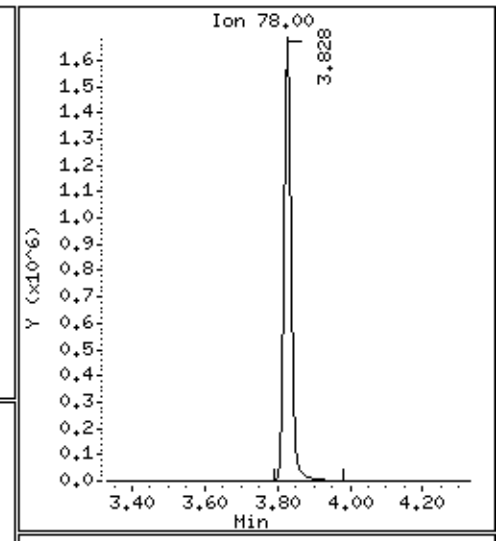
Column phase: Rtx-VMS

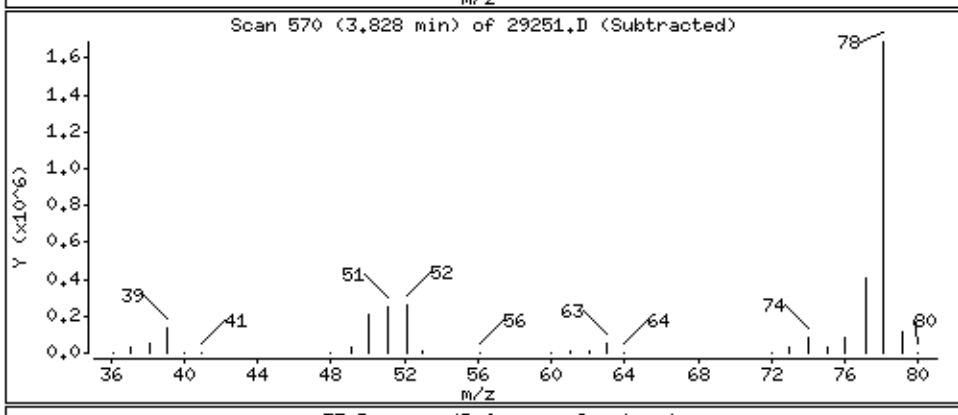
Column diameter: 0.18

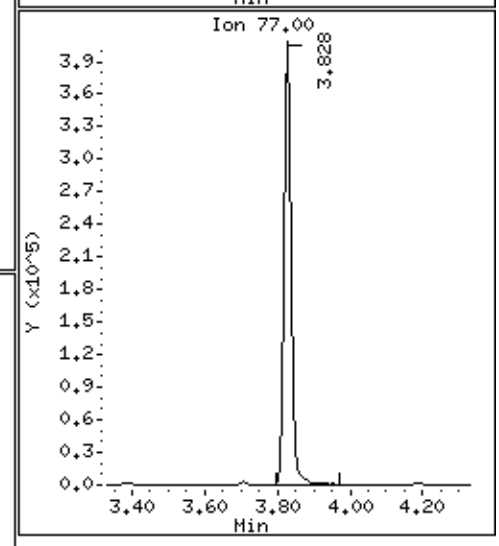
33 Benzene

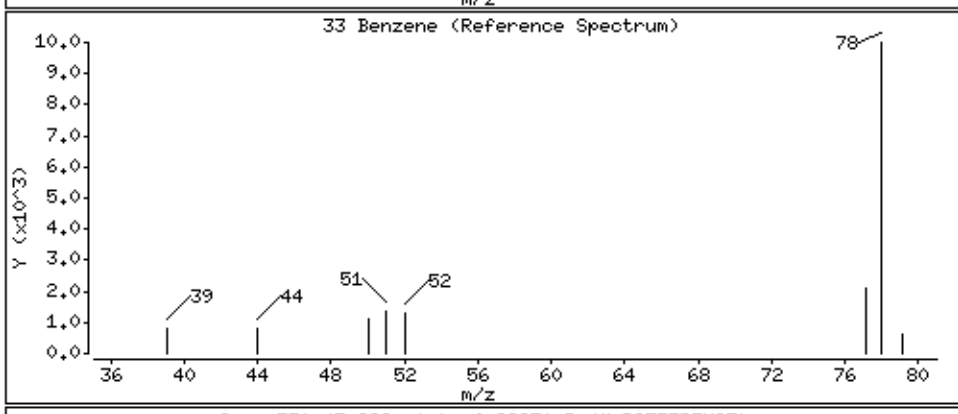
Concentration: 143 ug/L

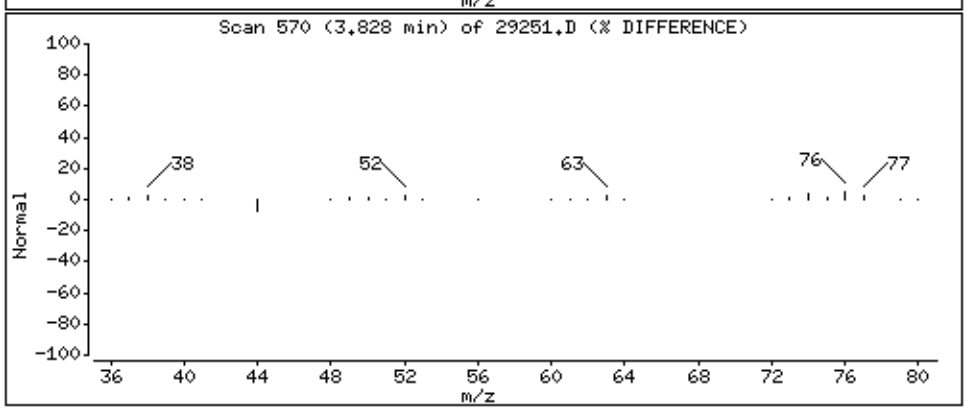












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

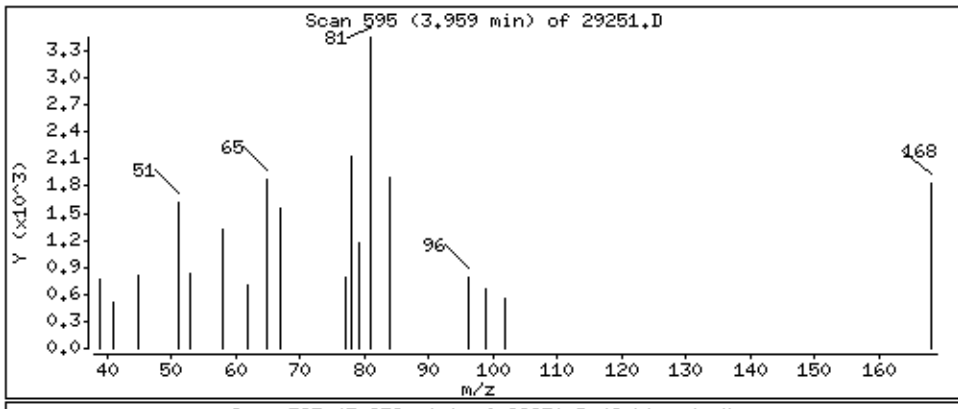
Operator: AH2

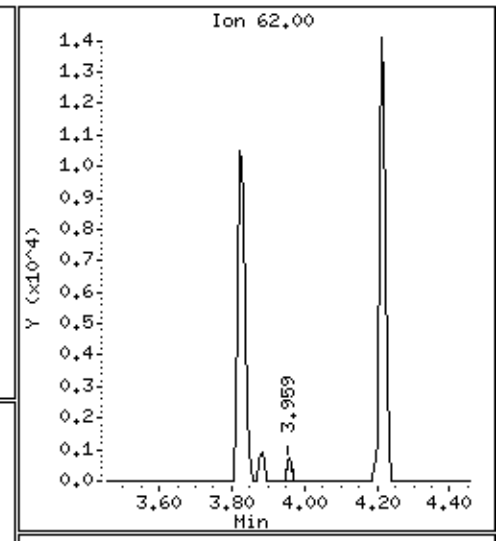
Column phase: Rtx-VMS

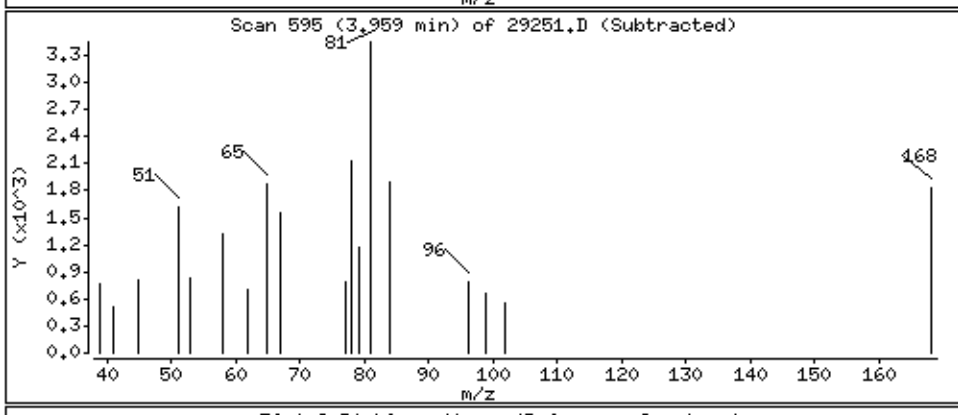
Column diameter: 0.18

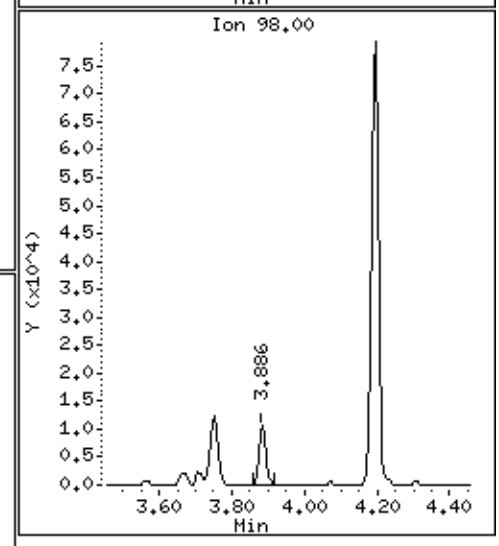
36 1,2-Dichloroethane

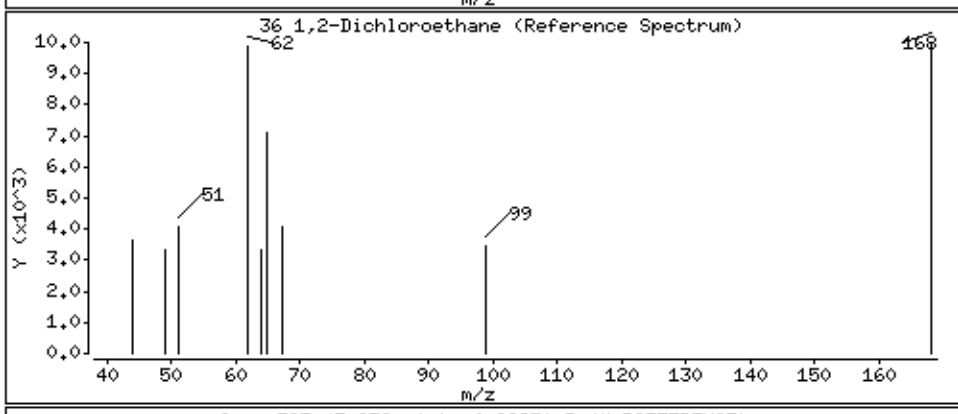
Concentration: 0.17 ug/L

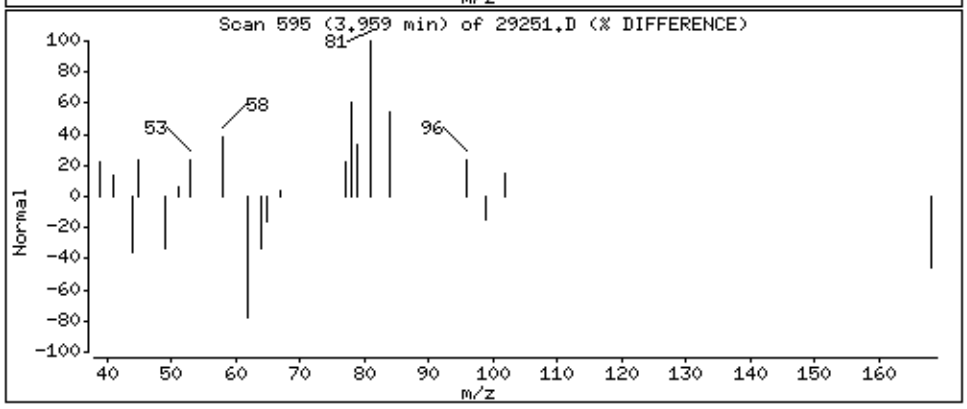












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

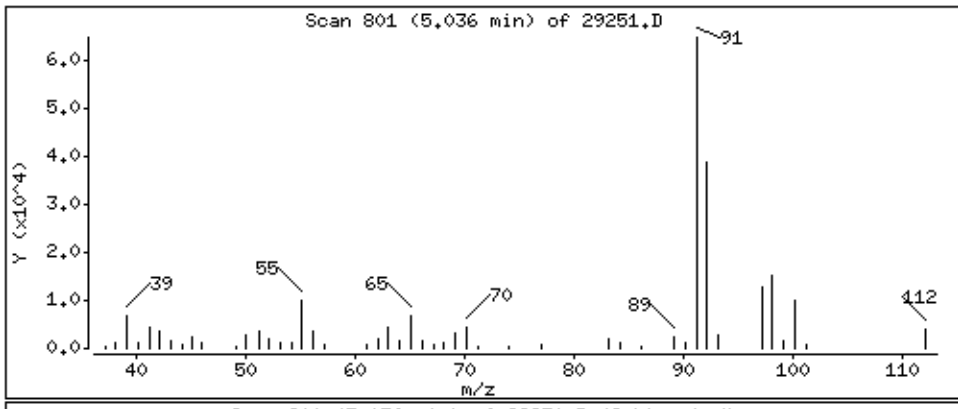
Operator: AH2

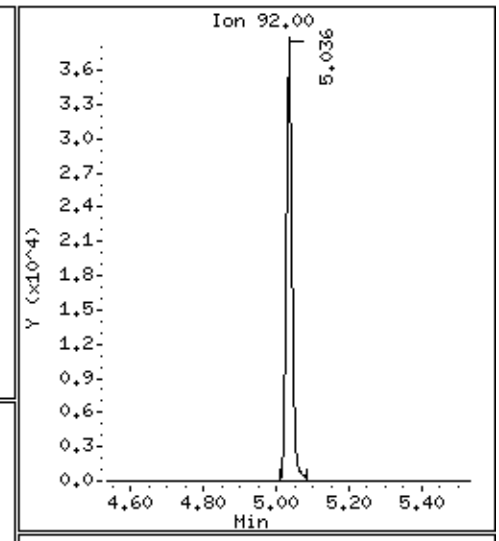
Column phase: Rtx-VMS

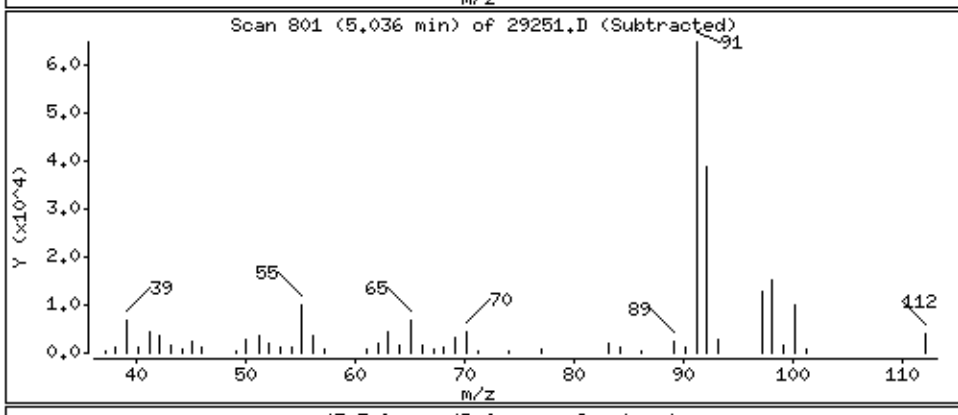
Column diameter: 0.18

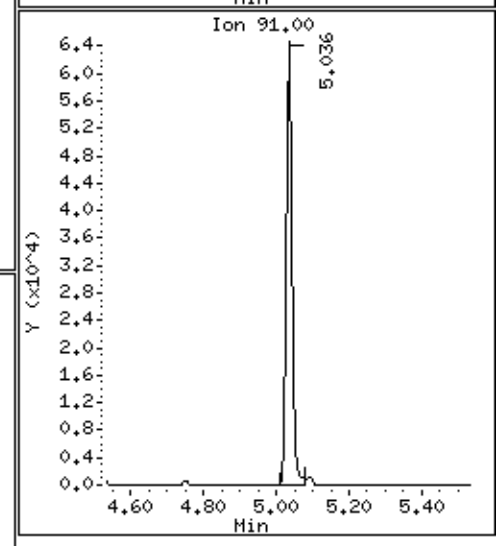
45 Toluene

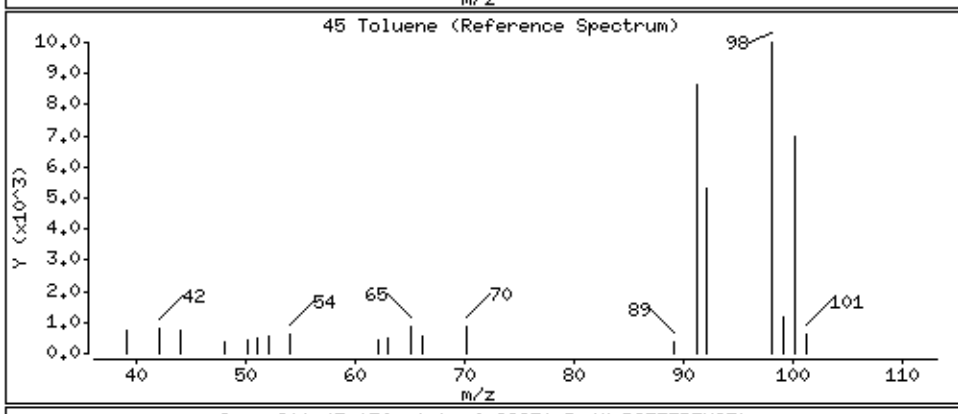
Concentration: 4.4 ug/L

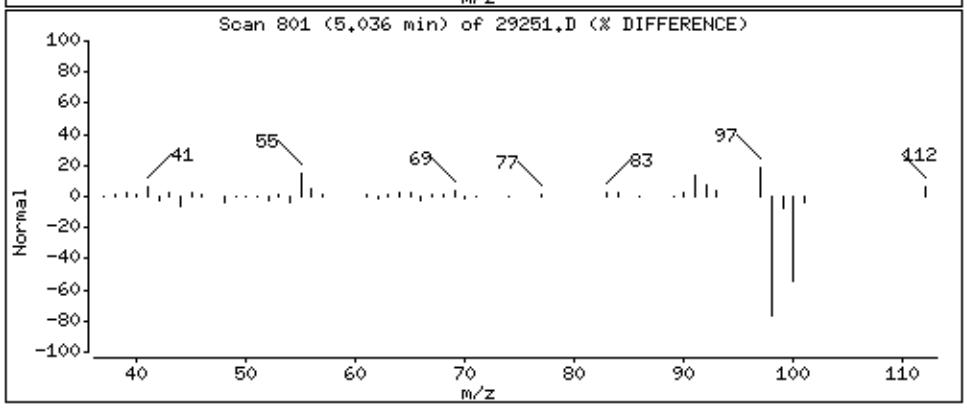












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

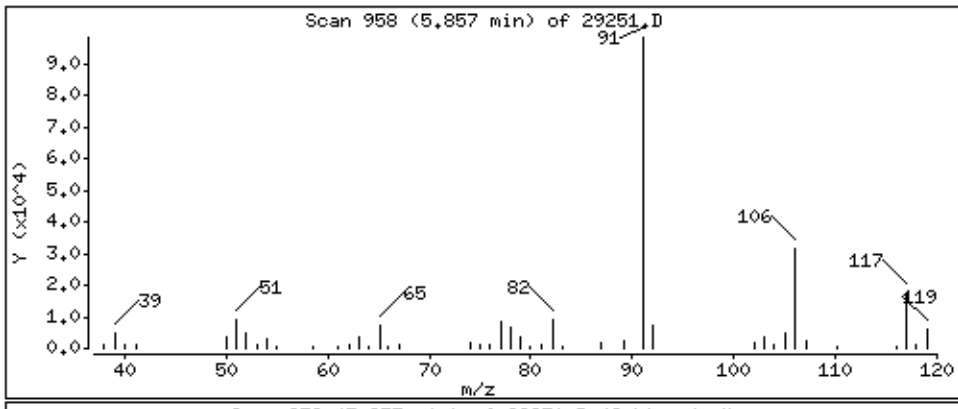
Operator: AH2

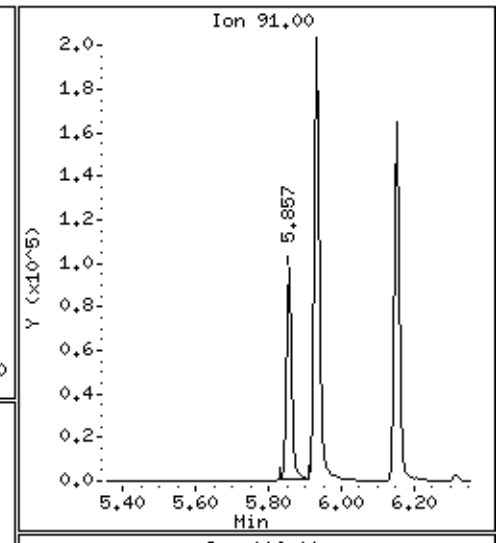
Column phase: Rtx-VMS

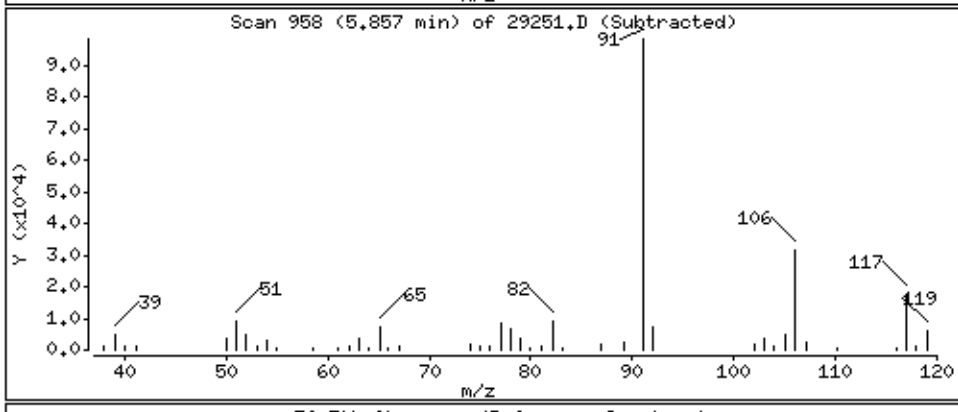
Column diameter: 0.18

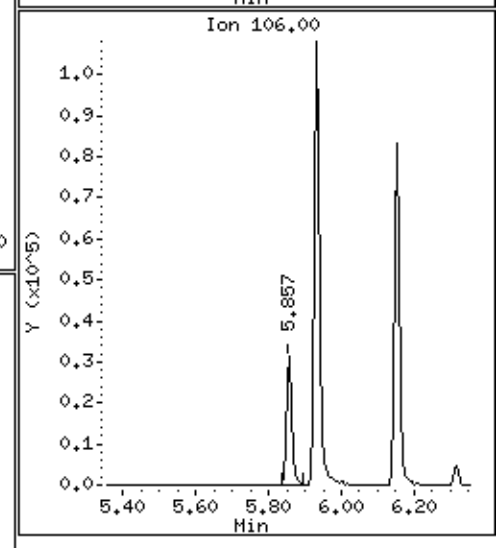
56 Ethylbenzene

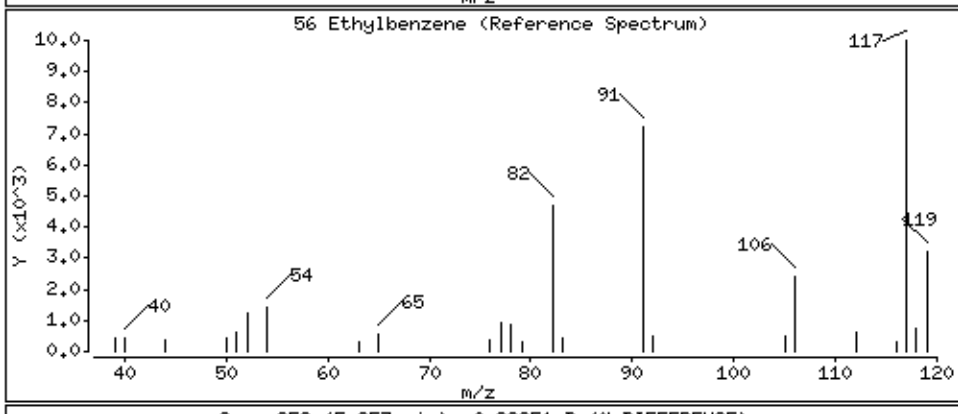
Concentration: 5.7 ug/L

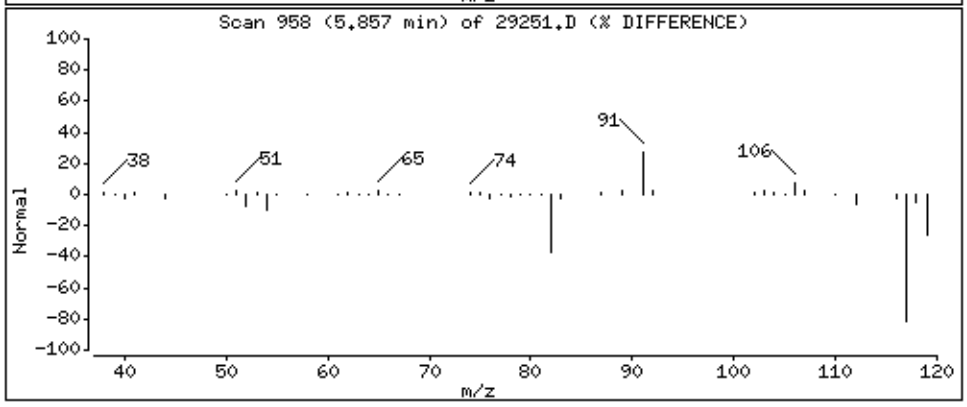












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

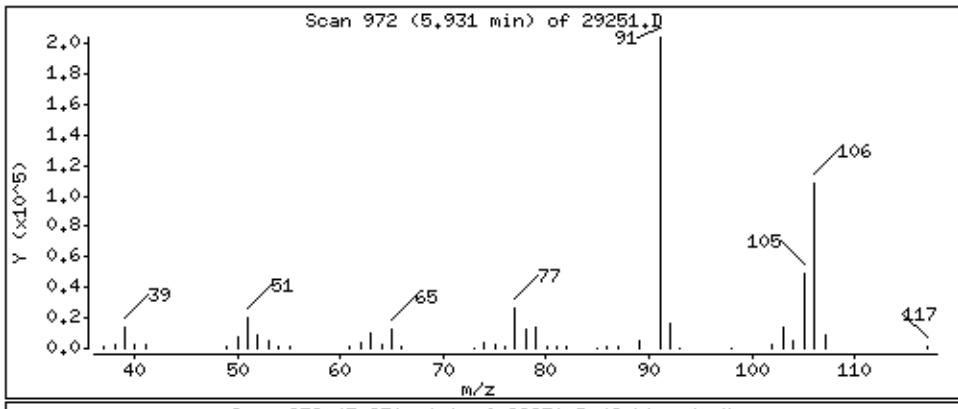
Operator: AH2

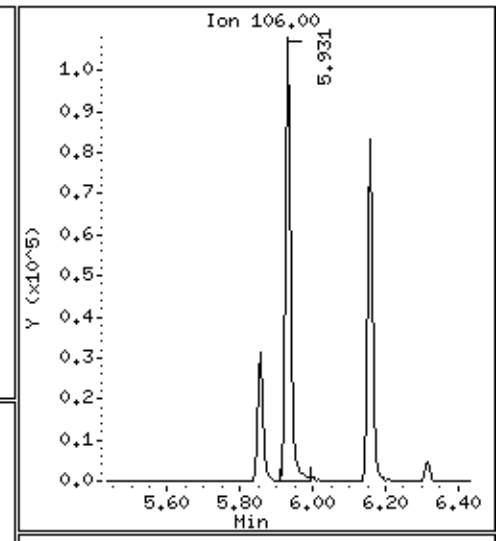
Column phase: Rtx-VMS

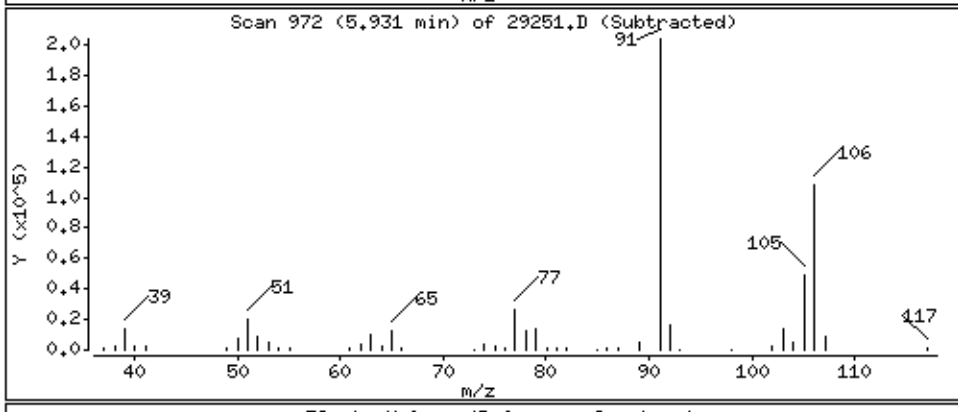
Column diameter: 0.18

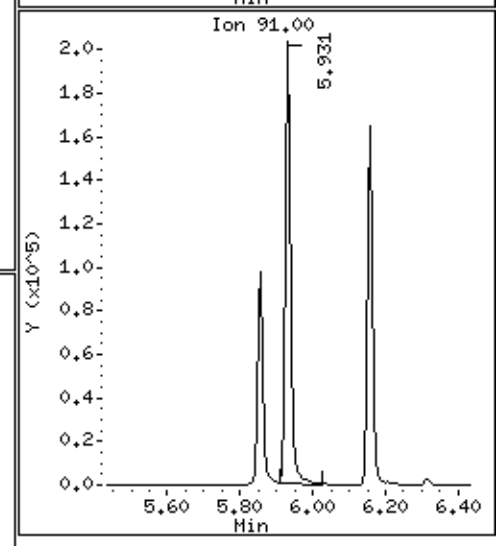
58 m&p-Xylene

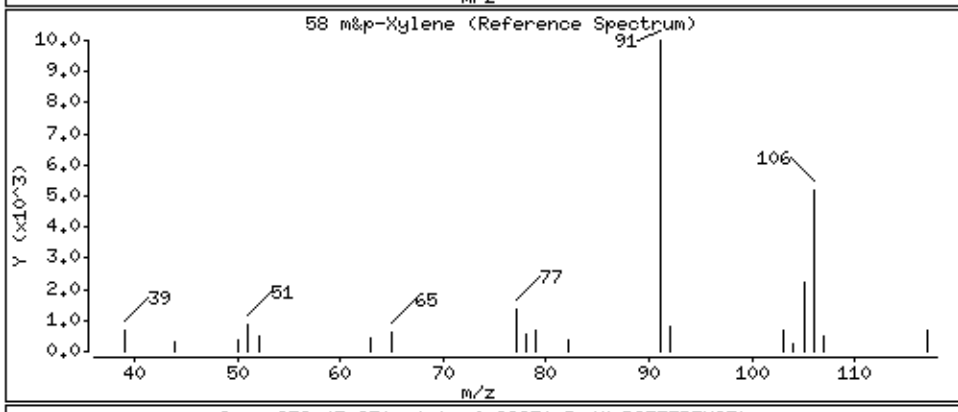
Concentration: 16.2 ug/L

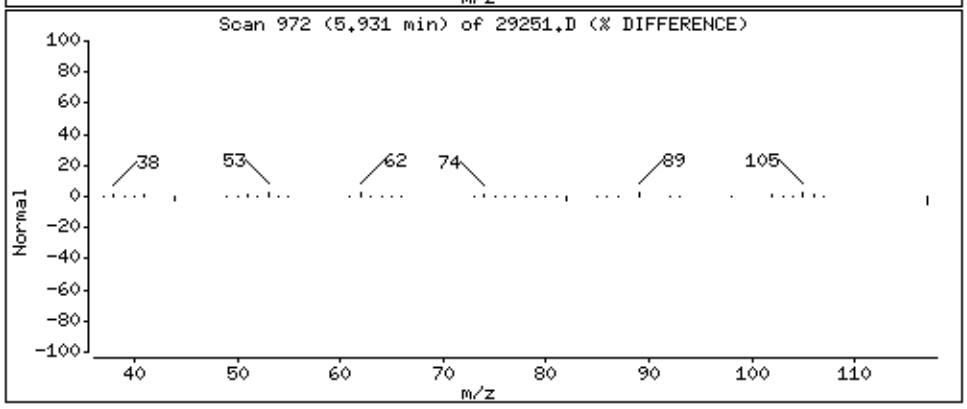












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

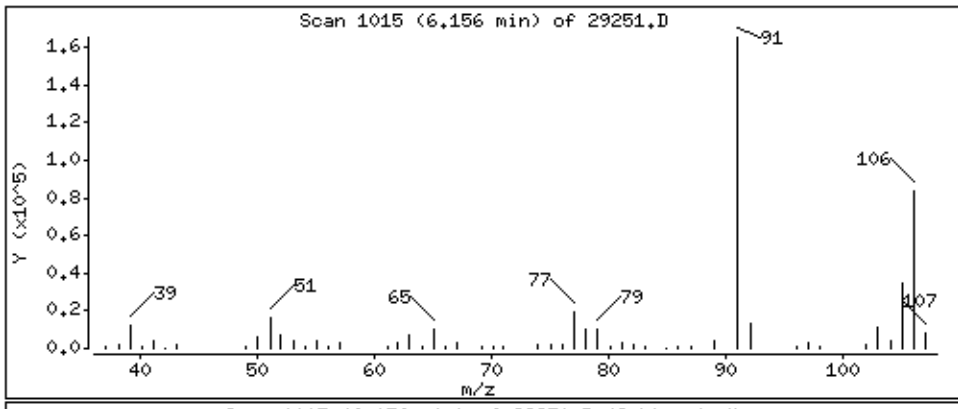
Operator: AH2

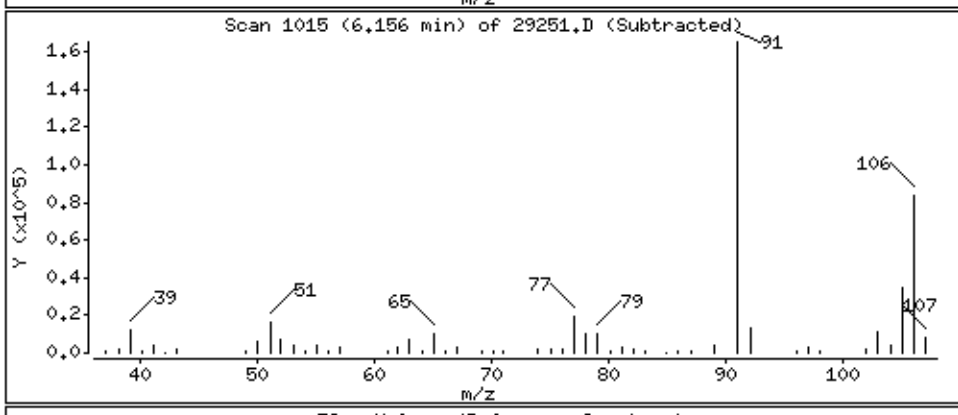
Column phase: Rtx-VMS

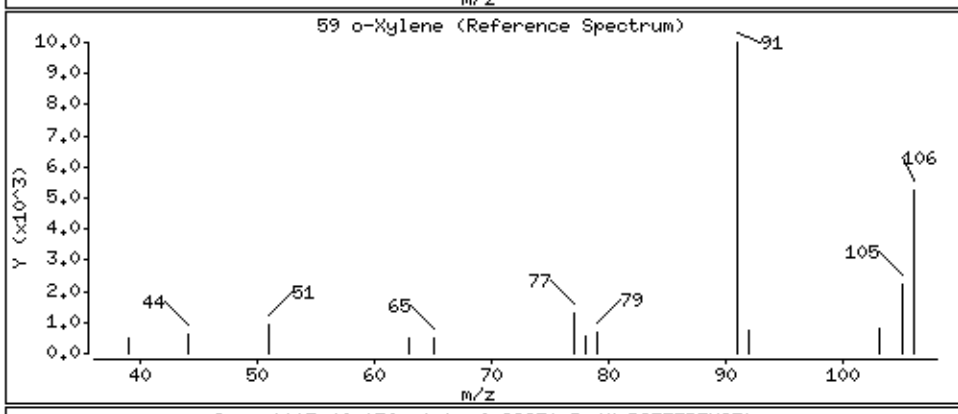
Column diameter: 0.18

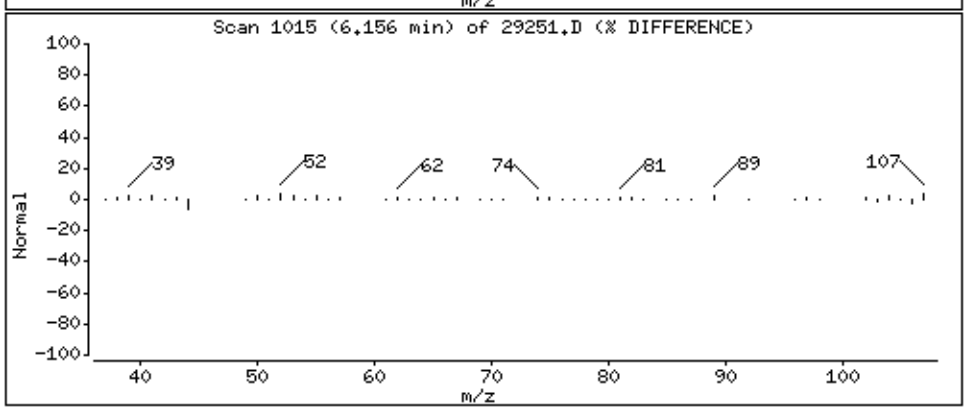
59 o-Xylene

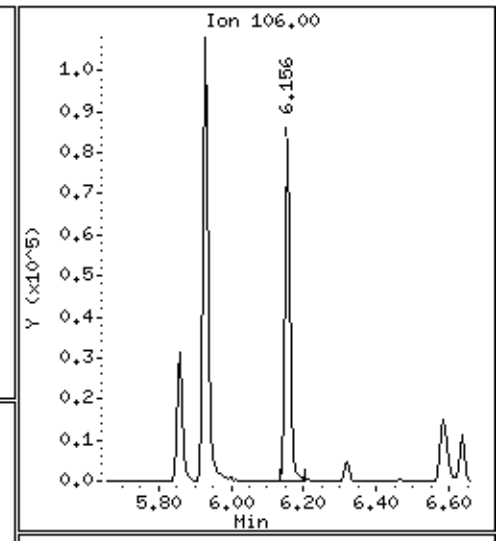
Concentration: 13.1 ug/L

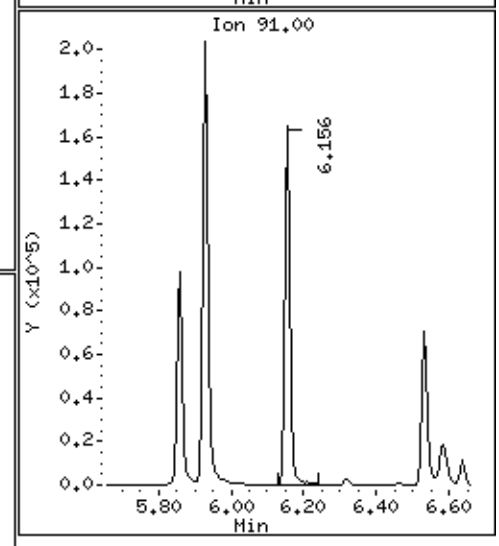












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

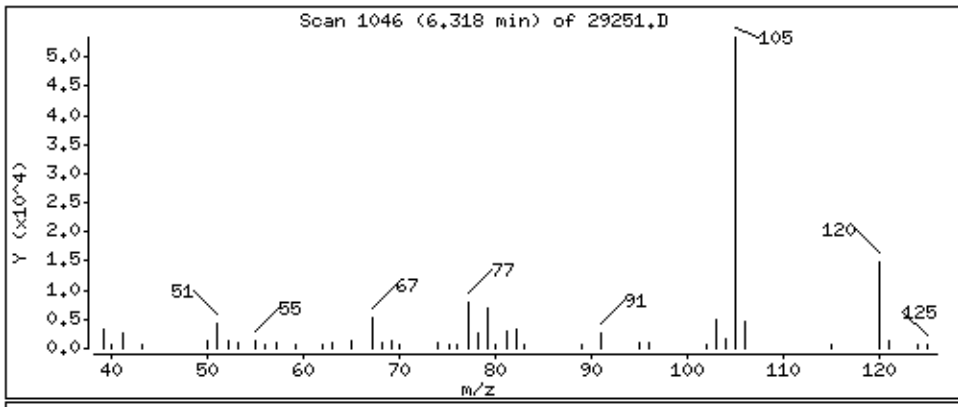
Operator: AH2

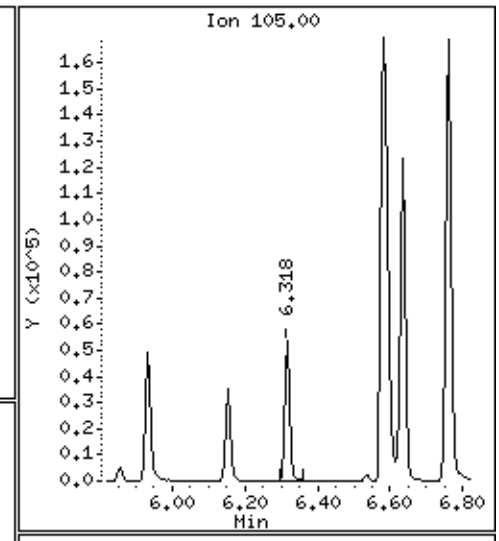
Column phase: Rtx-VMS

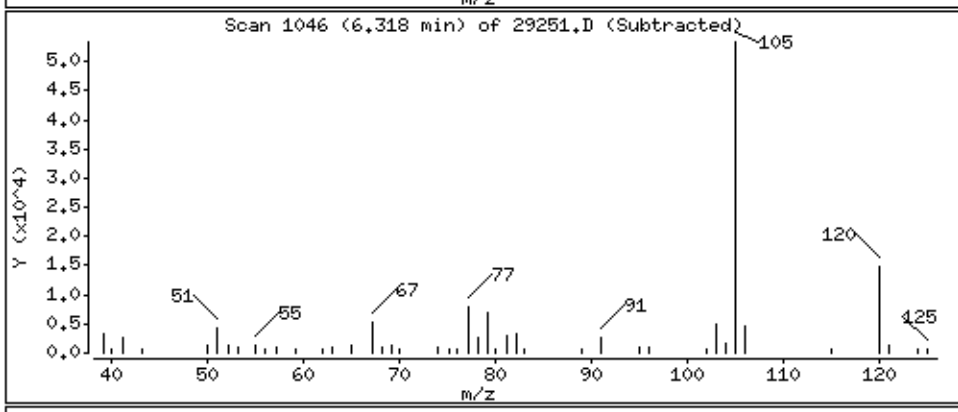
Column diameter: 0.18

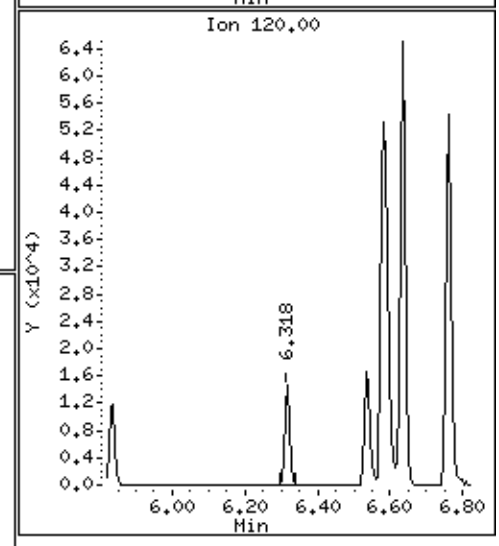
62 Isopropylbenzene (Cumene)

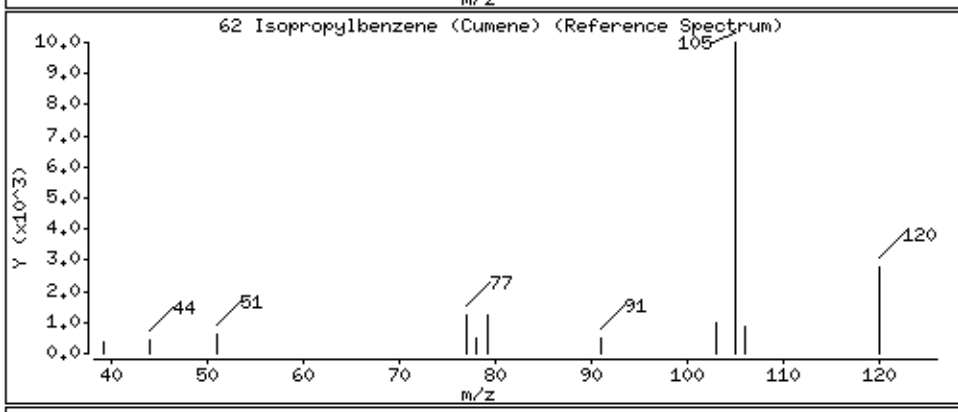
Concentration: 3.4 ug/L

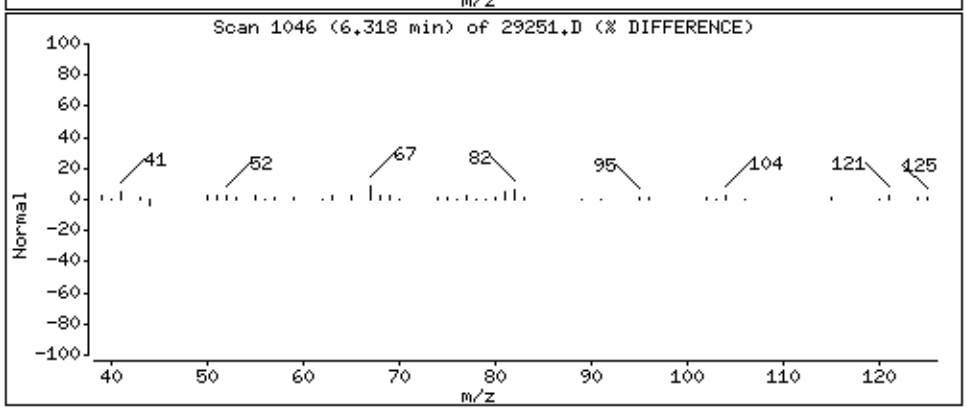












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

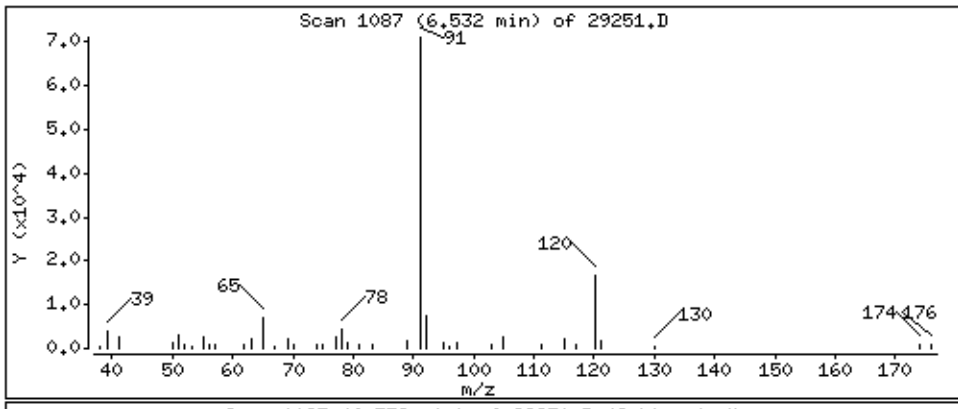
Operator: AH2

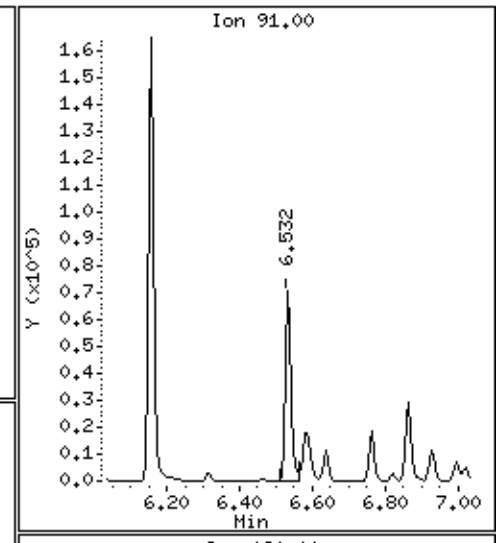
Column phase: Rtx-VMS

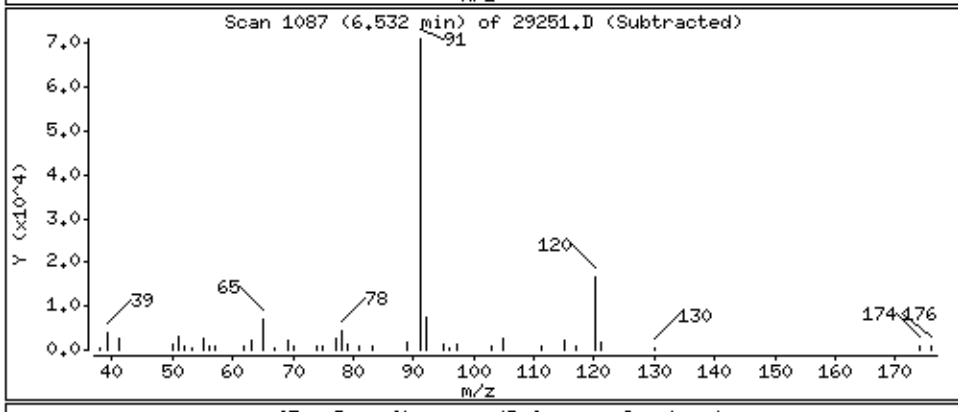
Column diameter: 0.18

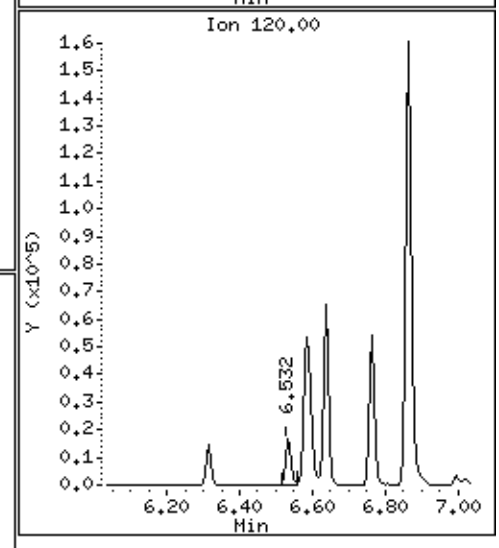
65 n-Propylbenzene

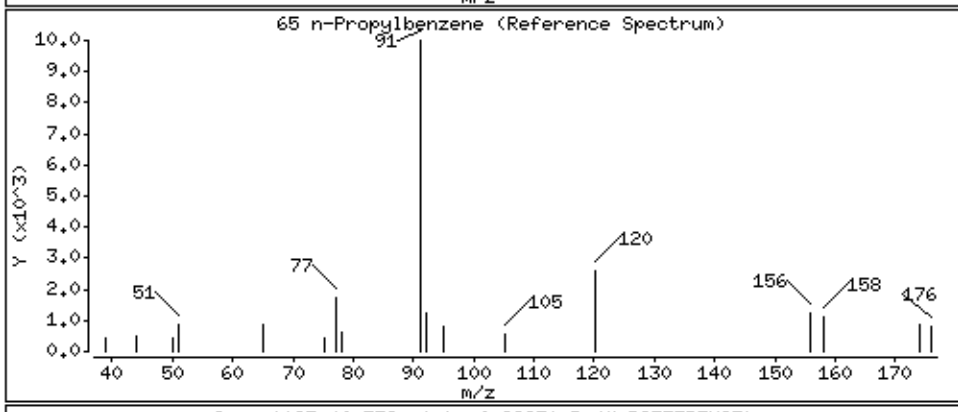
Concentration: 4.4 ug/L

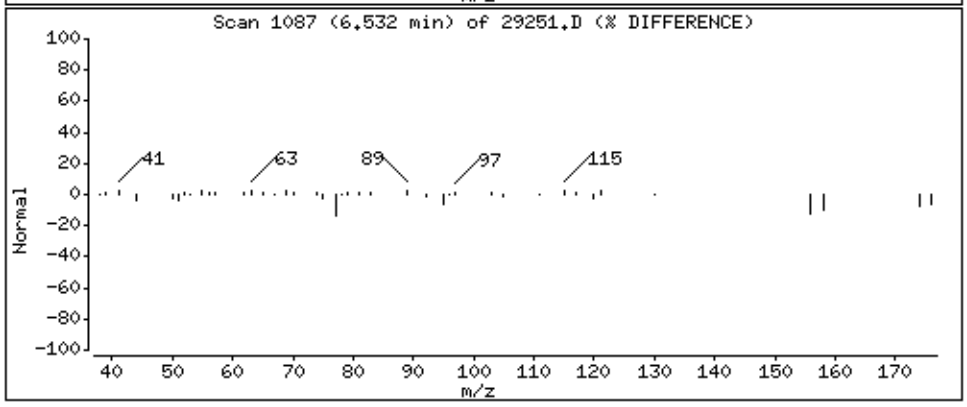












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

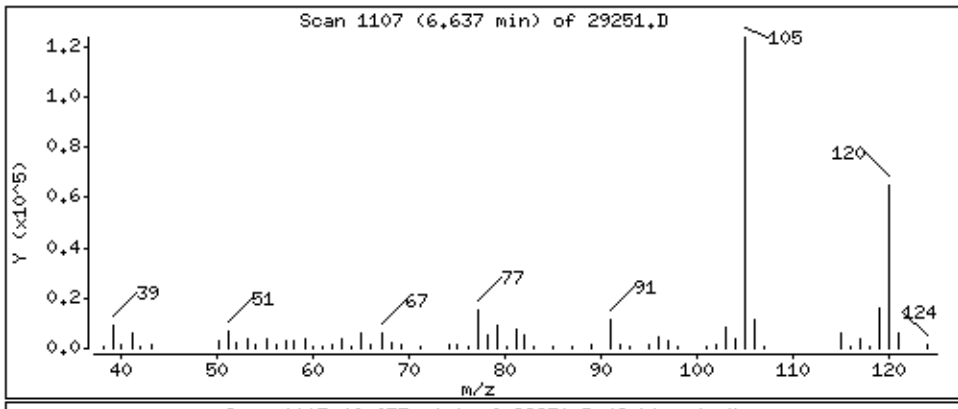
Operator: AH2

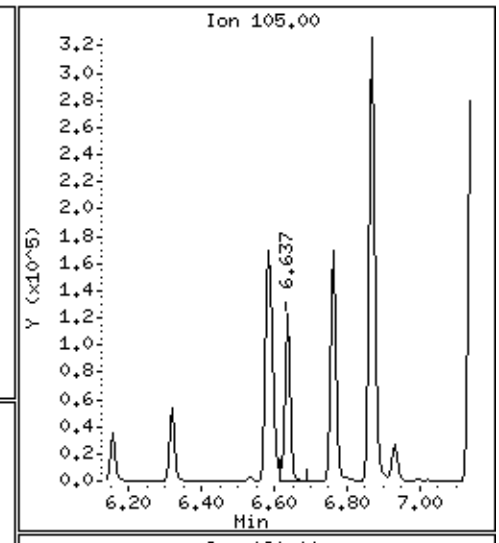
Column phase: Rtx-VMS

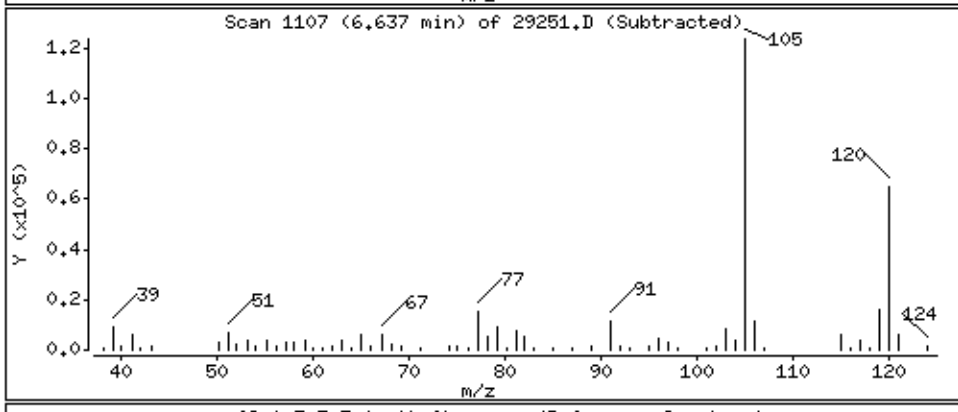
Column diameter: 0.18

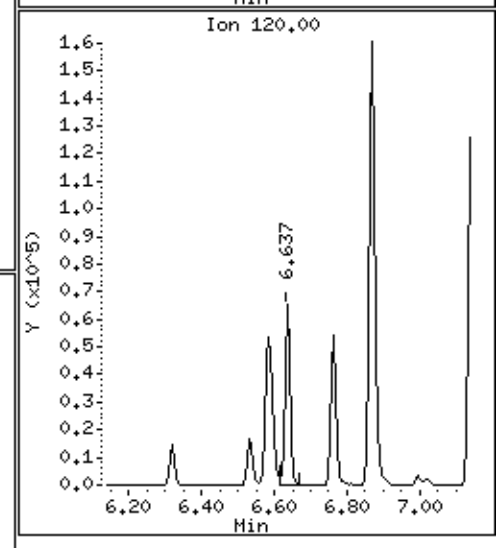
68 1,3,5-Trimethylbenzene

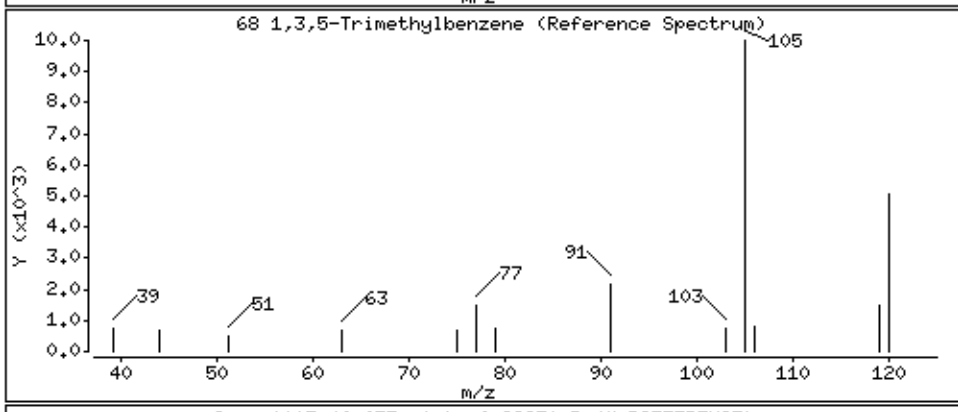
Concentration: 11.1 ug/L

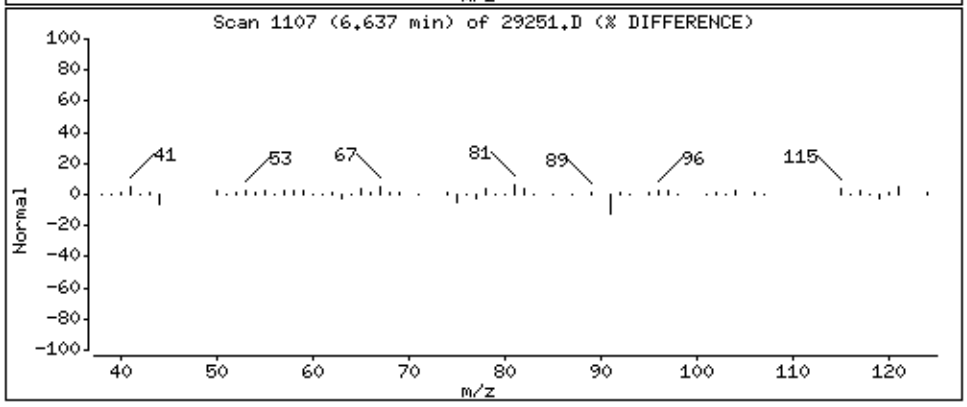












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

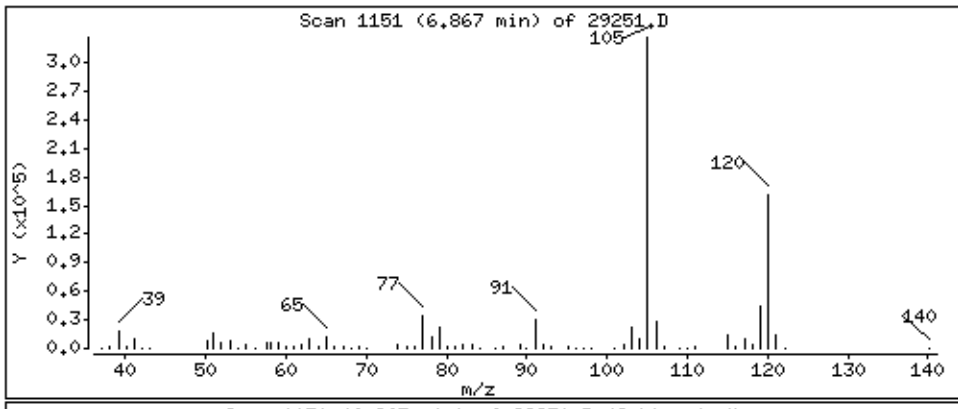
Operator: AH2

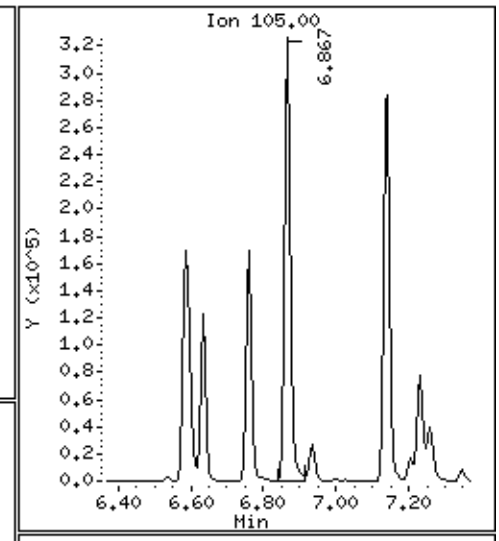
Column phase: Rtx-VMS

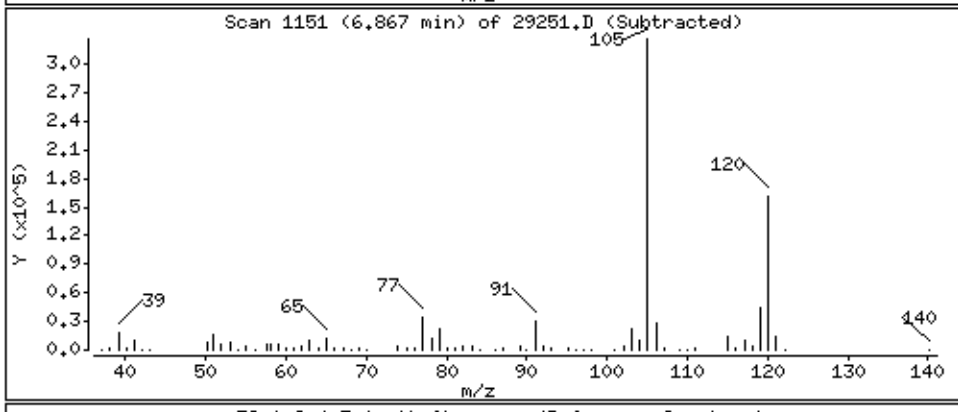
Column diameter: 0.18

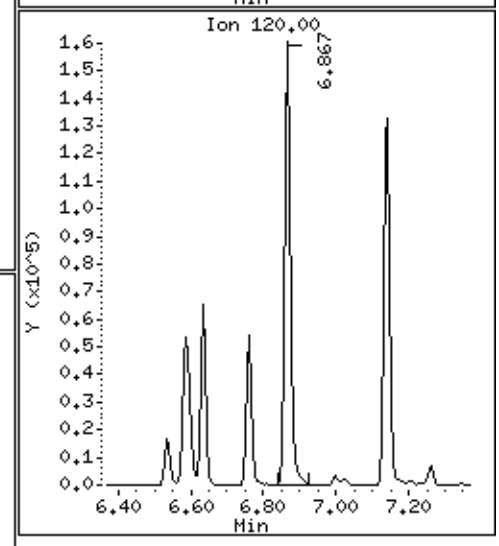
72 1,2,4-Trimethylbenzene

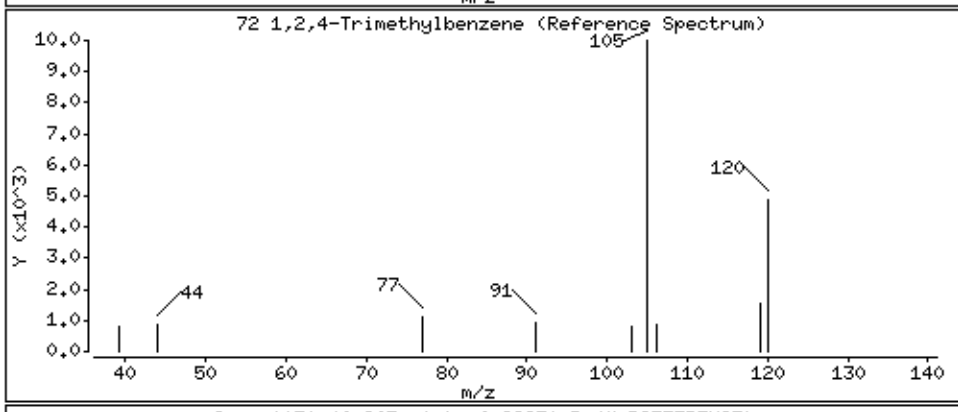
Concentration: 32.1 ug/L

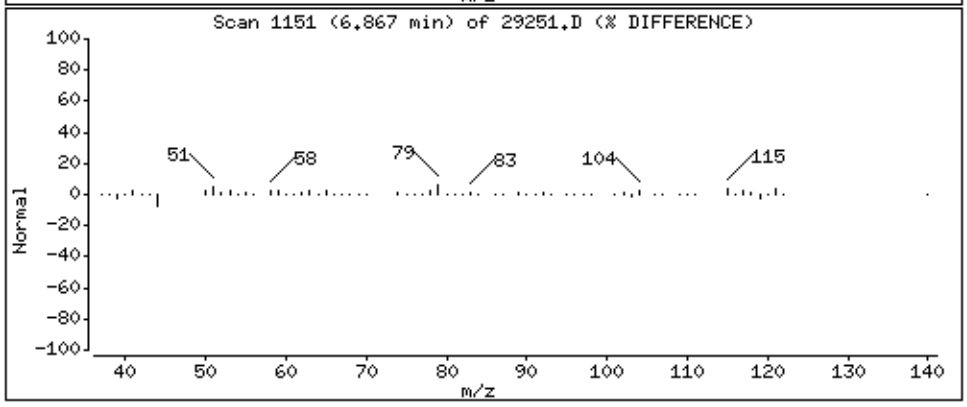












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

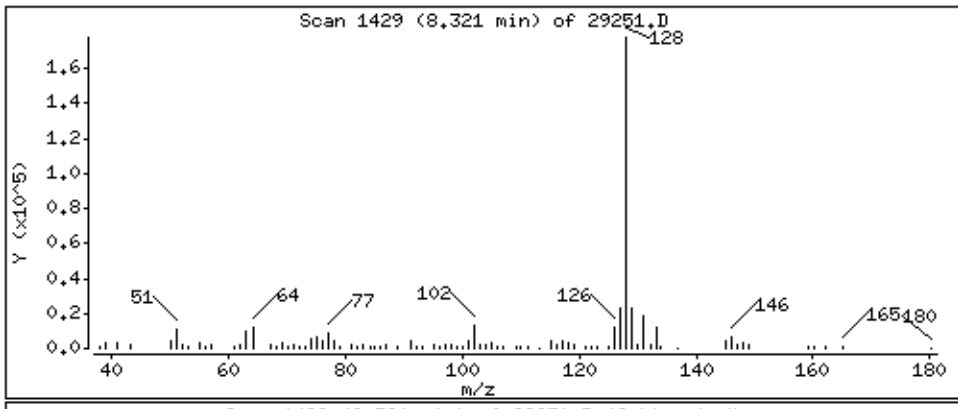
Operator: AH2

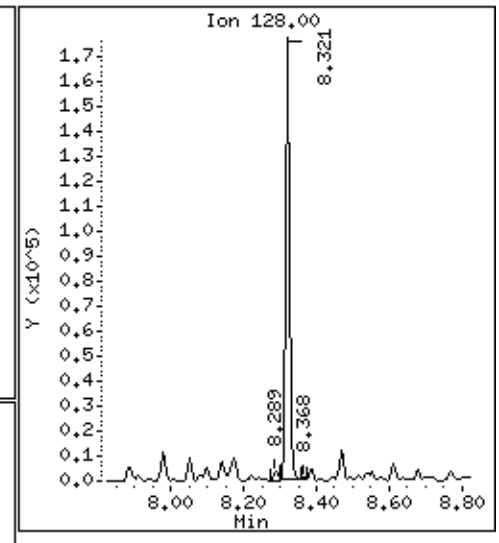
Column phase: Rtx-VMS

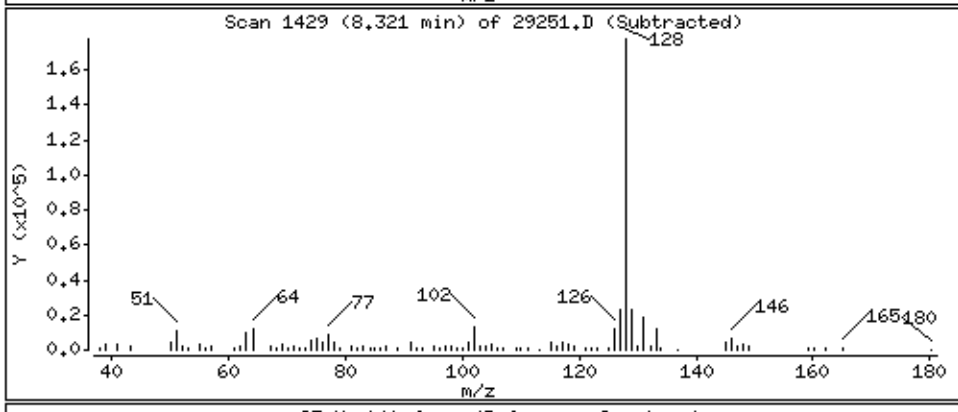
Column diameter: 0.18

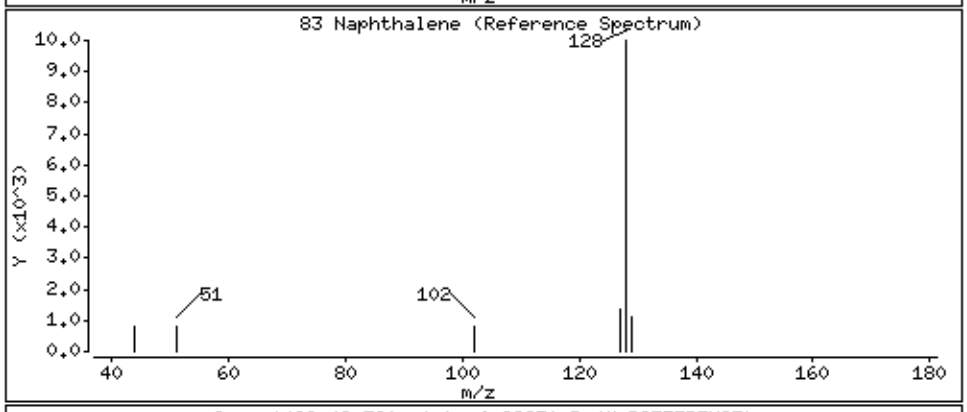
83 Naphthalene

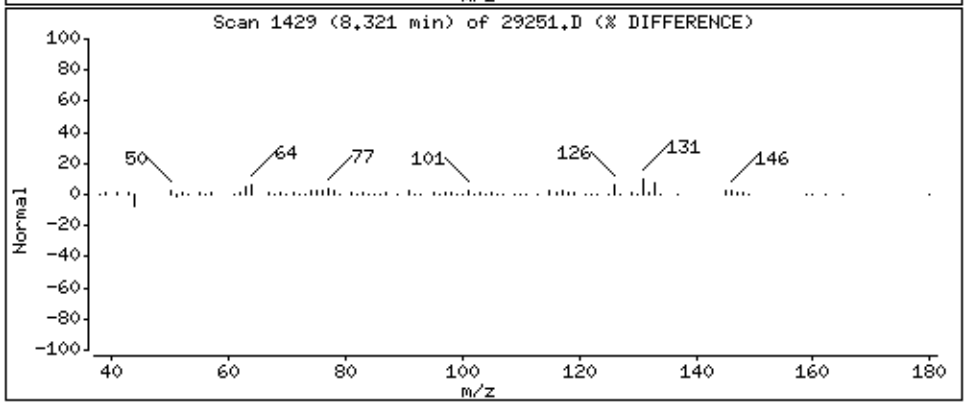
Concentration: 18.3 ug/L











Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29251.D

Date : 20-OCT-2015 02:40

Client ID: MW-7-101315

Instrument: 10msv1.i

Sample Info: 10326303006

Purge Volume: 5.0

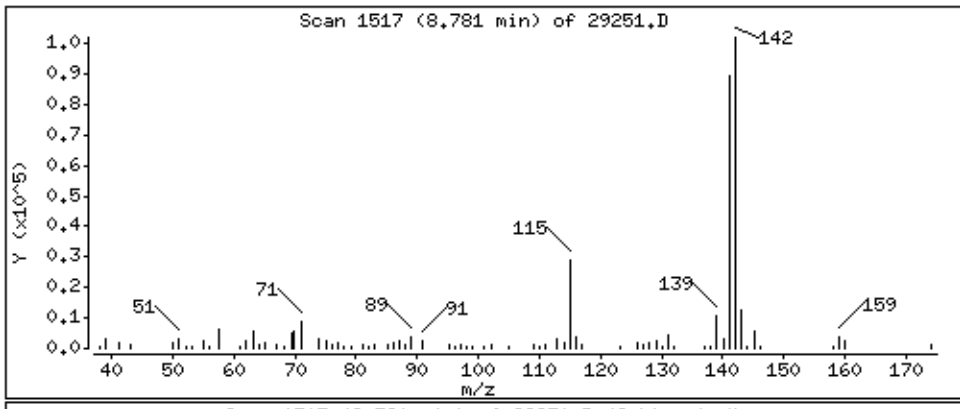
Operator: AH2

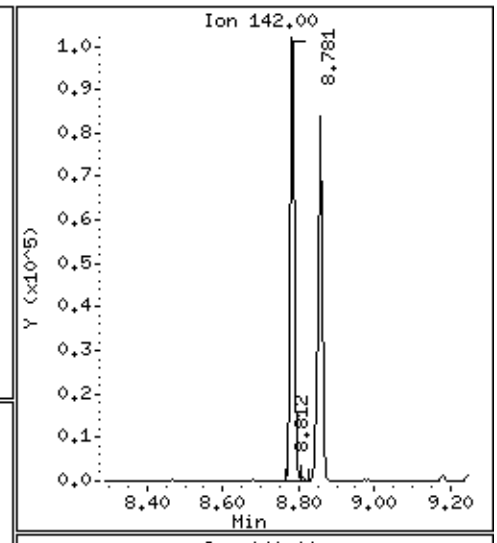
Column phase: Rtx-VMS

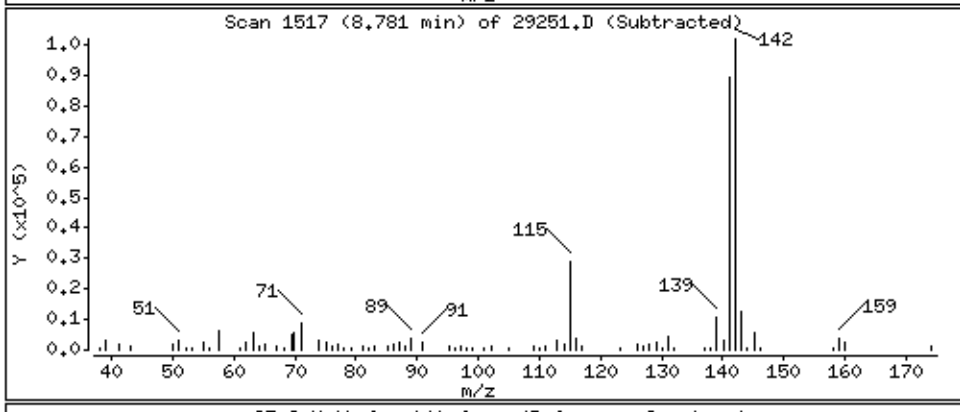
Column diameter: 0.18

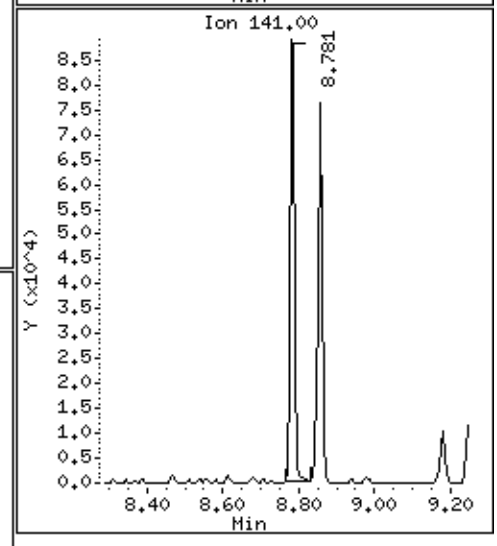
85 2-Methylnaphthalene

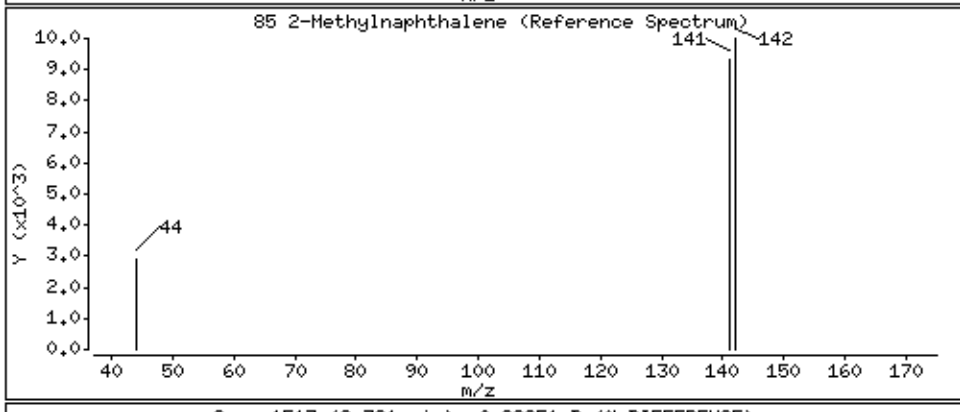
Concentration: 36.2 ug/L

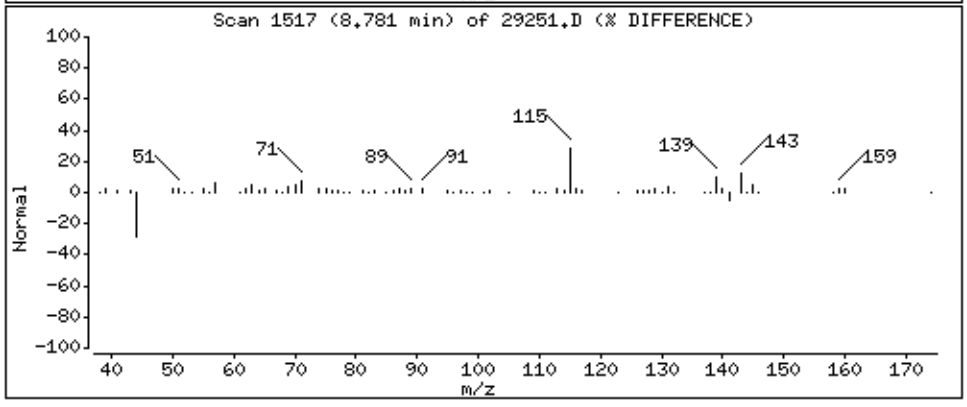








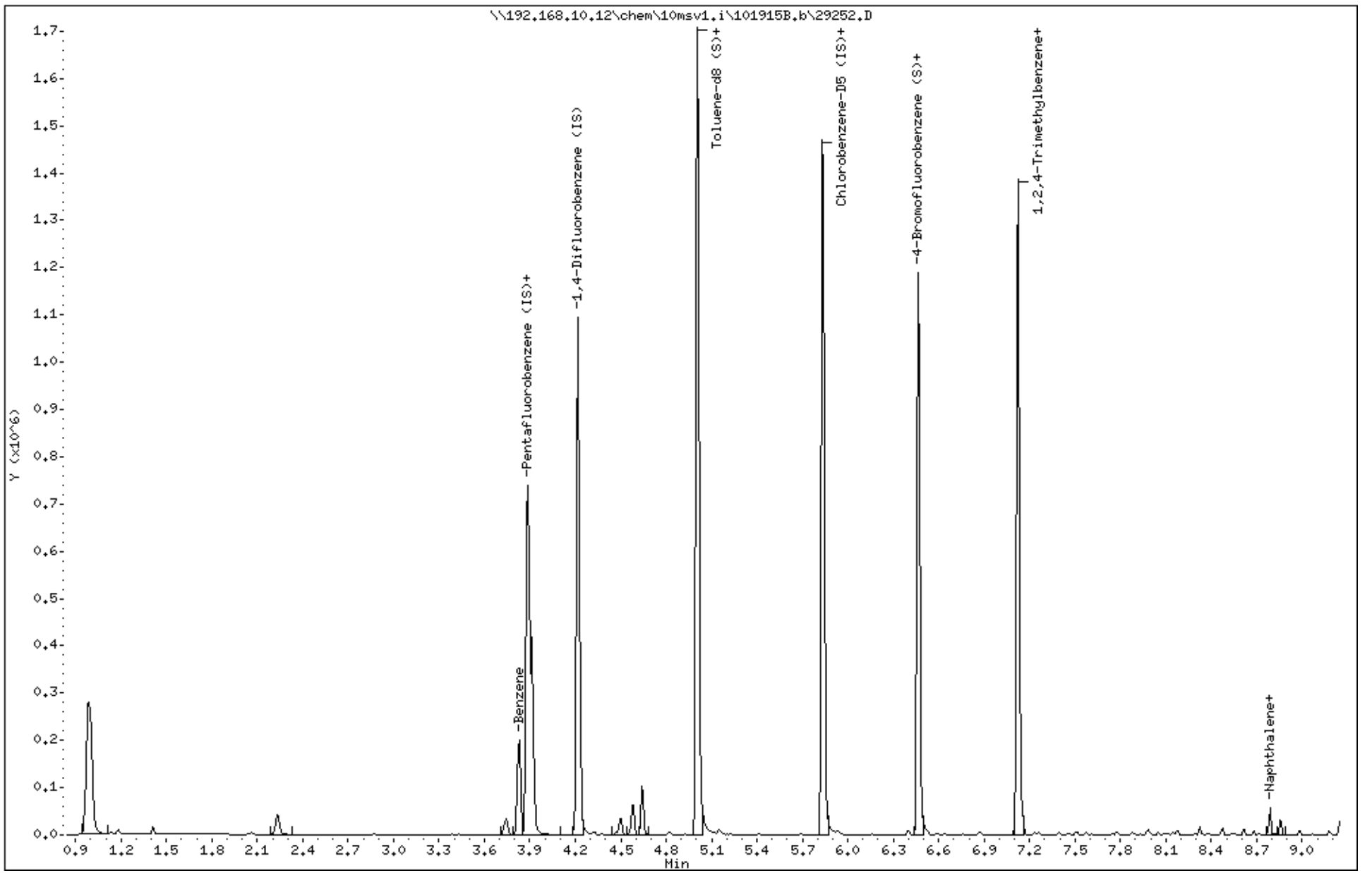




Data File: \\192.168.10.12\chem\10msv1.i\101915B.b/29251.D
Injection Date: 20-OCT-2015 02:40
Instrument: 10msv1.i
Lab Sample ID: 10326303006
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29252.D
Date : 20-OCT-2015 02:57
Client ID: MW-6-101315
Sample Info: 10326303007
Purge Volume: 5.0
Column phase: Rtx-VMS

Instrument: 10msv1.i
Operator: AH2
Column diameter: 0.18



Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29252.D

Date : 20-OCT-2015 02:57

Client ID: MW-6-101315

Instrument: 10msv1.i

Sample Info: 10326303007

Purge Volume: 5.0

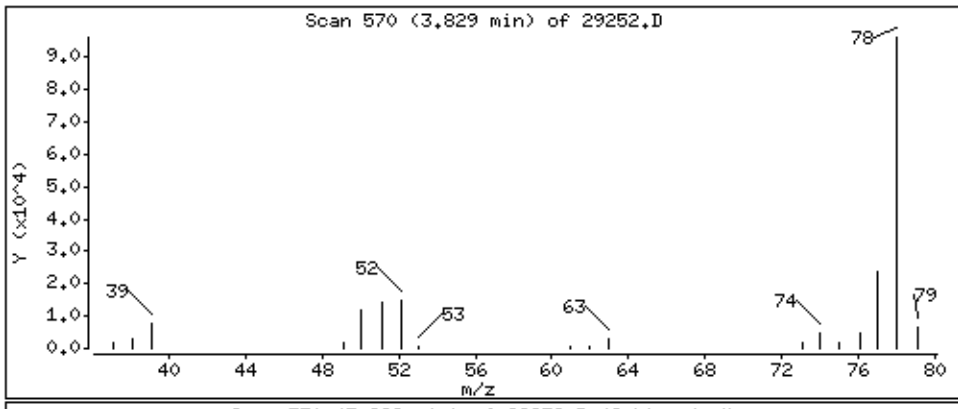
Operator: AH2

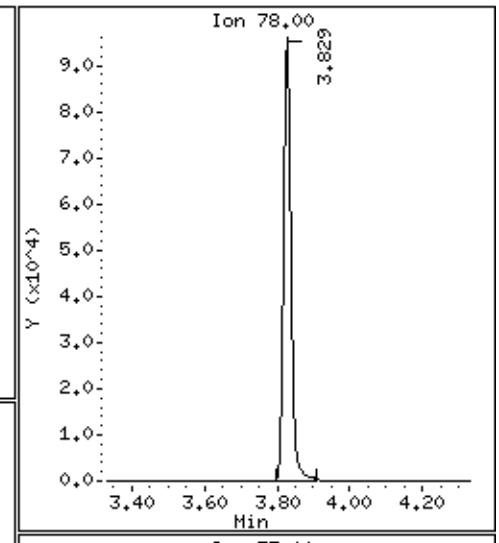
Column phase: Rtx-VMS

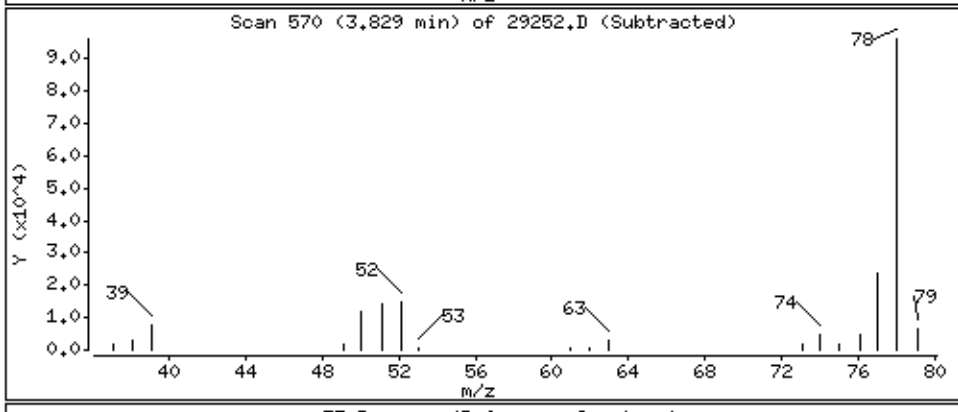
Column diameter: 0.18

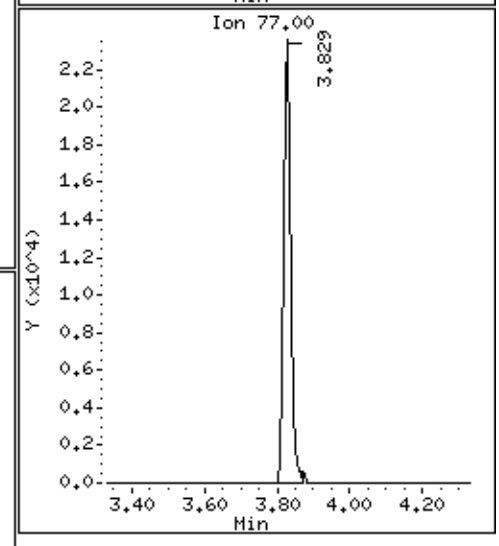
33 Benzene

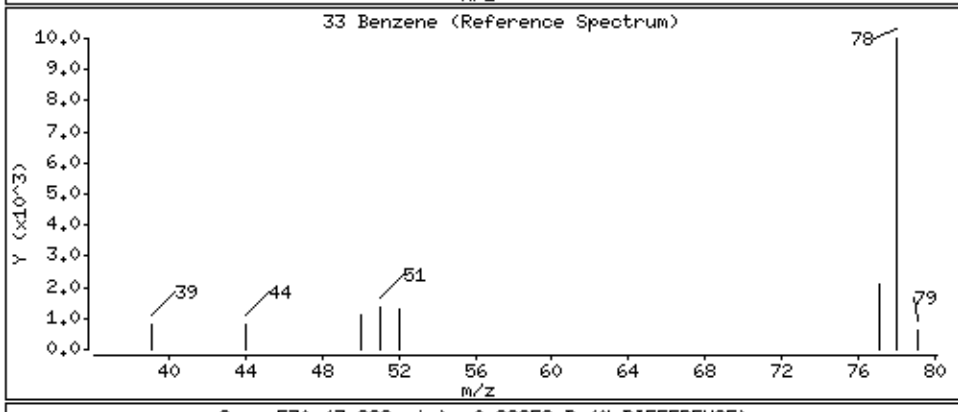
Concentration: 8.4 ug/L

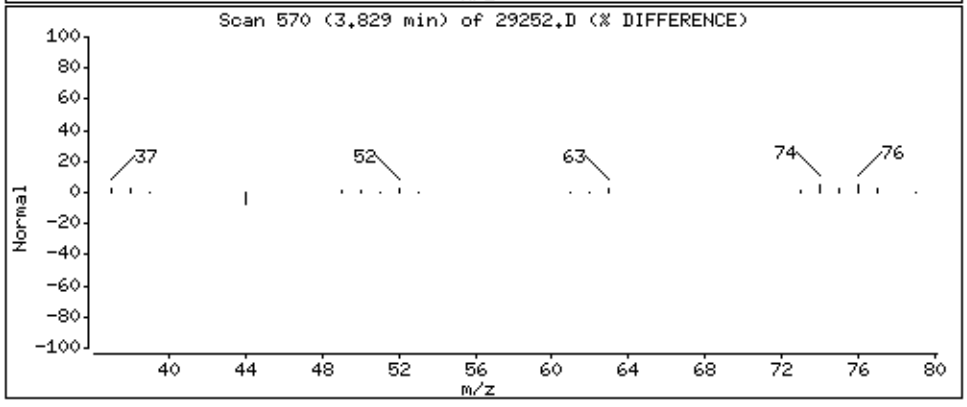












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29252.D

Date : 20-OCT-2015 02:57

Client ID: MW-6-101315

Instrument: 10msv1.i

Sample Info: 10326303007

Purge Volume: 5.0

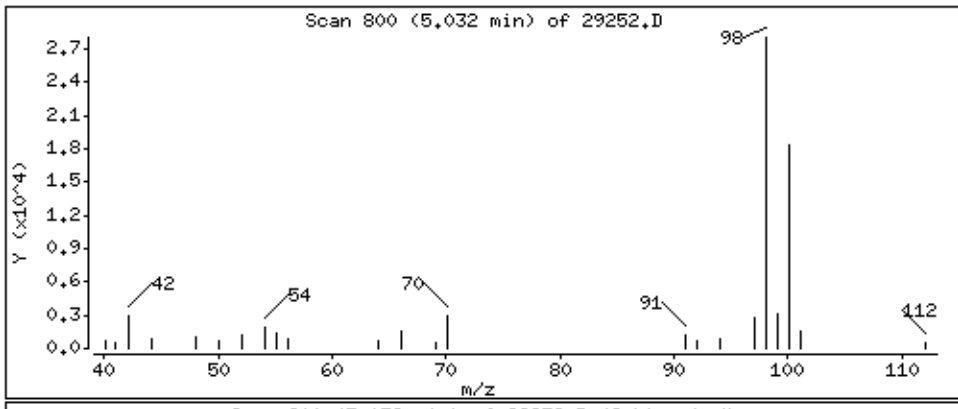
Operator: AH2

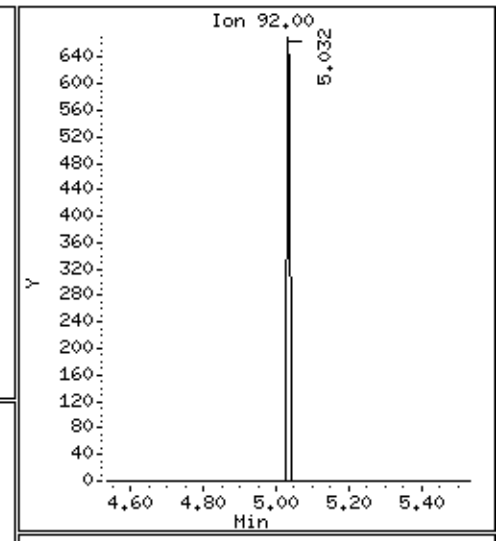
Column phase: Rtx-VMS

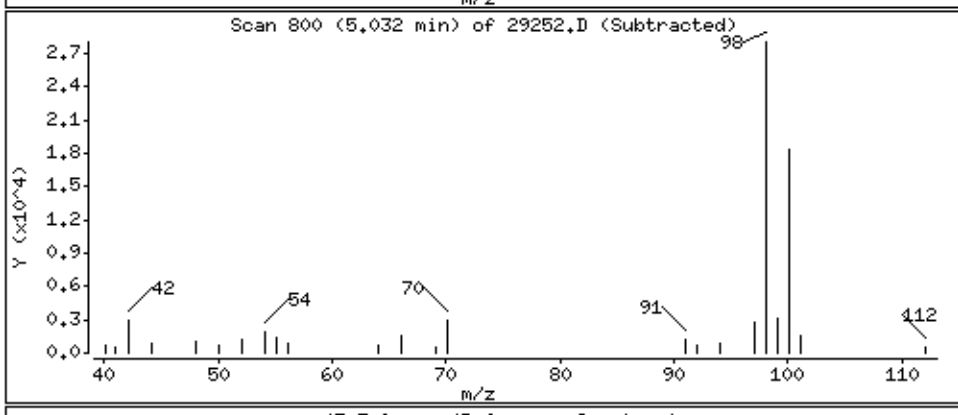
Column diameter: 0.18

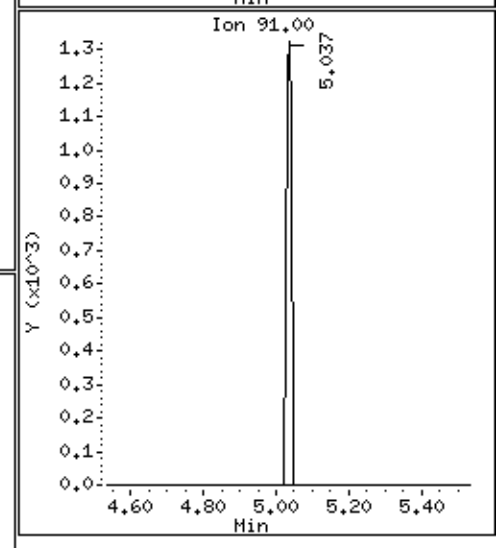
45 Toluene

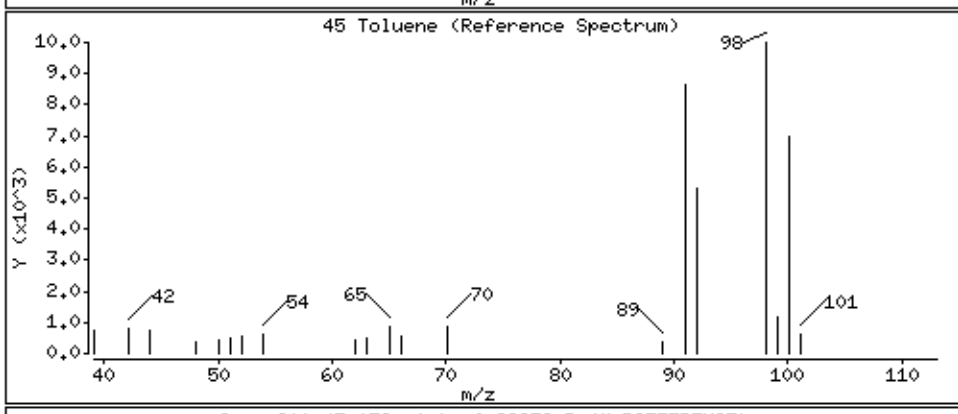
Concentration: 0.043 ug/L

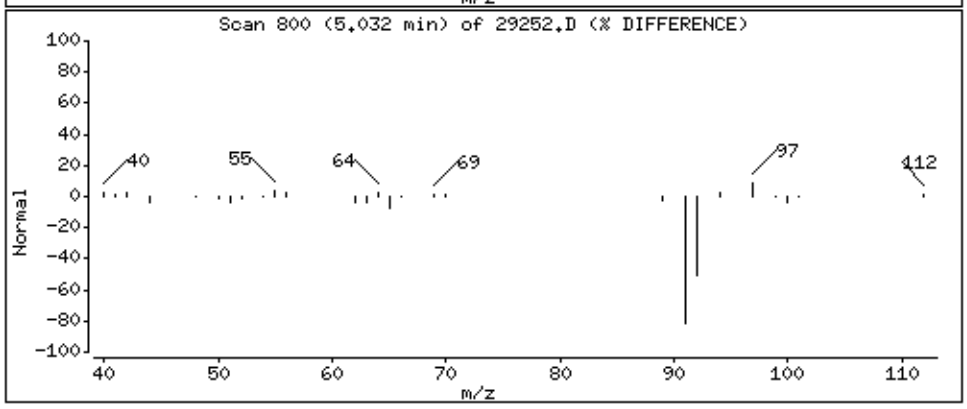












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29252.D

Date : 20-OCT-2015 02:57

Client ID: MW-6-101315

Instrument: 10msv1.i

Sample Info: 10326303007

Purge Volume: 5.0

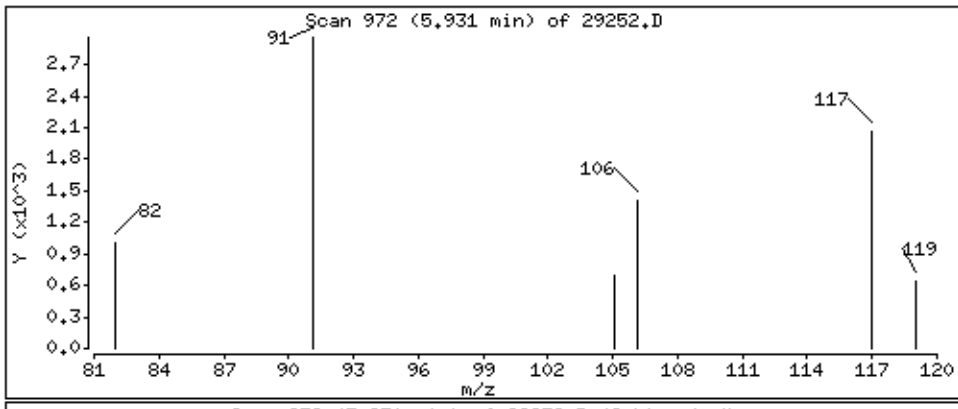
Operator: AH2

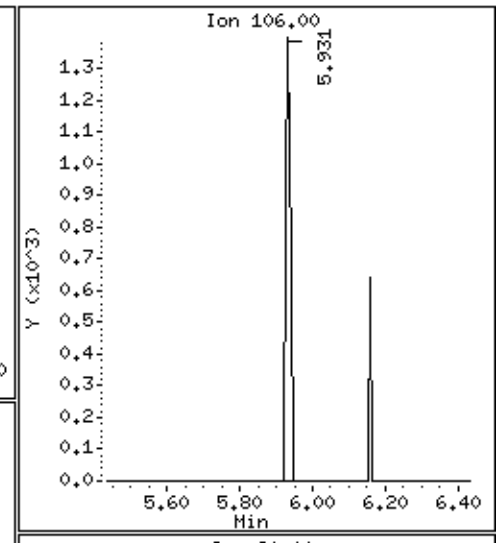
Column phase: Rtx-VMS

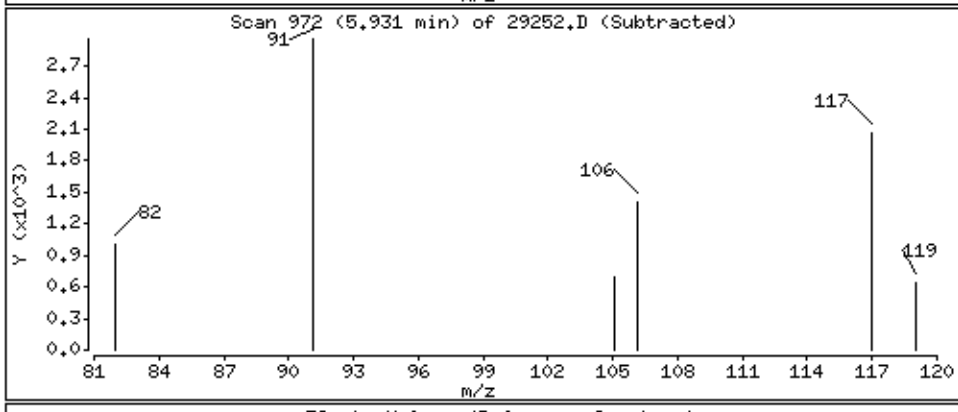
Column diameter: 0.18

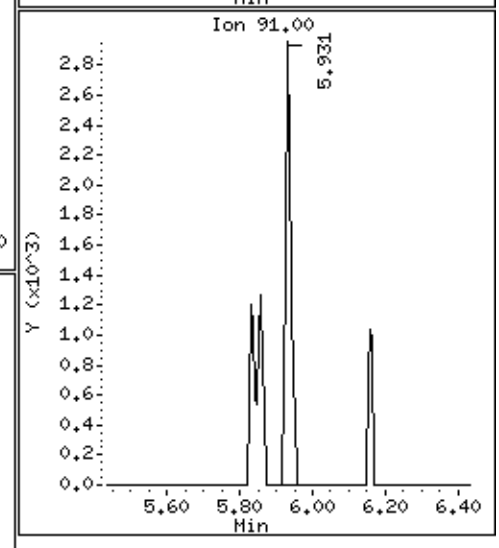
58 m&p-Xylene

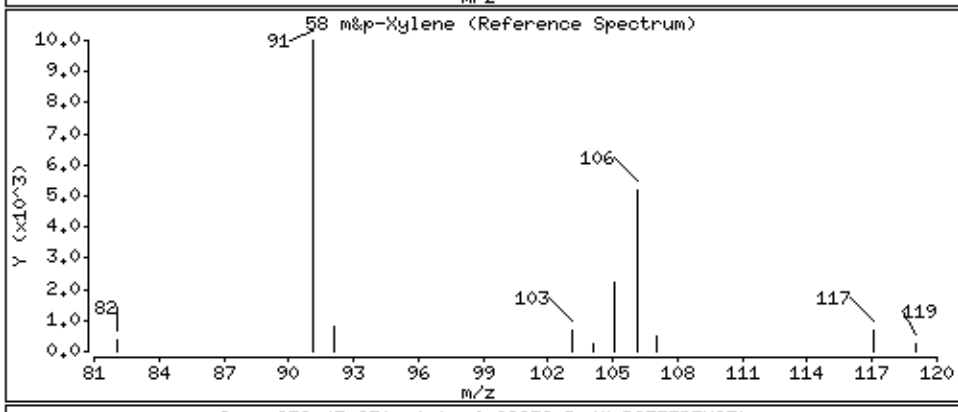
Concentration: 0.19 ug/L

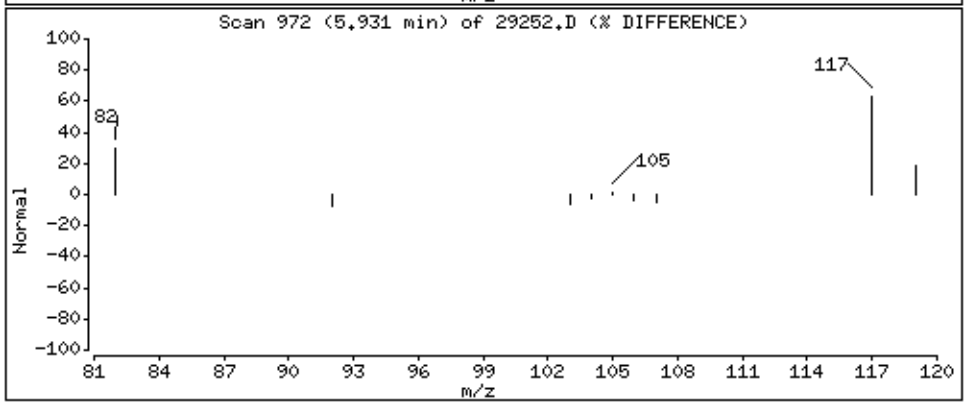












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29252.D

Date : 20-OCT-2015 02:57

Client ID: MW-6-101315

Instrument: 10msv1.i

Sample Info: 10326303007

Purge Volume: 5.0

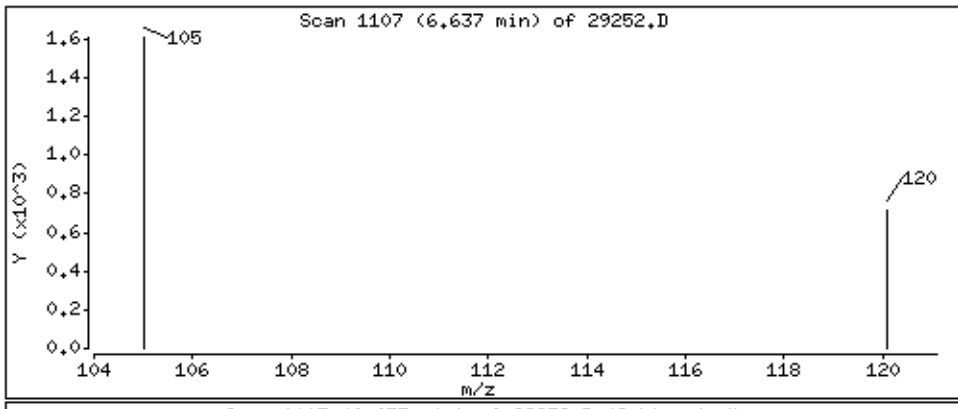
Operator: AH2

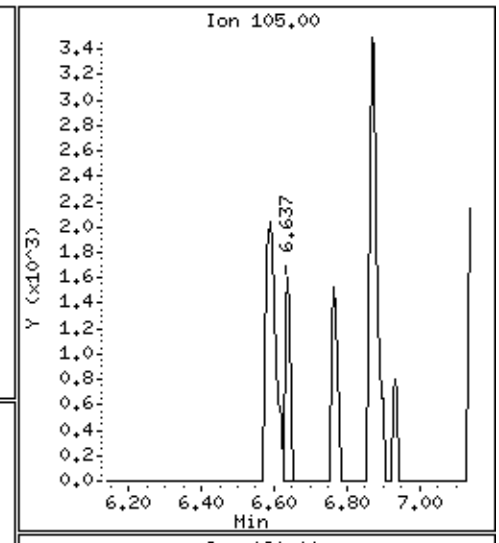
Column phase: Rtx-VMS

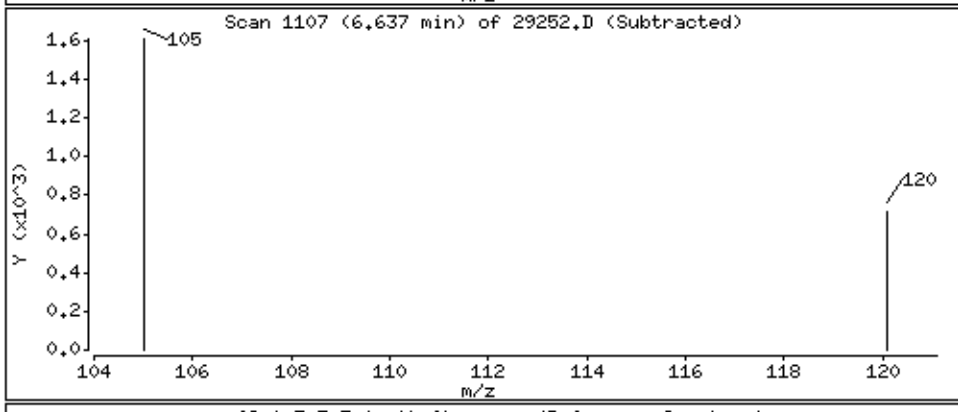
Column diameter: 0.18

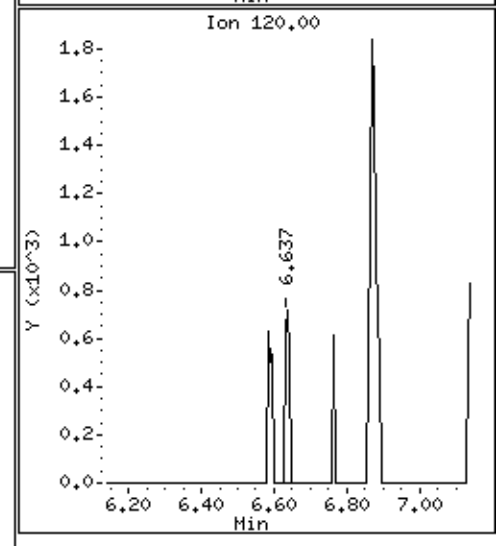
68 1,3,5-Trimethylbenzene

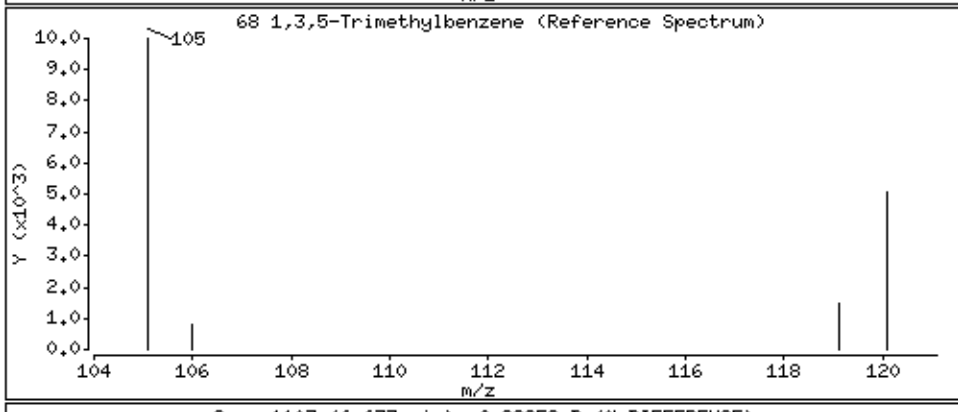
Concentration: 0.14 ug/L

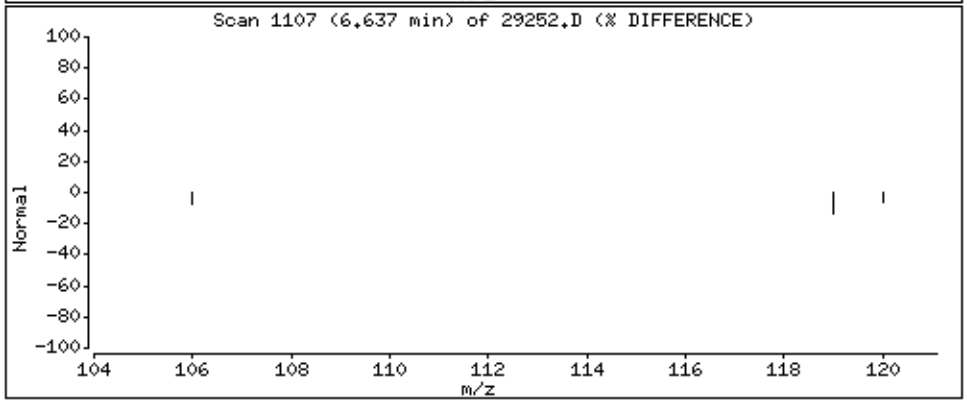












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29252.D

Date : 20-OCT-2015 02:57

Client ID: MW-6-101315

Instrument: 10msv1.i

Sample Info: 10326303007

Purge Volume: 5.0

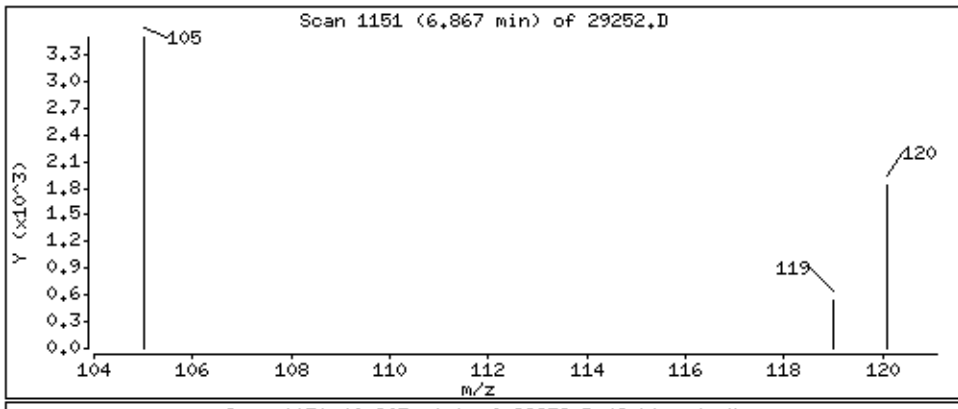
Operator: AH2

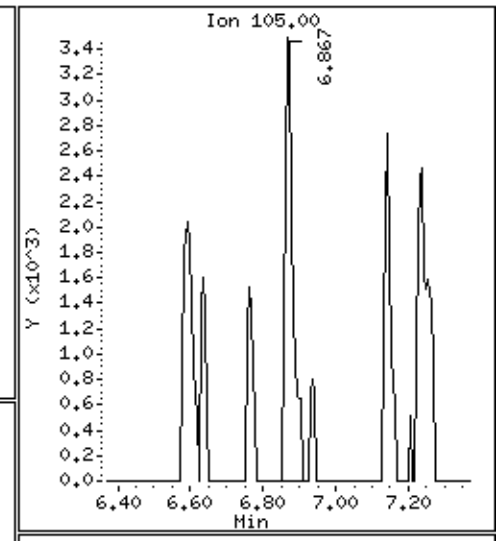
Column phase: Rtx-VMS

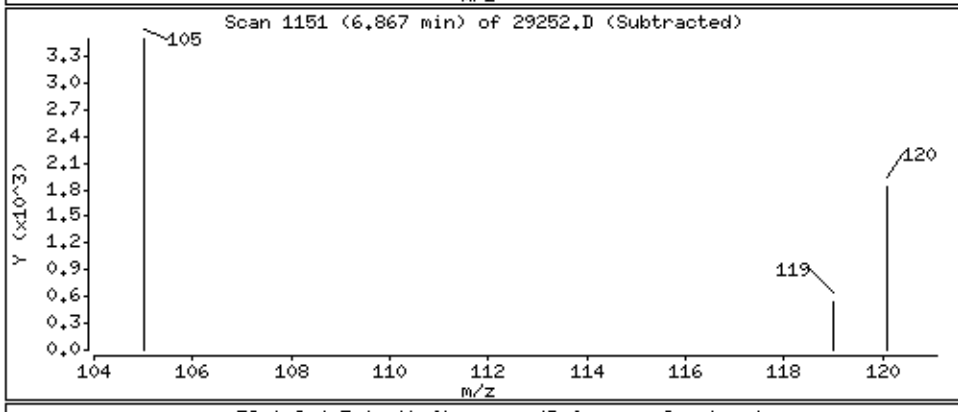
Column diameter: 0.18

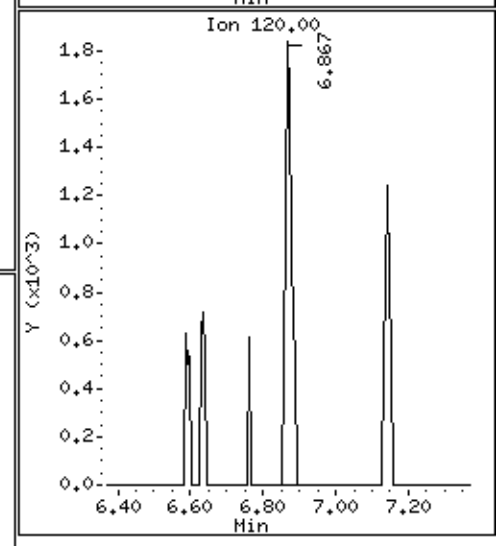
72 1,2,4-Trimethylbenzene

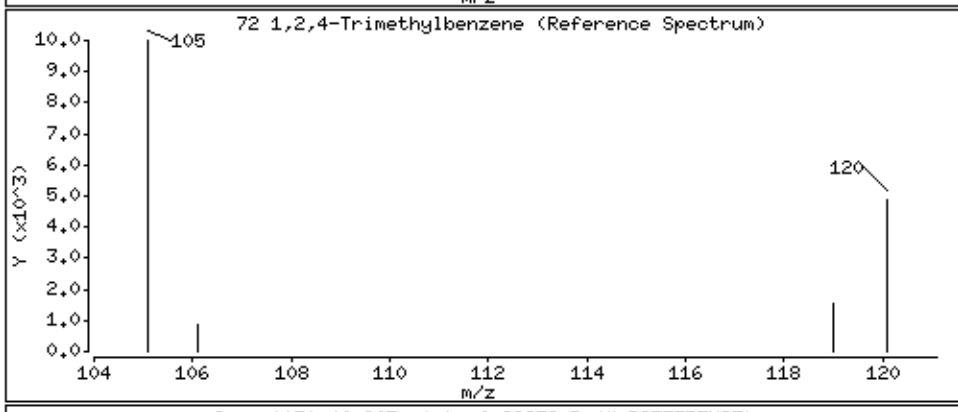
Concentration: 0.47 ug/L

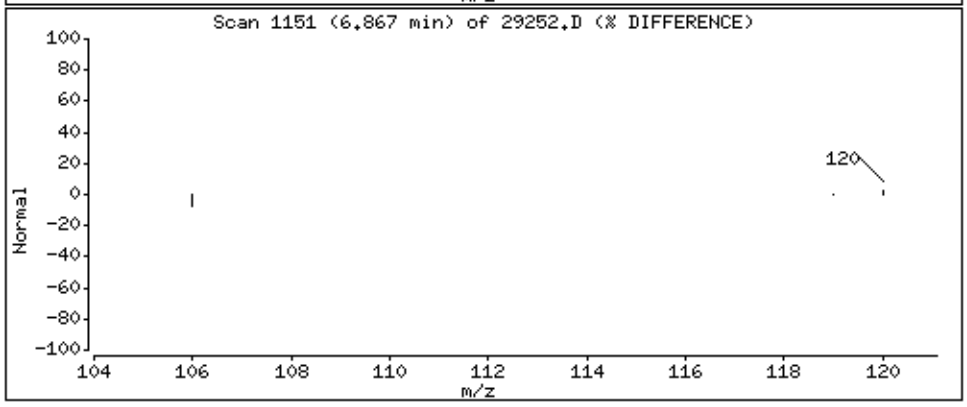












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29252.D

Date : 20-OCT-2015 02:57

Client ID: MW-6-101315

Instrument: 10msv1.i

Sample Info: 10326303007

Purge Volume: 5.0

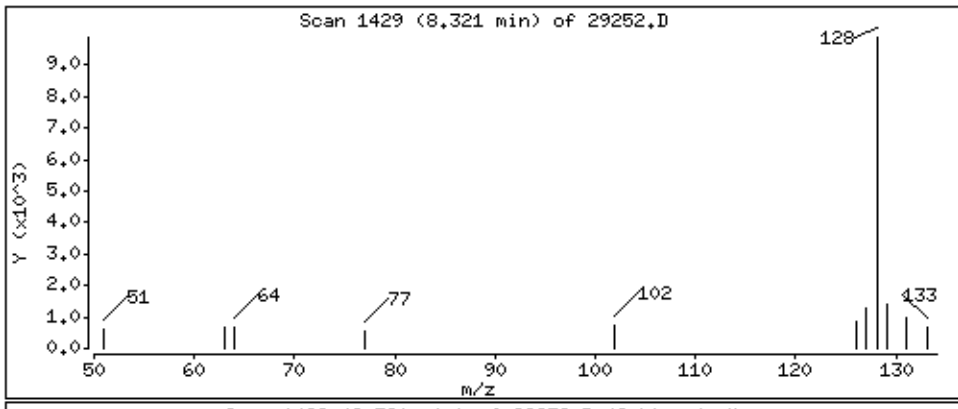
Operator: AH2

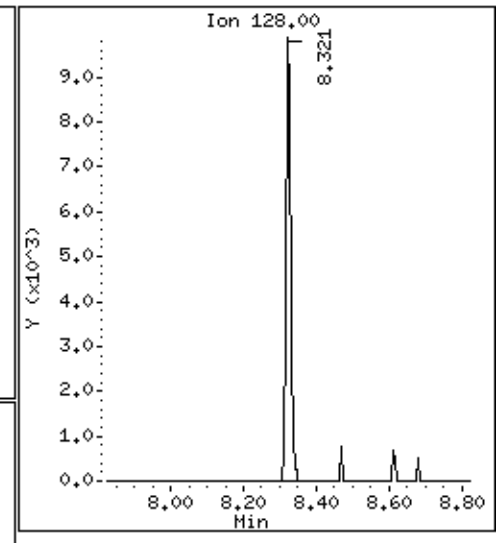
Column phase: Rtx-VMS

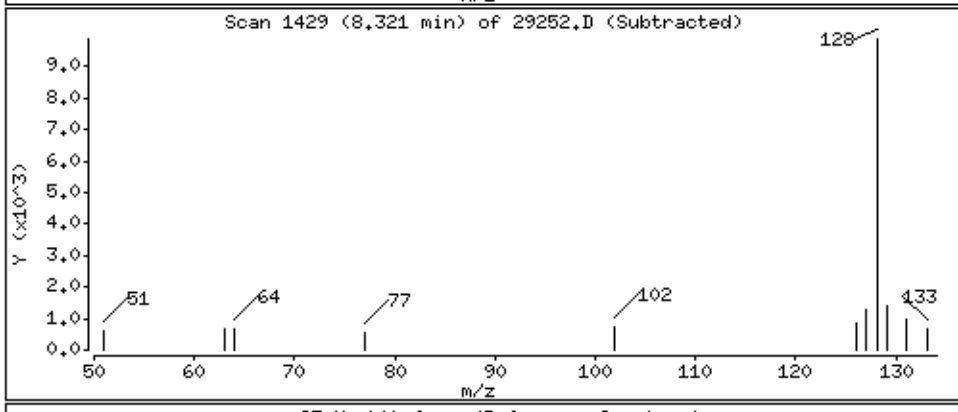
Column diameter: 0.18

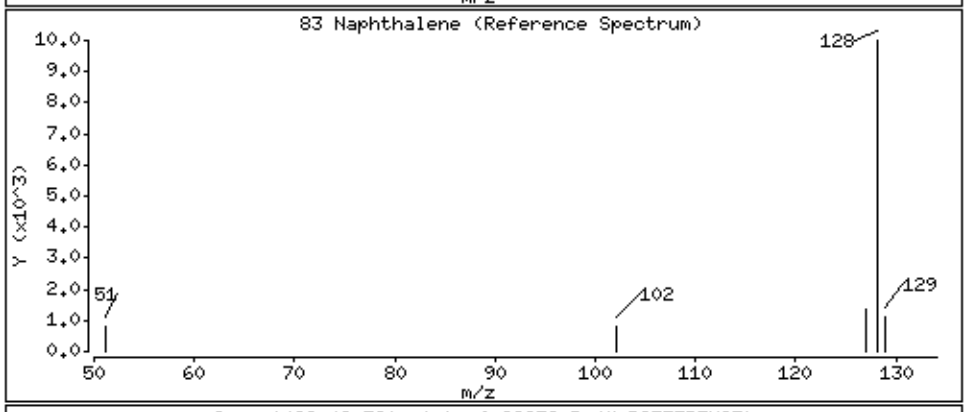
83 Naphthalene

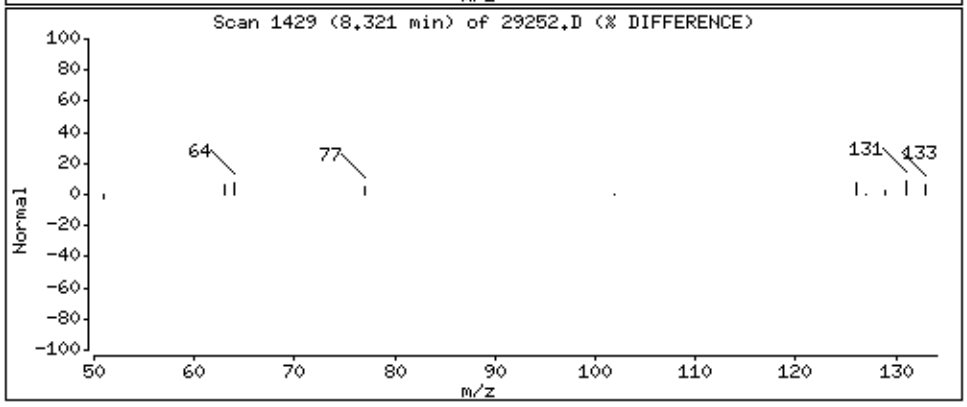
Concentration: 1.2 ug/L











Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29252.D

Date : 20-OCT-2015 02:57

Client ID: MW-6-101315

Instrument: 10msv1.i

Sample Info: 10326303007

Purge Volume: 5.0

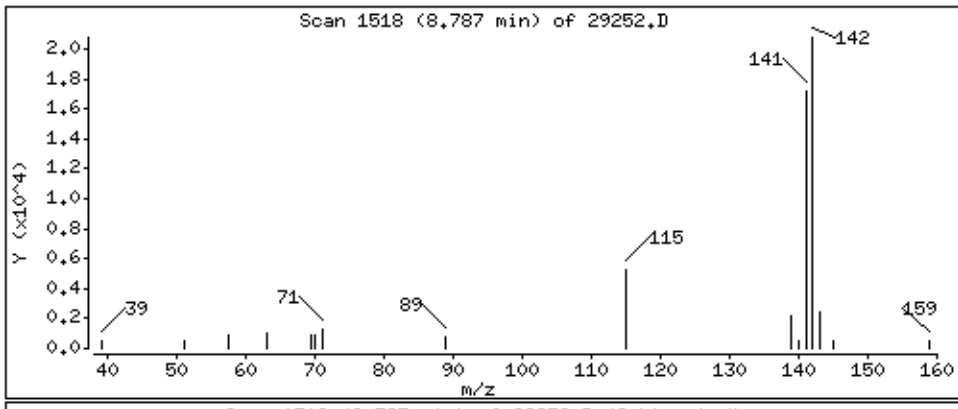
Operator: AH2

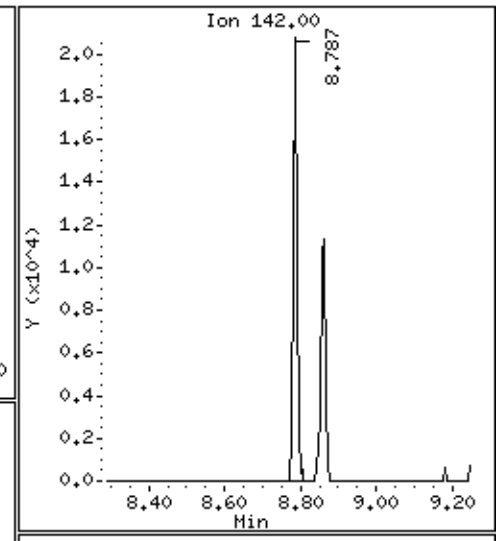
Column phase: Rtx-VMS

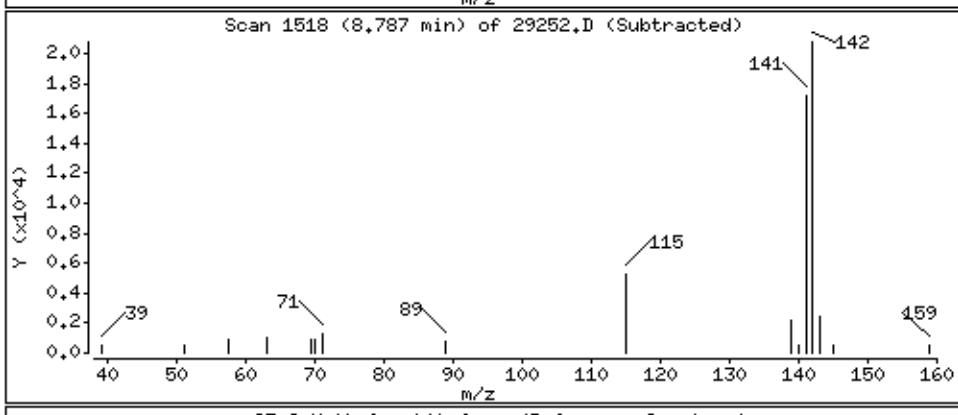
Column diameter: 0.18

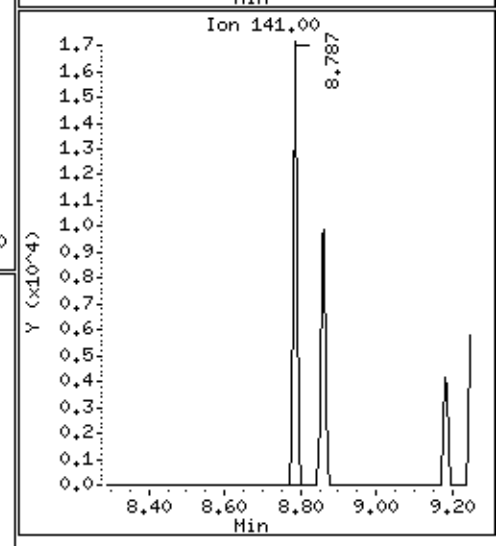
85 2-Methylnaphthalene

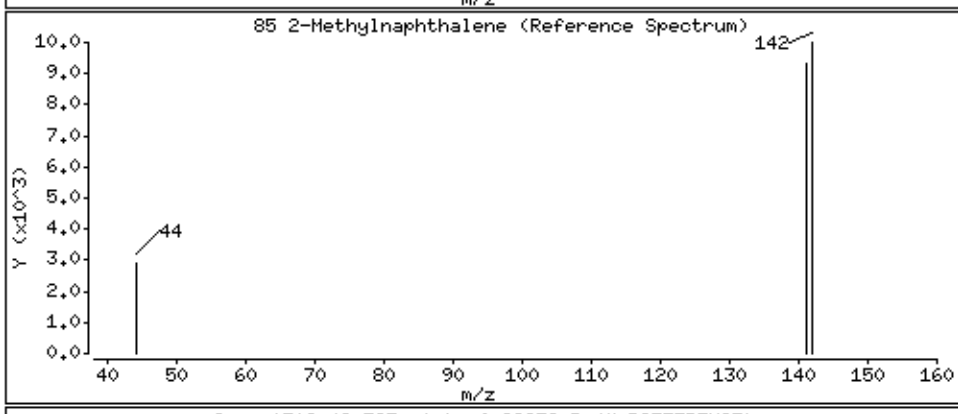
Concentration: 6.3 ug/L

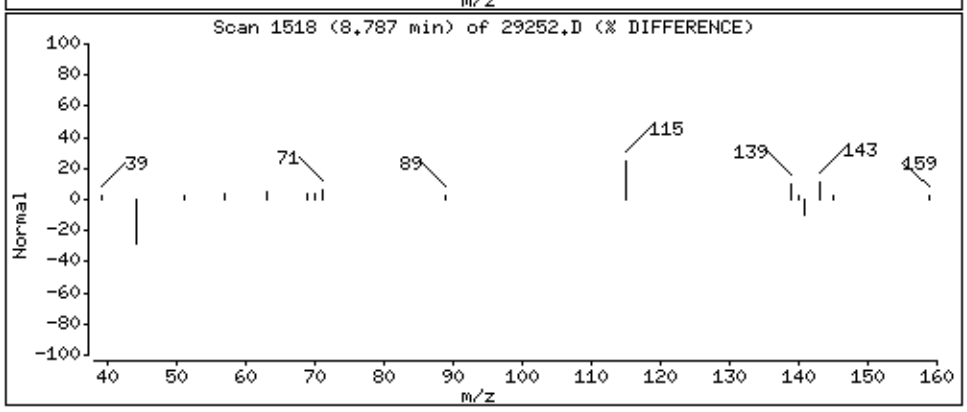












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b/29252.D
Injection Date: 20-OCT-2015 02:57
Instrument: 10msv1.i
Lab Sample ID: 10326303007
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Page 2

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

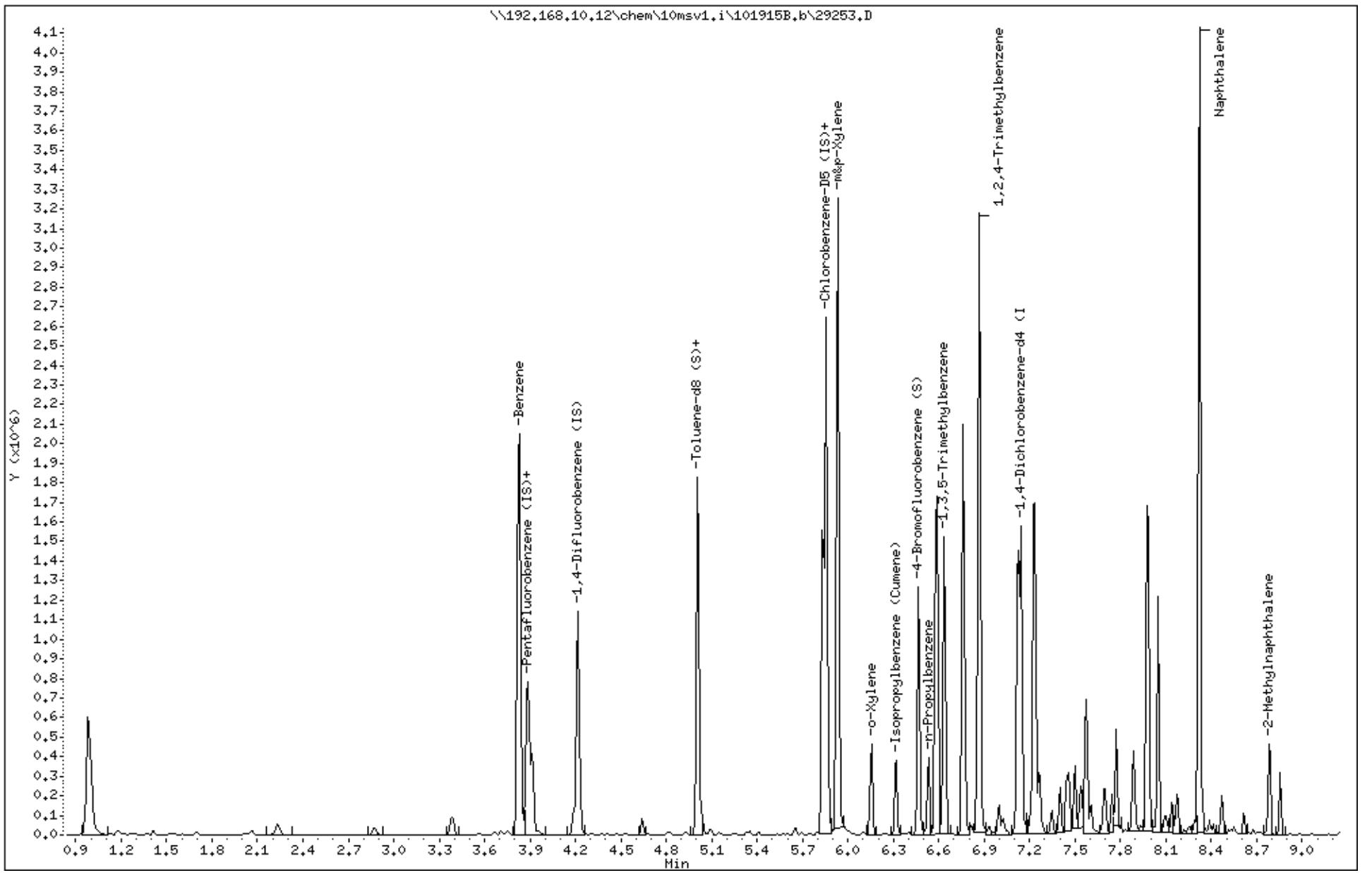
Sample Info: 10326303008

Purge Volume: 5.0

Operator: AH2

Column phase: Rtx-VMS

Column diameter: 0.18



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Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

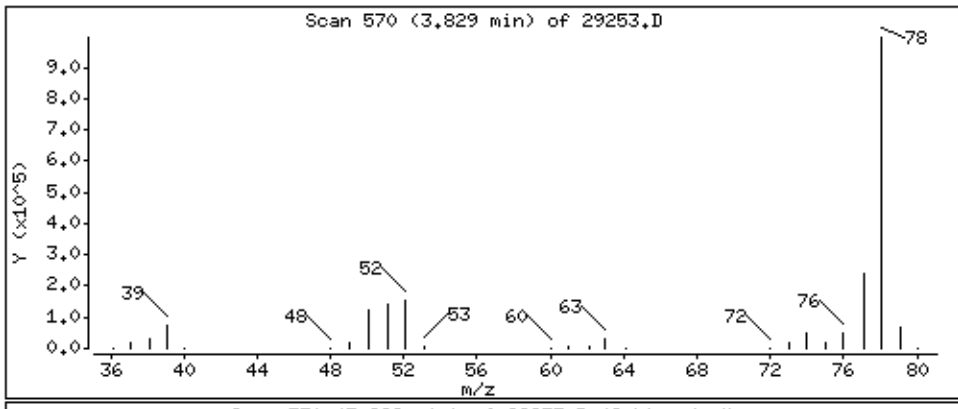
Operator: AH2

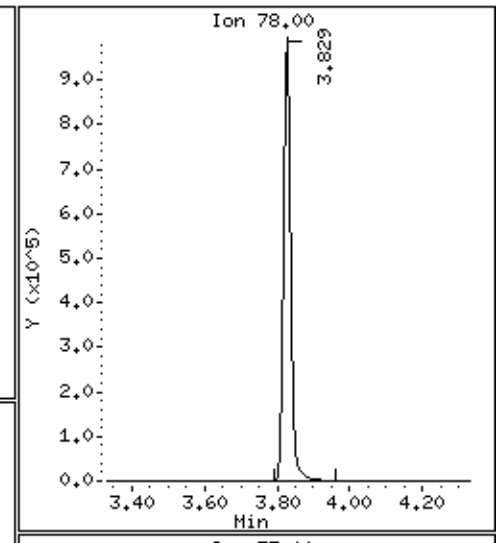
Column phase: Rtx-VMS

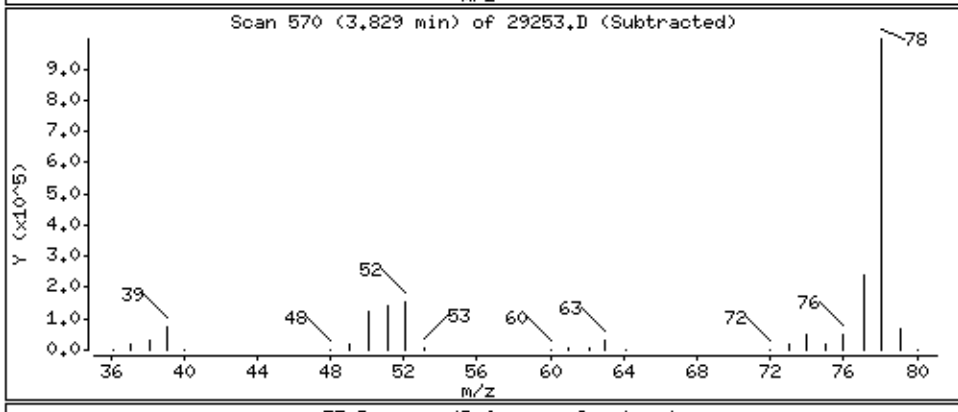
Column diameter: 0.18

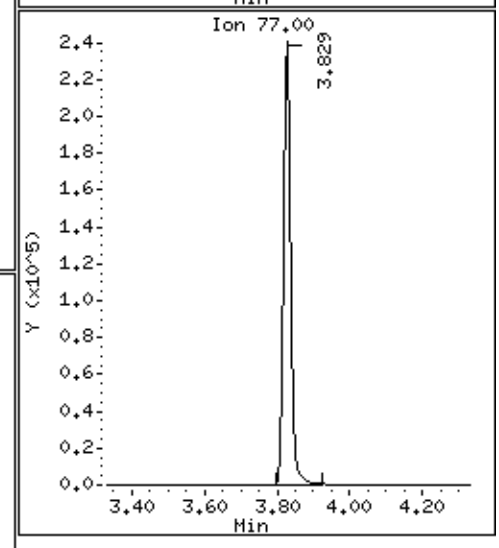
33 Benzene

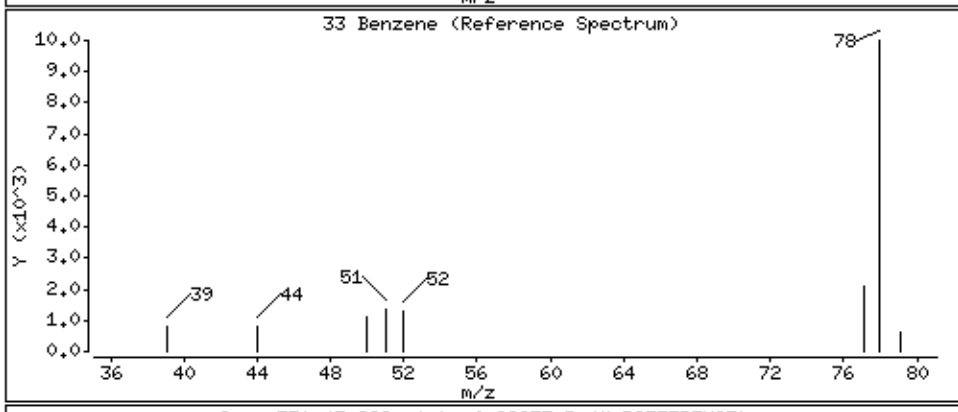
Concentration: 84.5 ug/L

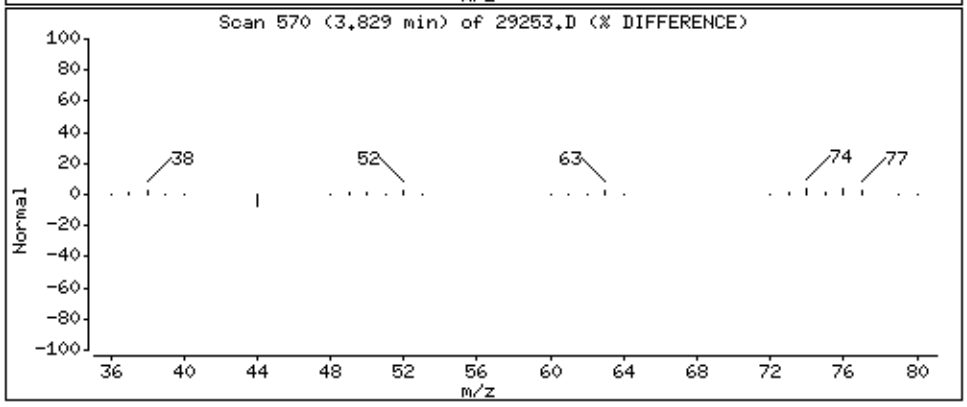












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

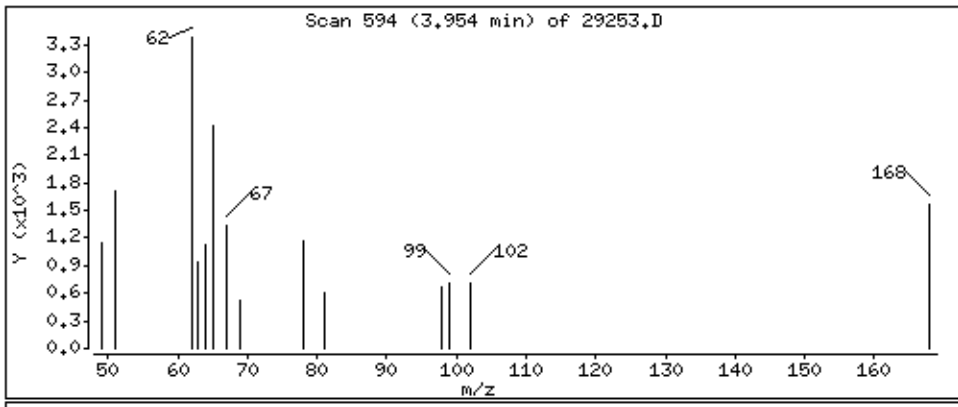
Operator: AH2

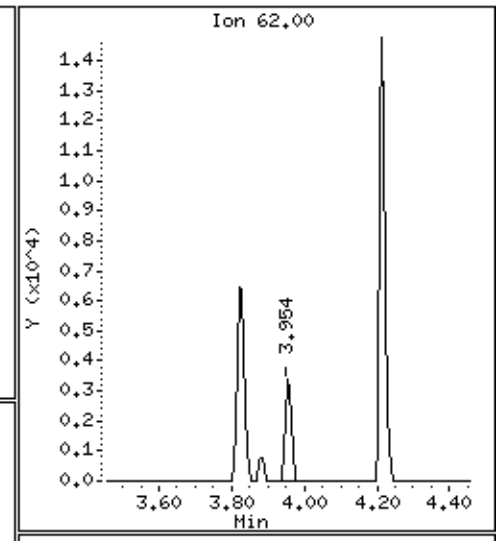
Column phase: Rtx-VMS

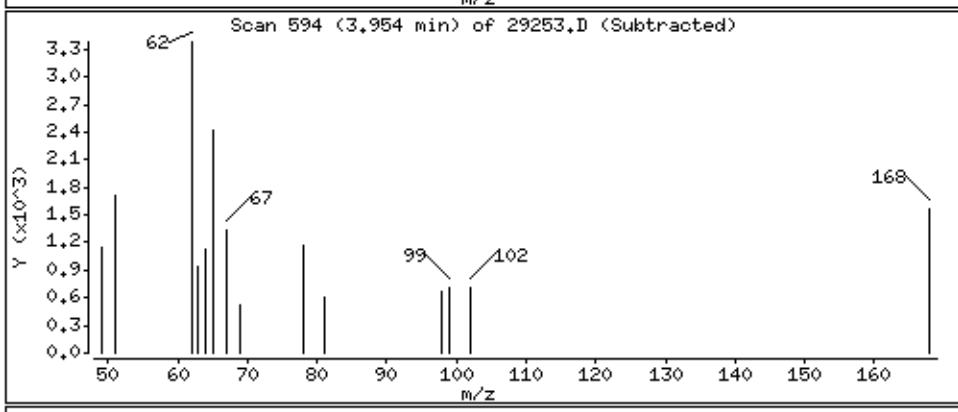
Column diameter: 0.18

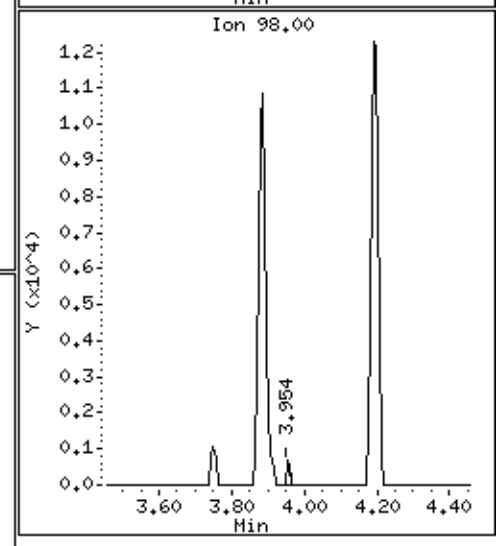
36 1,2-Dichloroethane

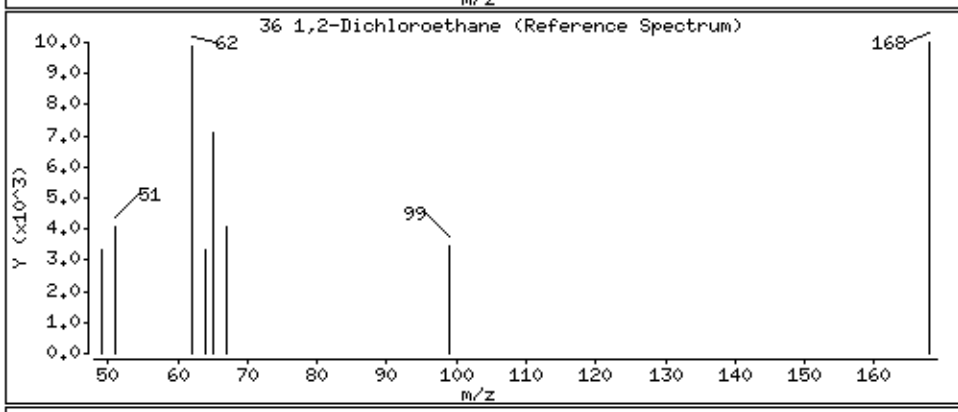
Concentration: 1.1 ug/L

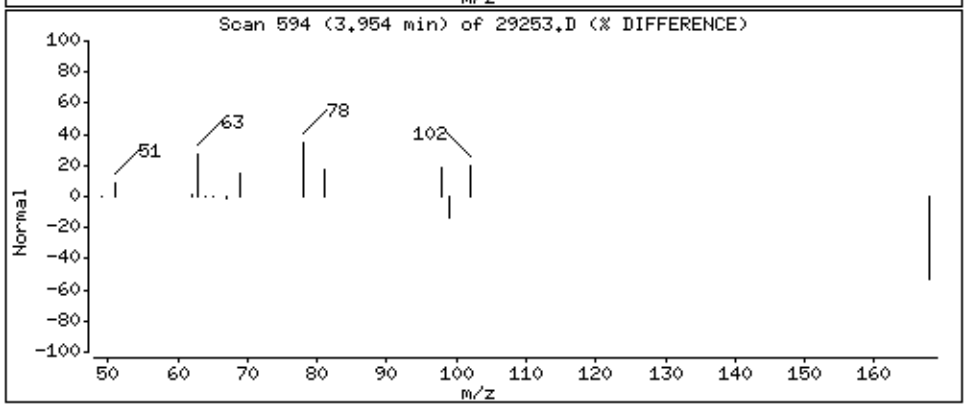












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

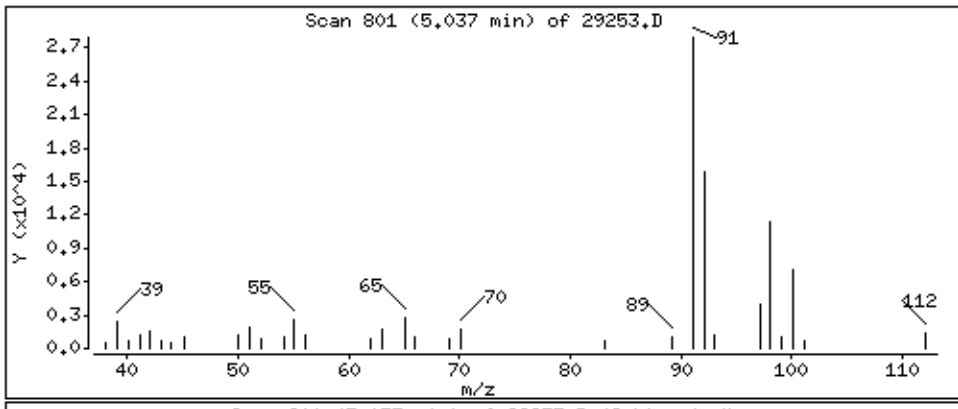
Operator: AH2

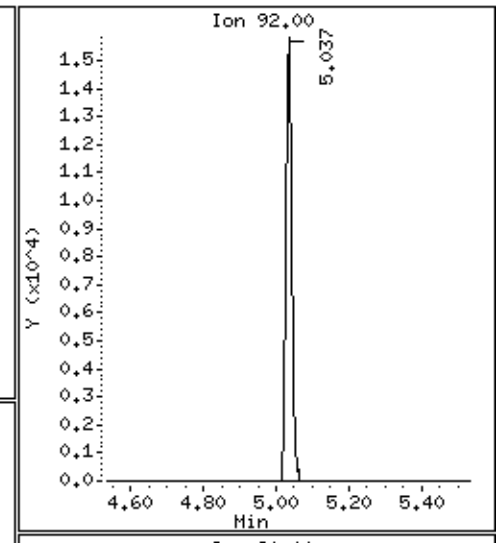
Column phase: Rtx-VMS

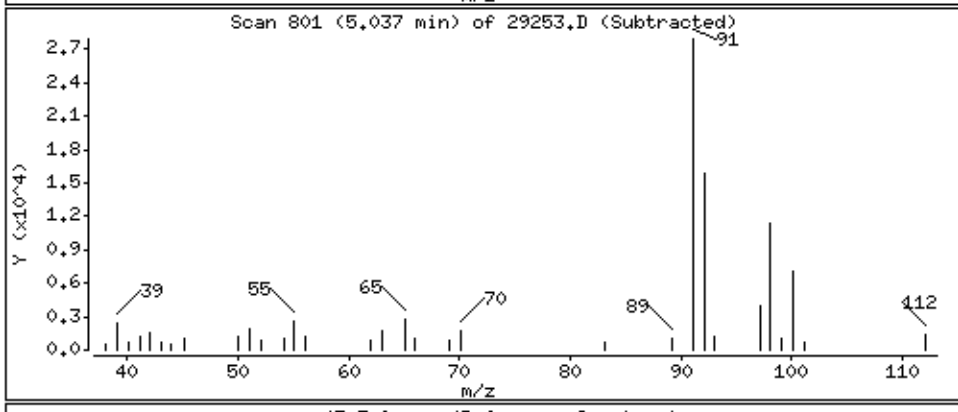
Column diameter: 0.18

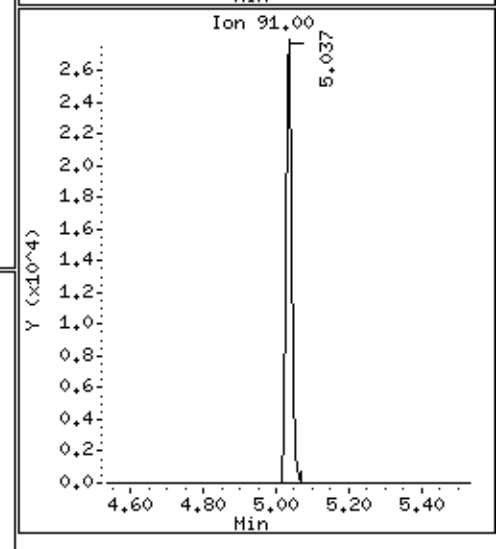
45 Toluene

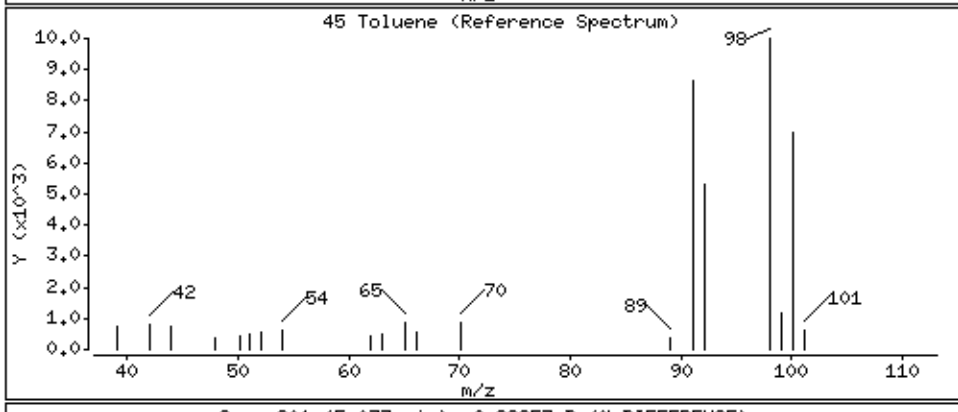
Concentration: 1.8 ug/L

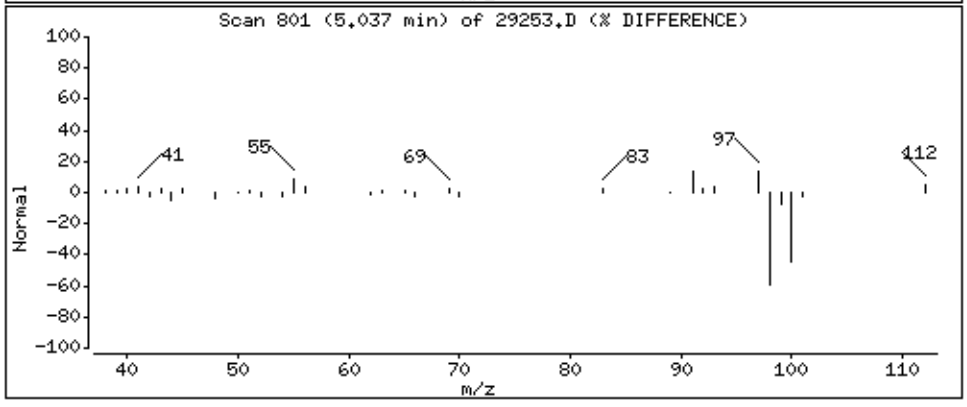












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

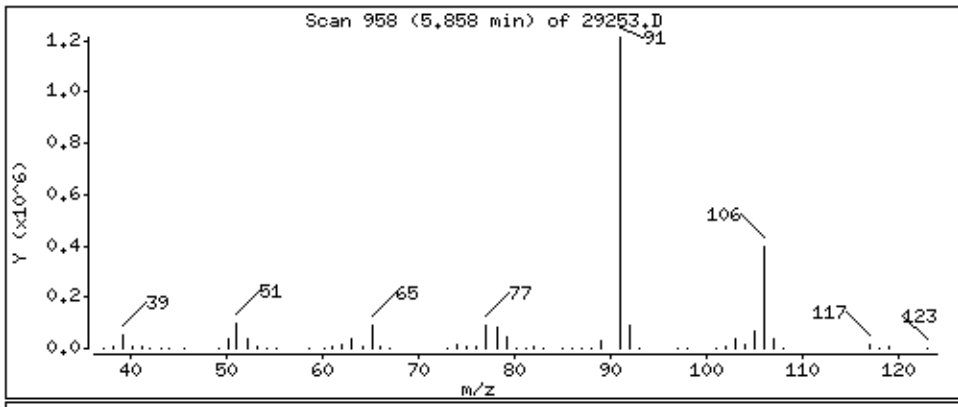
Operator: AH2

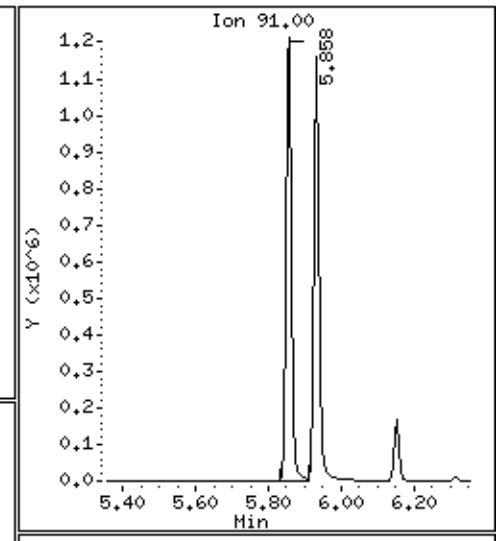
Column phase: Rtx-VMS

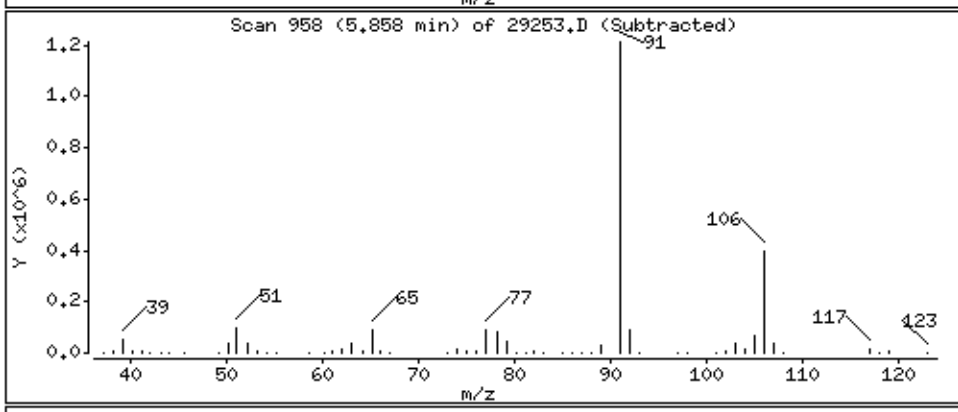
Column diameter: 0.18

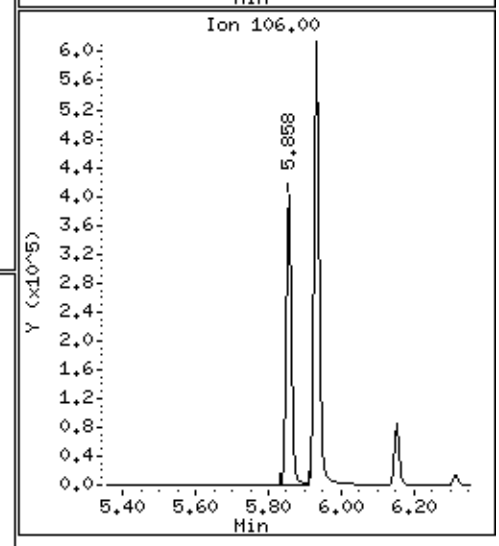
56 Ethylbenzene

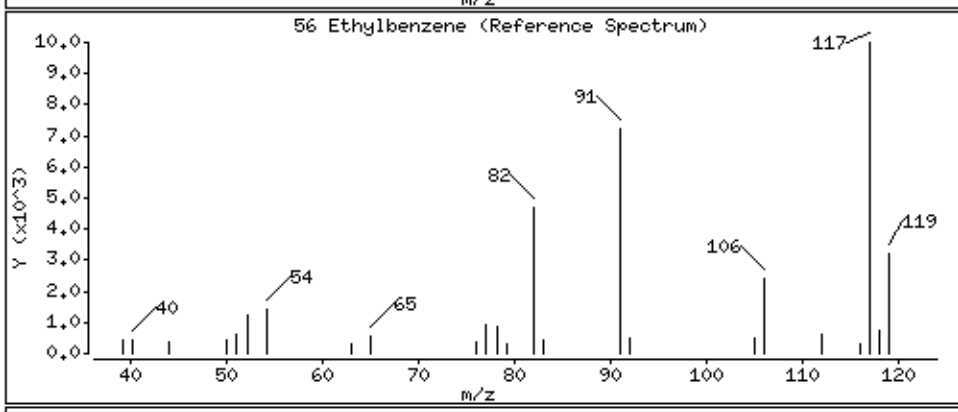
Concentration: 72.6 ug/L

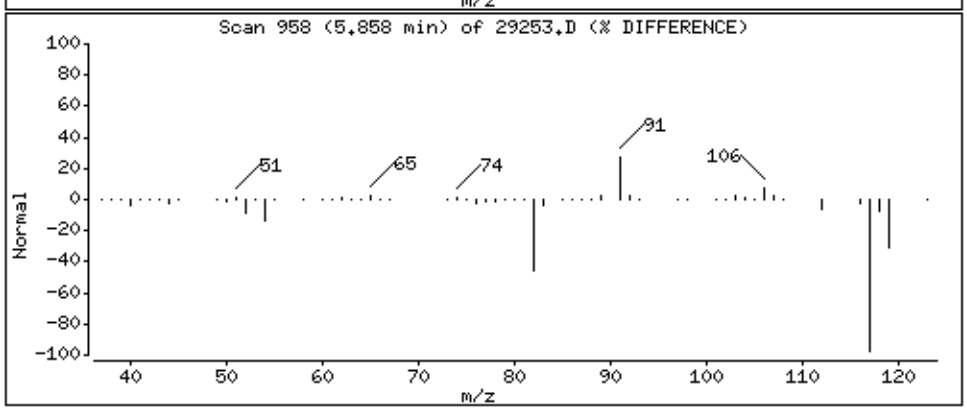












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

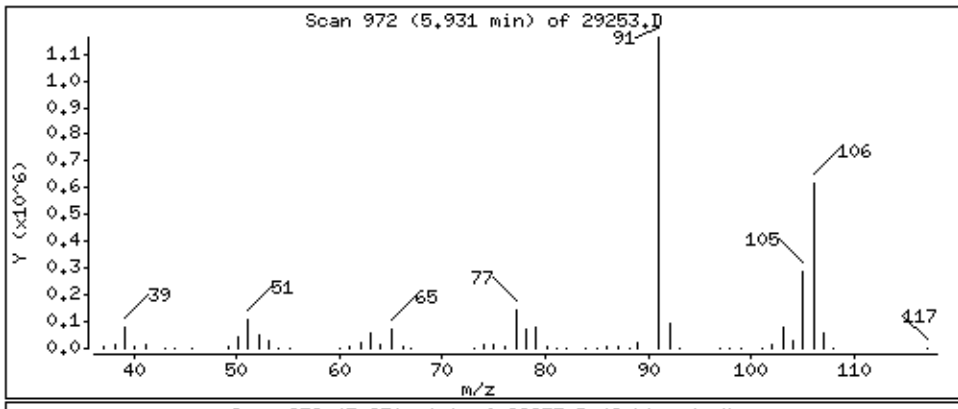
Operator: AH2

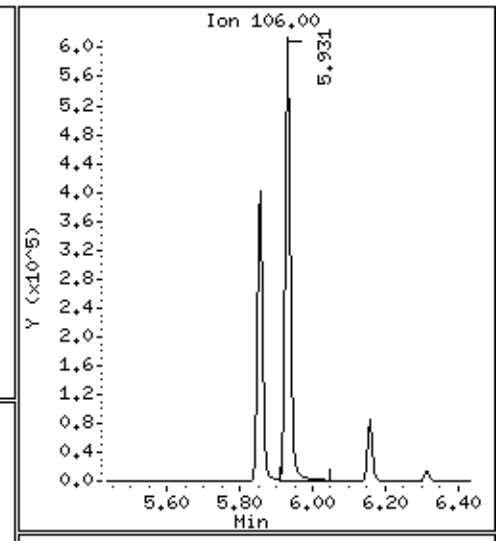
Column phase: Rtx-VMS

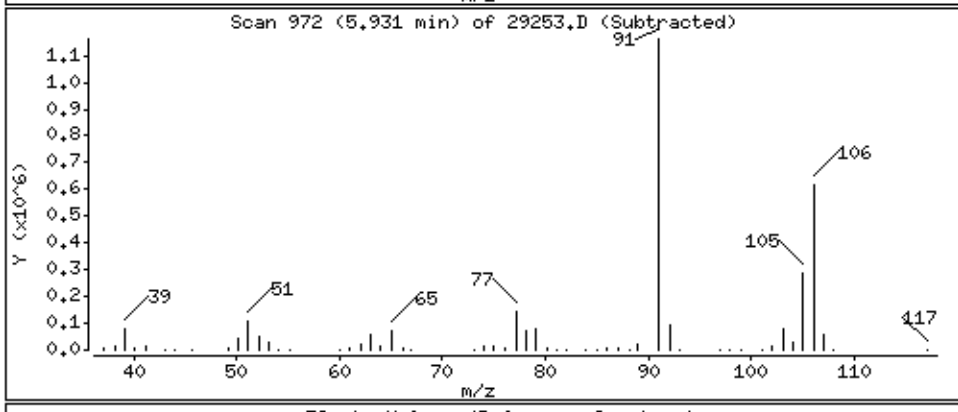
Column diameter: 0.18

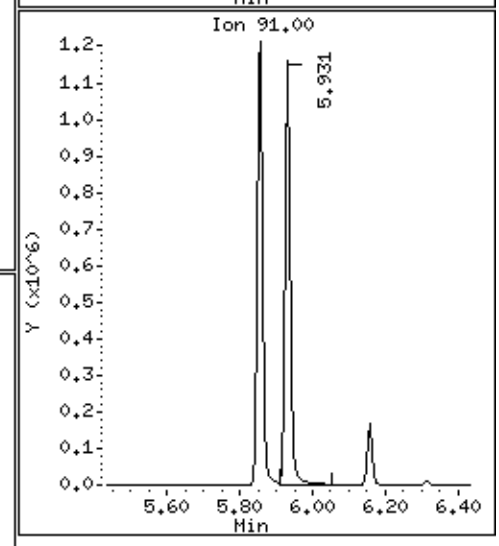
58 m&p-Xylene

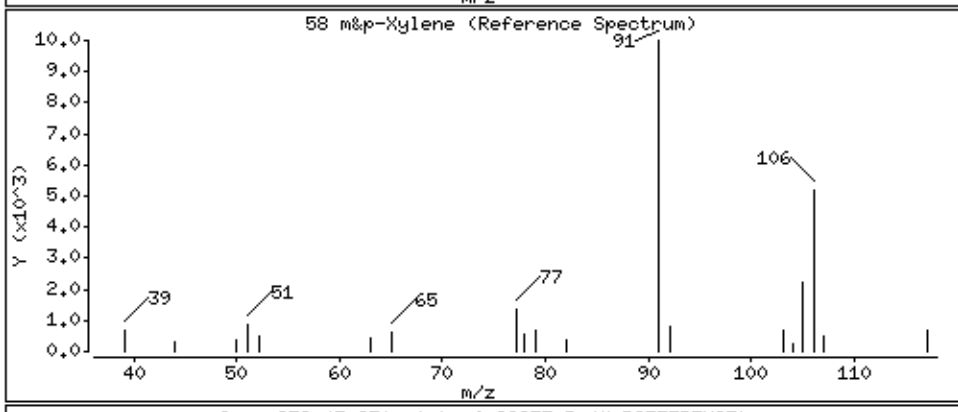
Concentration: 90.4 ug/L

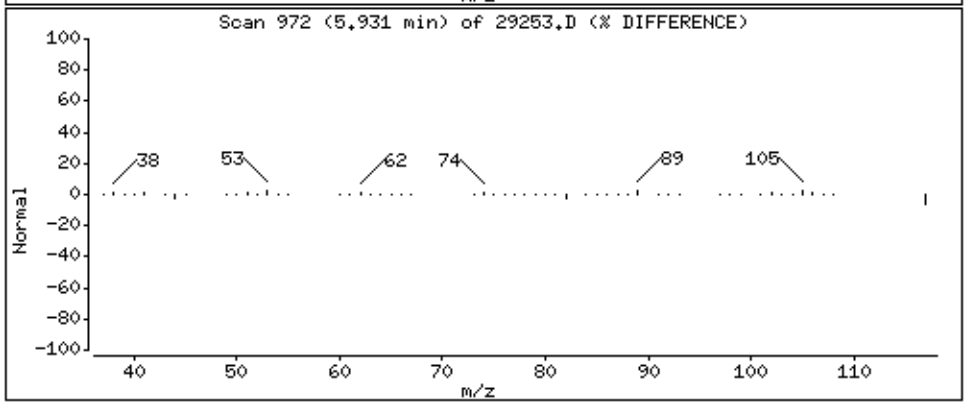












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

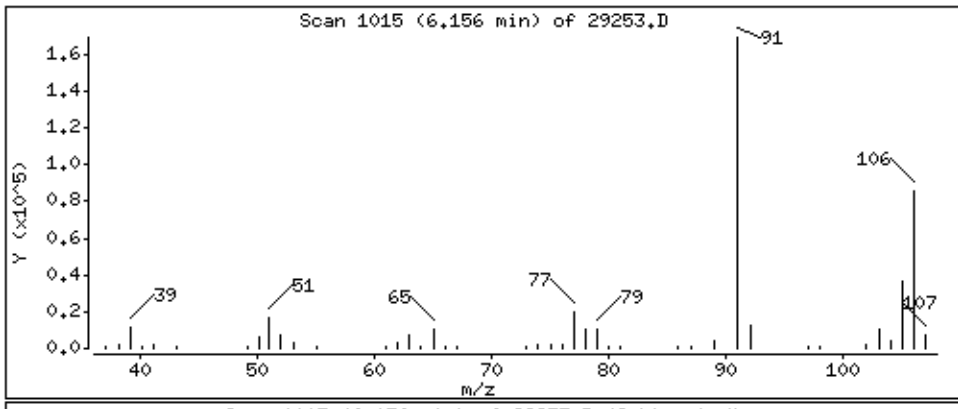
Operator: AH2

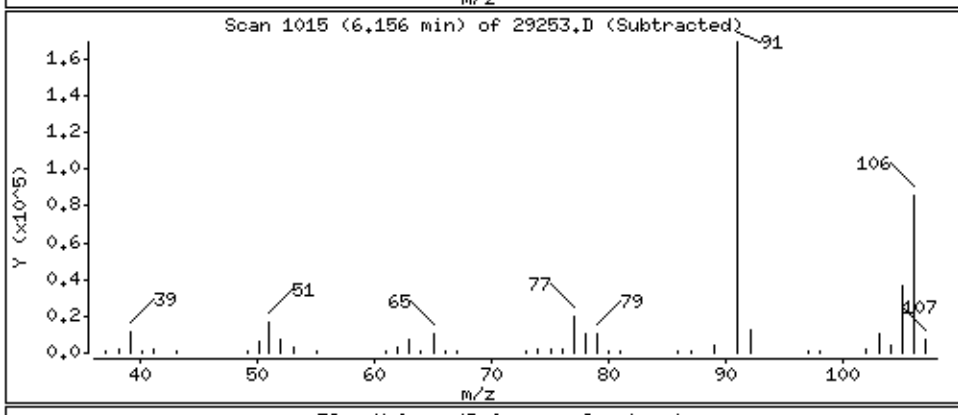
Column phase: Rtx-VMS

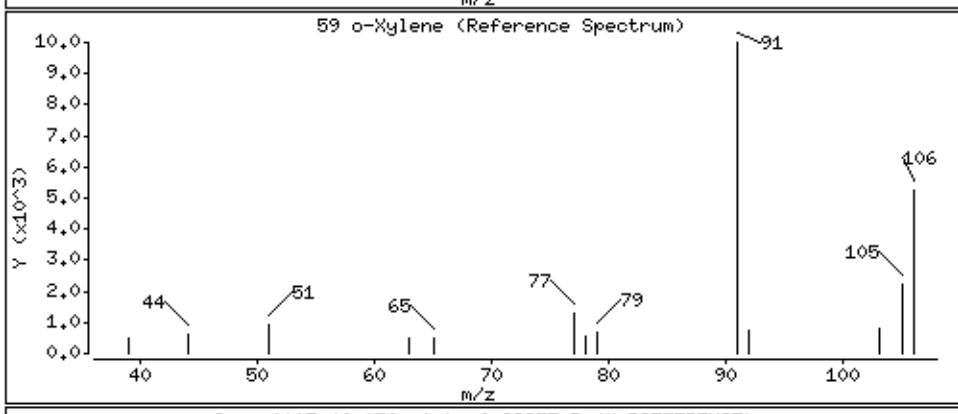
Column diameter: 0.18

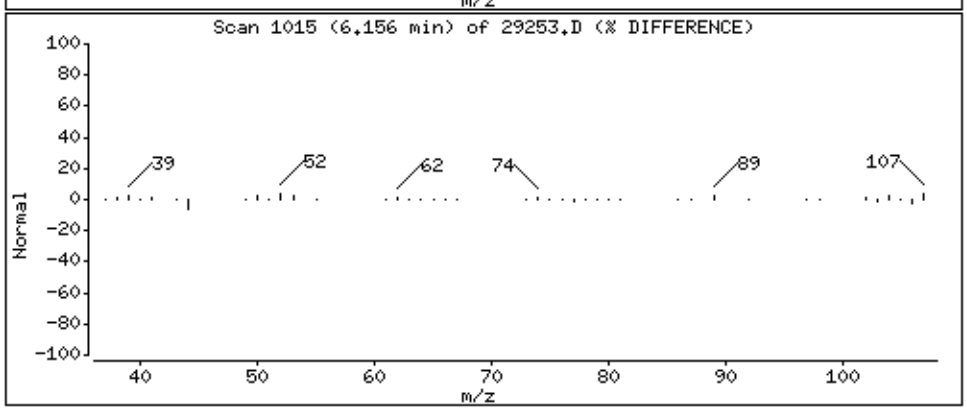
59 o-Xylene

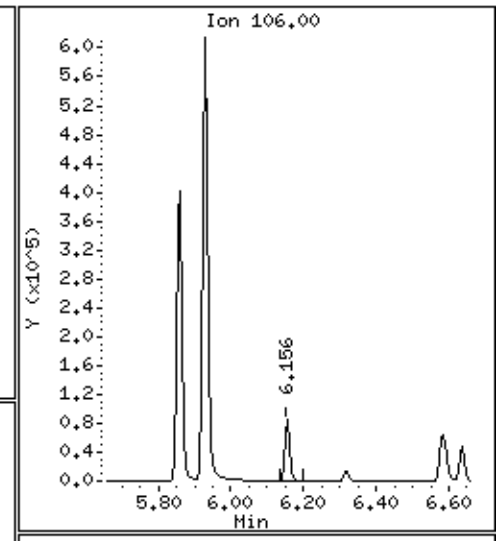
Concentration: 12.5 ug/L

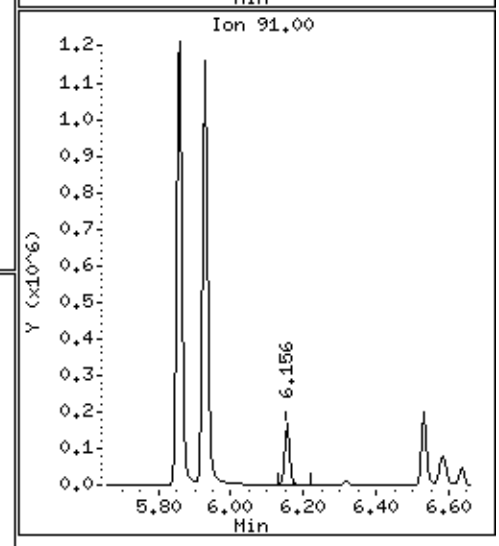












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

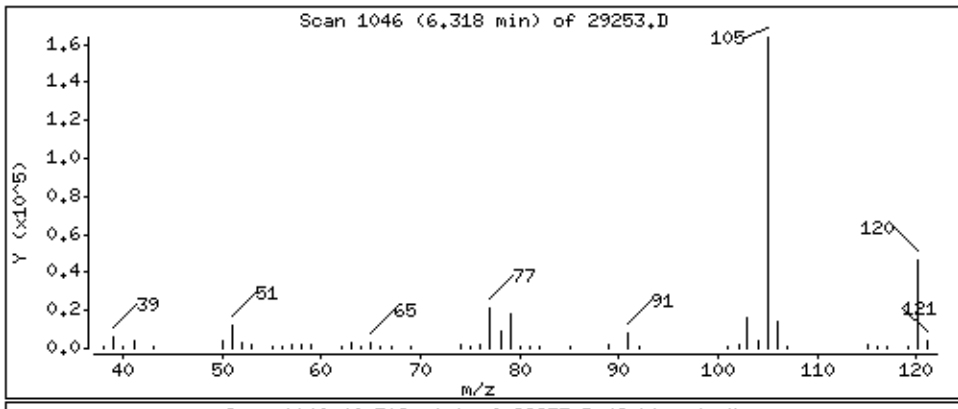
Operator: AH2

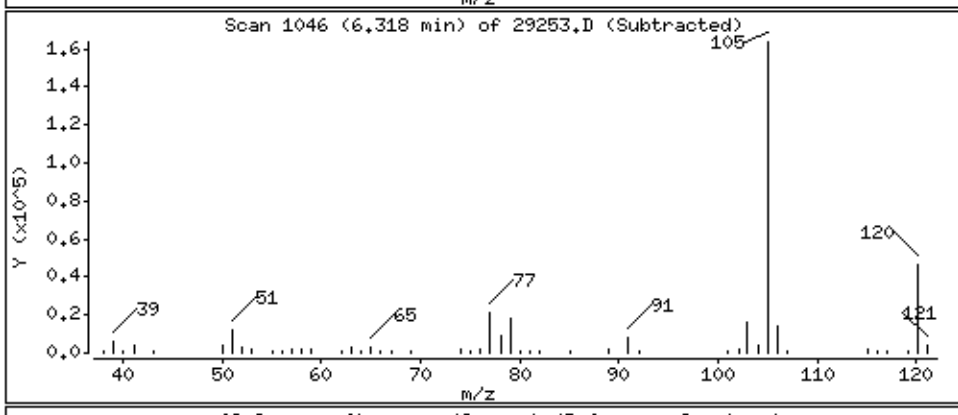
Column phase: Rtx-VMS

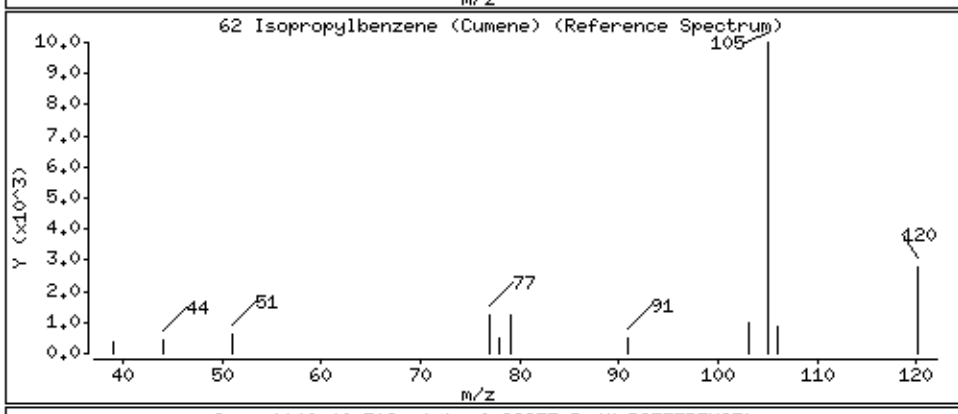
Column diameter: 0.18

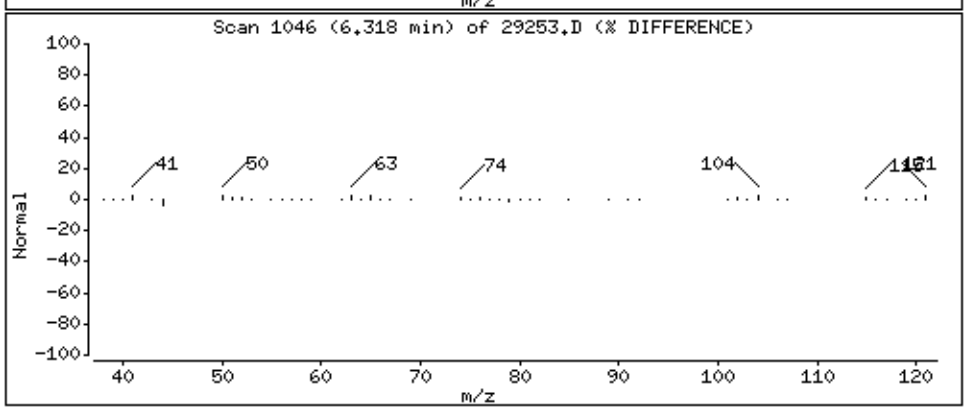
62 Isopropylbenzene (Cumene)

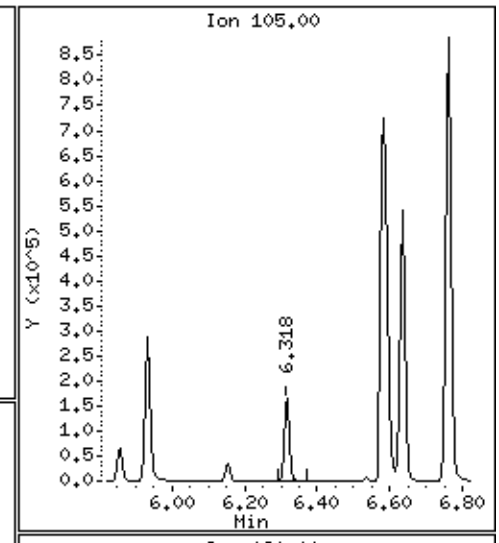
Concentration: 10.7 ug/L

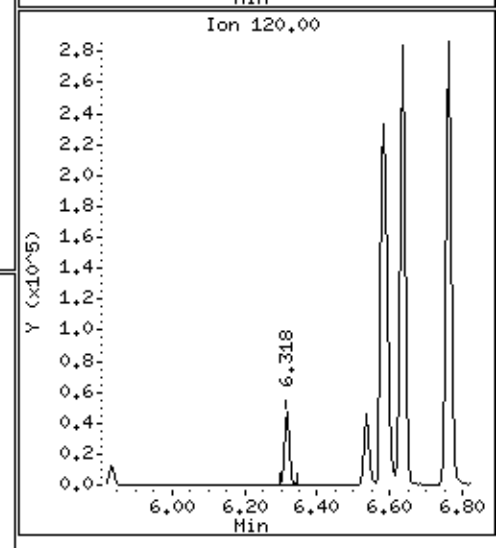












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

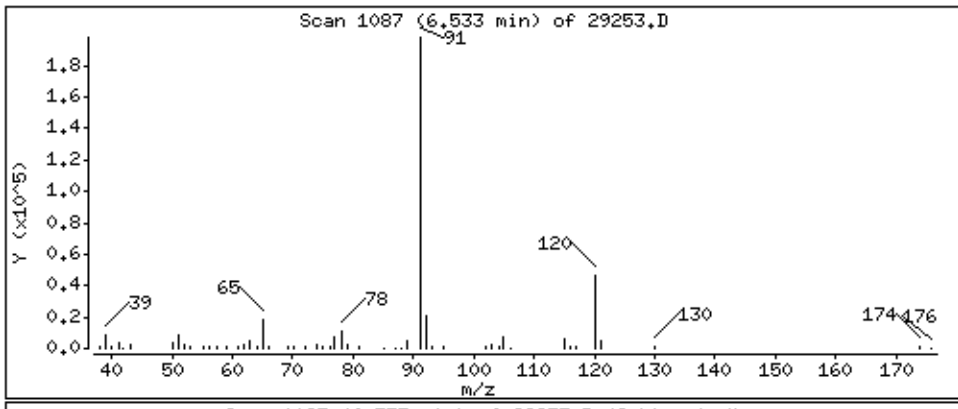
Operator: AH2

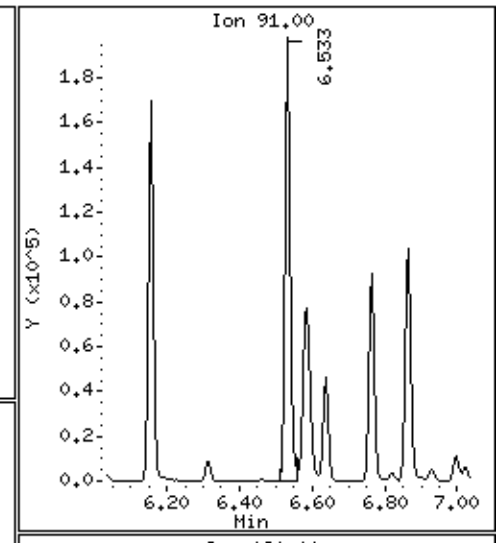
Column phase: Rtx-VMS

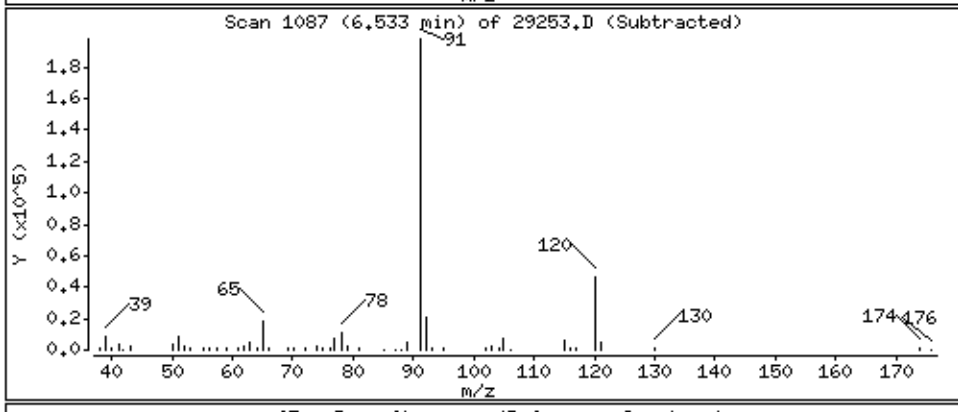
Column diameter: 0.18

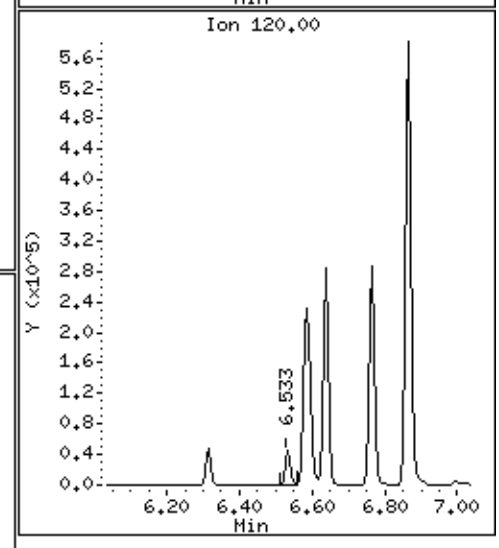
65 n-Propylbenzene

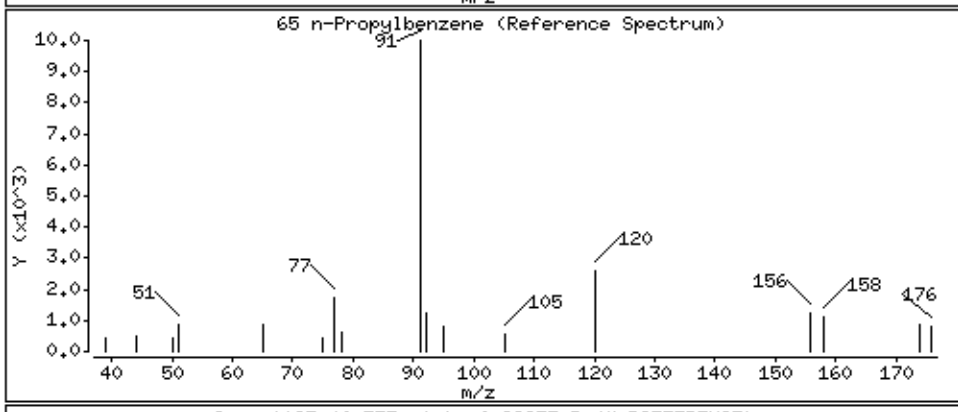
Concentration: 11.0 ug/L

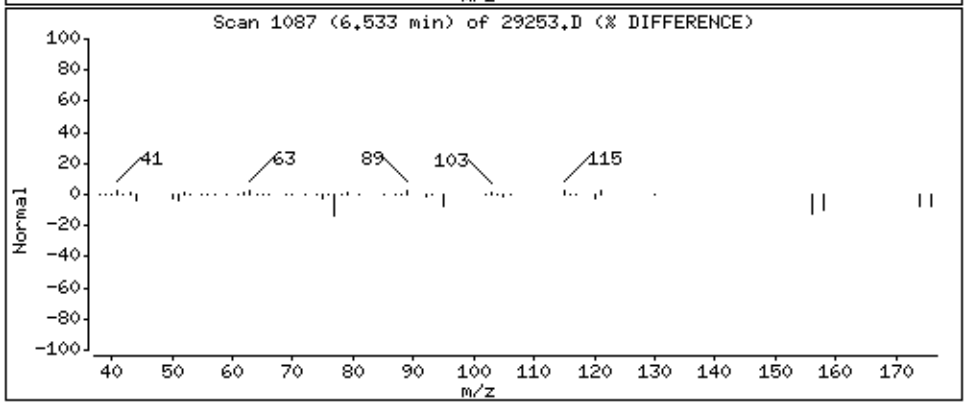












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

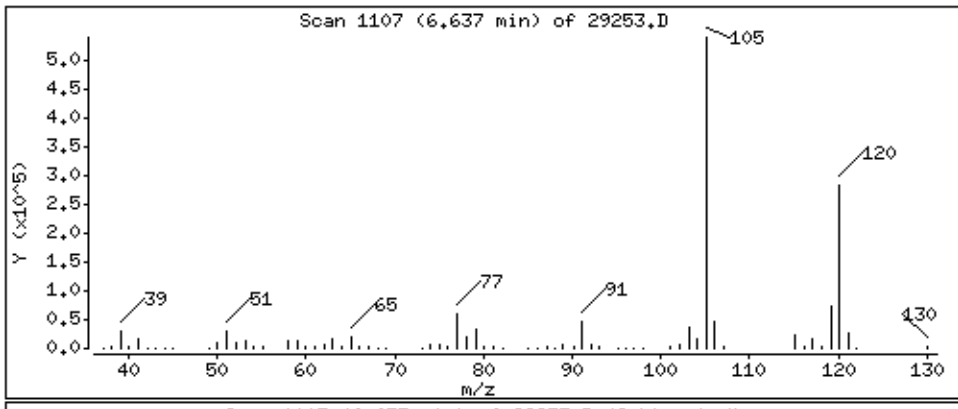
Operator: AH2

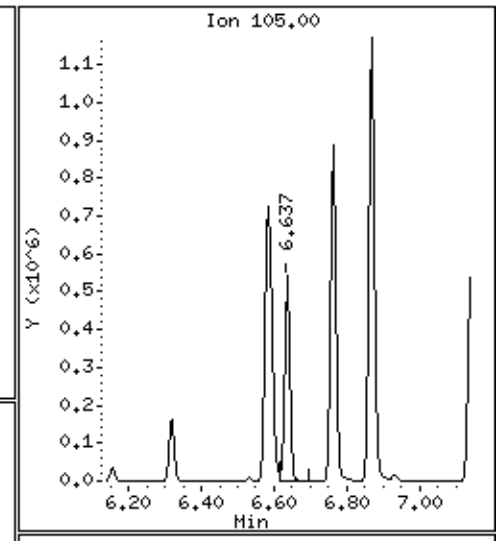
Column phase: Rtx-VMS

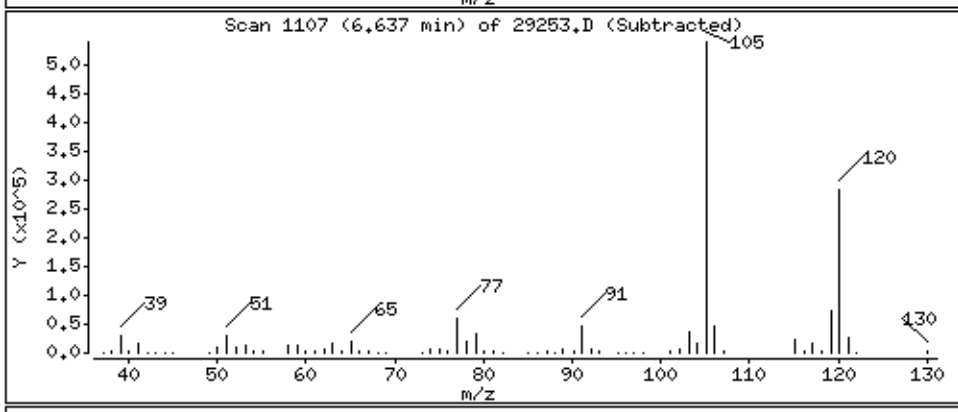
Column diameter: 0.18

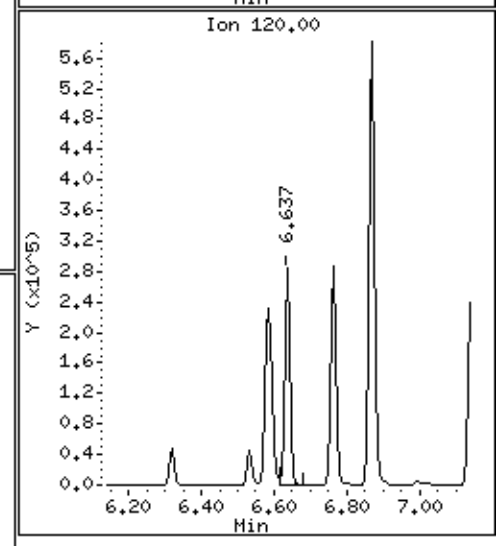
68 1,3,5-Trimethylbenzene

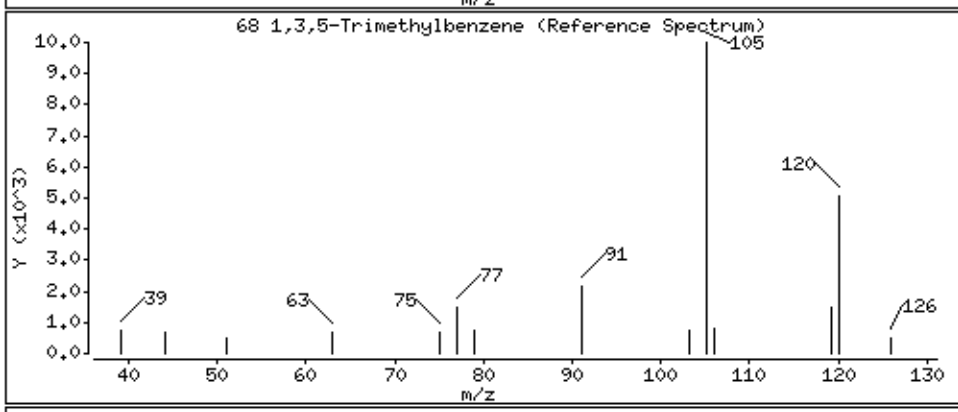
Concentration: 47.6 ug/L

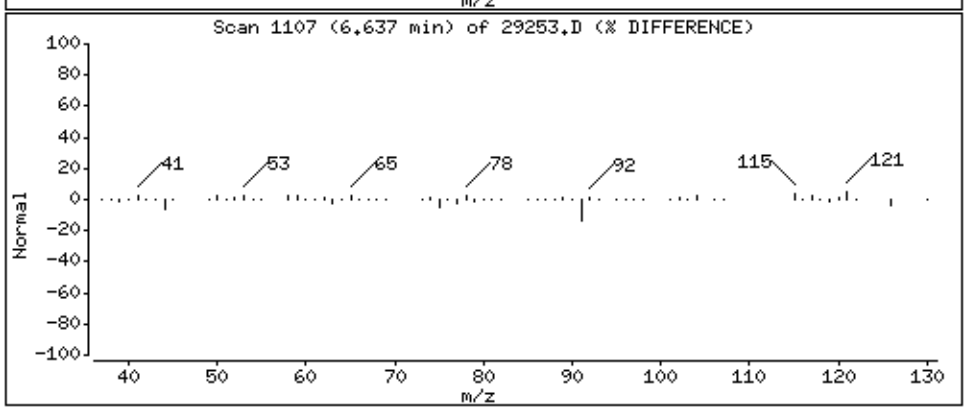












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

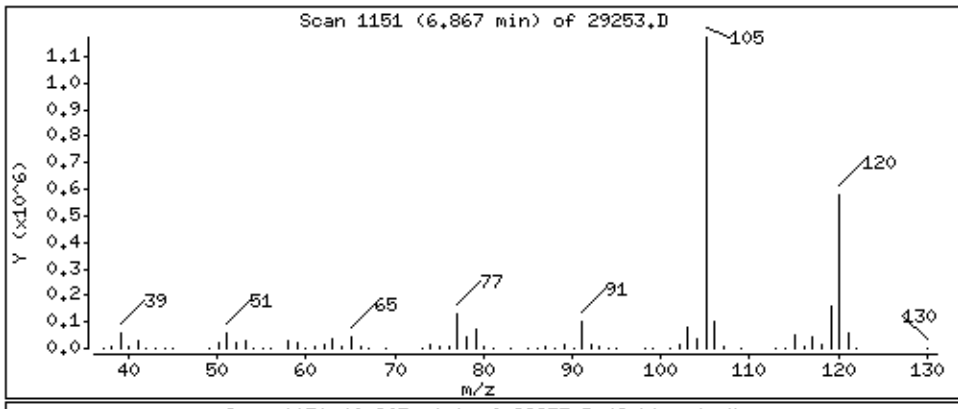
Operator: AH2

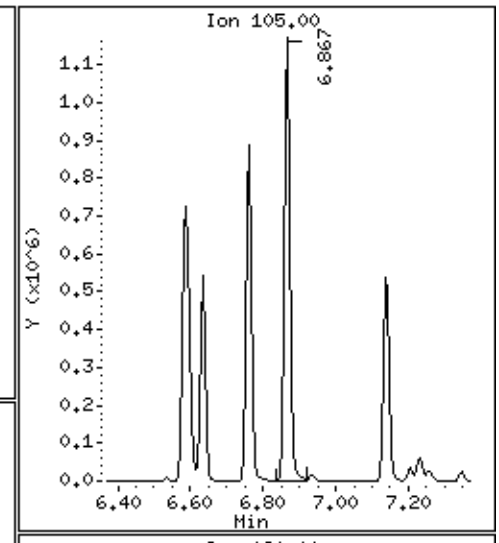
Column phase: Rtx-VMS

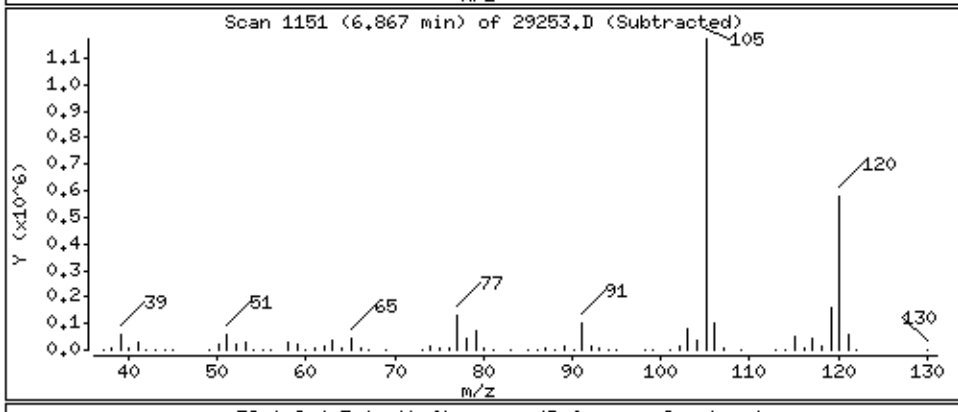
Column diameter: 0.18

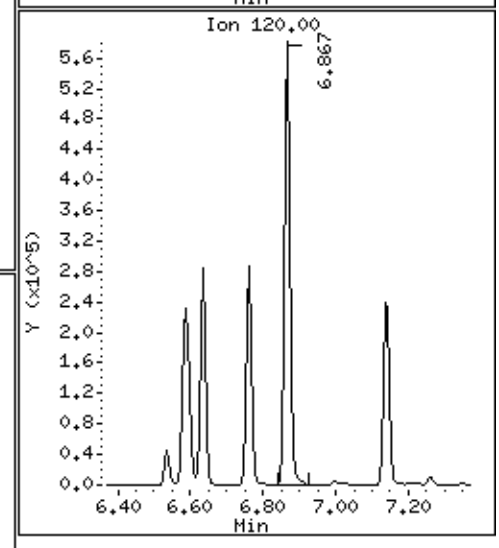
72 1,2,4-Trimethylbenzene

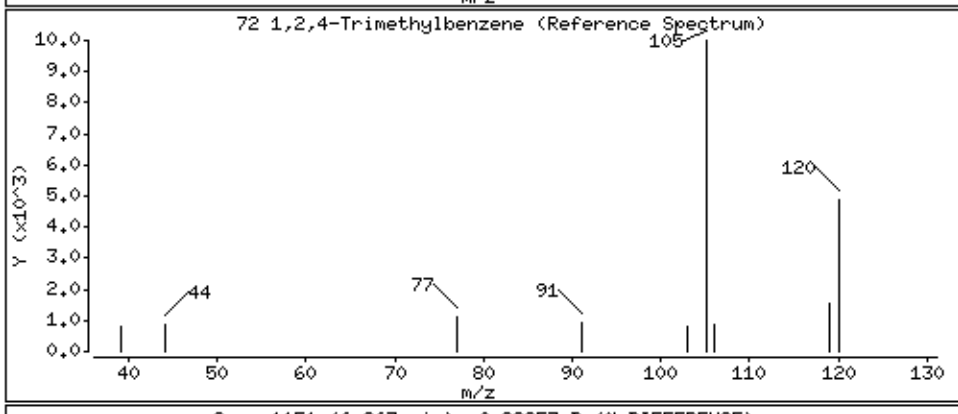
Concentration: 109 ug/L

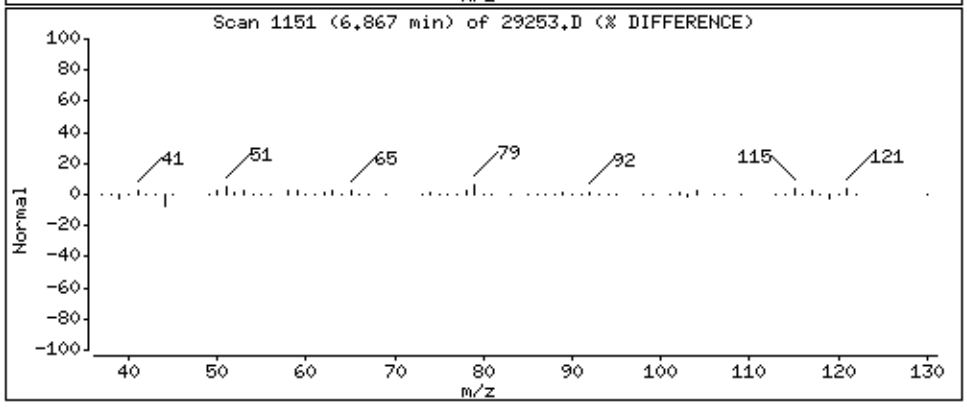












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

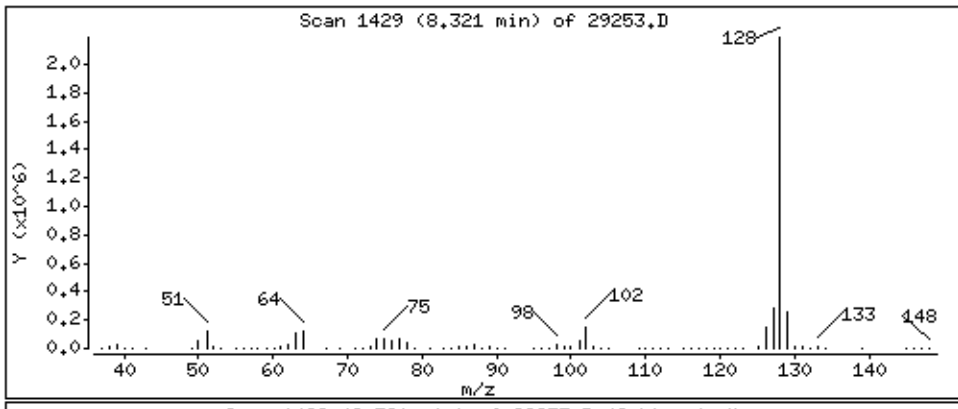
Operator: AH2

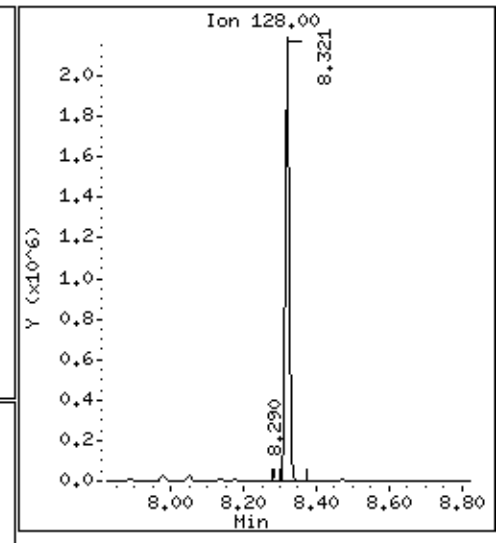
Column phase: Rtx-VMS

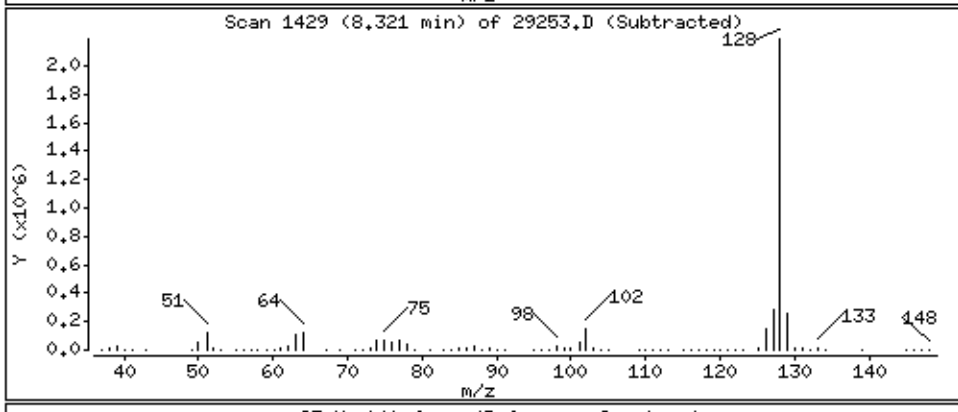
Column diameter: 0.18

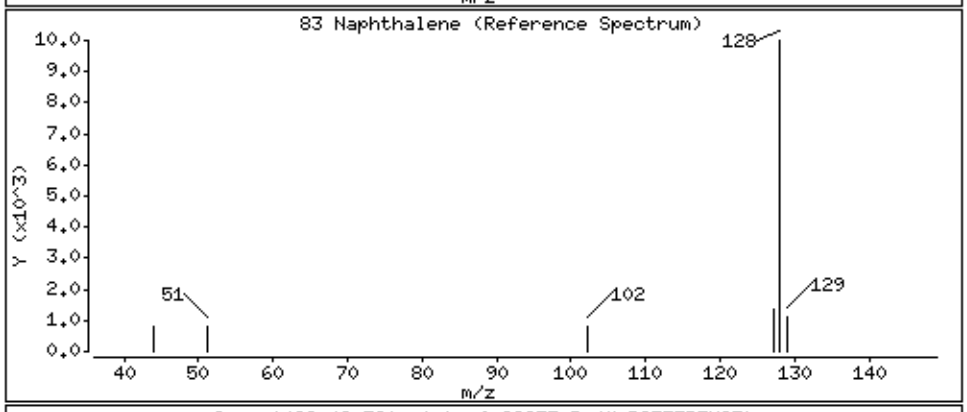
83 Naphthalene

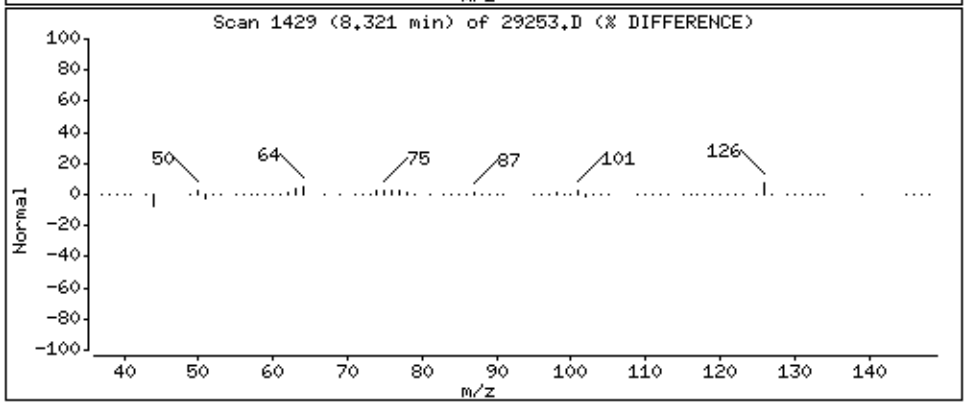
Concentration: 224 ug/L











Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29253.D

Date : 20-OCT-2015 03:13

Client ID: MW-10-101315

Instrument: 10msv1.i

Sample Info: 10326303008

Purge Volume: 5.0

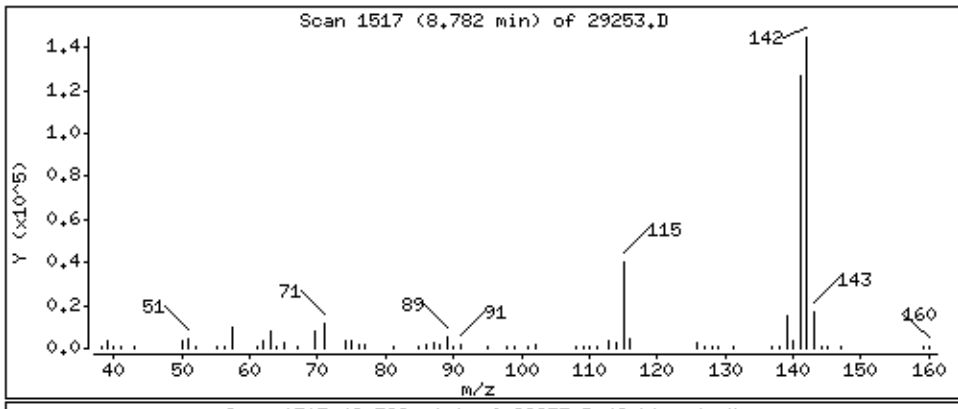
Operator: AH2

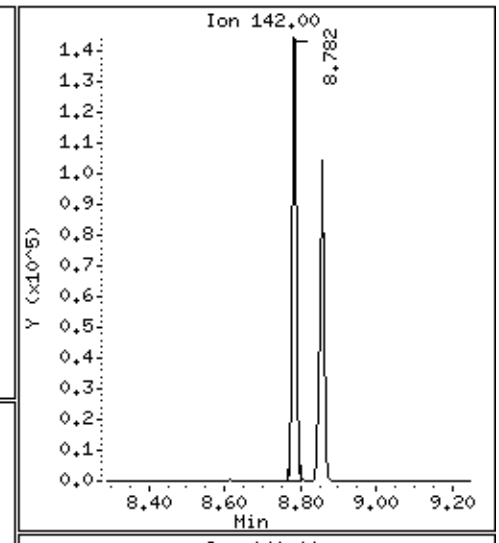
Column phase: Rtx-VMS

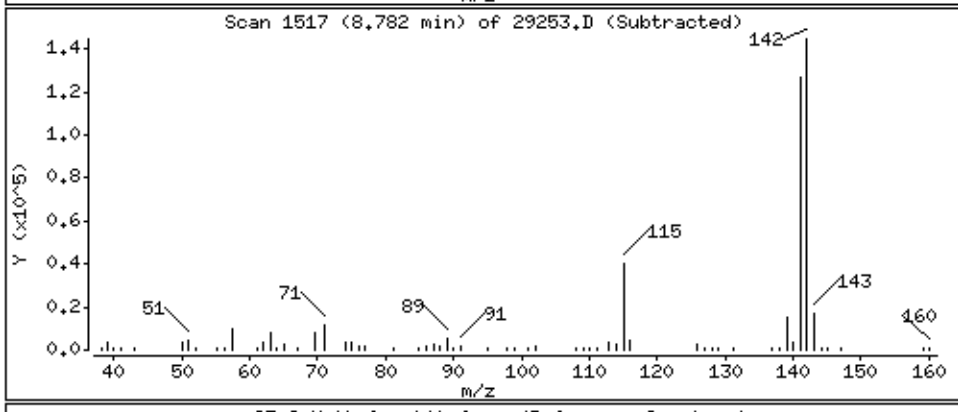
Column diameter: 0.18

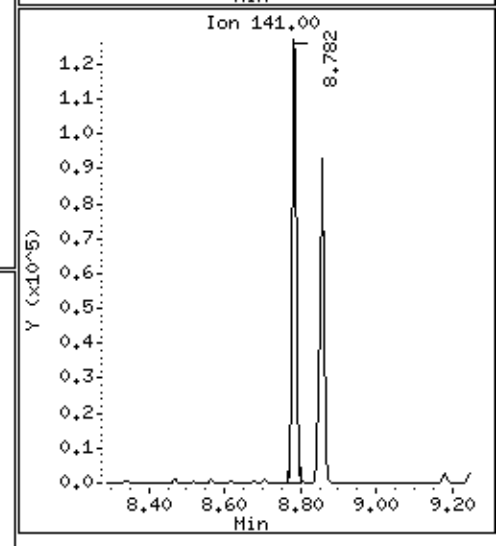
85 2-Methylnaphthalene

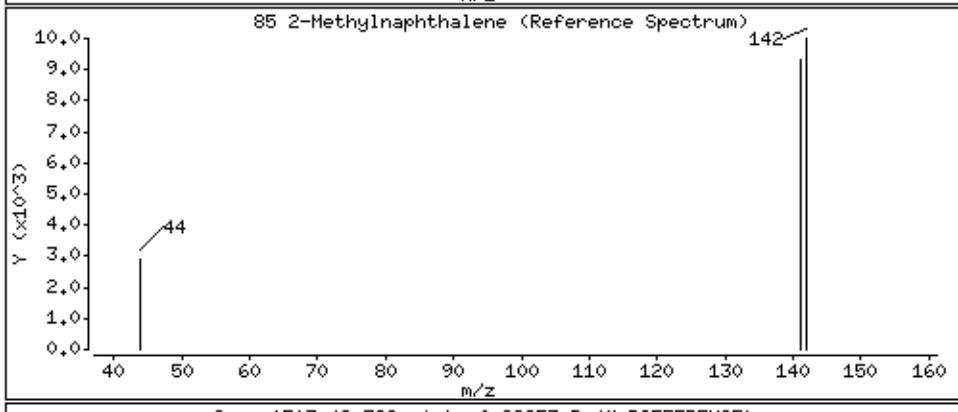
Concentration: 49.7 ug/L

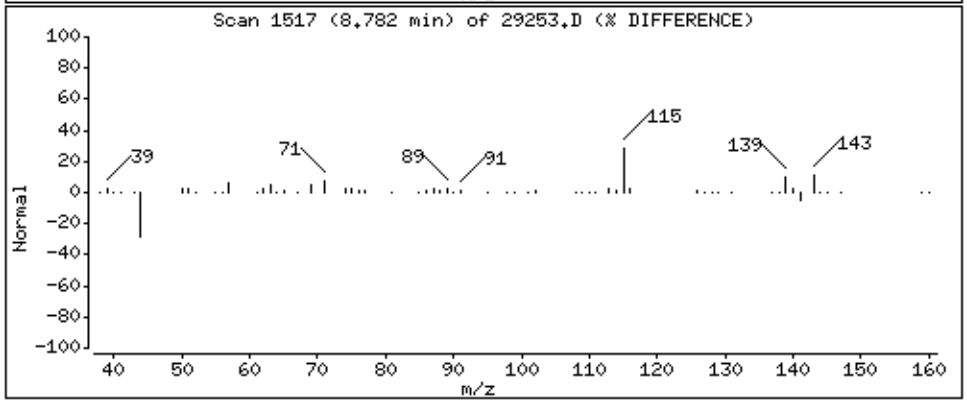












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b/29253.D
Injection Date: 20-OCT-2015 03:13
Instrument: 10msv1.i
Lab Sample ID: 10326303008
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29256.D

Page 3

Date : 20-OCT-2015 04:02

Client ID: MW-11-101315

Instrument: 10msv1.i

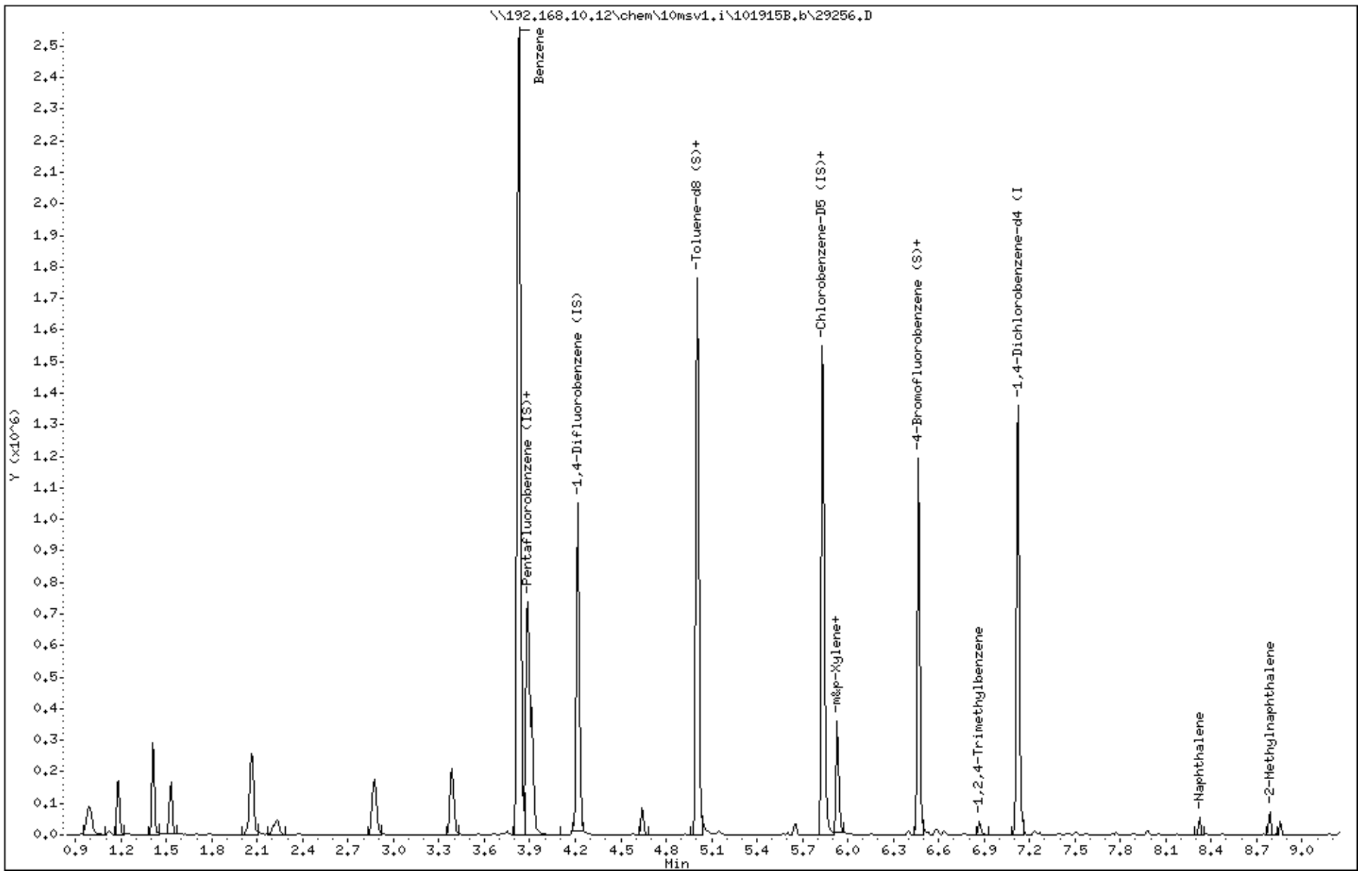
Sample Info: 10326303009X25

Purge Volume: 5.0

Operator: AH2

Column phase: Rtx-VMS

Column diameter: 0.18



Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29256.D

Date : 20-OCT-2015 04:02

Client ID: MW-11-101315

Instrument: 10msv1.i

Sample Info: 10326303009X25

Purge Volume: 5.0

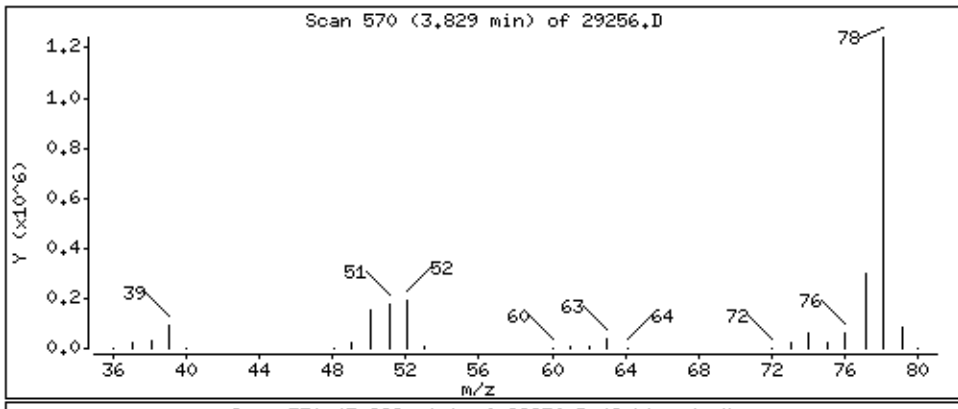
Operator: AH2

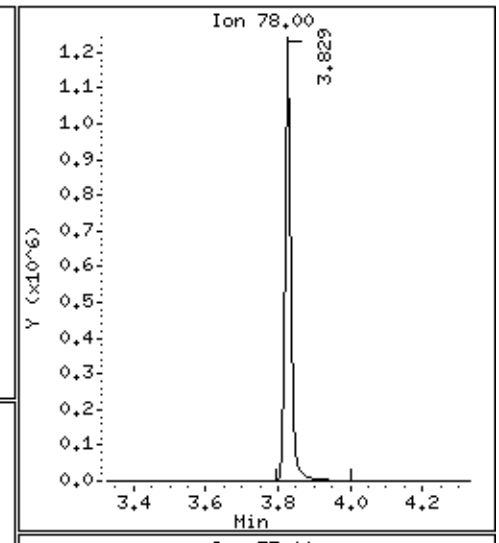
Column phase: Rtx-VMS

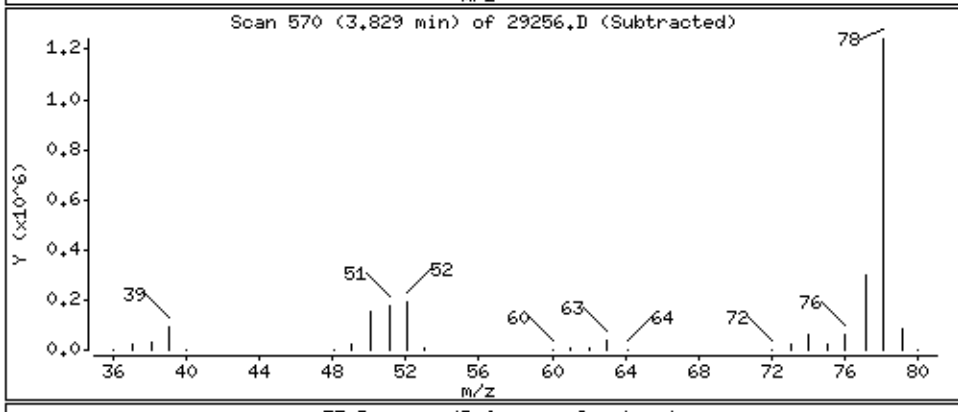
Column diameter: 0.18

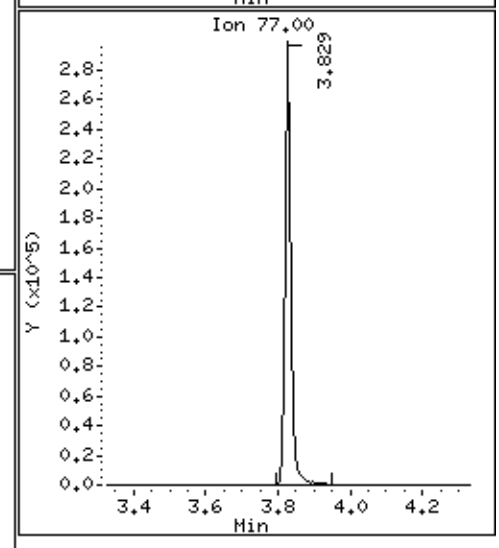
33 Benzene

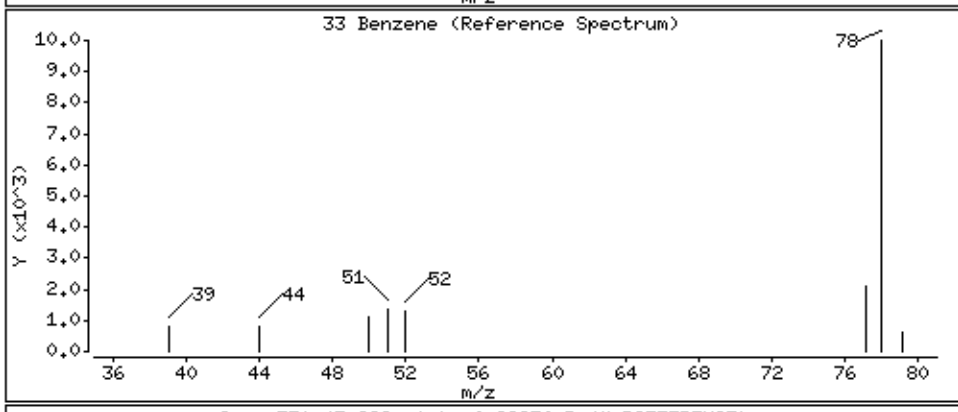
Concentration: 2720 ug/L

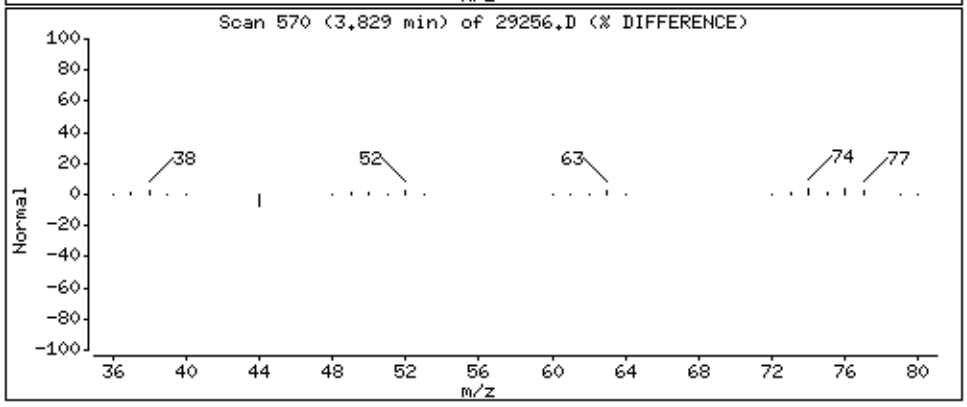












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29256.D

Date : 20-OCT-2015 04:02

Client ID: MW-11-101315

Instrument: 10msv1.i

Sample Info: 10326303009X25

Purge Volume: 5.0

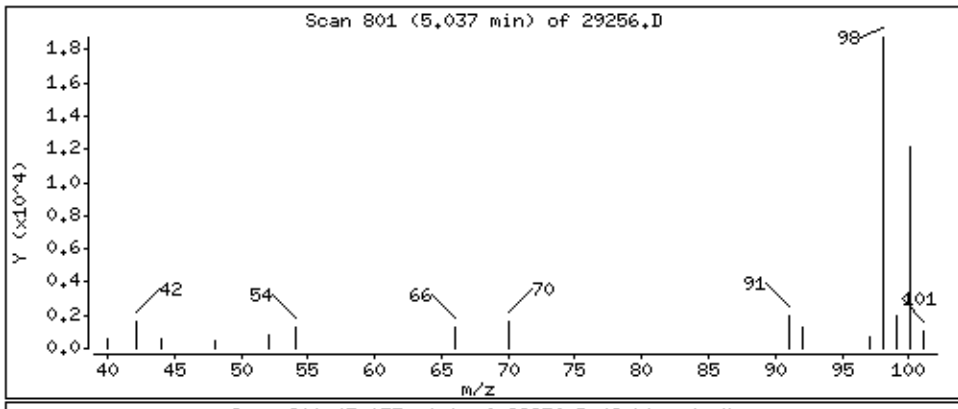
Operator: AH2

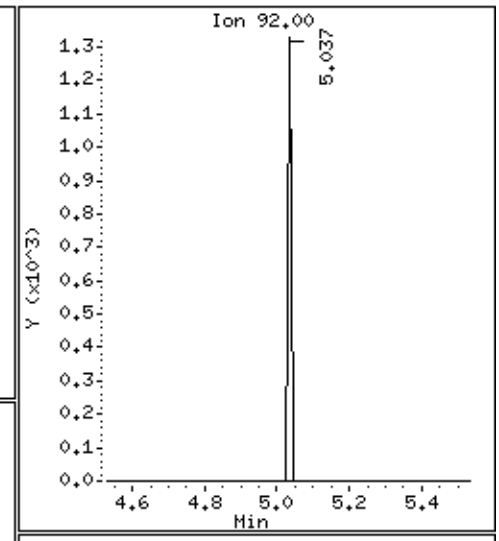
Column phase: Rtx-VMS

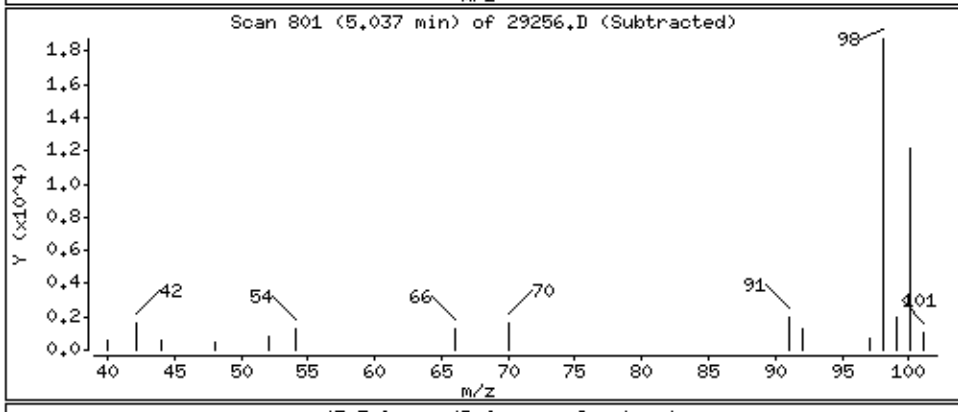
Column diameter: 0.18

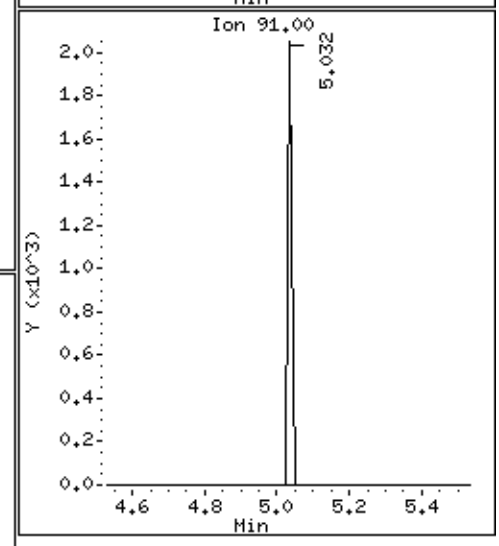
45 Toluene

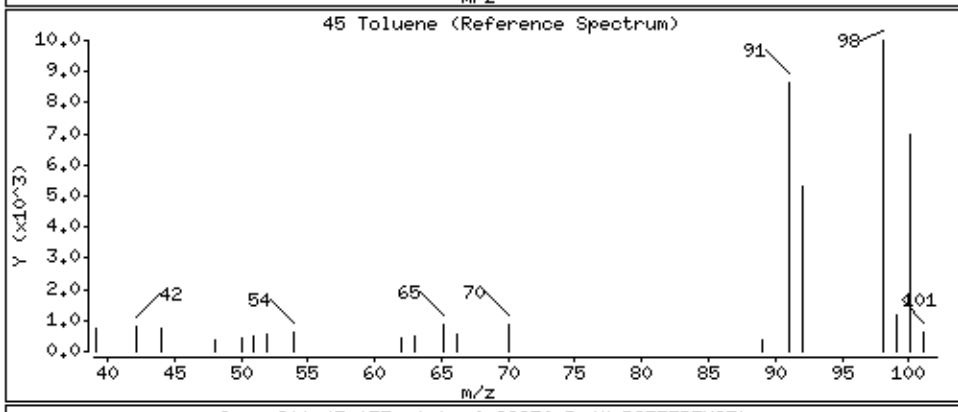
Concentration: 3.0 ug/L

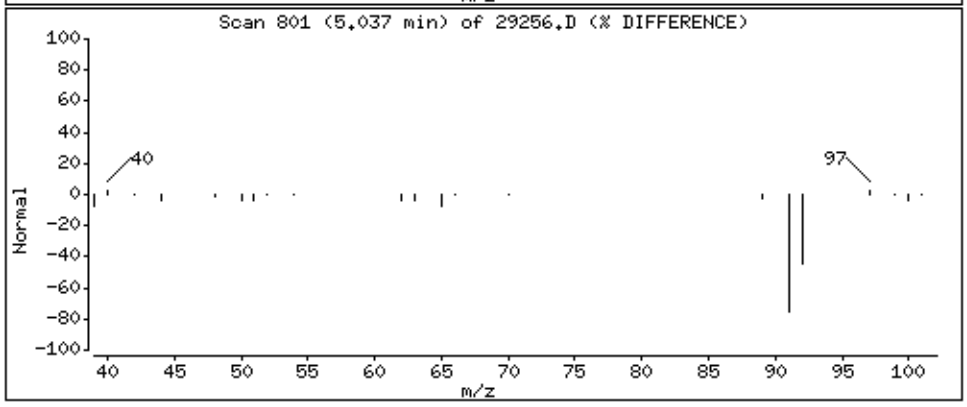












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29256.D

Date : 20-OCT-2015 04:02

Client ID: MW-11-101315

Instrument: 10msv1.i

Sample Info: 10326303009X25

Purge Volume: 5.0

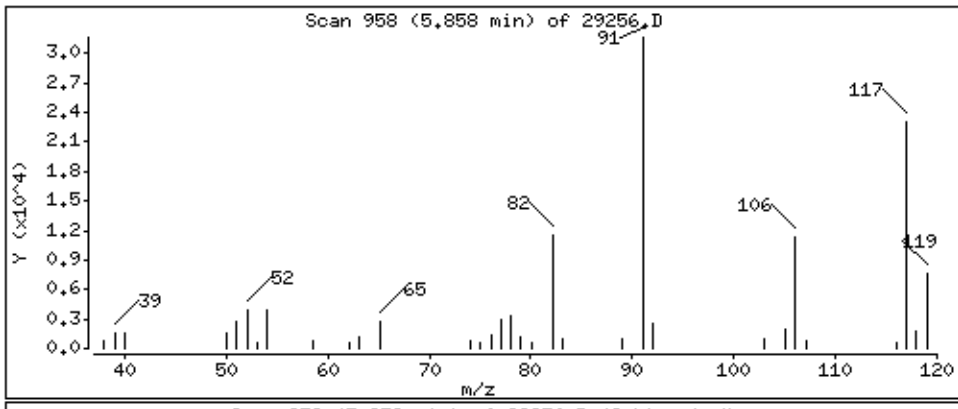
Operator: AH2

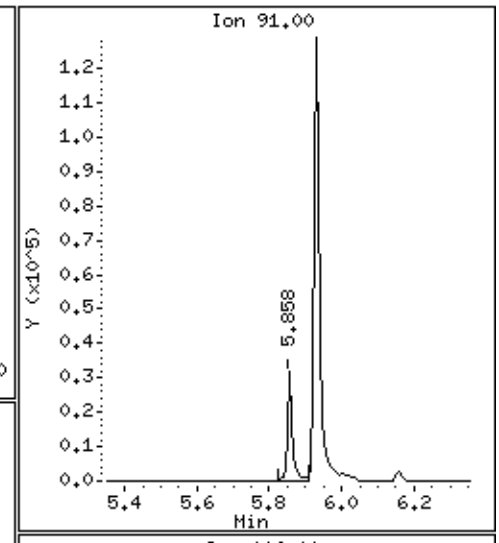
Column phase: Rtx-VMS

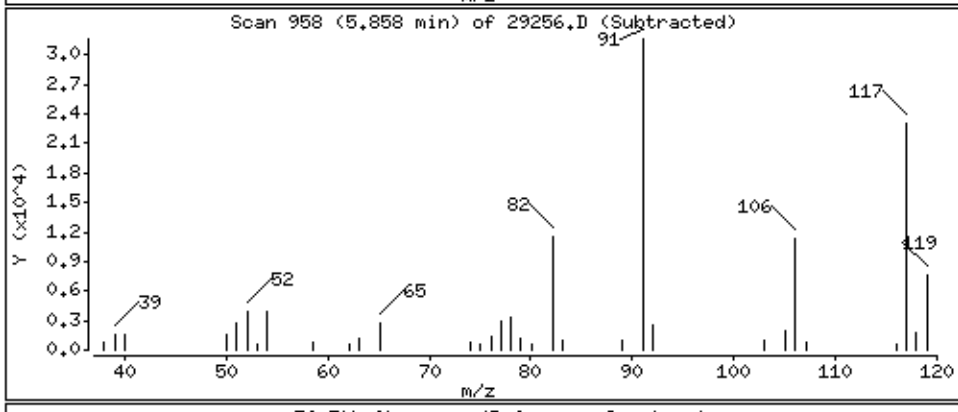
Column diameter: 0.18

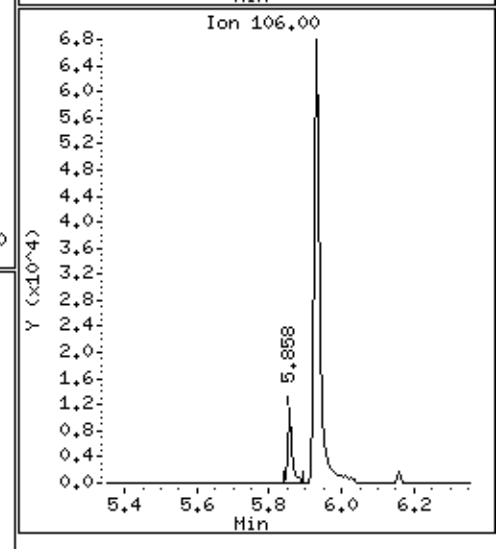
56 Ethylbenzene

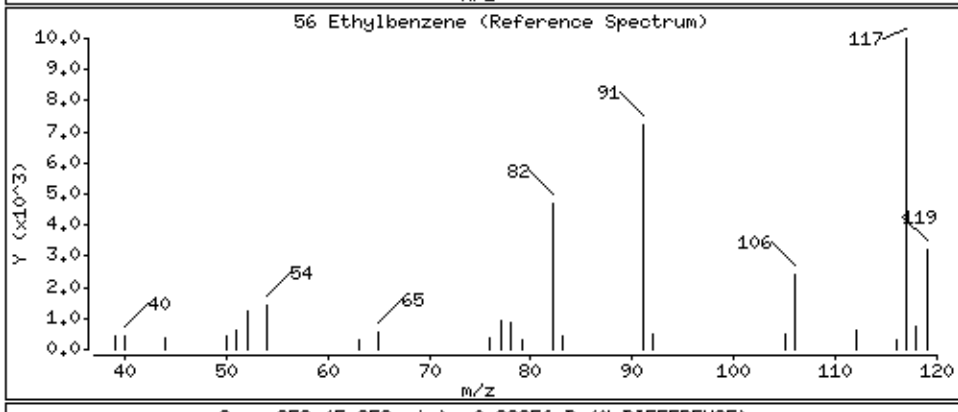
Concentration: 56.3 ug/L

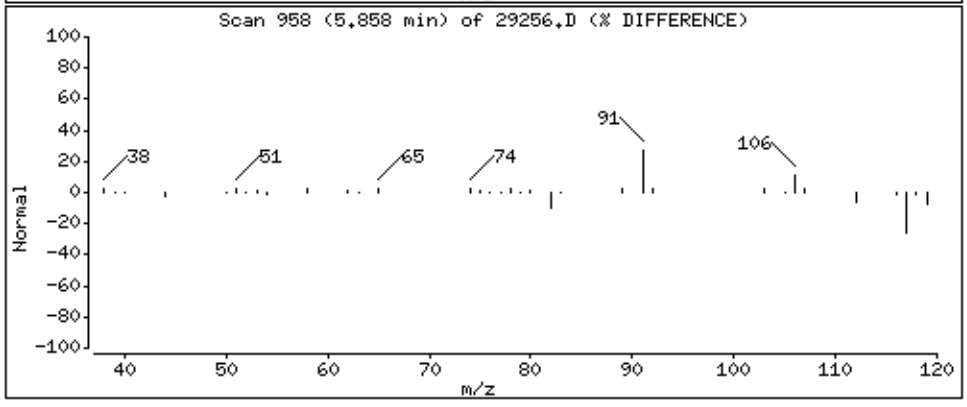












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29256.D

Date : 20-OCT-2015 04:02

Client ID: MW-11-101315

Instrument: 10msv1.i

Sample Info: 10326303009X25

Purge Volume: 5.0

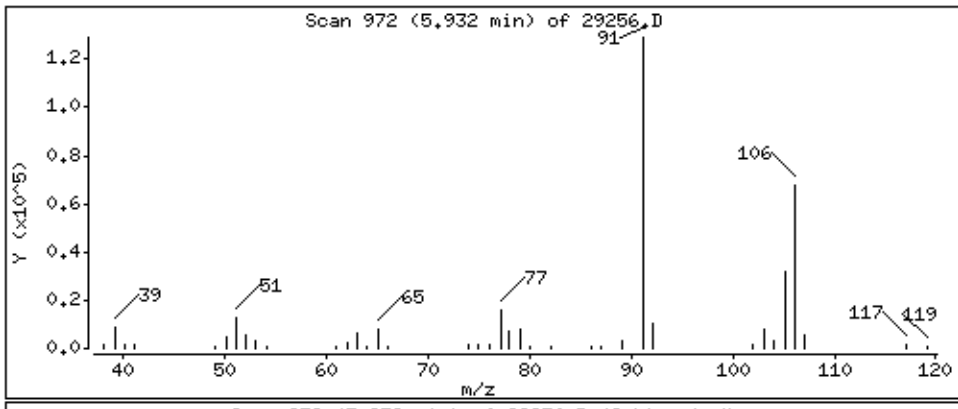
Operator: AH2

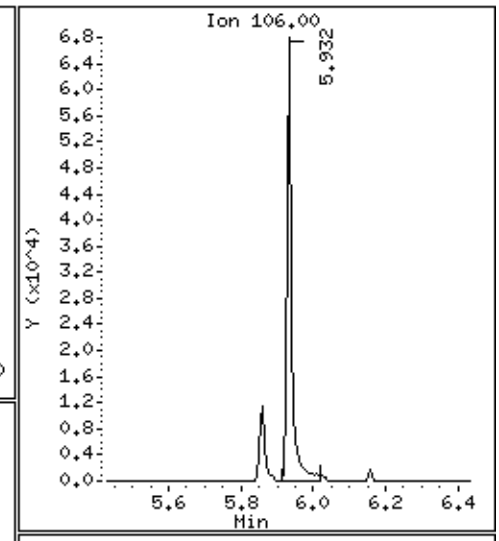
Column phase: Rtx-VMS

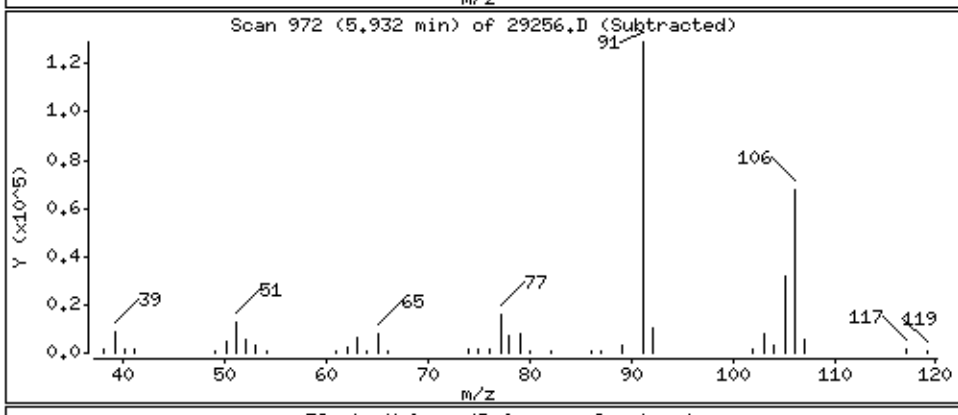
Column diameter: 0.18

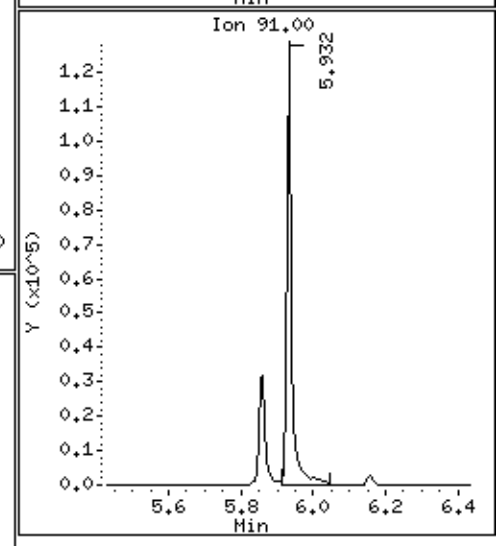
58 m&p-Xylene

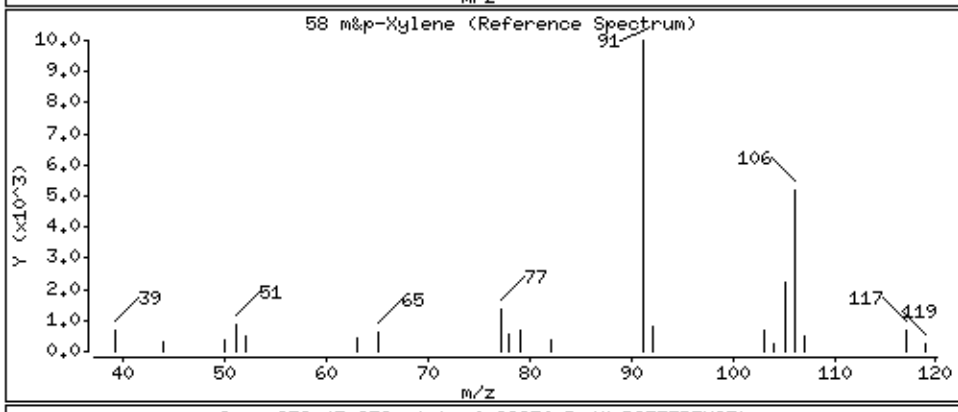
Concentration: 273 ug/L

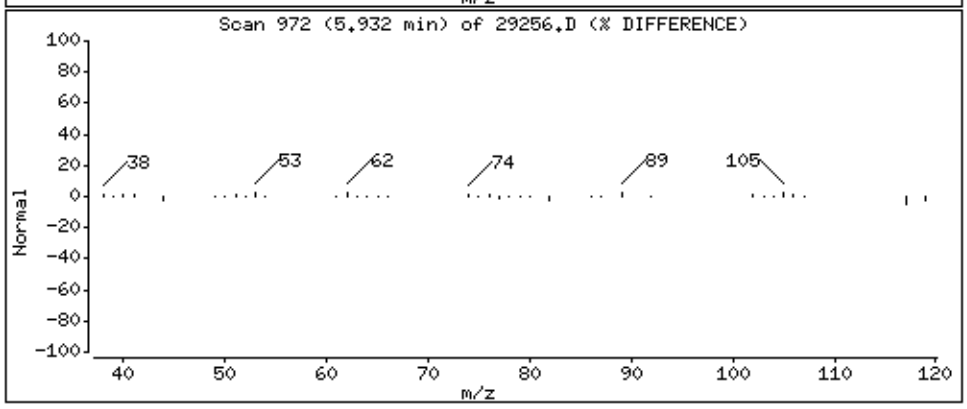












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29256.D

Date : 20-OCT-2015 04:02

Client ID: MW-11-101315

Instrument: 10msv1.i

Sample Info: 10326303009X25

Purge Volume: 5.0

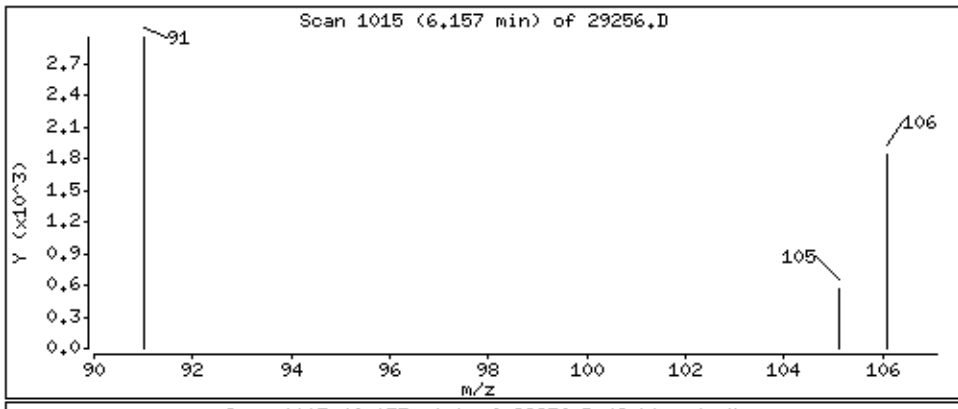
Operator: AH2

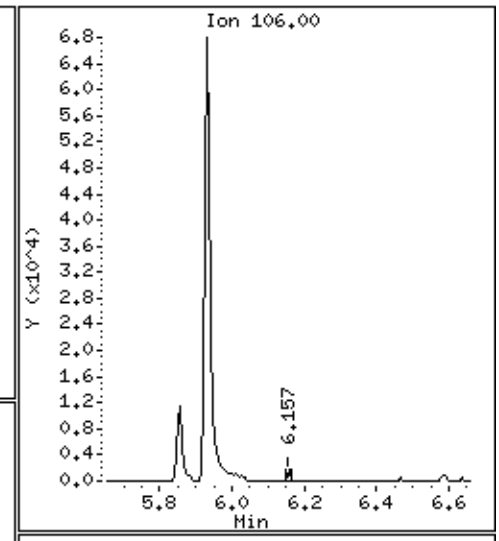
Column phase: Rtx-VMS

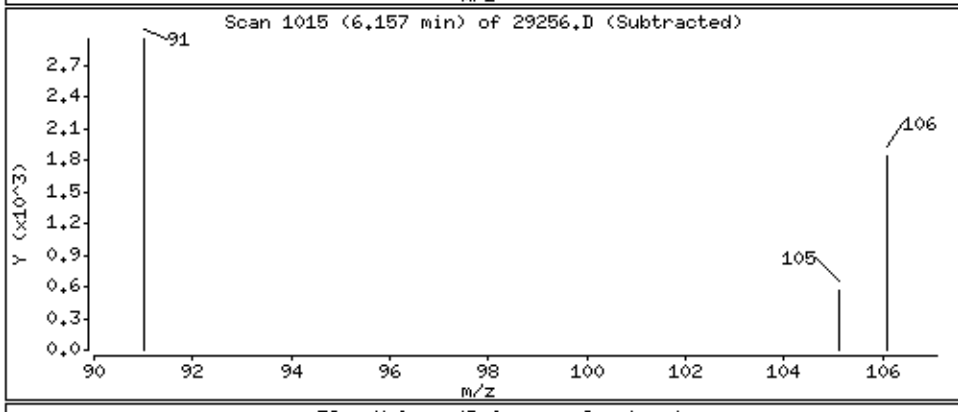
Column diameter: 0.18

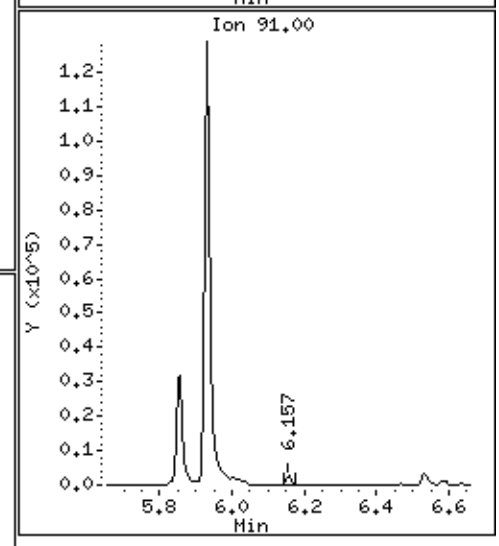
59 o-Xylene

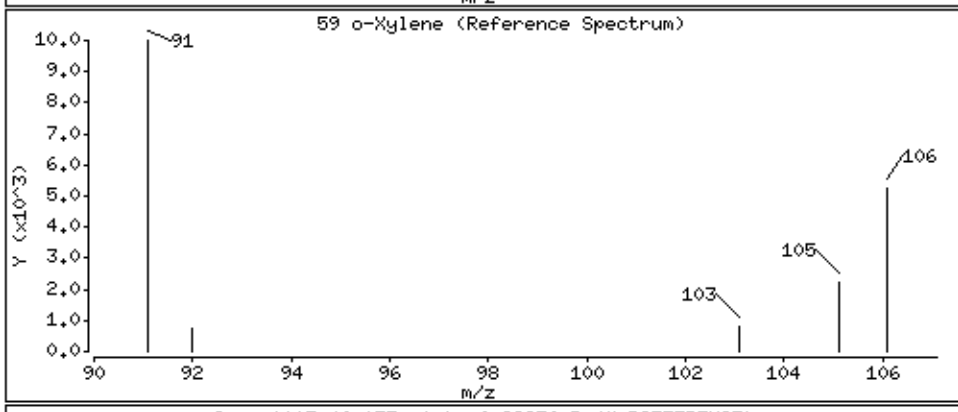
Concentration: 4.7 ug/L

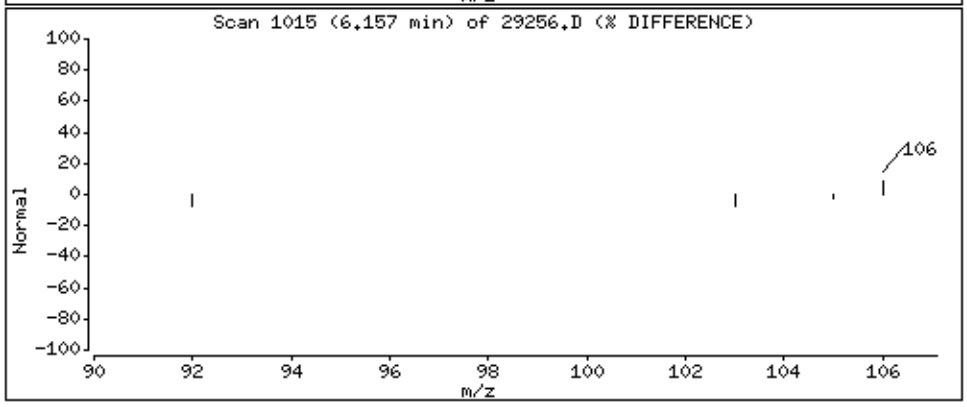












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29256.D

Date : 20-OCT-2015 04:02

Client ID: MW-11-101315

Instrument: 10msv1.i

Sample Info: 10326303009X25

Purge Volume: 5.0

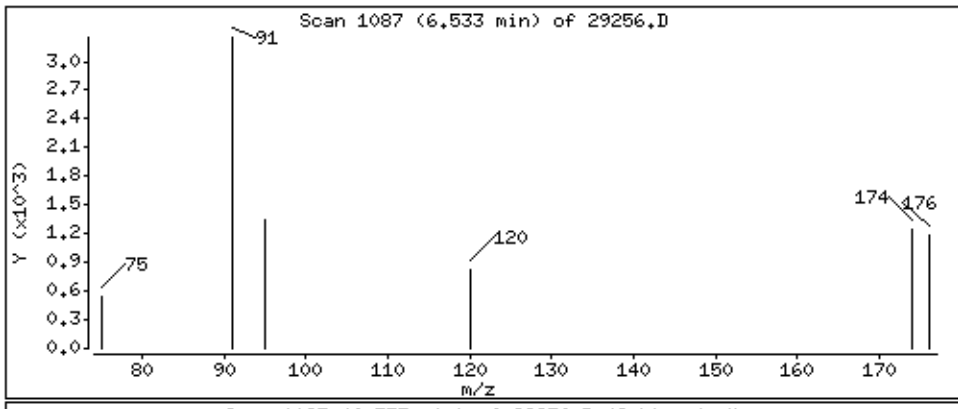
Operator: AH2

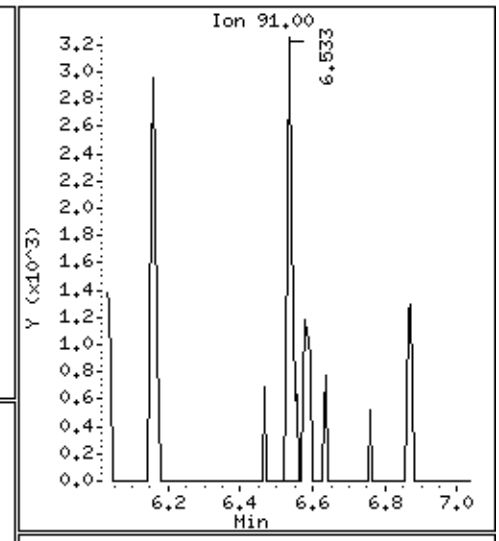
Column phase: Rtx-VMS

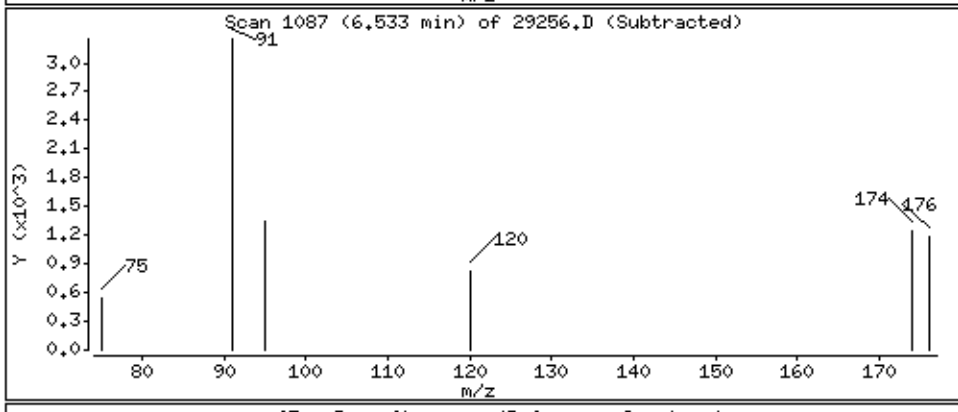
Column diameter: 0.18

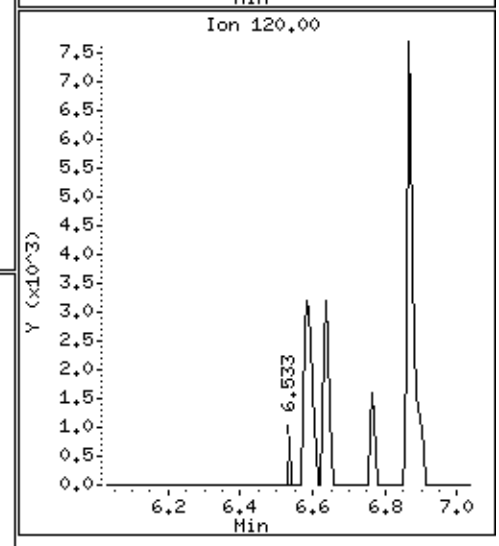
65 n-Propylbenzene

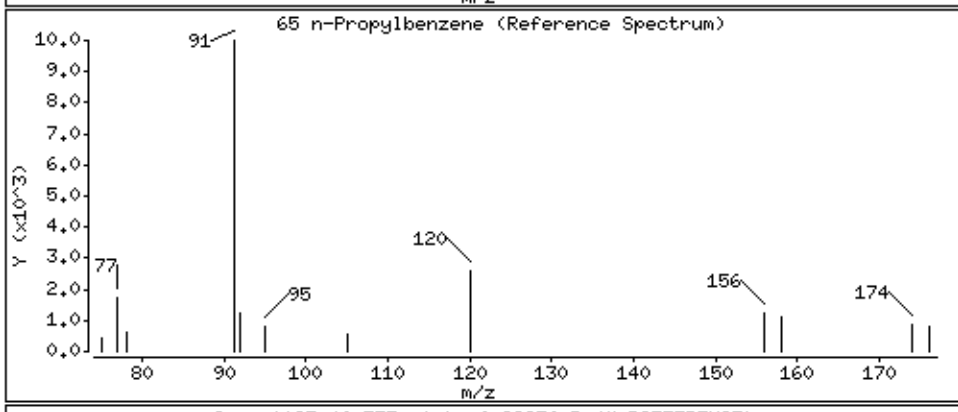
Concentration: 6.0 ug/L

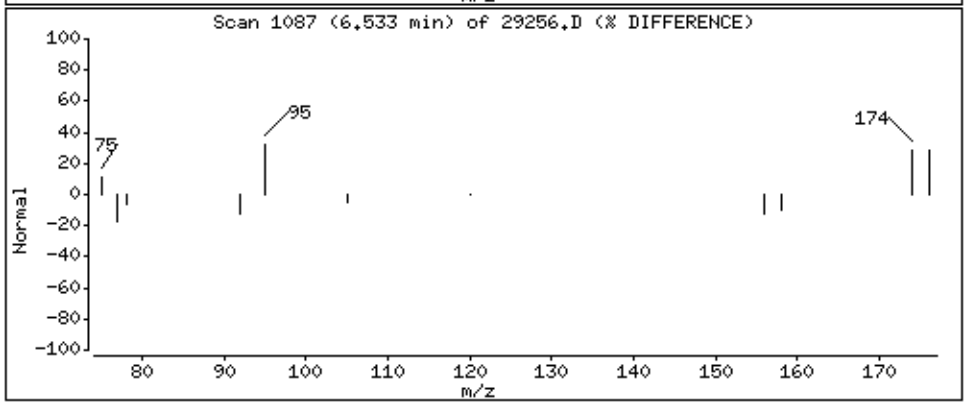












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29256.D

Date : 20-OCT-2015 04:02

Client ID: MW-11-101315

Instrument: 10msv1.i

Sample Info: 10326303009X25

Purge Volume: 5.0

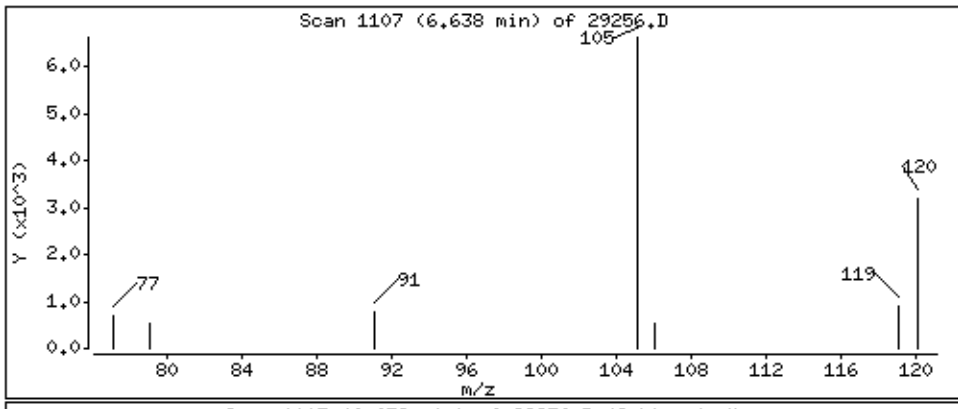
Operator: AH2

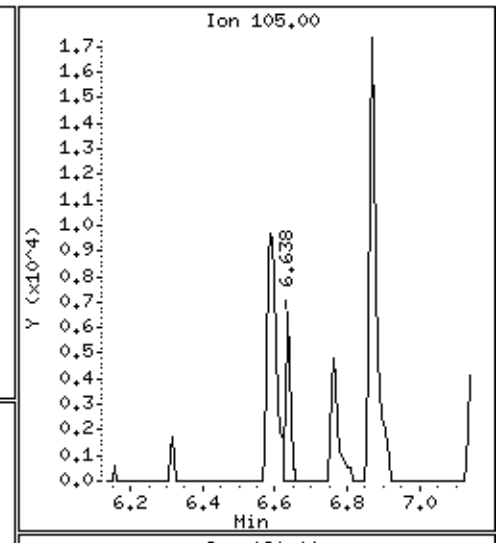
Column phase: Rtx-VMS

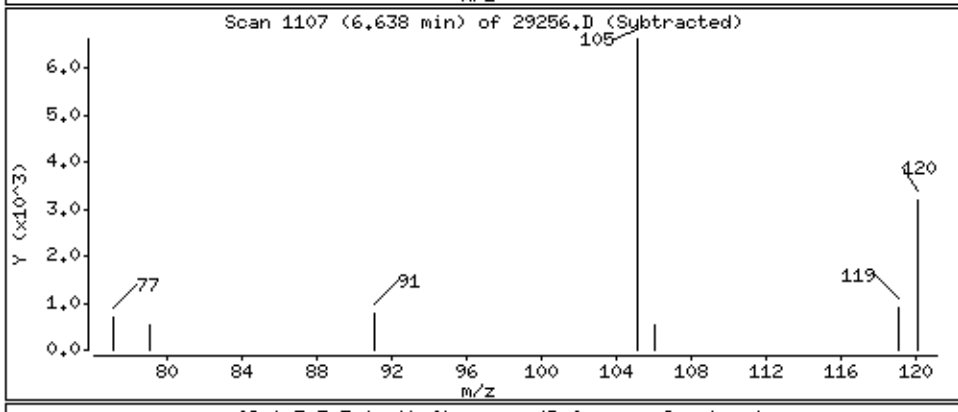
Column diameter: 0.18

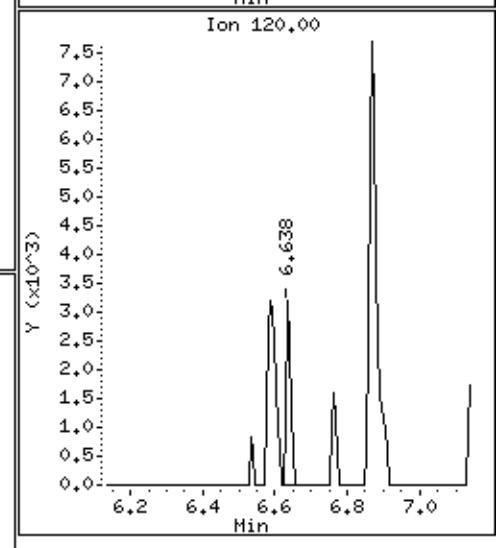
68 1,3,5-Trimethylbenzene

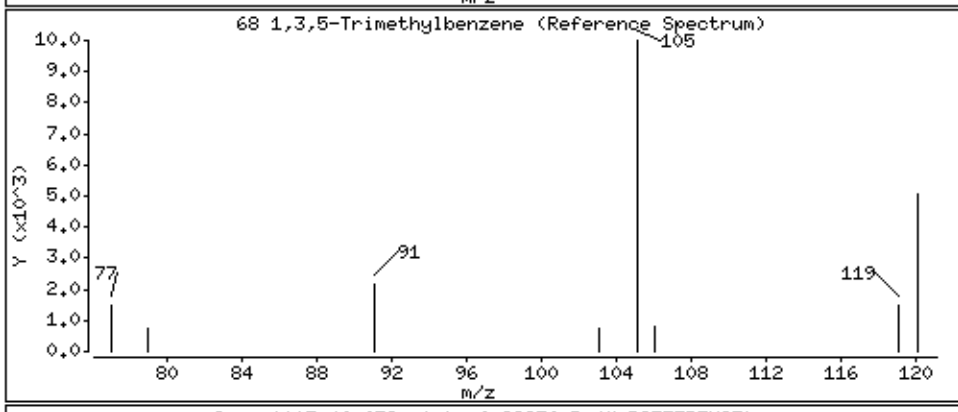
Concentration: 16.8 ug/L

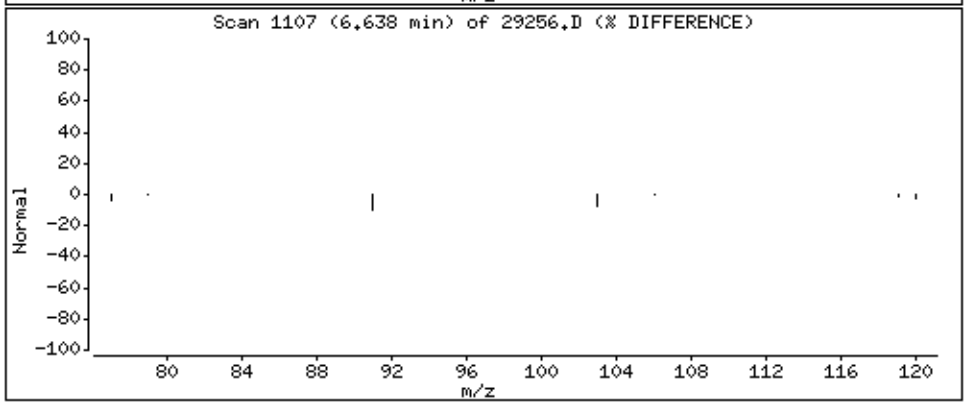












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29256.D

Date : 20-OCT-2015 04:02

Client ID: MW-11-101315

Instrument: 10msv1.i

Sample Info: 10326303009X25

Purge Volume: 5.0

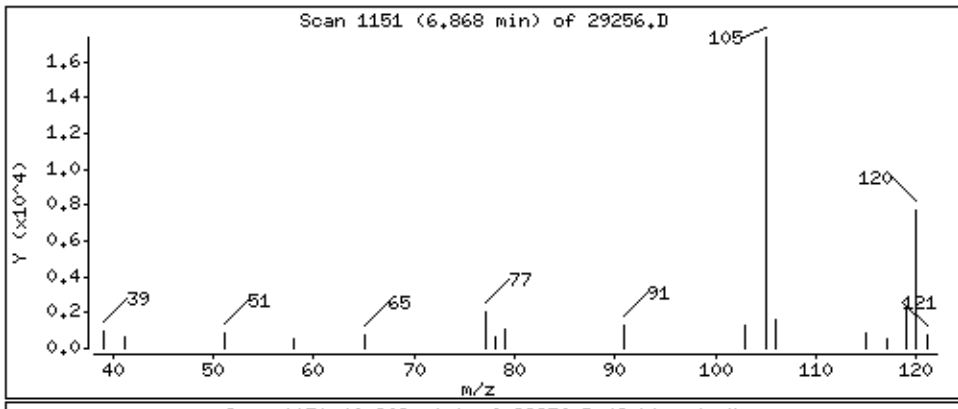
Operator: AH2

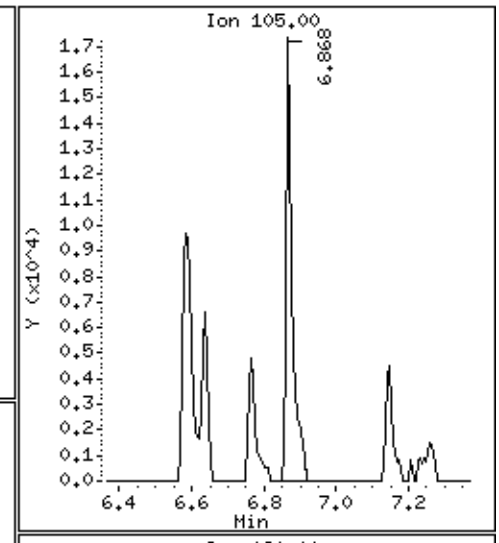
Column phase: Rtx-VMS

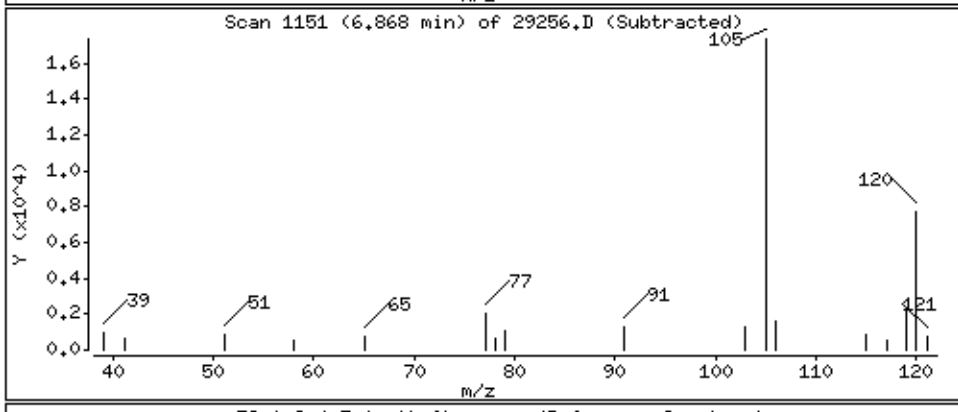
Column diameter: 0.18

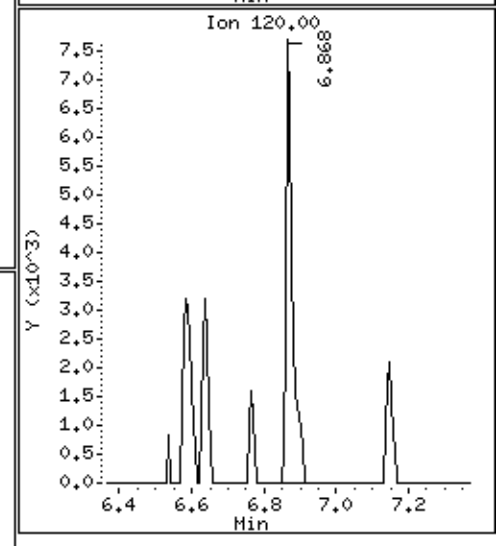
72 1,2,4-Trimethylbenzene

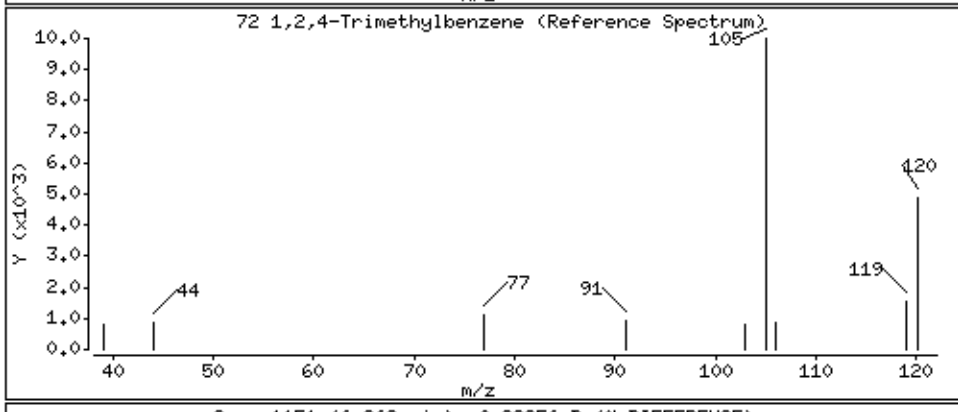
Concentration: 52.0 ug/L

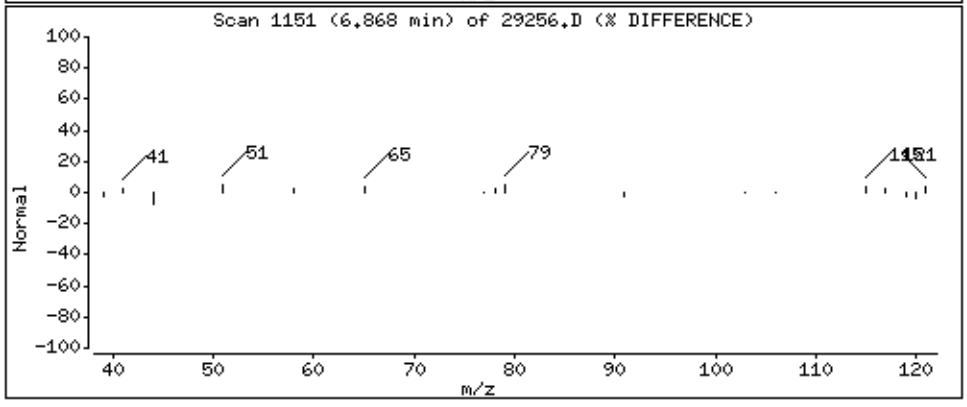












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29256.D

Date : 20-OCT-2015 04:02

Client ID: MW-11-101315

Instrument: 10msv1.i

Sample Info: 10326303009X25

Purge Volume: 5.0

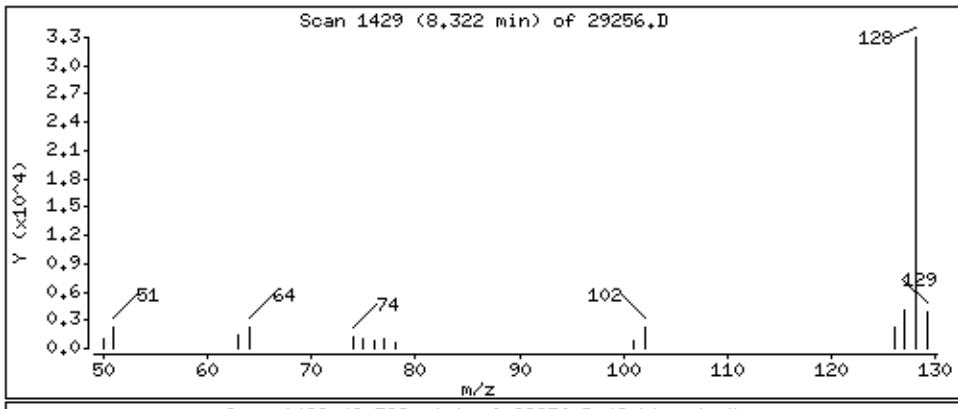
Operator: AH2

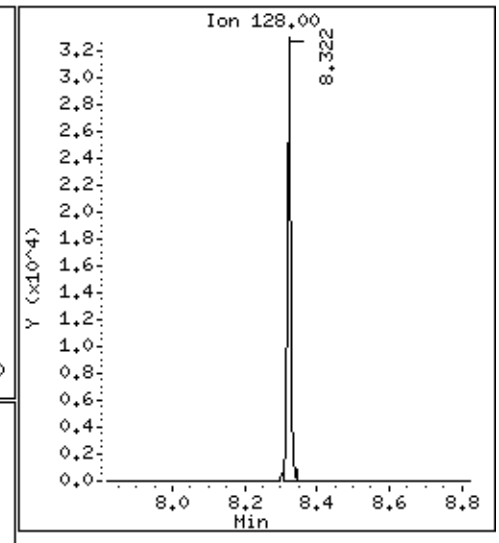
Column phase: Rtx-VMS

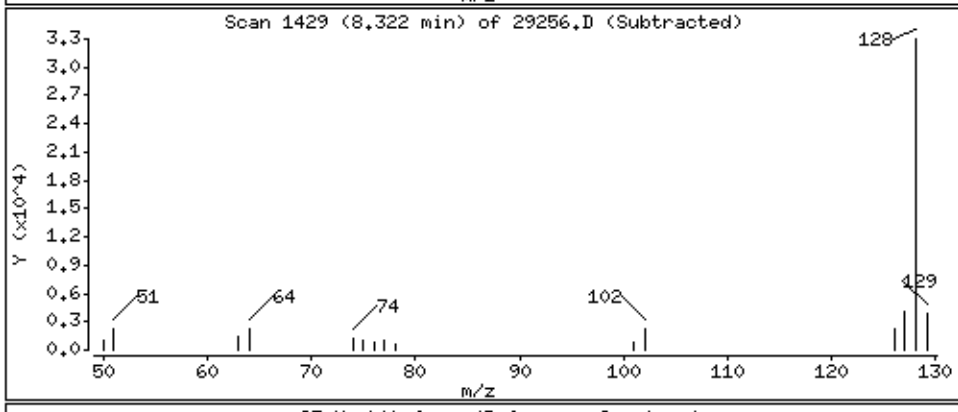
Column diameter: 0.18

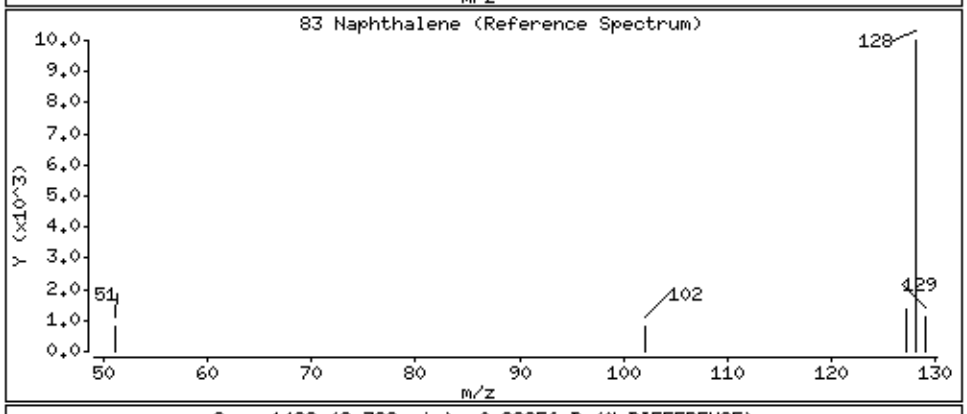
83 Naphthalene

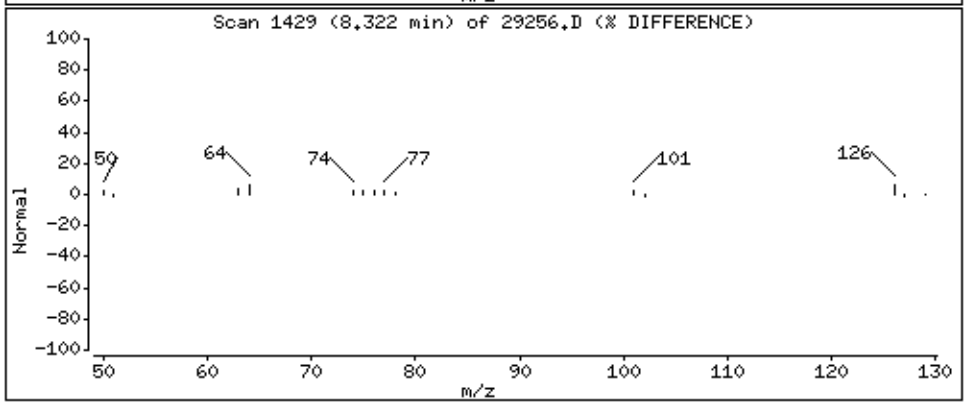
Concentration: 90.6 ug/L











Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29256.D

Date : 20-OCT-2015 04:02

Client ID: MW-11-101315

Instrument: 10msv1.i

Sample Info: 10326303009X25

Purge Volume: 5.0

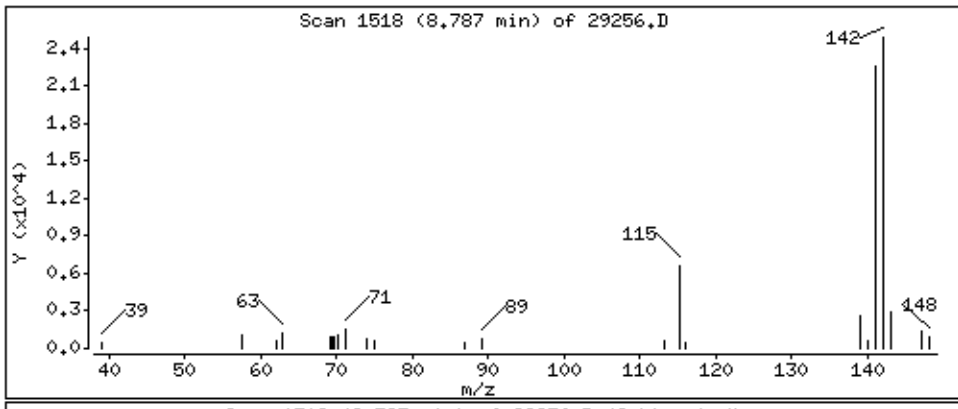
Operator: AH2

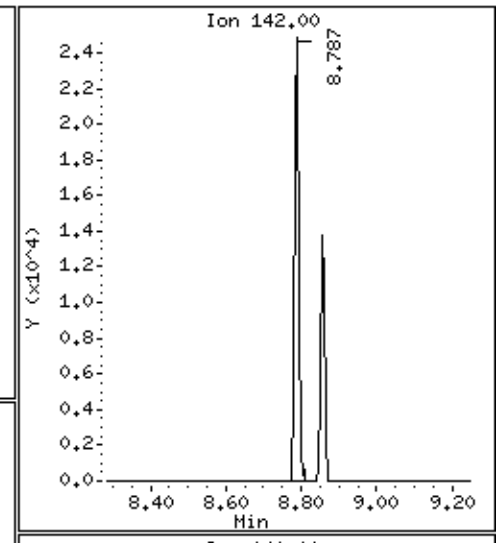
Column phase: Rtx-VMS

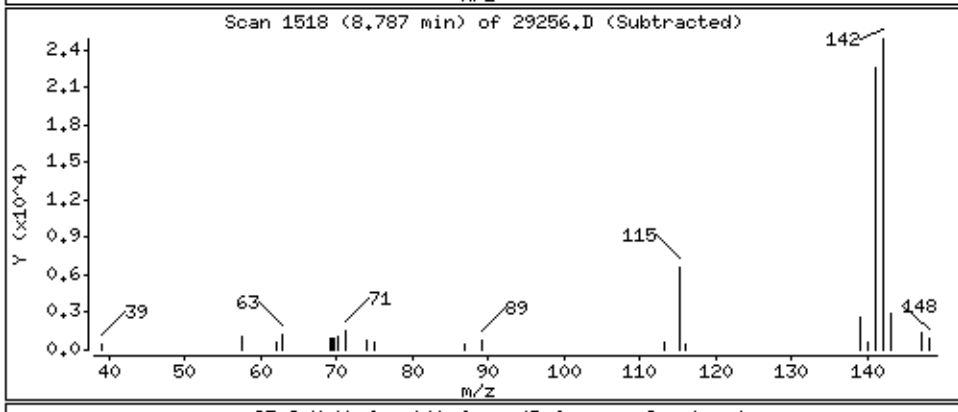
Column diameter: 0.18

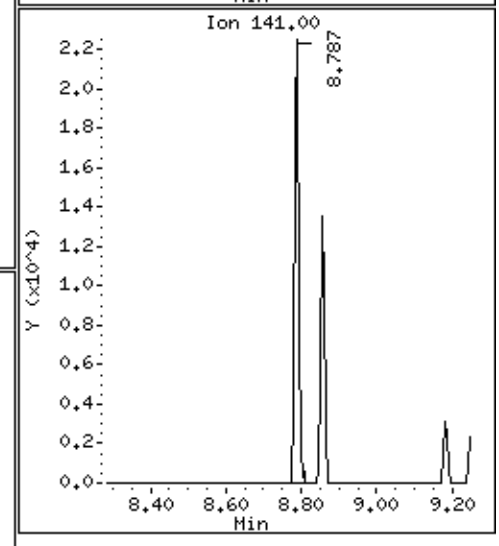
85 2-Methylnaphthalene

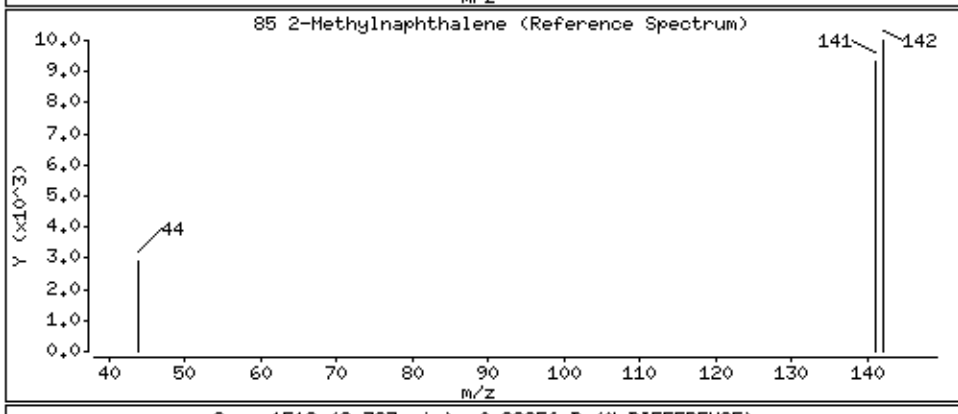
Concentration: 209 ug/L

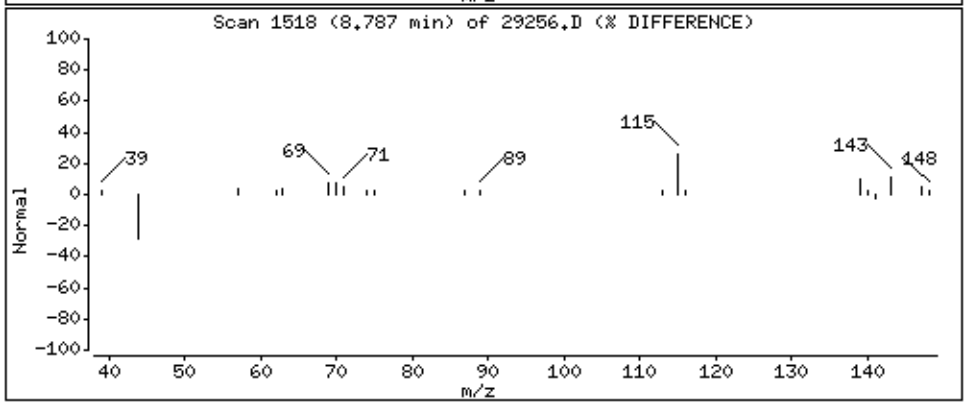












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b/29256.D
Injection Date: 20-OCT-2015 04:02
Instrument: 10msv1.i
Lab Sample ID: 10326303009
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29257.D

Page 3

Date : 20-OCT-2015 04:18

Client ID: DUP-1-101315

Instrument: 10msv1.i

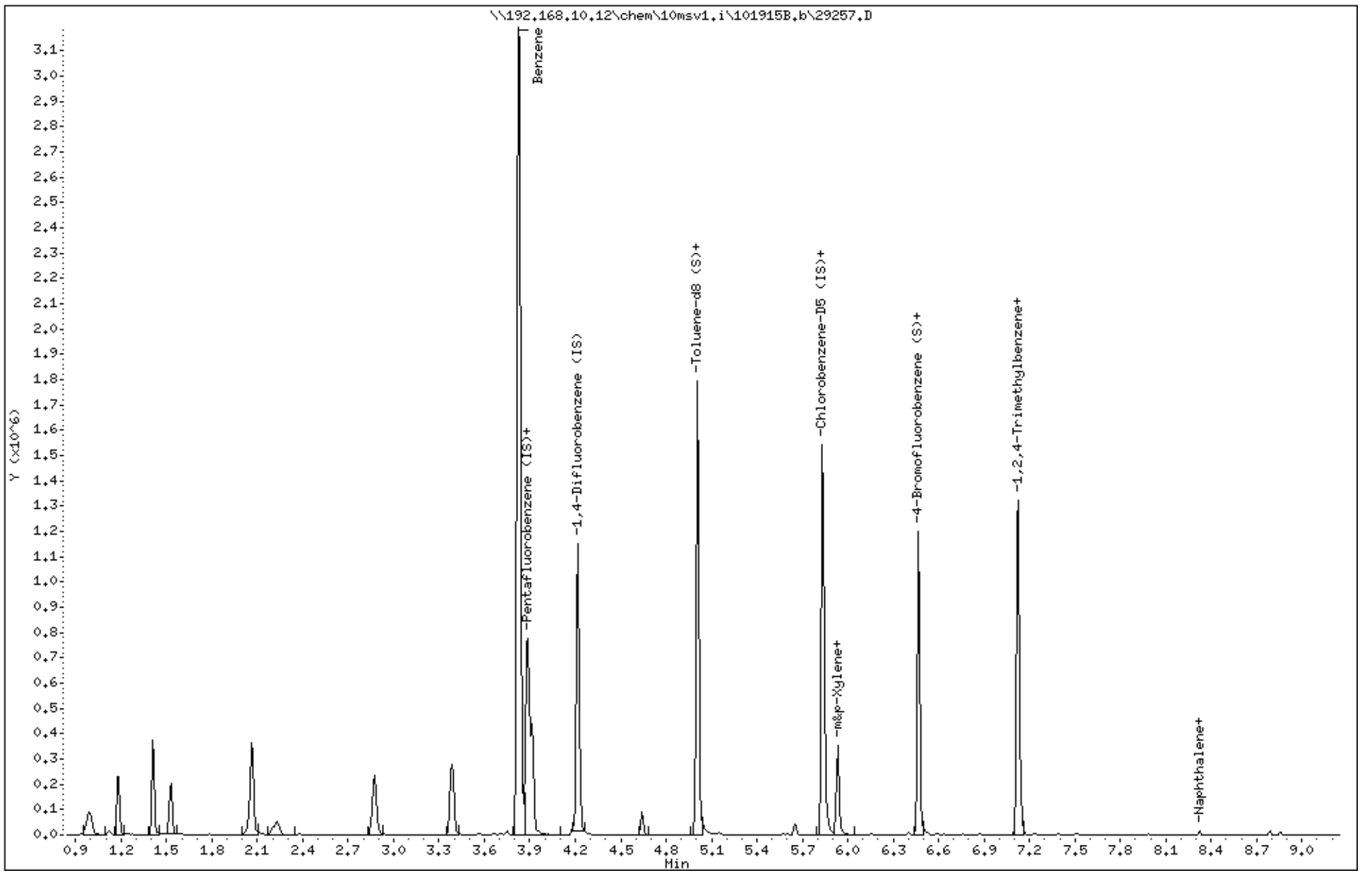
Sample Info: 10326303010X20

Purge Volume: 5.0

Operator: AH2

Column phase: Rtx-VMS

Column diameter: 0.18



Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29257.D

Date : 20-OCT-2015 04:18

Client ID: DUP-1-101315

Instrument: 10msv1.i

Sample Info: 10326303010X20

Purge Volume: 5.0

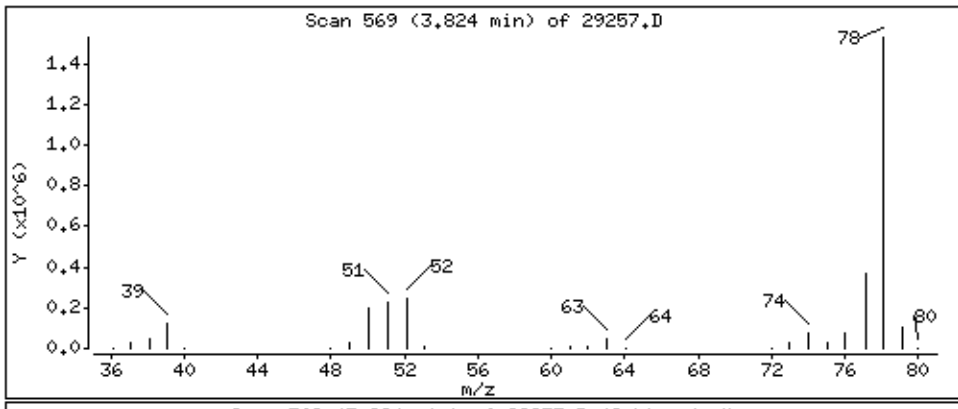
Operator: AH2

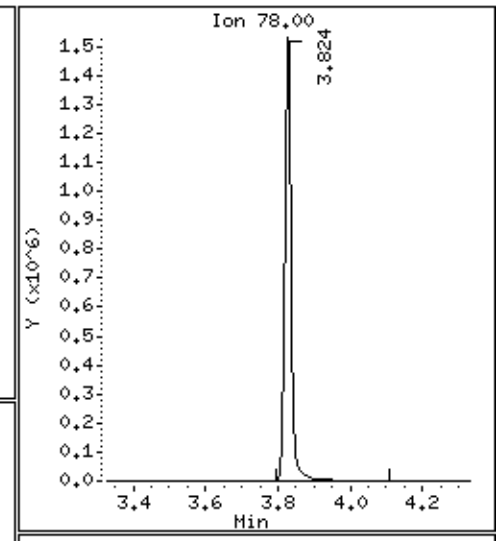
Column phase: Rtx-VMS

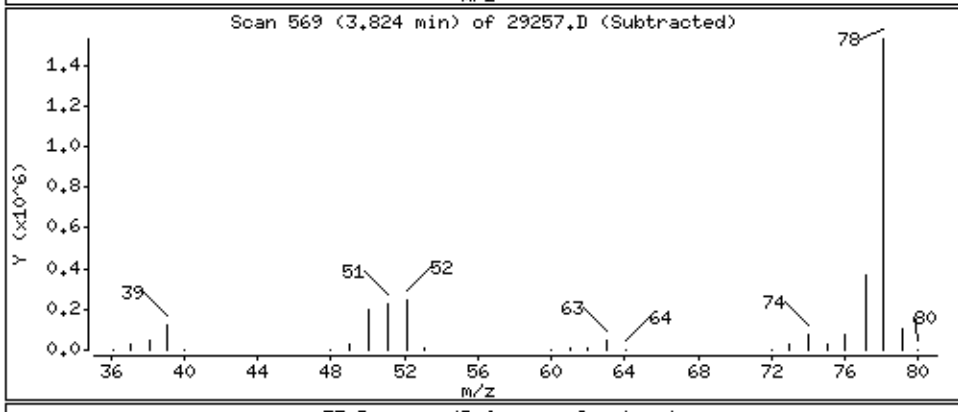
Column diameter: 0.18

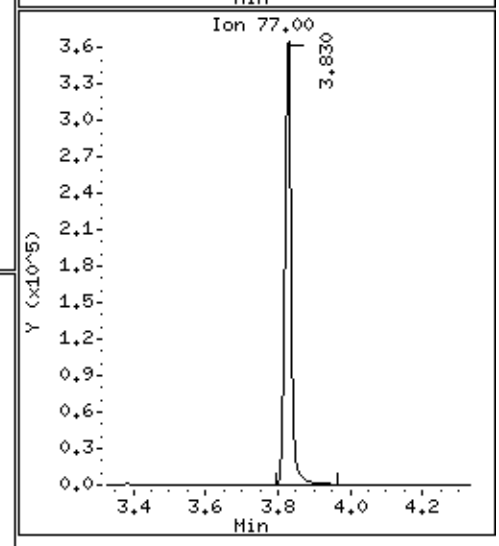
33 Benzene

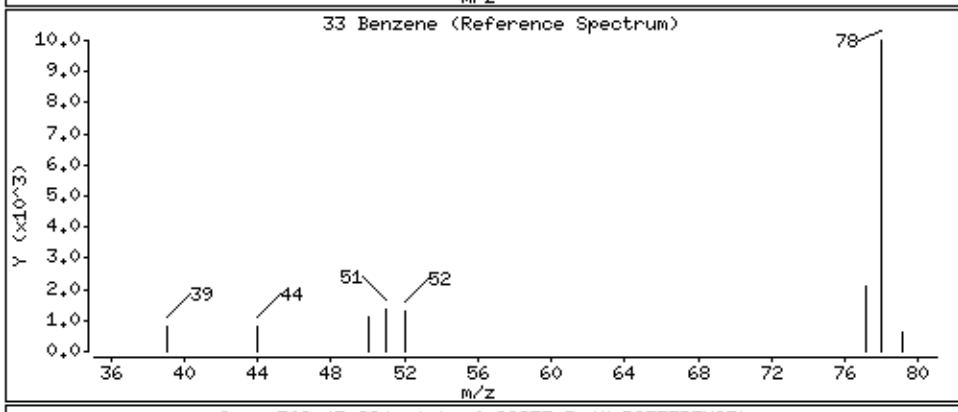
Concentration: 2640 ug/L

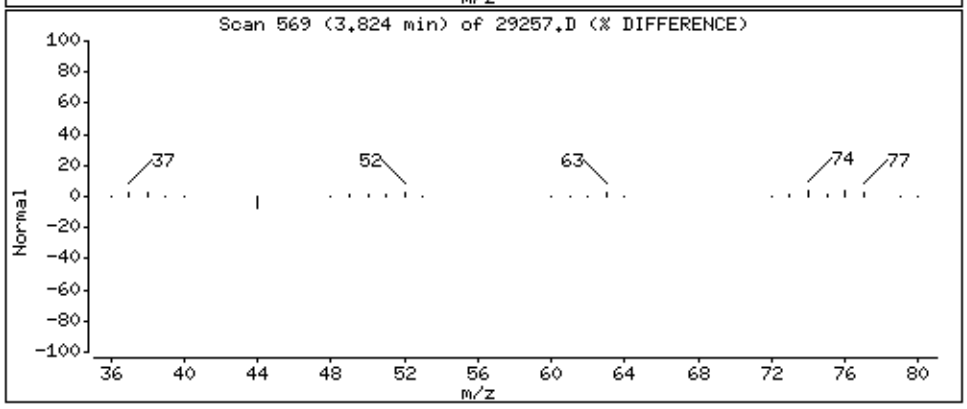












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29257.D

Date : 20-OCT-2015 04:18

Client ID: DUP-1-101315

Instrument: 10msv1.i

Sample Info: 10326303010X20

Purge Volume: 5.0

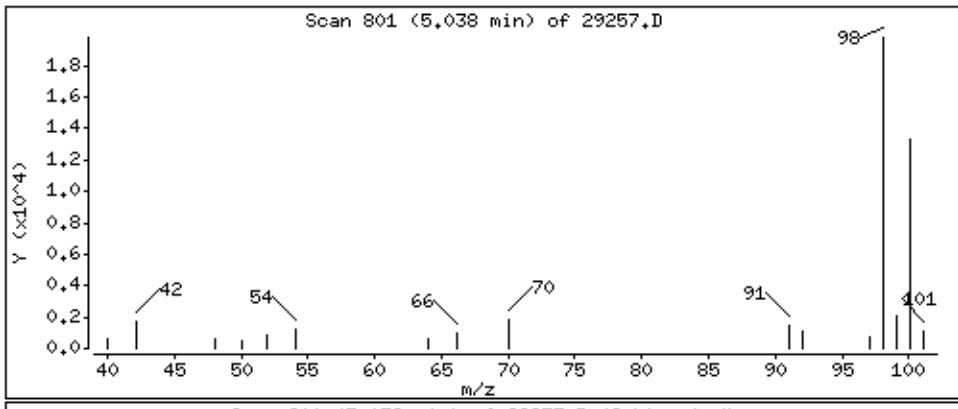
Operator: AH2

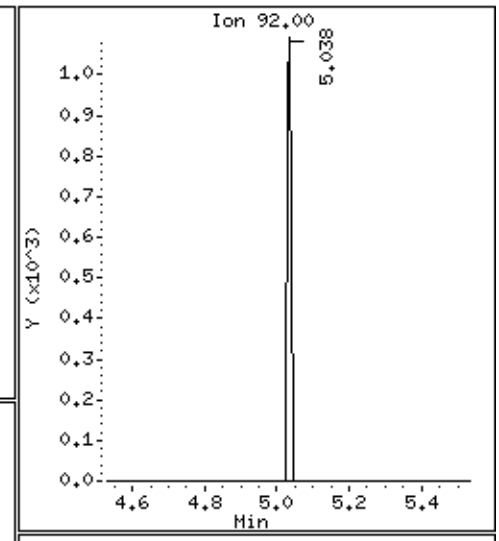
Column phase: Rtx-VMS

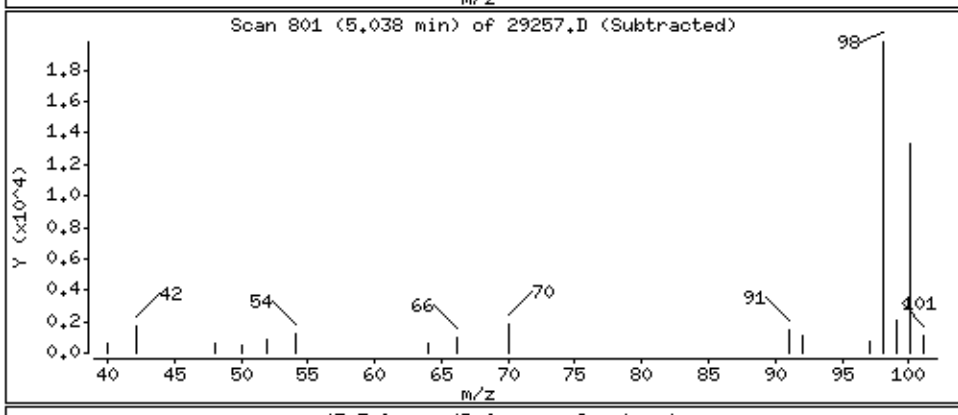
Column diameter: 0.18

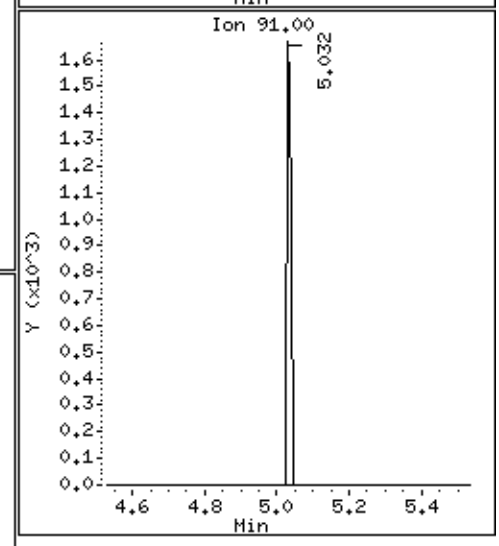
45 Toluene

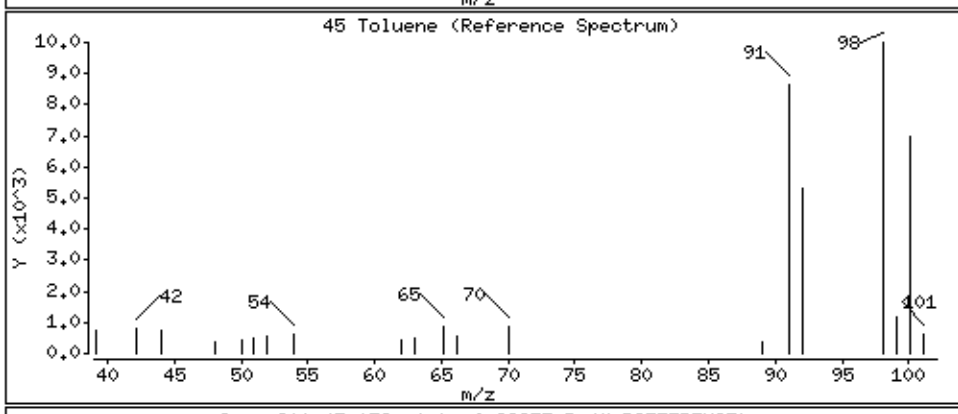
Concentration: 2.2 ug/L

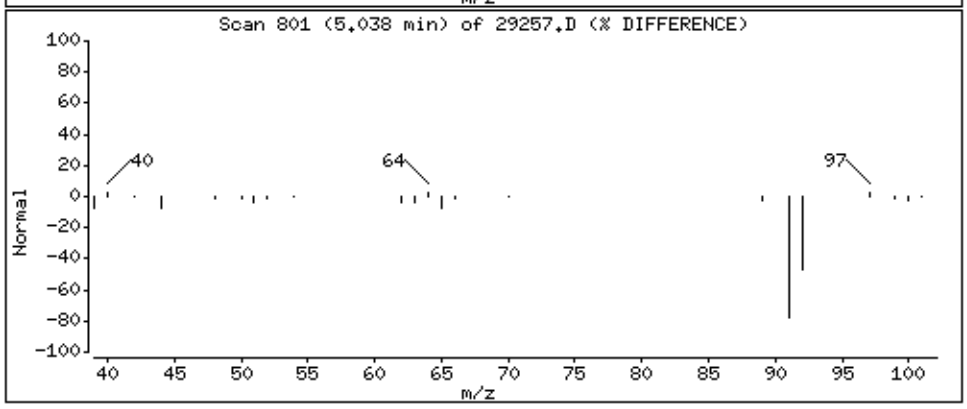












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29257.D

Date : 20-OCT-2015 04:18

Client ID: DUP-1-101315

Instrument: 10msv1.i

Sample Info: 10326303010X20

Purge Volume: 5.0

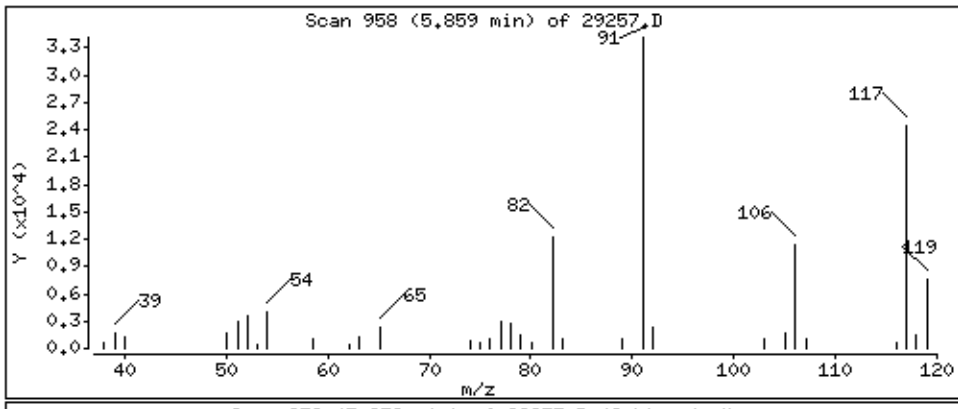
Operator: AH2

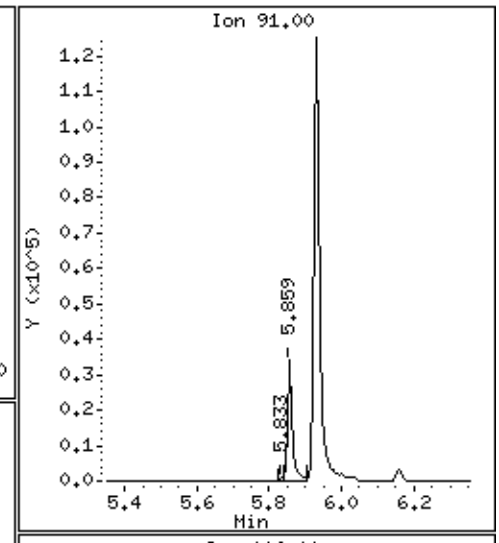
Column phase: Rtx-VMS

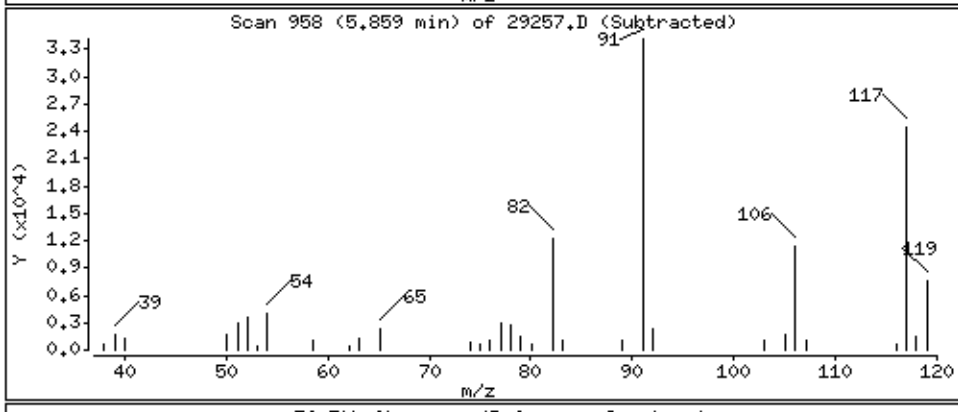
Column diameter: 0.18

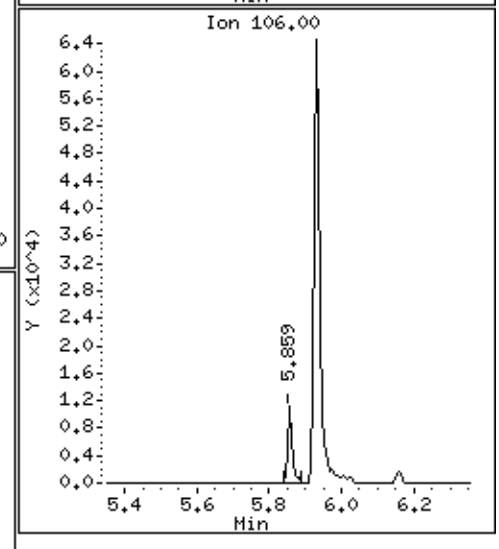
56 Ethylbenzene

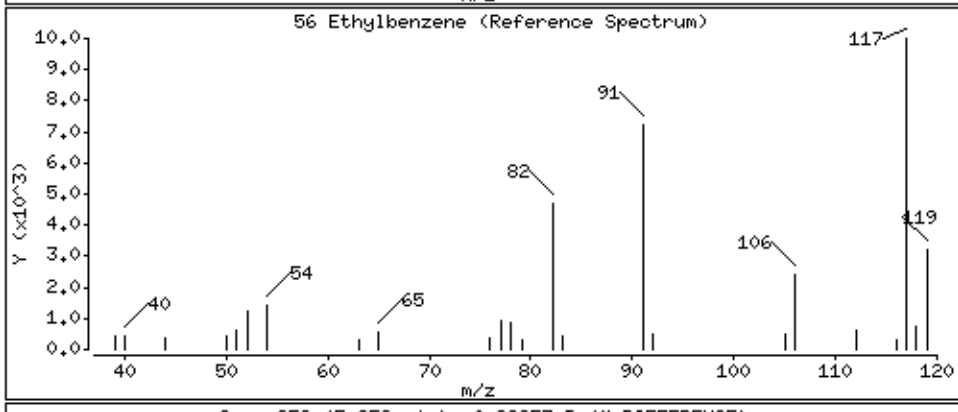
Concentration: 47.4 ug/L

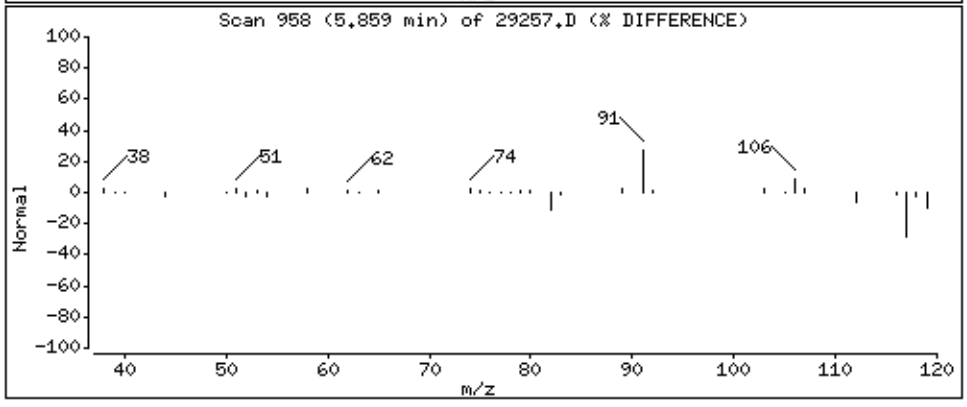












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29257.D

Date : 20-OCT-2015 04:18

Client ID: DUP-1-101315

Instrument: 10msv1.i

Sample Info: 10326303010X20

Purge Volume: 5.0

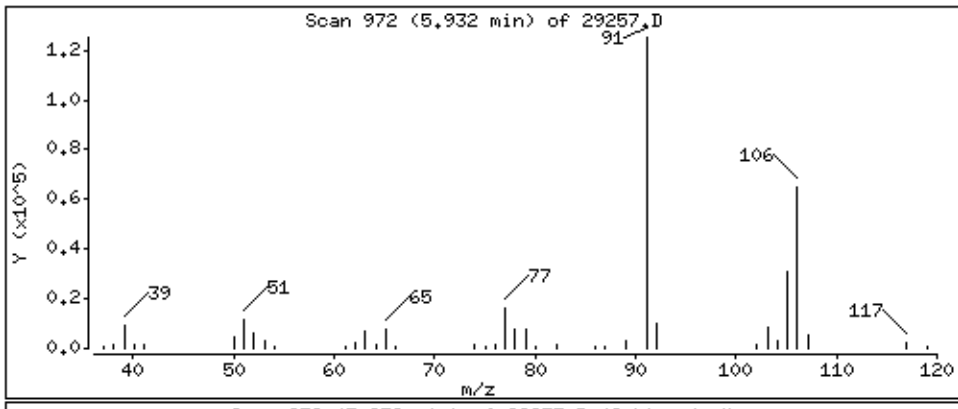
Operator: AH2

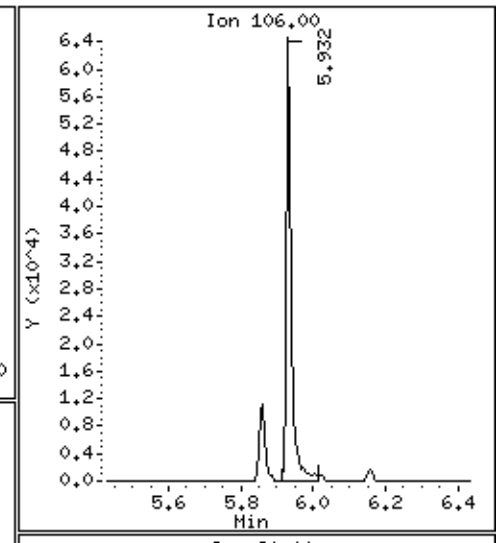
Column phase: Rtx-VMS

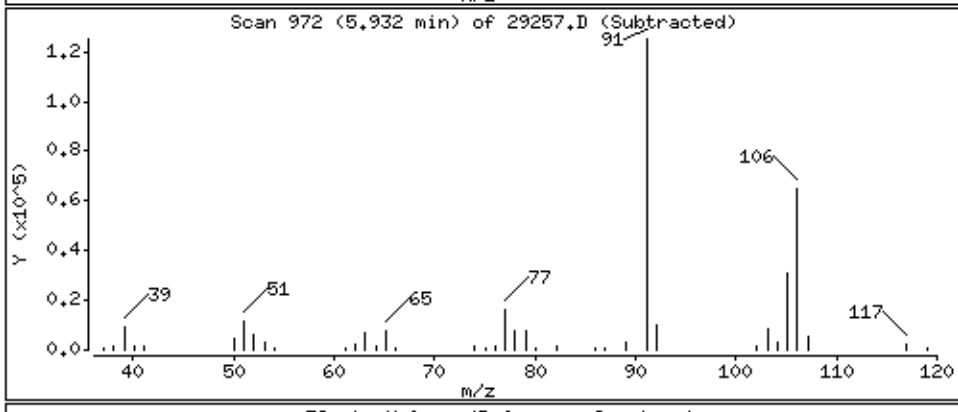
Column diameter: 0.18

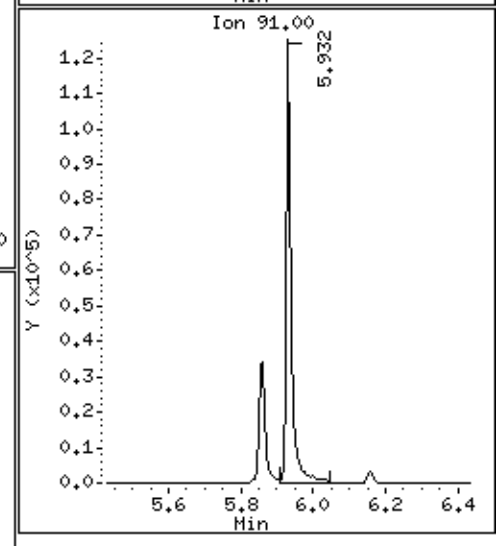
58 m&p-Xylene

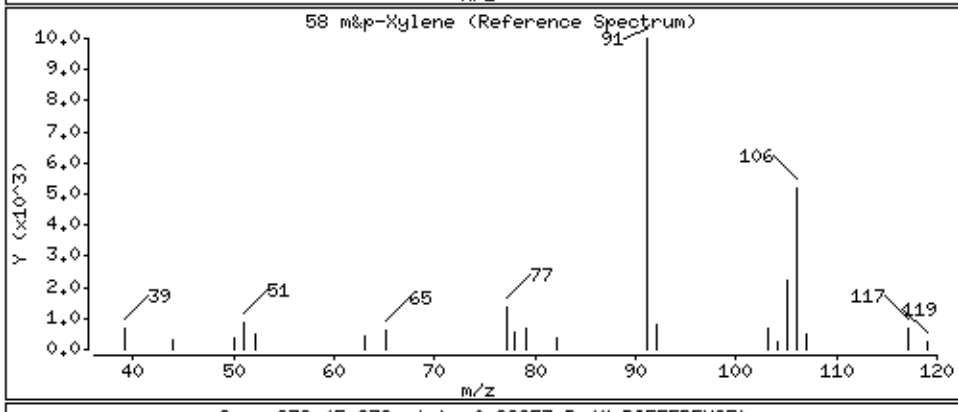
Concentration: 214 ug/L

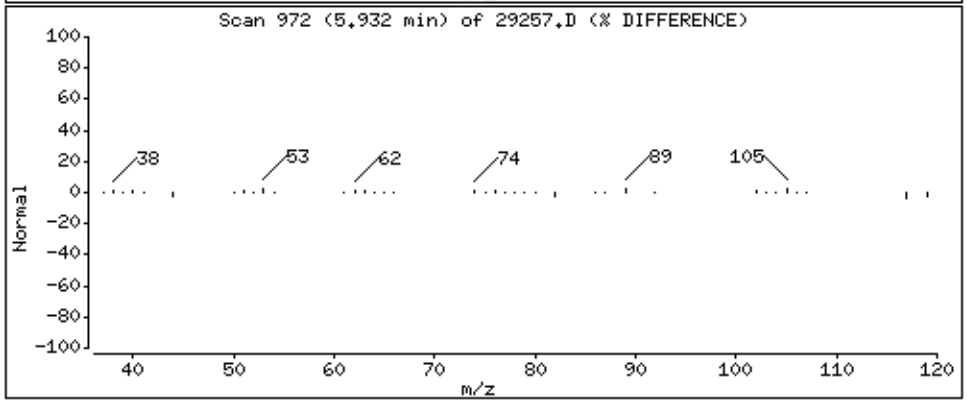












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29257.D

Date : 20-OCT-2015 04:18

Client ID: DUP-1-101315

Instrument: 10msv1.i

Sample Info: 10326303010X20

Purge Volume: 5.0

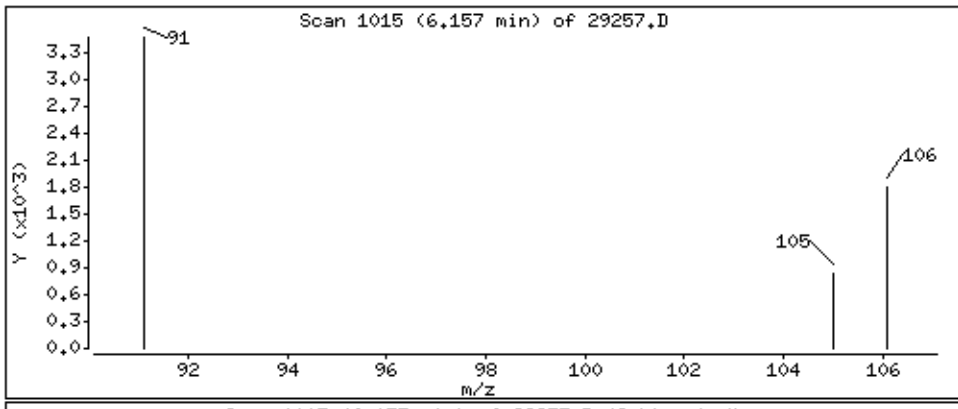
Operator: AH2

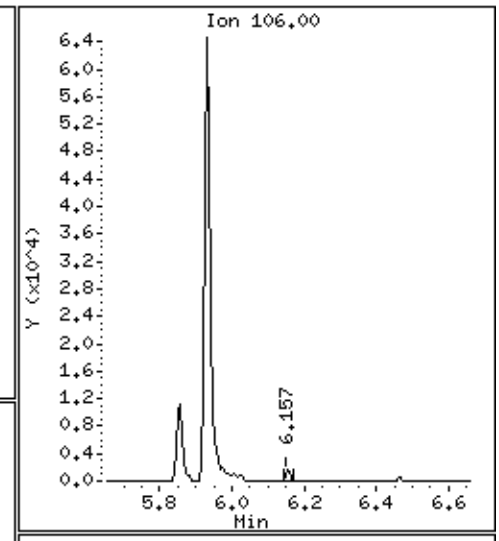
Column phase: Rtx-VMS

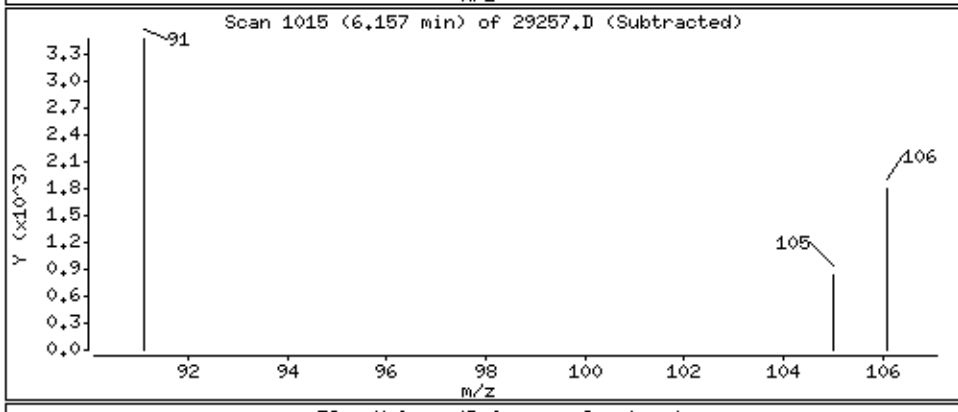
Column diameter: 0.18

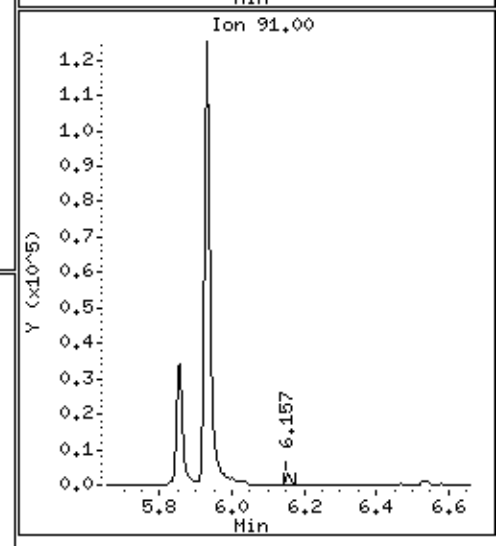
59 o-Xylene

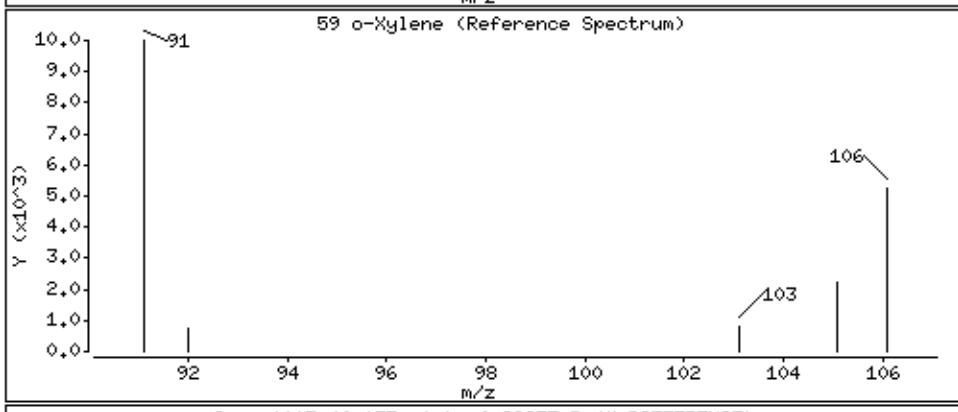
Concentration: 5.5 ug/L

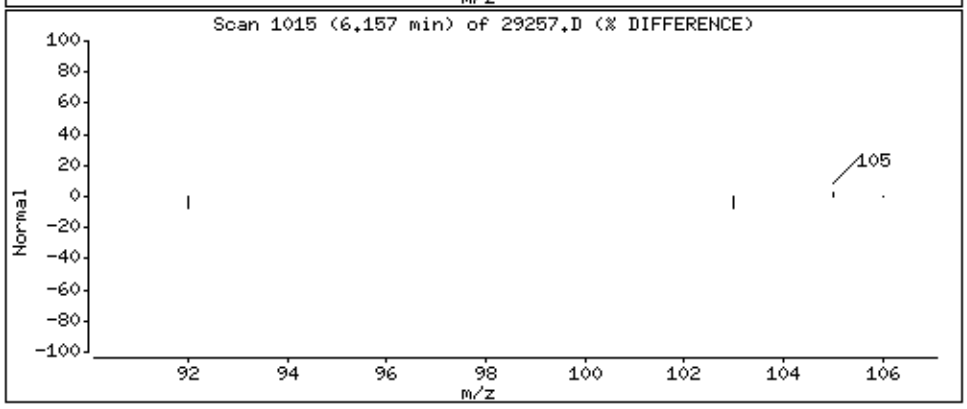












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29257.D

Date : 20-OCT-2015 04:18

Client ID: DUP-1-101315

Instrument: 10msv1.i

Sample Info: 10326303010X20

Purge Volume: 5.0

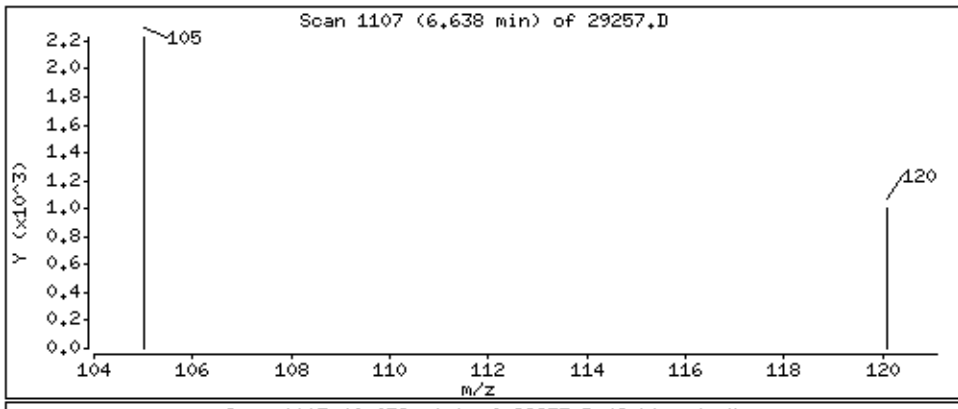
Operator: AH2

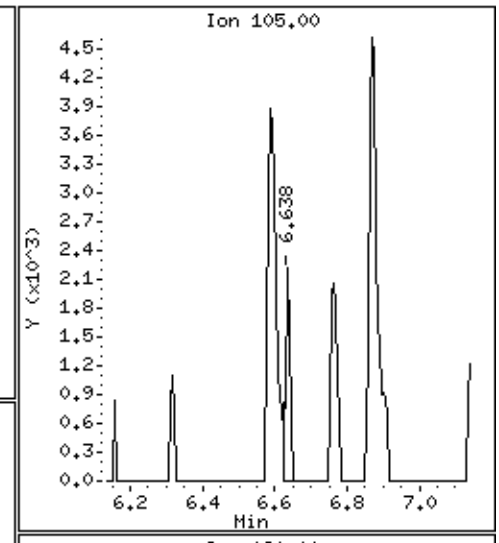
Column phase: Rtx-VMS

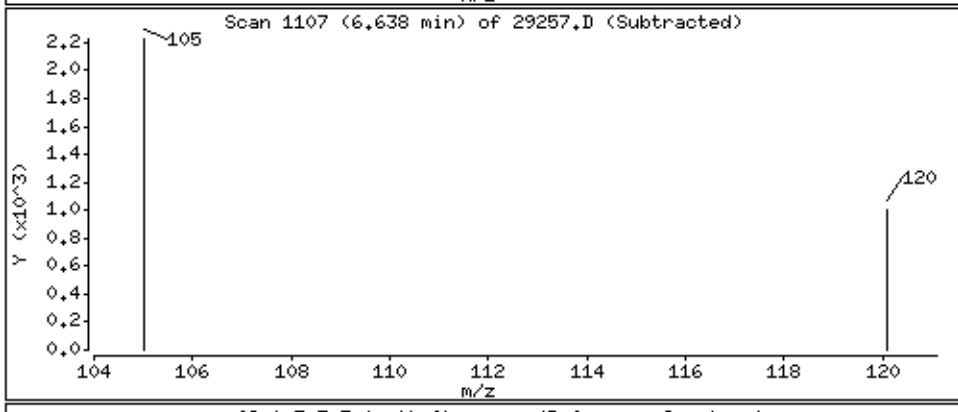
Column diameter: 0.18

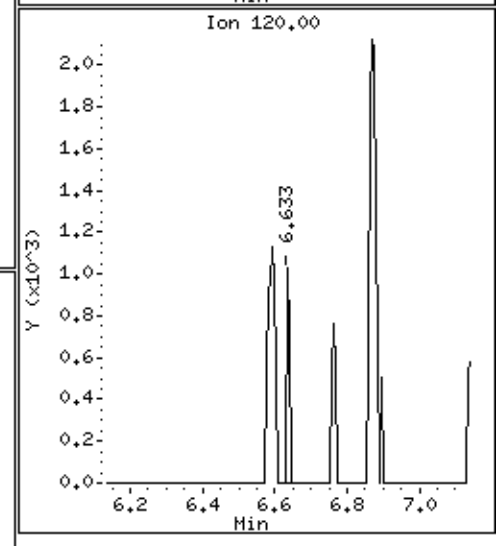
68 1,3,5-Trimethylbenzene

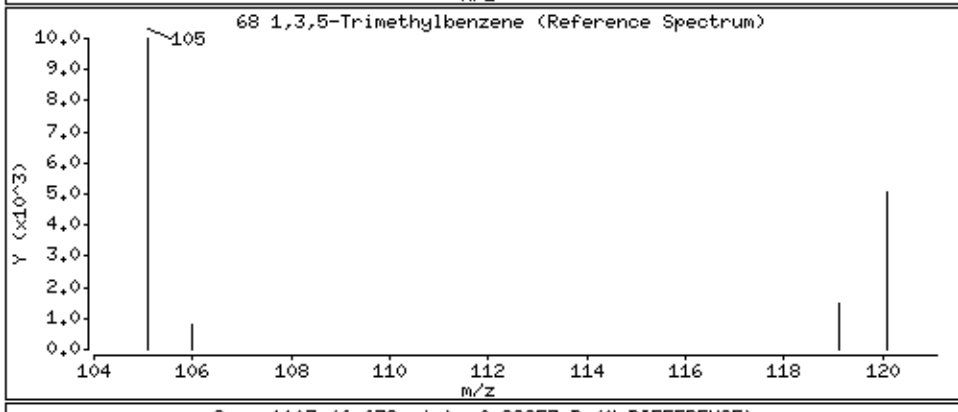
Concentration: 4.3 ug/L

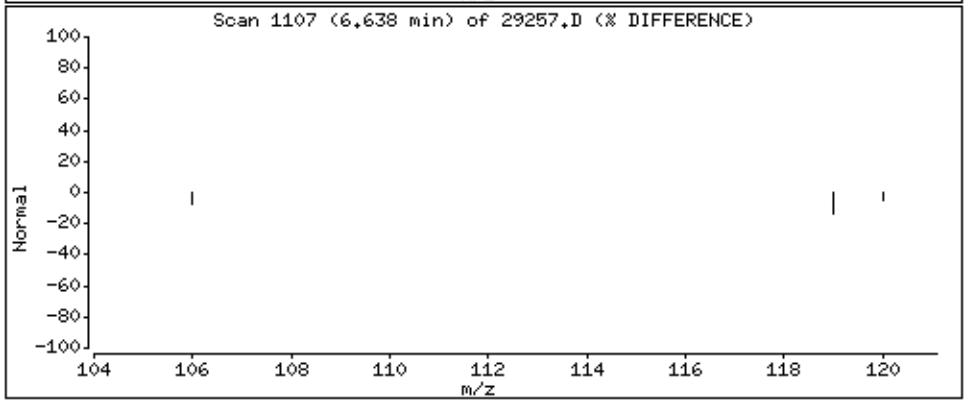












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29257.D

Date : 20-OCT-2015 04:18

Client ID: DUP-1-101315

Instrument: 10msv1.i

Sample Info: 10326303010X20

Purge Volume: 5.0

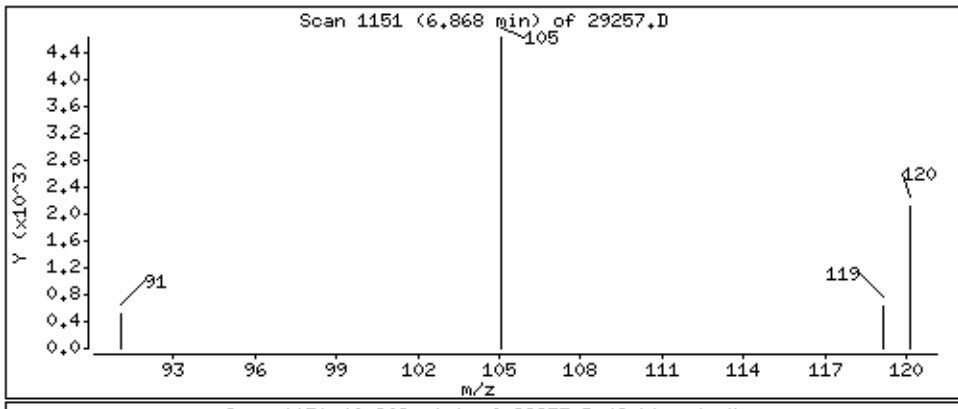
Operator: AH2

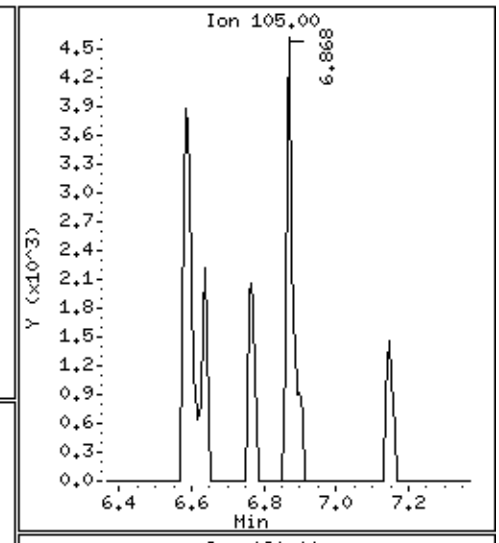
Column phase: Rtx-VMS

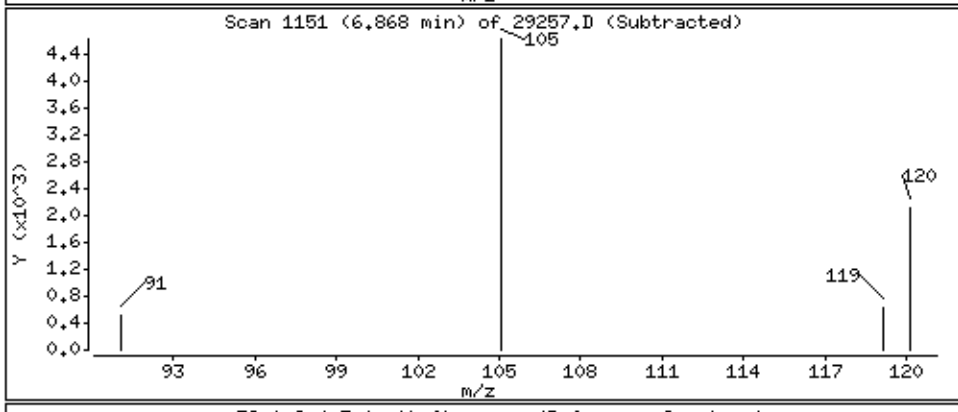
Column diameter: 0.18

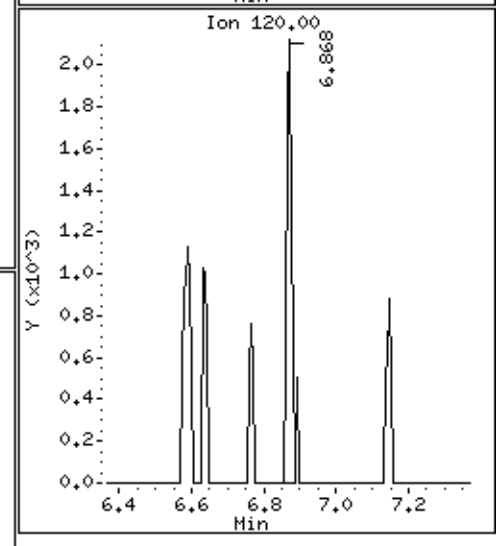
72 1,2,4-Trimethylbenzene

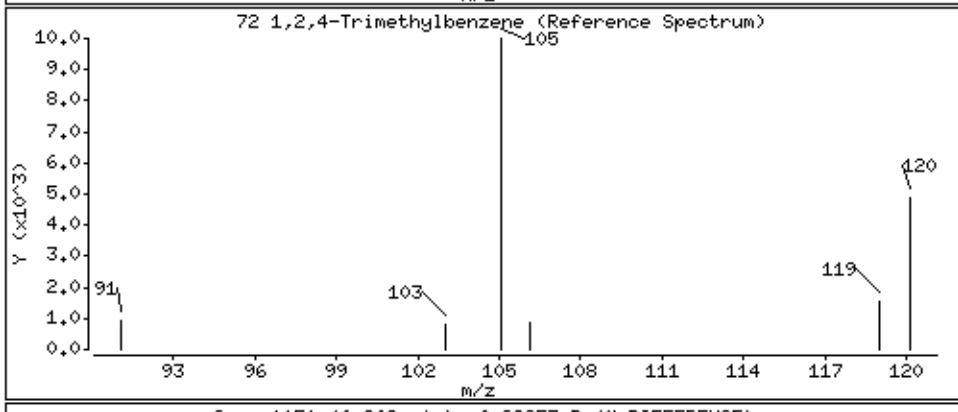
Concentration: 13.2 ug/L

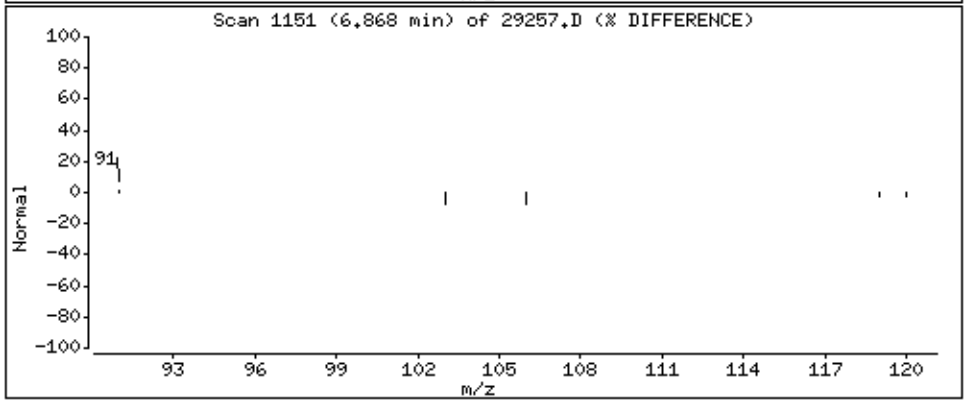












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29257.D

Date : 20-OCT-2015 04:18

Client ID: DUP-1-101315

Instrument: 10msv1.i

Sample Info: 10326303010X20

Purge Volume: 5.0

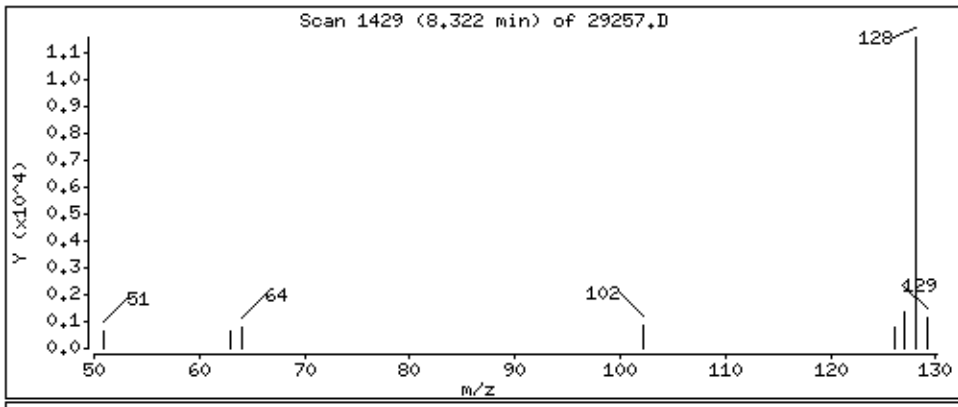
Operator: AH2

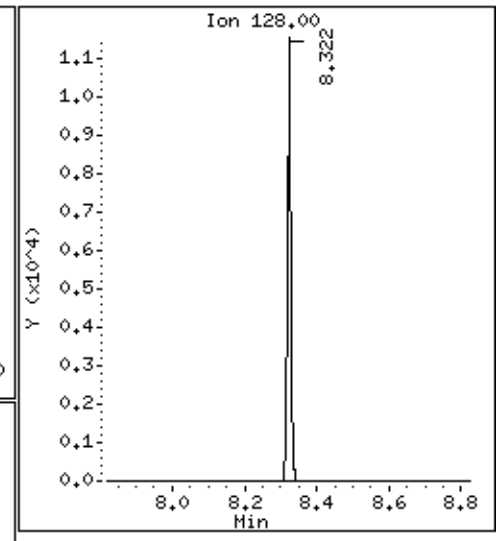
Column phase: Rtx-VMS

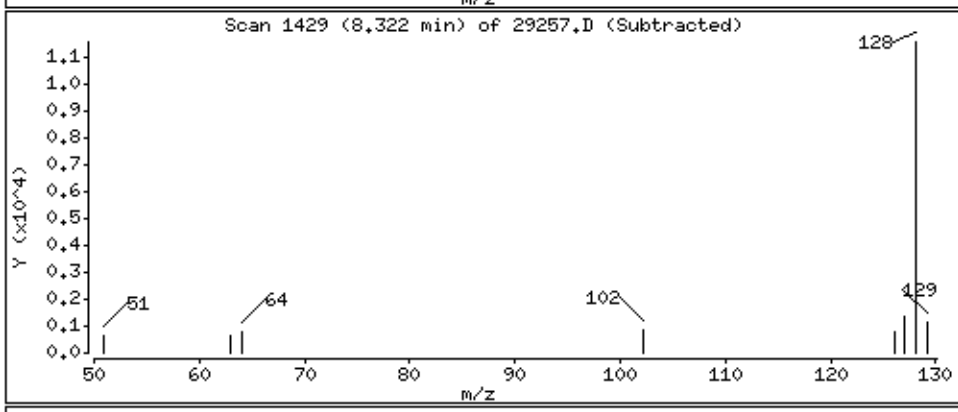
Column diameter: 0.18

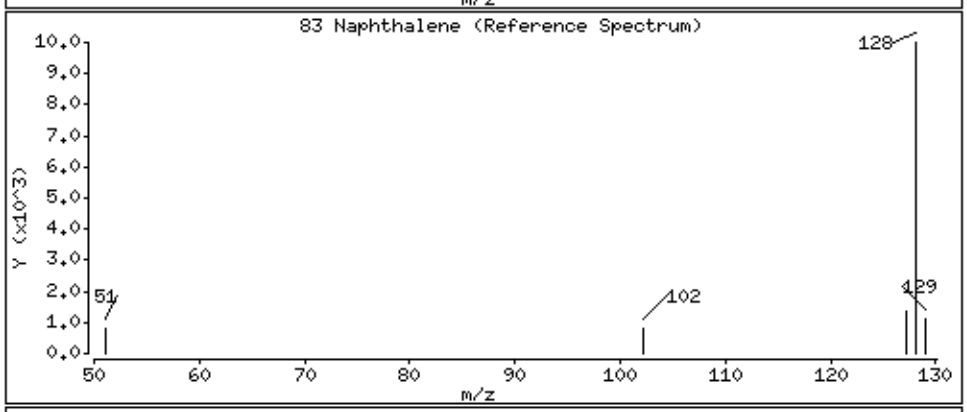
83 Naphthalene

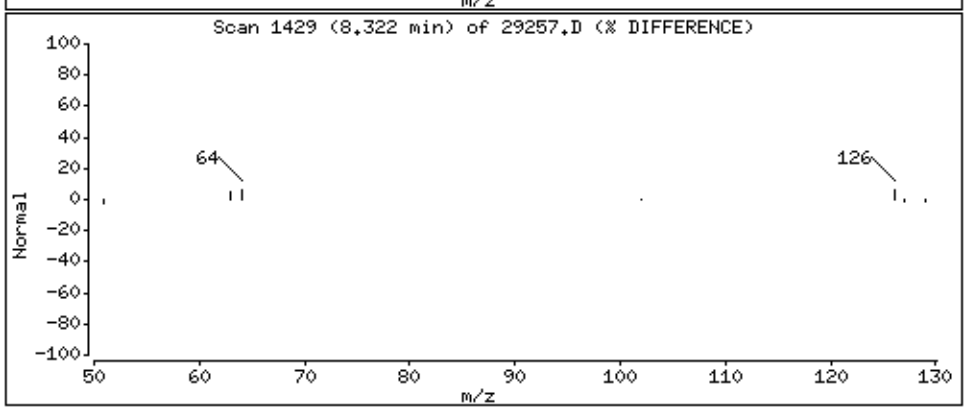
Concentration: 25.8 ug/L











Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29257.D

Date : 20-OCT-2015 04:18

Client ID: DUP-1-101315

Instrument: 10msv1.i

Sample Info: 10326303010X20

Purge Volume: 5.0

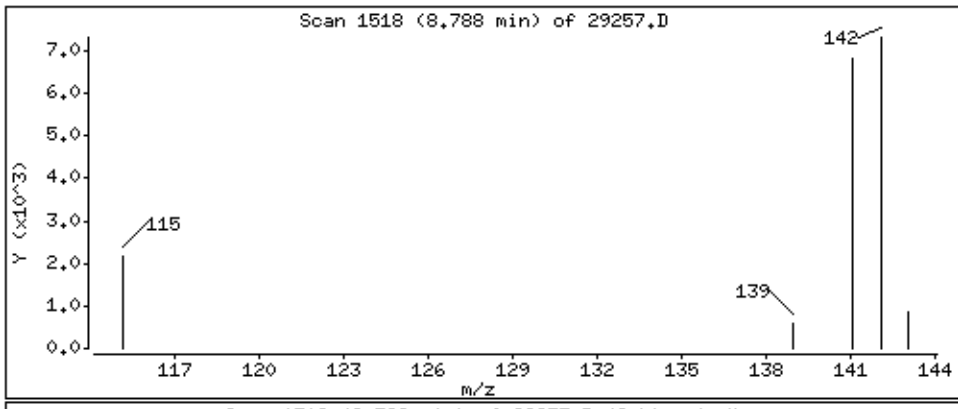
Operator: AH2

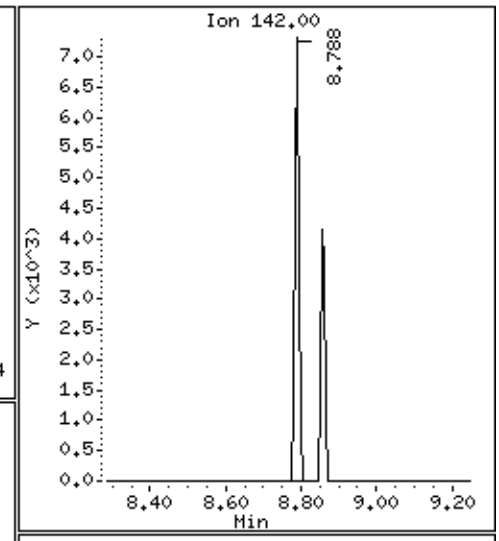
Column phase: Rtx-VMS

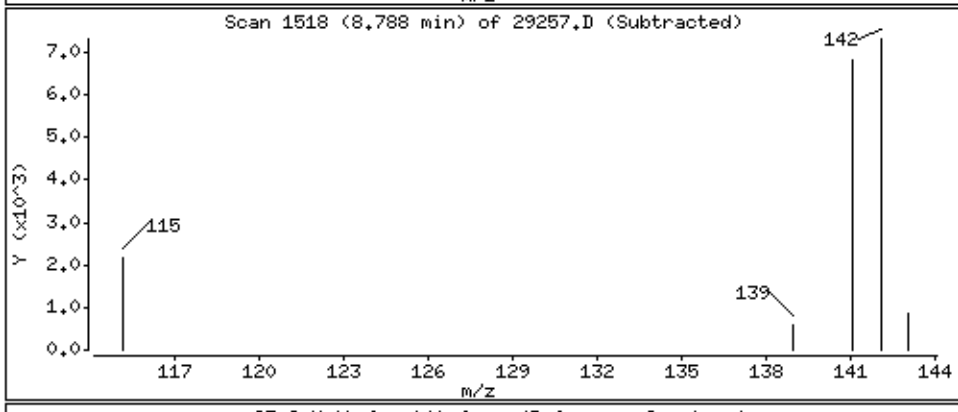
Column diameter: 0.18

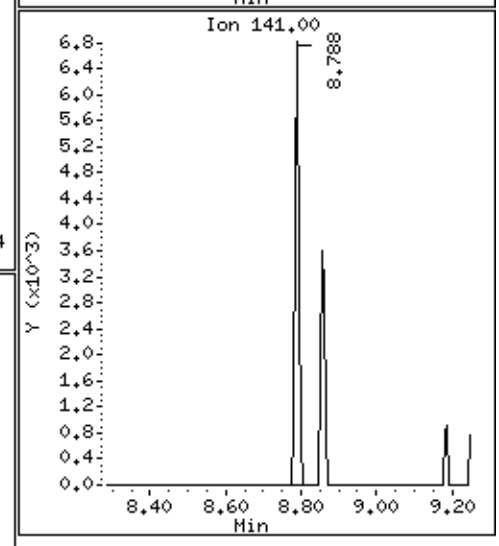
85 2-Methylnaphthalene

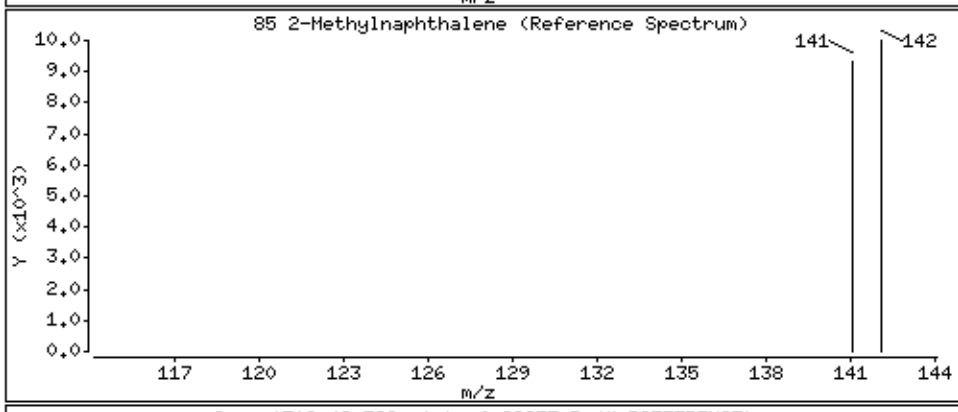
Concentration: 48.6 ug/L

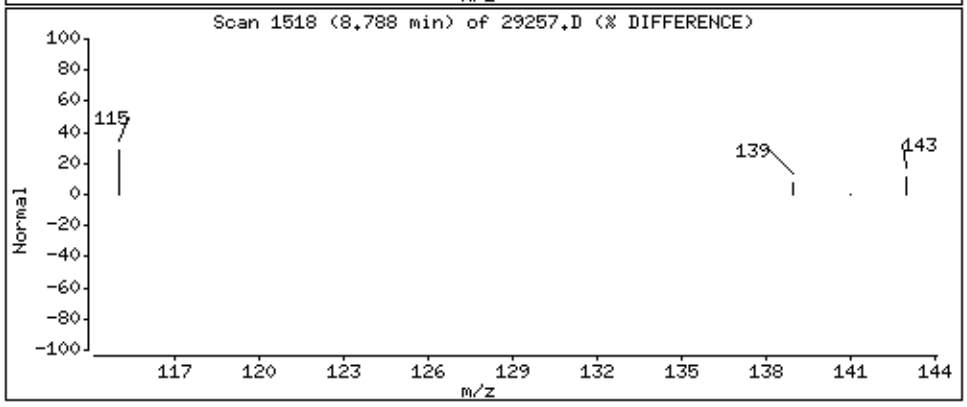












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b/29257.D
Injection Date: 20-OCT-2015 04:18
Instrument: 10msv1.i
Lab Sample ID: 10326303010
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29238.D

Page 2

Date : 19-OCT-2015 23:08

Client ID: TRIP BLANK-1-101315

Instrument: 10msv1.i

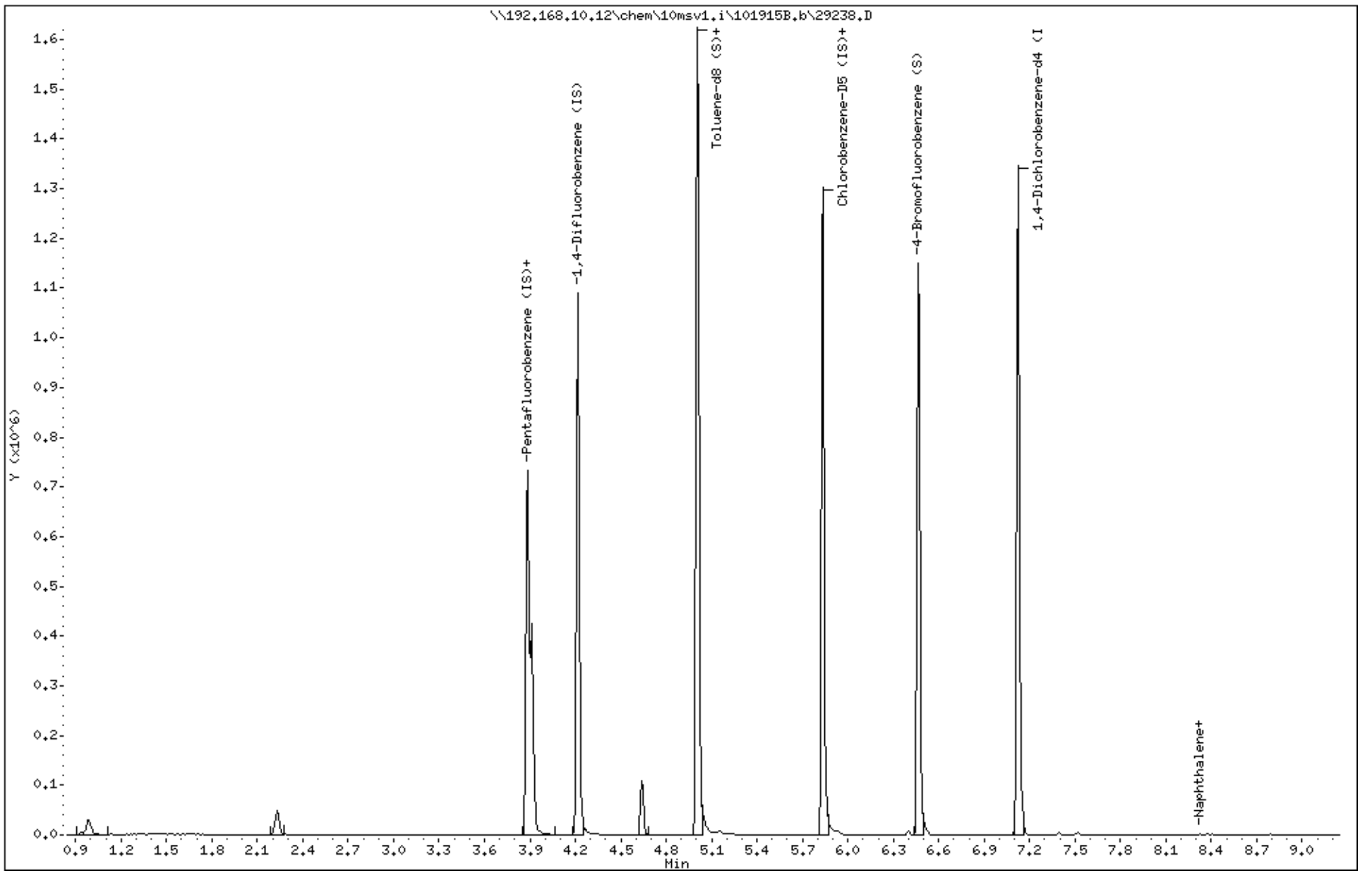
Sample Info: 10326303011,,TB

Purge Volume: 5.0

Operator: AH2

Column phase: Rtx-VMS

Column diameter: 0.18



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Date : 19-OCT-2015 23:08

Client ID: TRIP BLANK-1-101315

Instrument: 10msv1.i

Sample Info: 10326303011,,TB

Purge Volume: 5.0

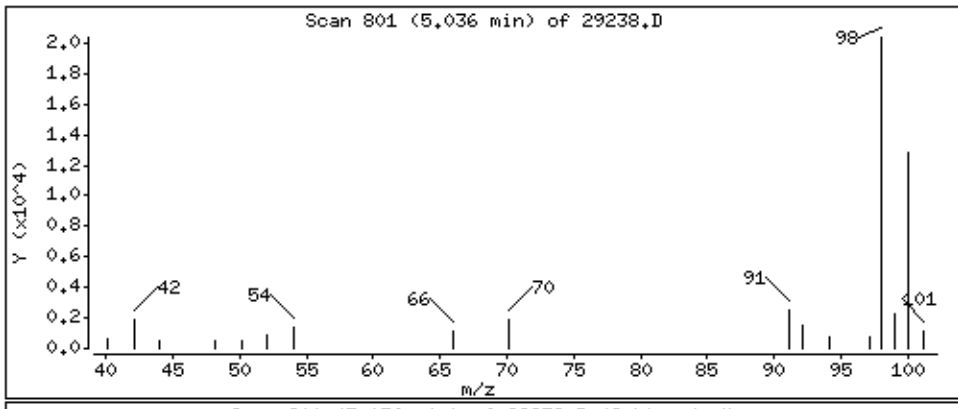
Operator: AH2

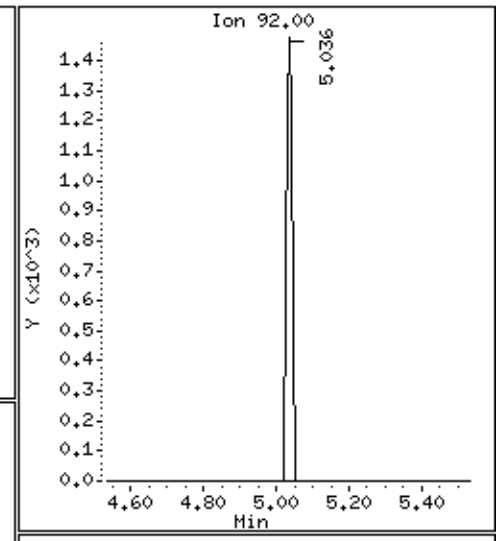
Column phase: Rtx-VMS

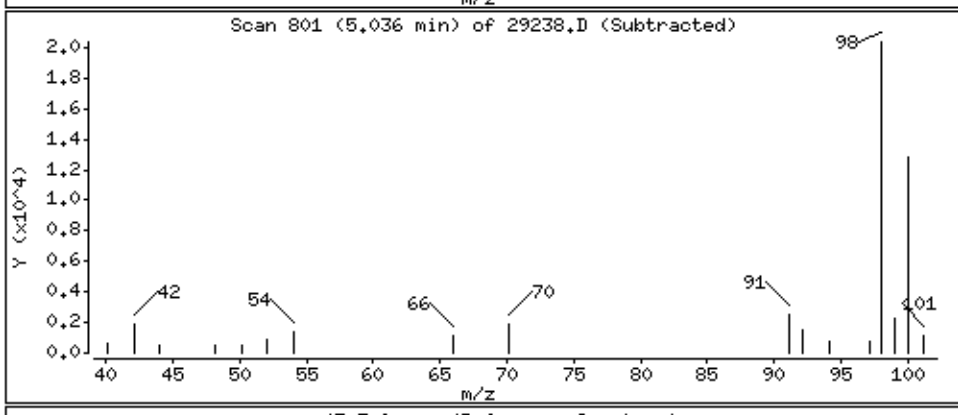
Column diameter: 0.18

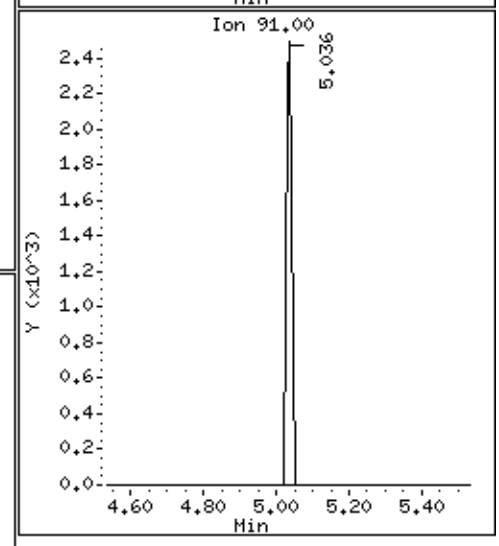
45 Toluene

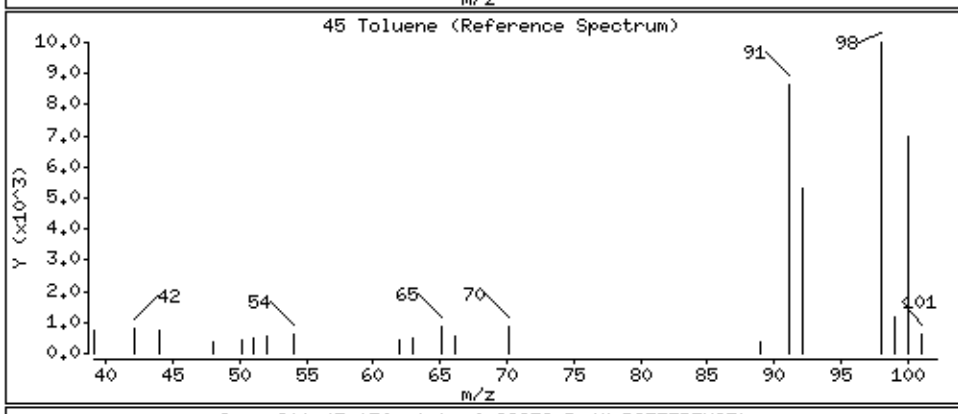
Concentration: 0.19 ug/L

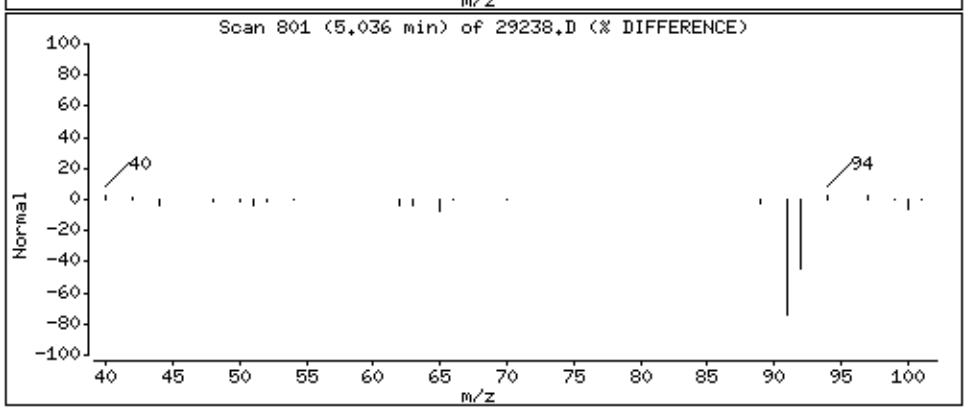












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29238.D

Date : 19-OCT-2015 23:08

Client ID: TRIP BLANK-1-101315

Instrument: 10msv1.i

Sample Info: 10326303011,,TB

Purge Volume: 5.0

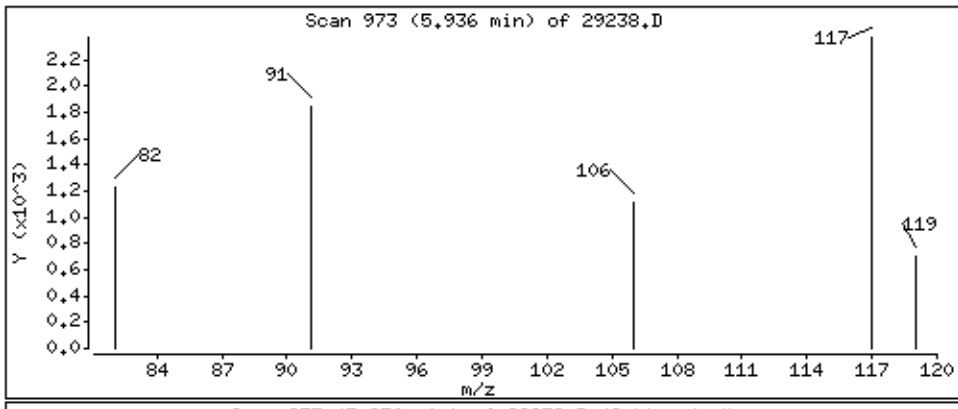
Operator: AH2

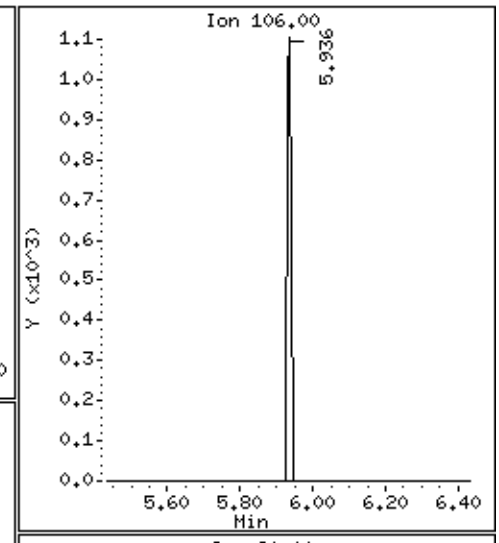
Column phase: Rtx-VMS

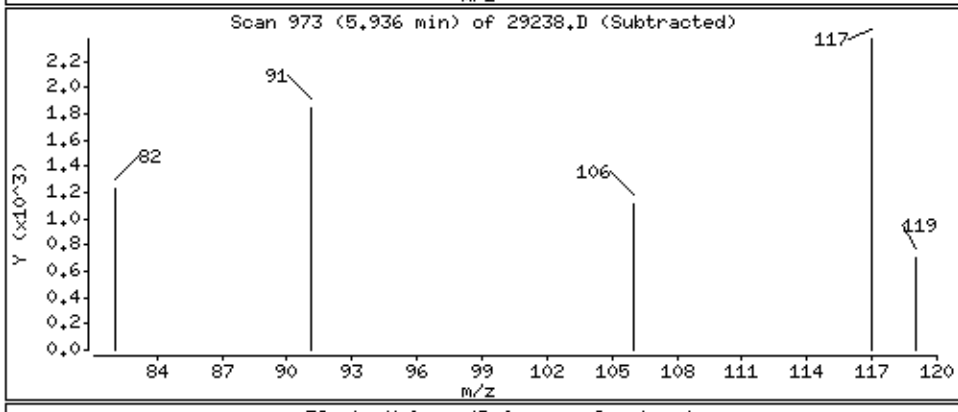
Column diameter: 0.18

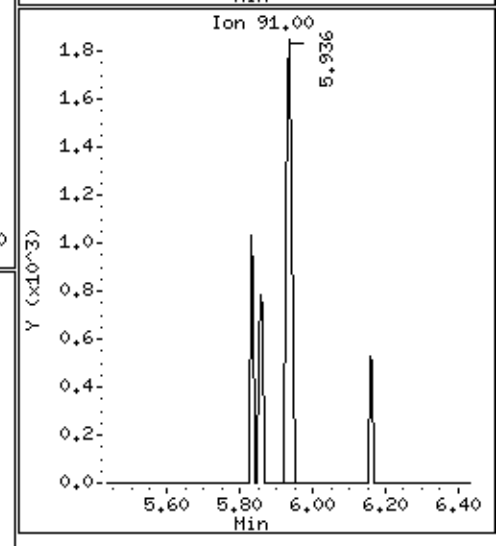
58 m&p-Xylene

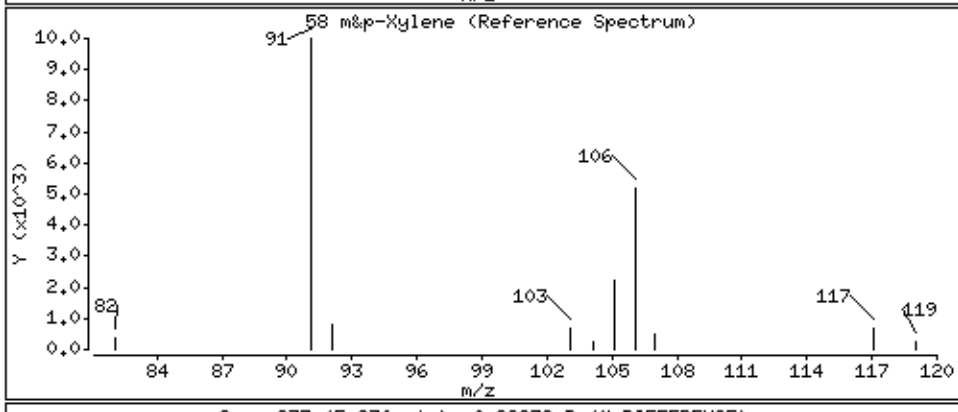
Concentration: 0.14 ug/L

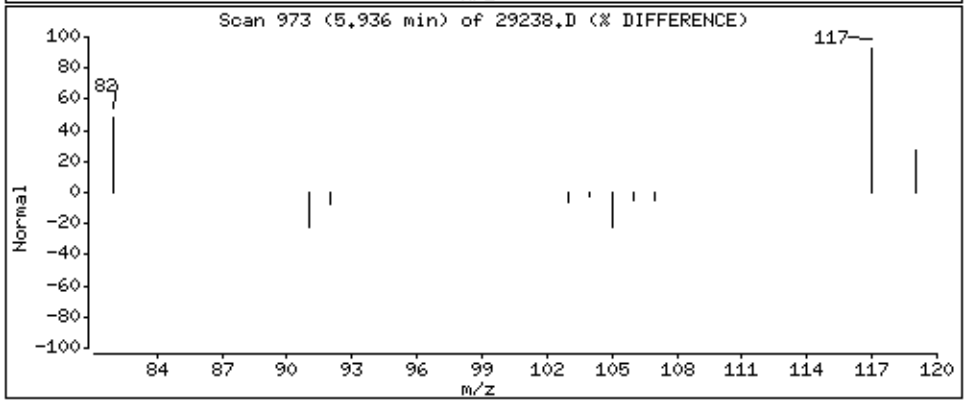












Data File: \\192.168.10.12\chem\10msv1.i\101915B.b\29238.D

Date : 19-OCT-2015 23:08

Client ID: TRIP BLANK-1-101315

Instrument: 10msv1.i

Sample Info: 10326303011,,TB

Purge Volume: 5.0

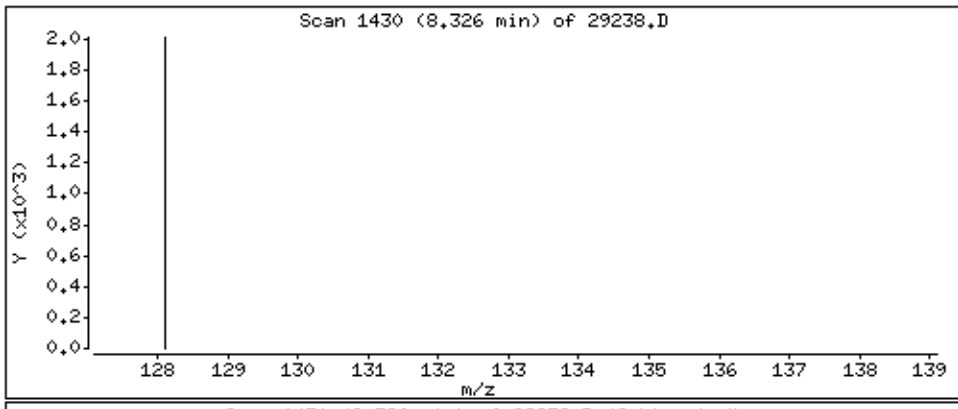
Operator: AH2

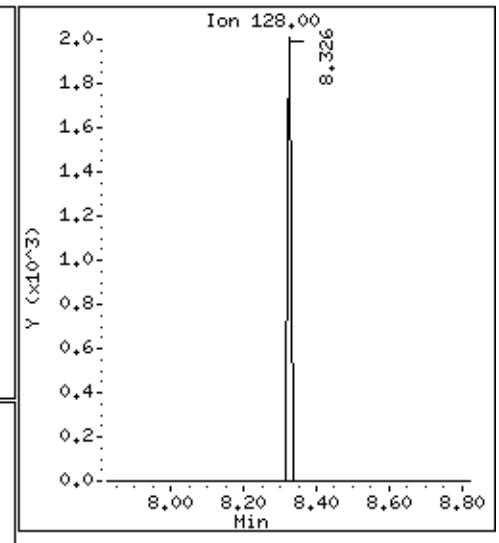
Column phase: Rtx-VMS

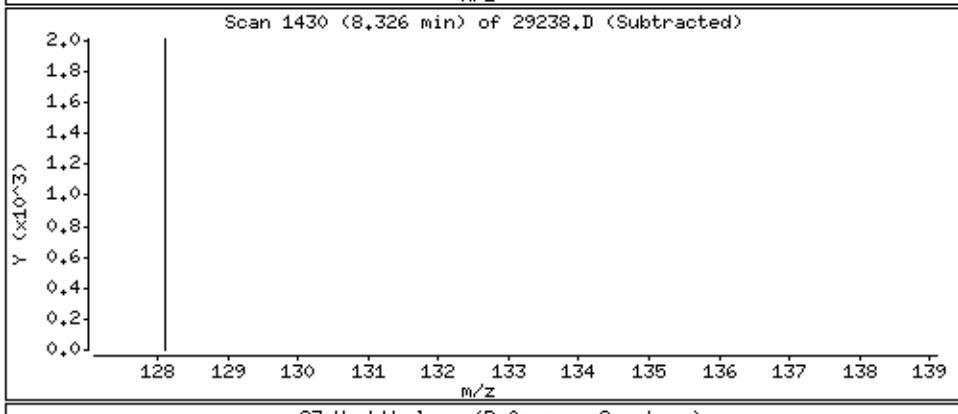
Column diameter: 0.18

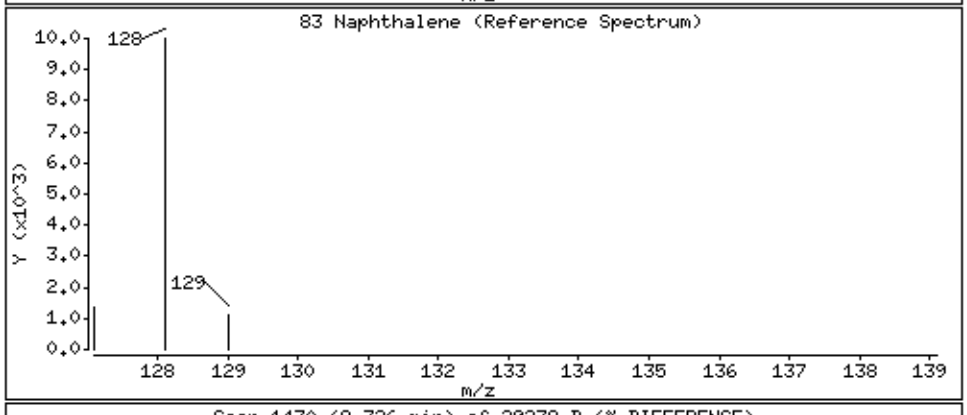
83 Naphthalene

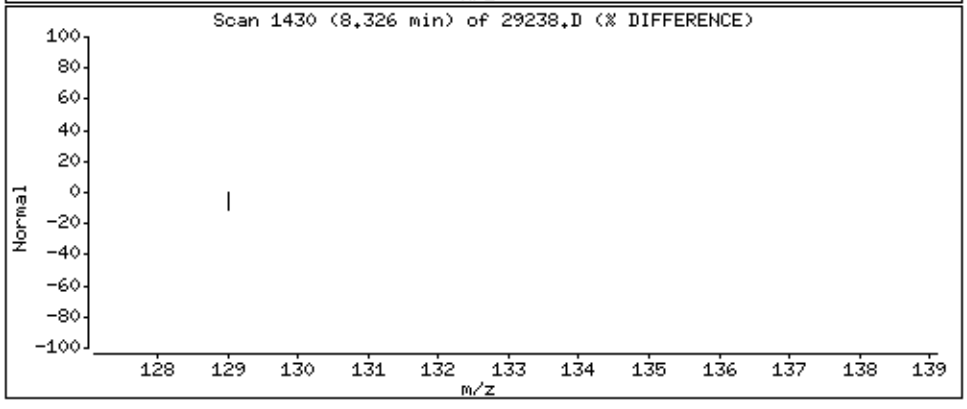
Concentration: 0.20 ug/L











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Date : 19-OCT-2015 23:08

Client ID: TRIP BLANK-1-101315

Instrument: 10msv1.i

Sample Info: 10326303011,,TB

Purge Volume: 5.0

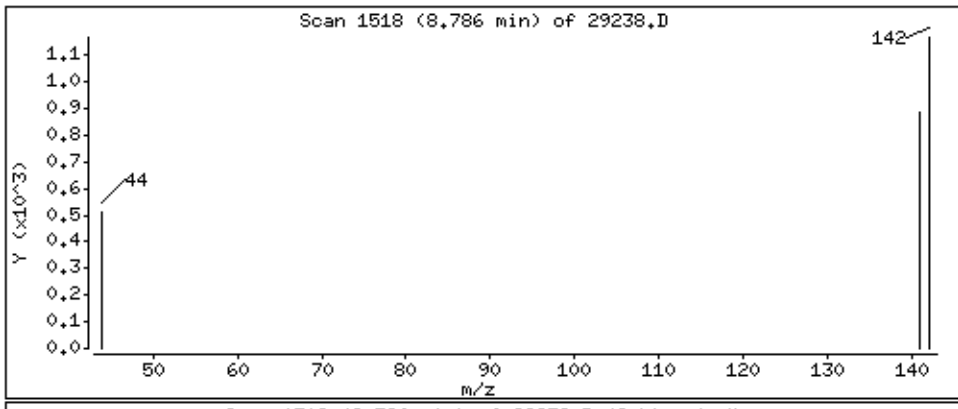
Operator: AH2

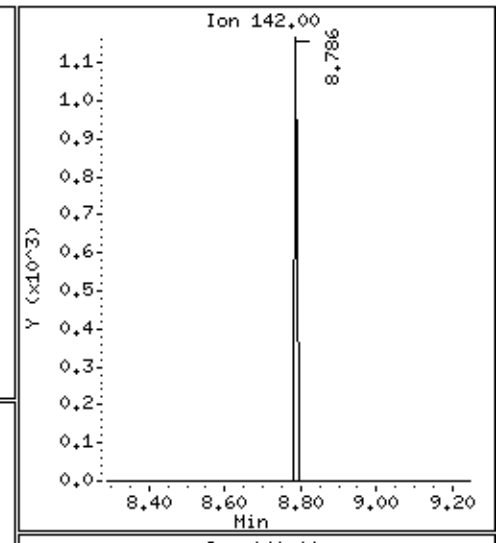
Column phase: Rtx-VMS

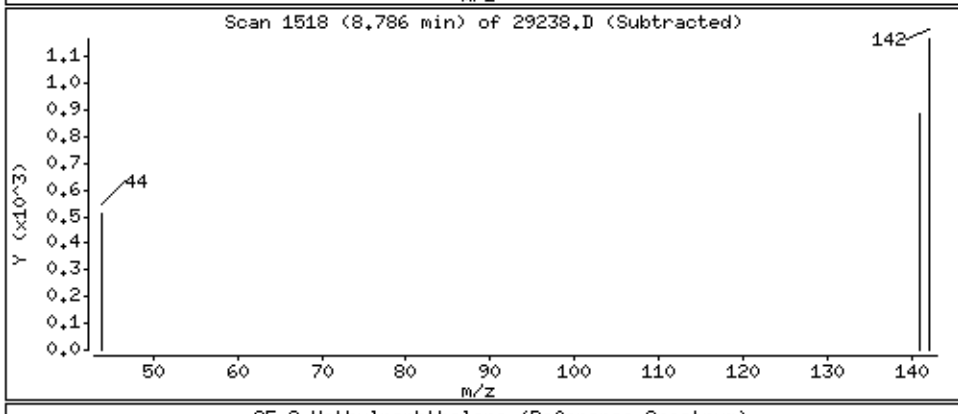
Column diameter: 0.18

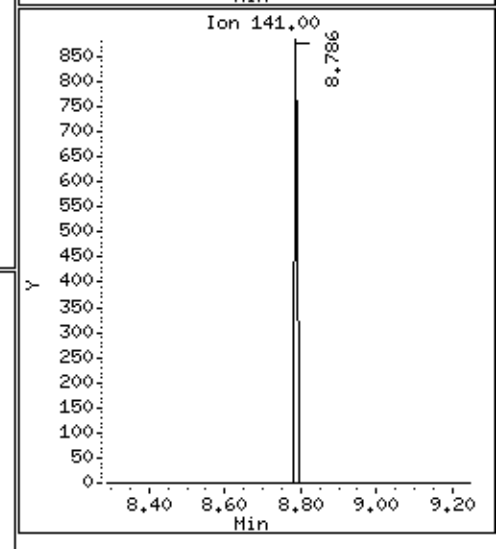
85 2-Methylnaphthalene

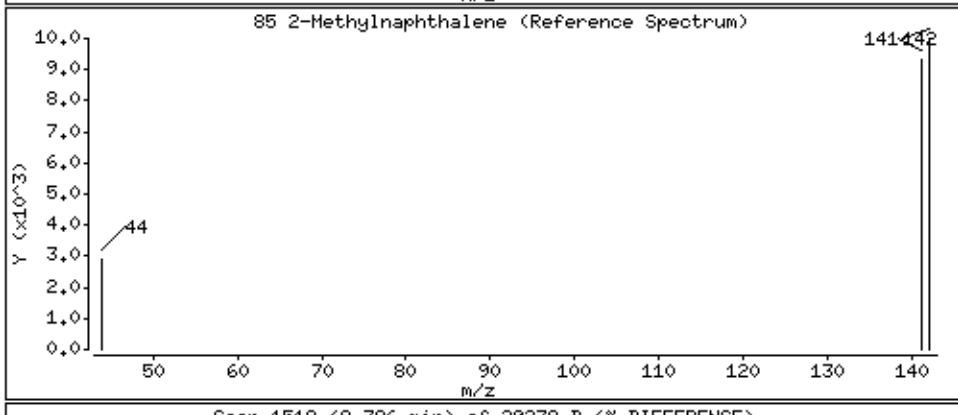
Concentration: 0.26 ug/L

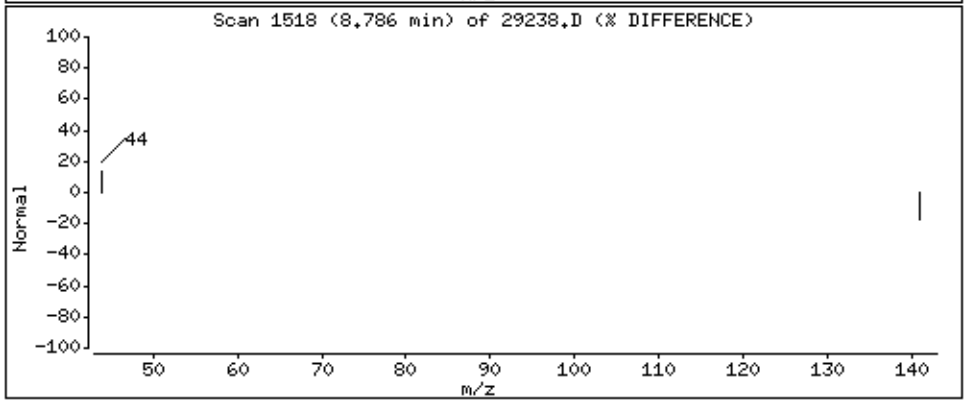












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Injection Date: 19-OCT-2015 23:08
Instrument: 10msv1.i
Lab Sample ID: 10326303011
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

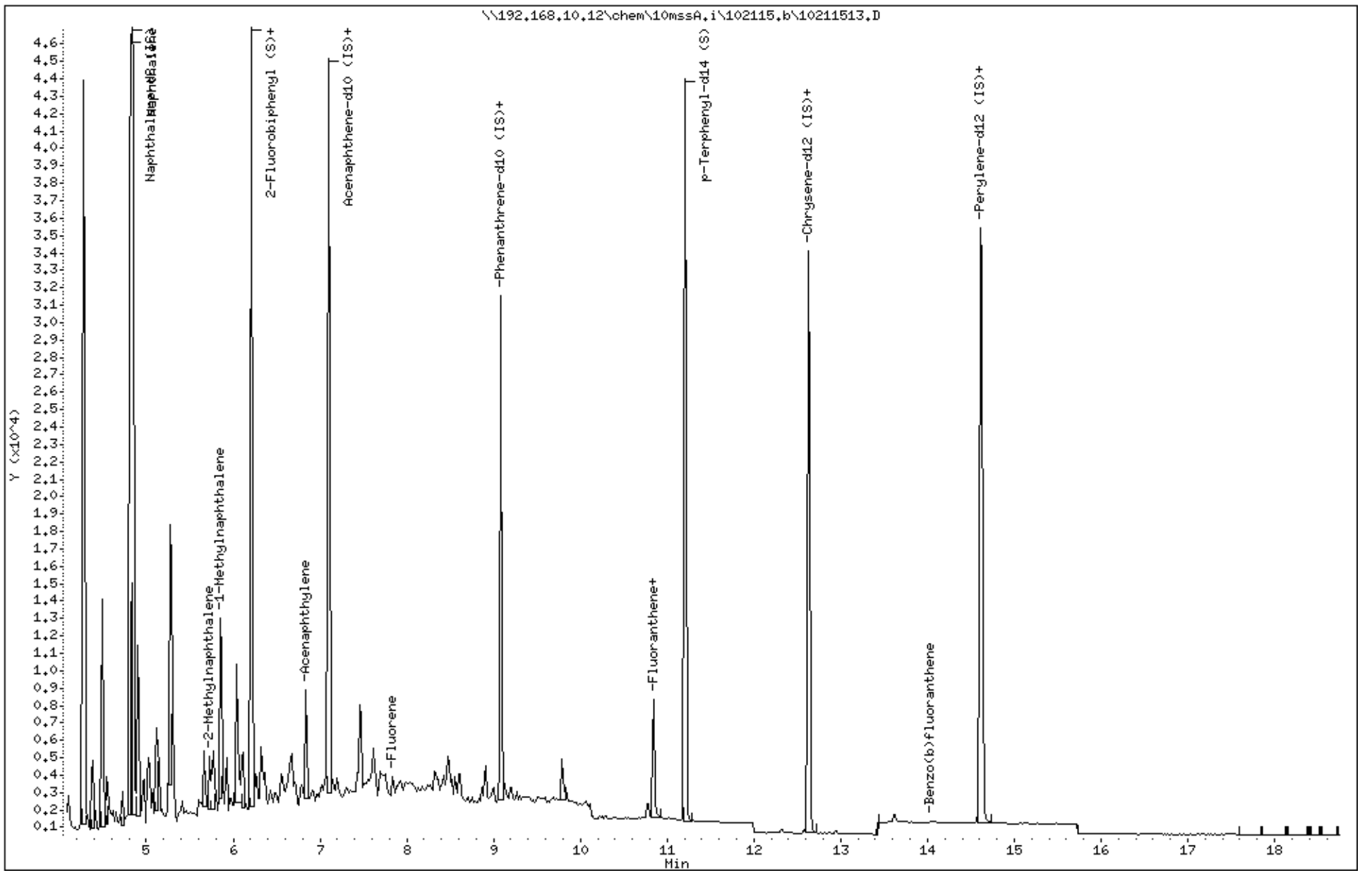
Sample Info: 10326303009,

Volume Injected (uL): 1.0

Operator: AS1

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

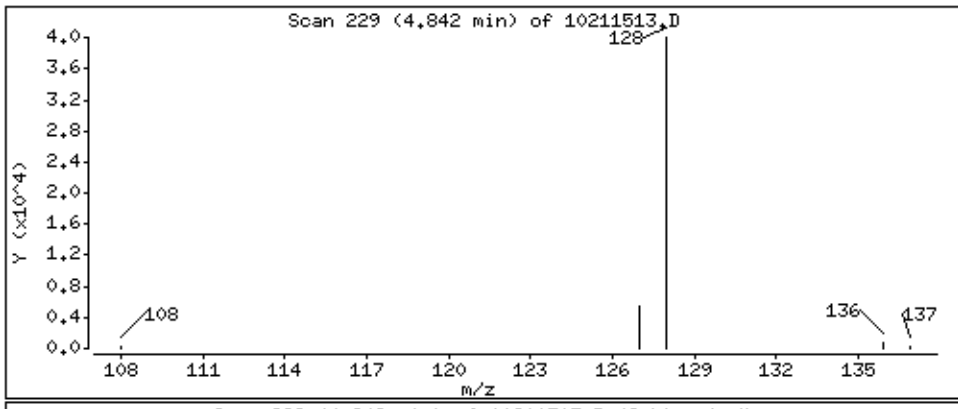
Operator: AS1

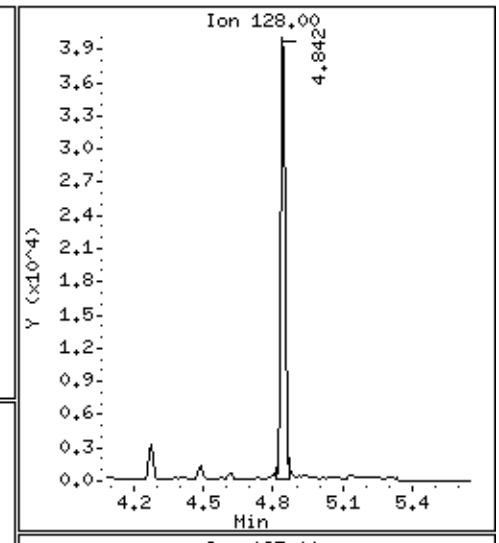
Column phase: DB-5MS

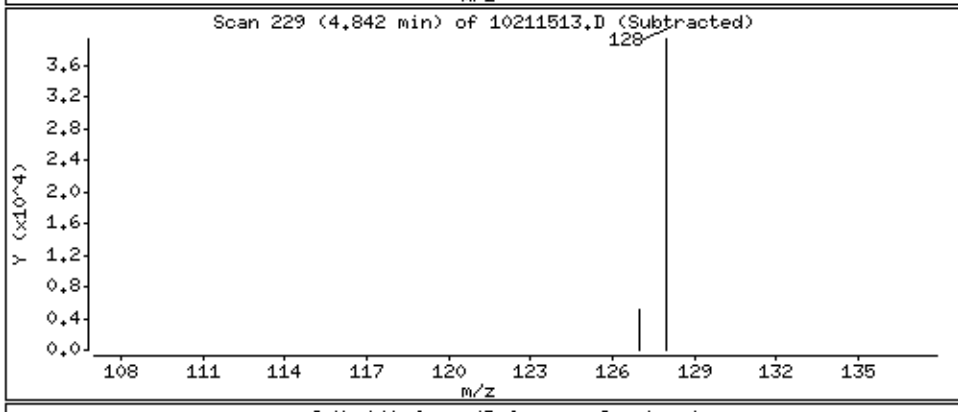
Column diameter: 0.25

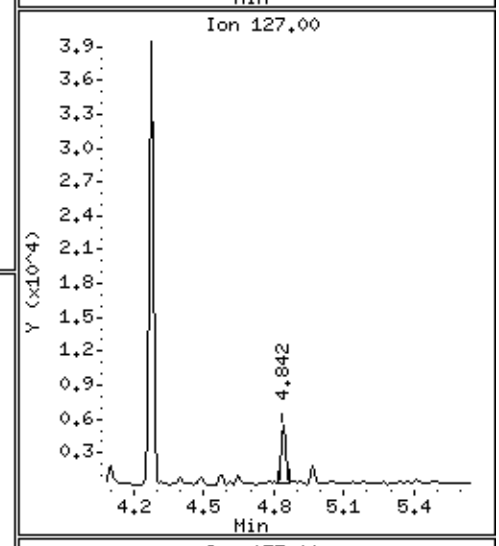
2 Naphthalene

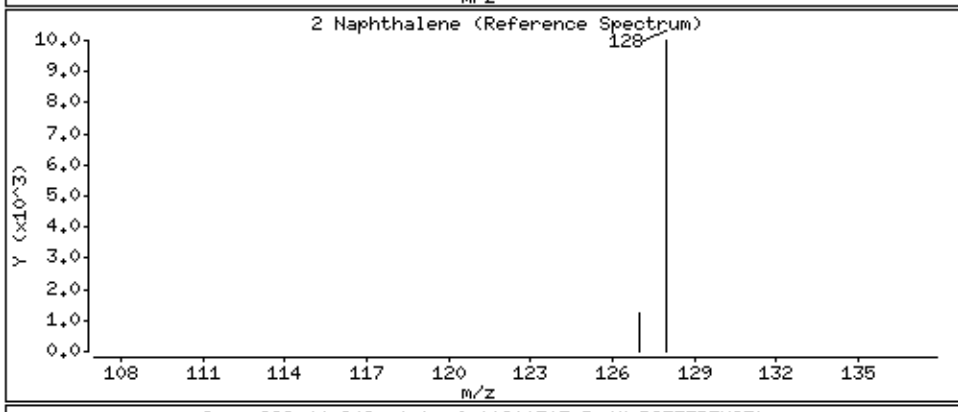
Concentration: 2.56 ug/L

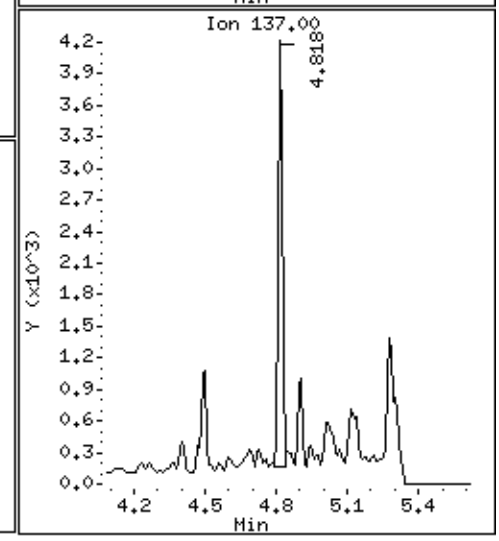


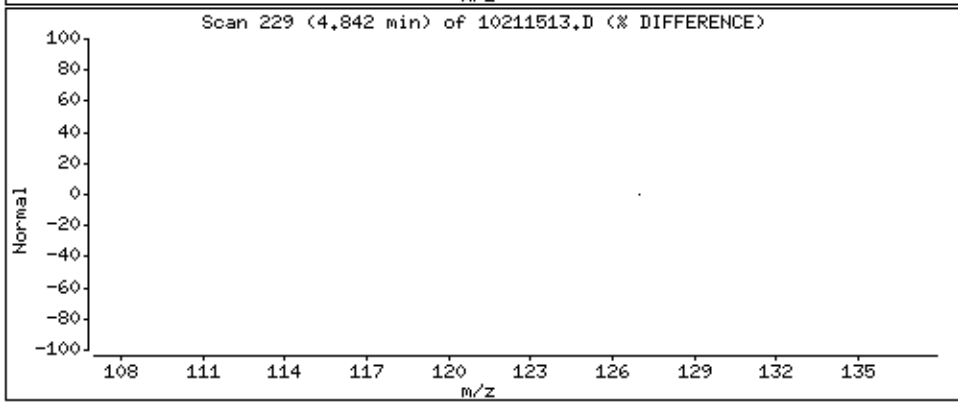












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

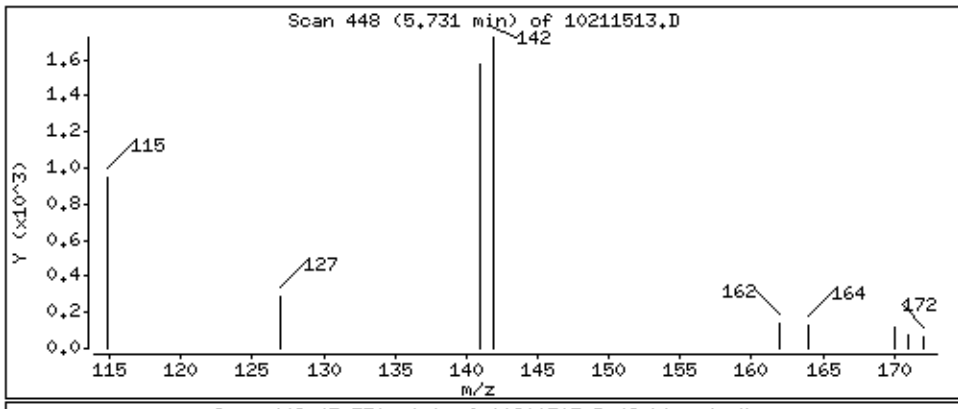
Operator: AS1

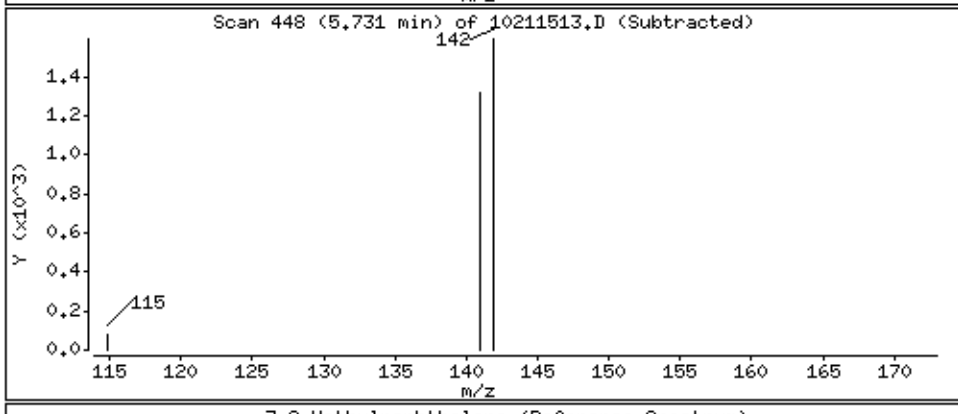
Column phase: DB-5MS

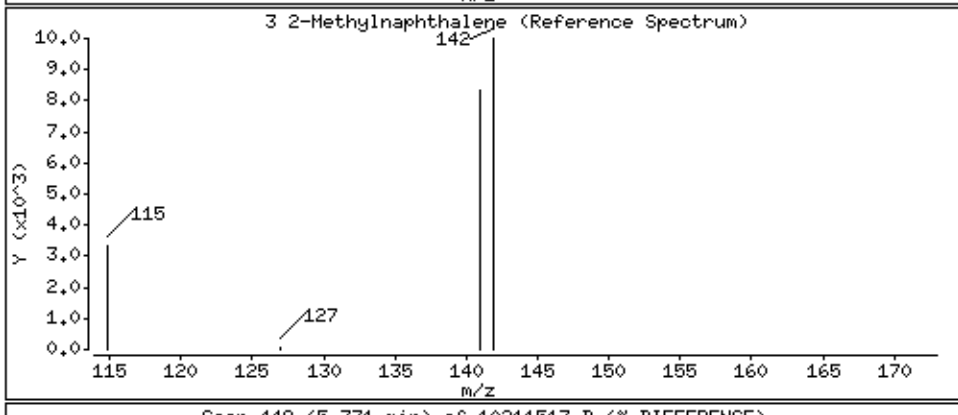
Column diameter: 0.25

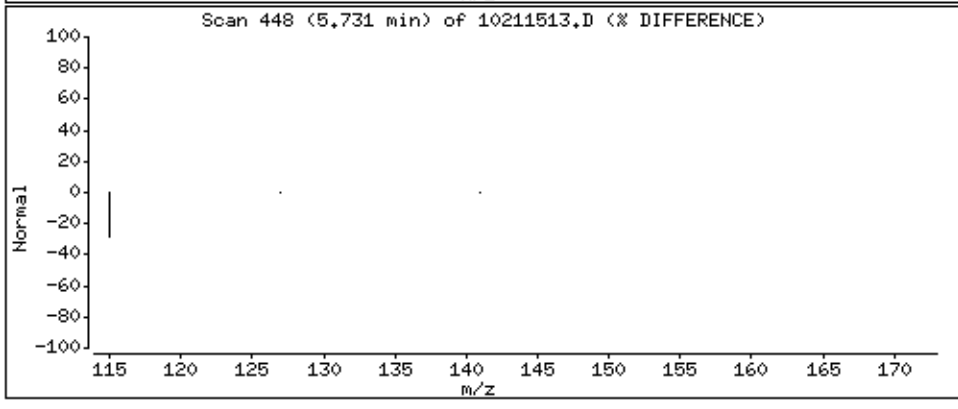
3 2-Methylnaphthalene

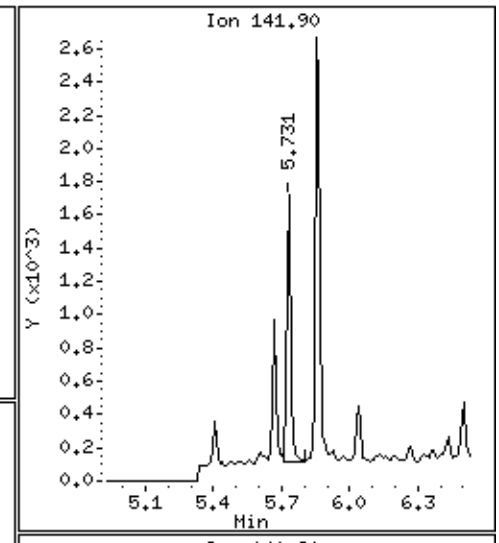
Concentration: 0.177 ug/L

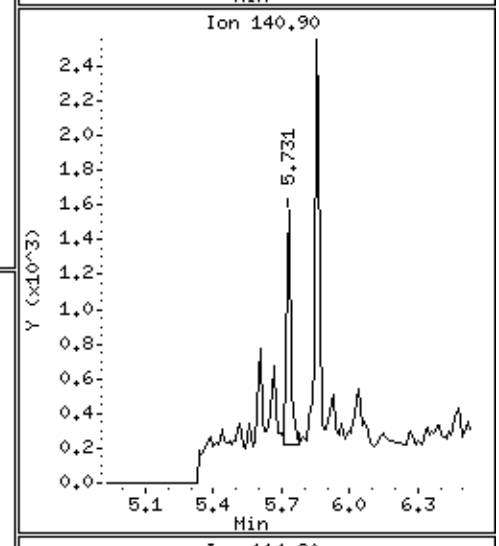


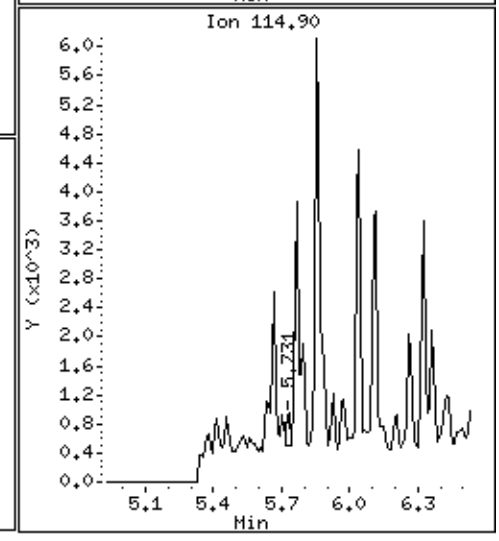












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

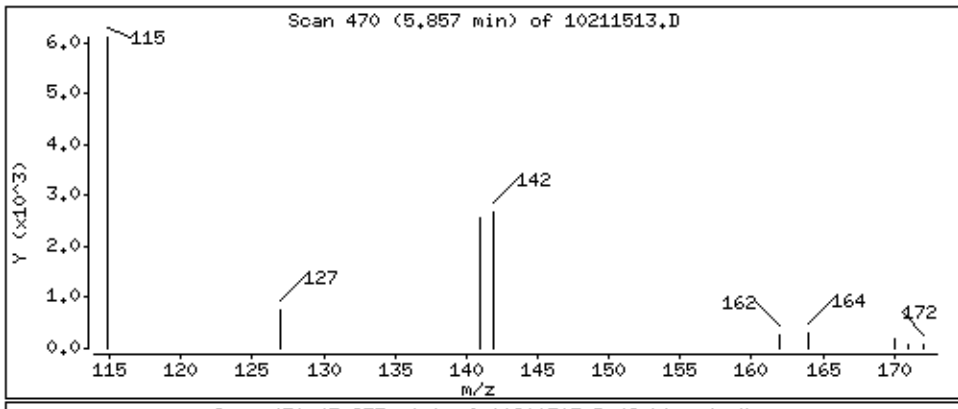
Operator: AS1

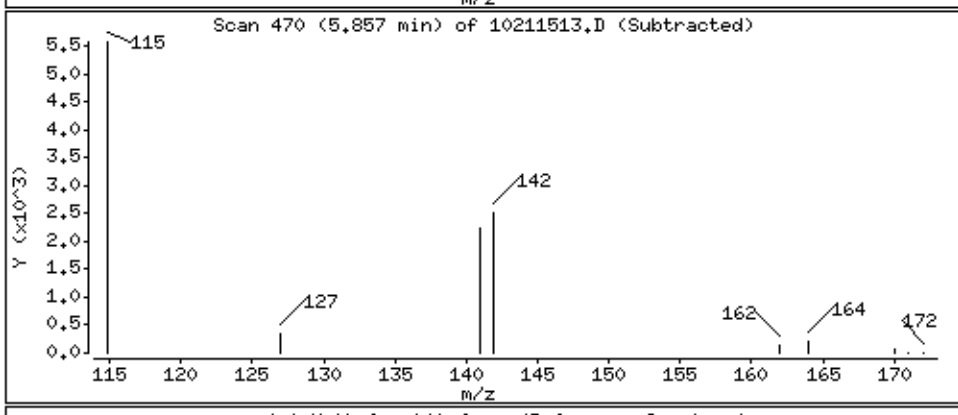
Column phase: DB-5MS

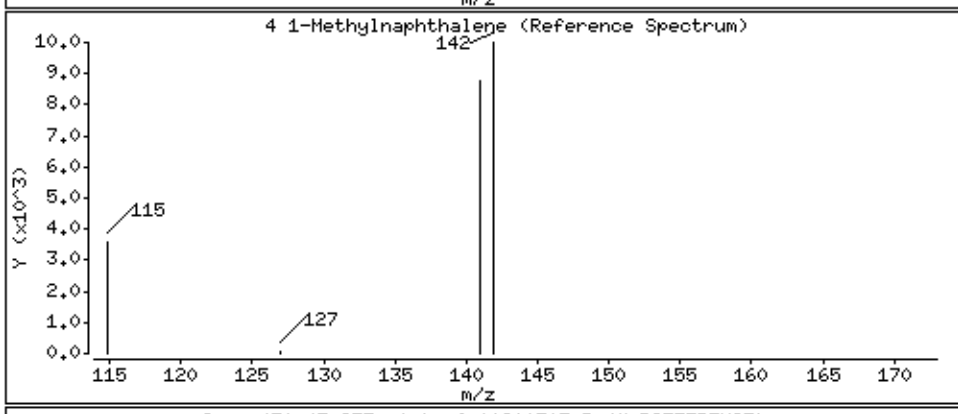
Column diameter: 0.25

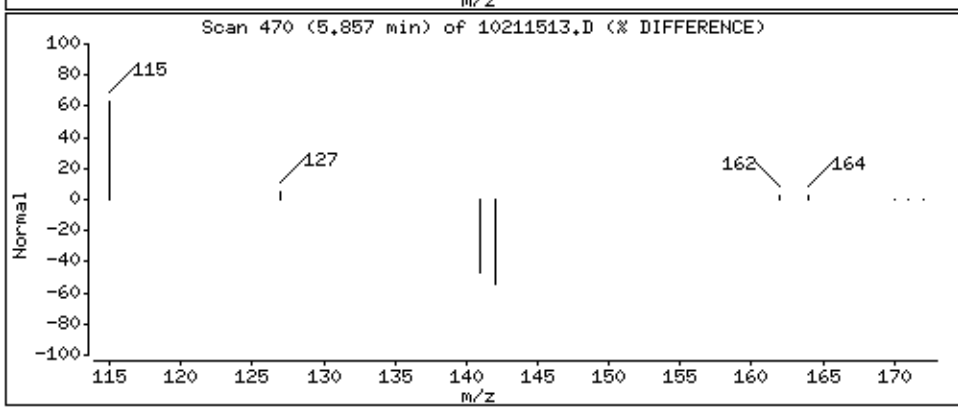
4 1-Methylnaphthalene

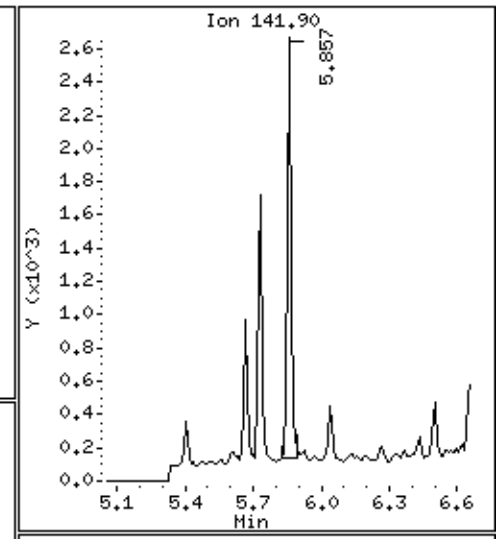
Concentration: 0.310 ug/L

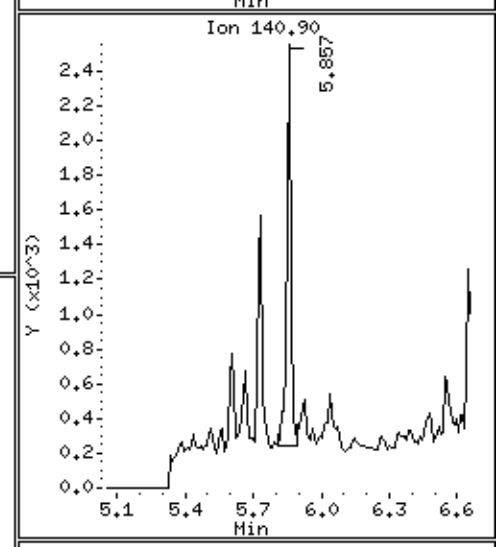


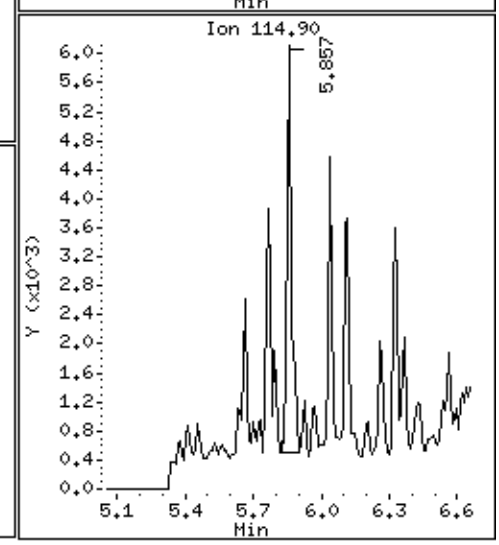












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

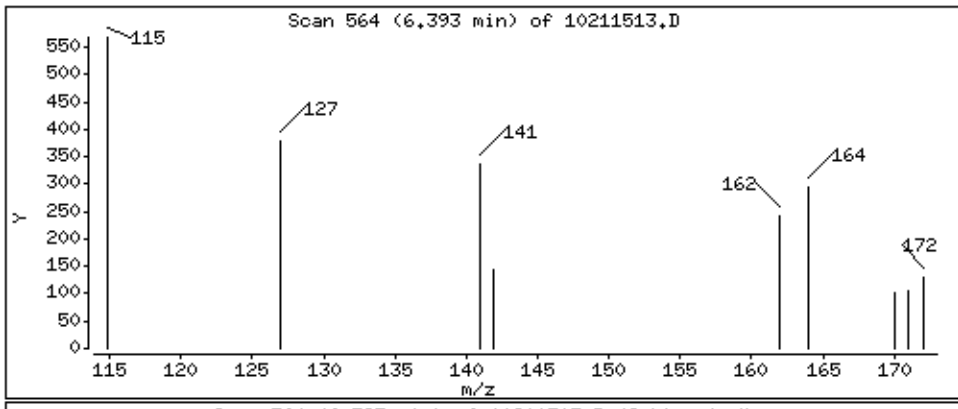
Operator: AS1

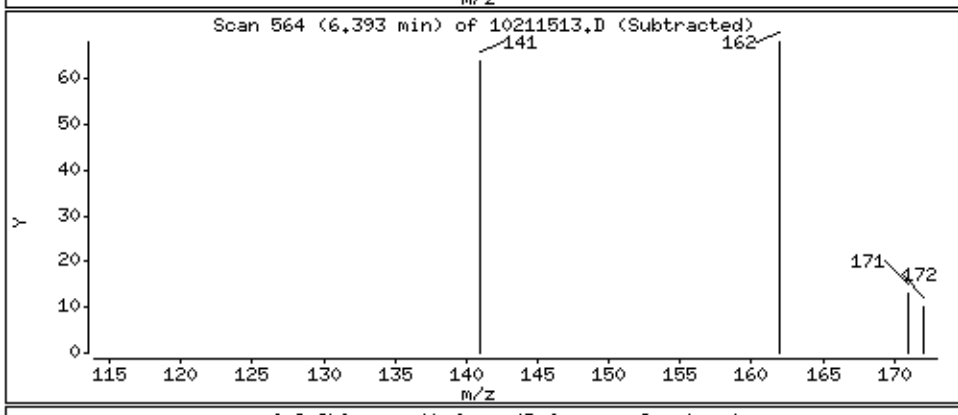
Column phase: DB-5MS

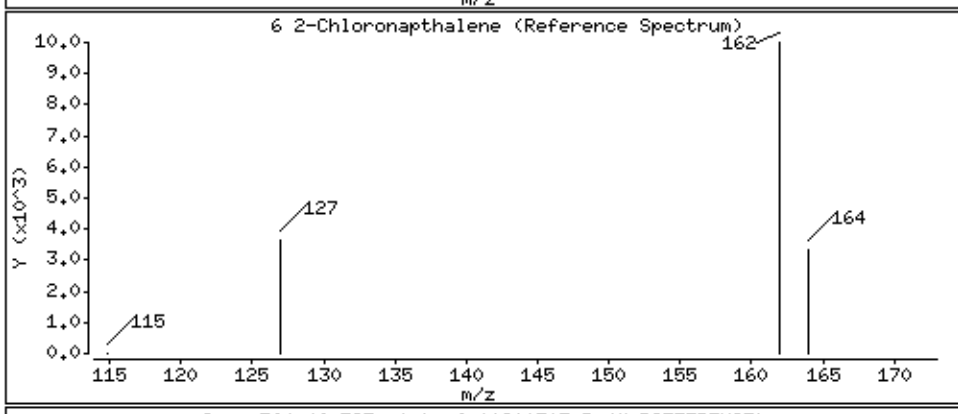
Column diameter: 0.25

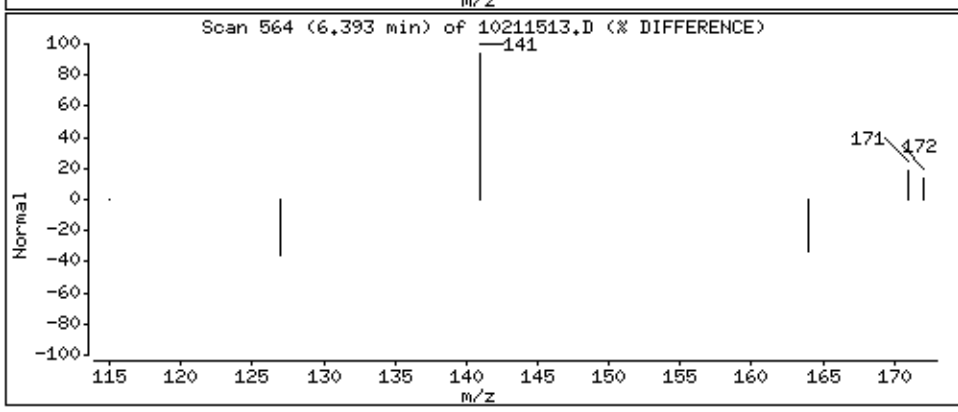
6 2-Chloronapthalene

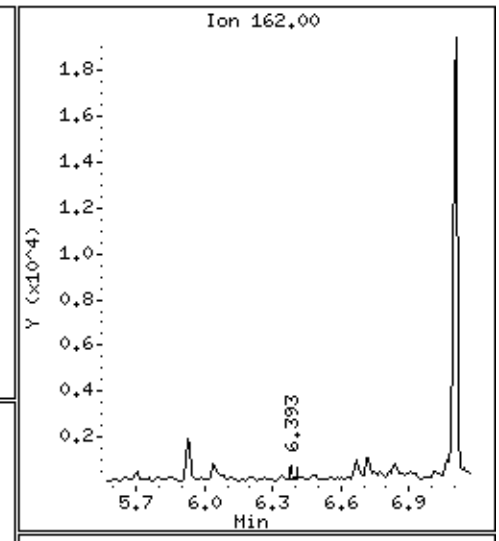
Concentration: 0.0130 ug/L

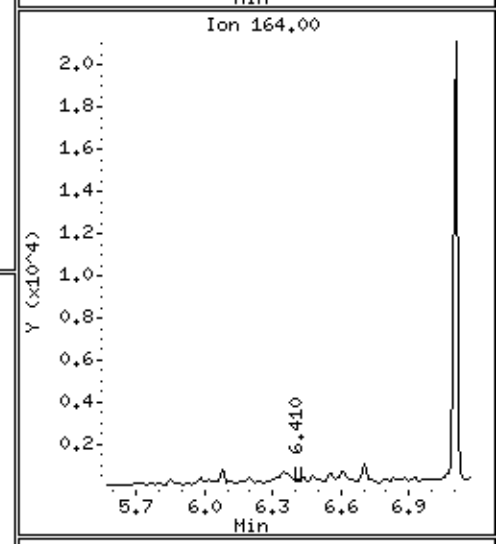


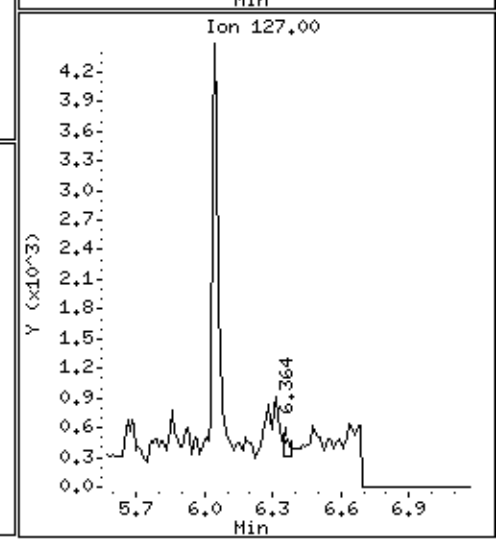












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

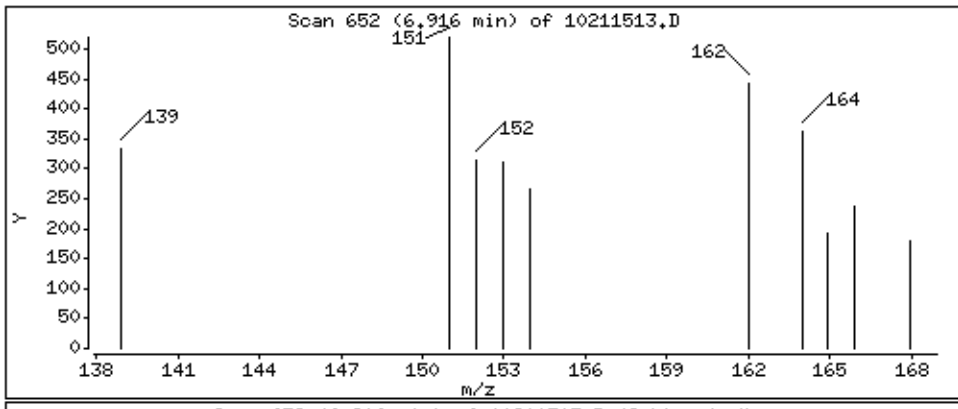
Operator: AS1

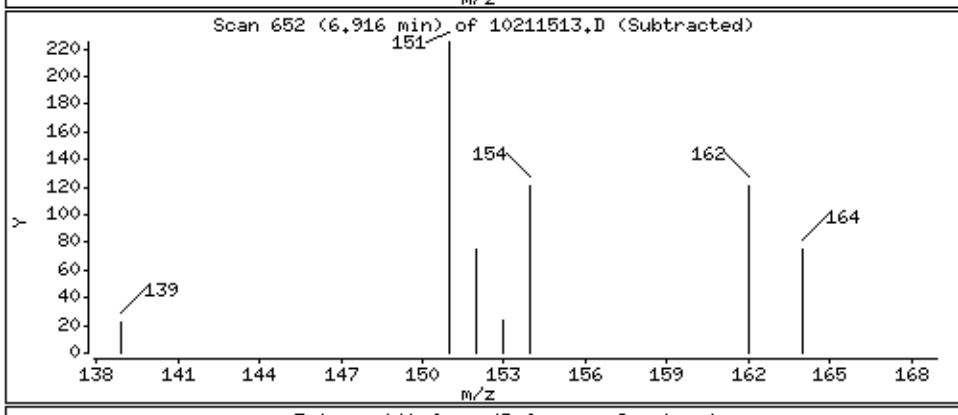
Column phase: DB-5MS

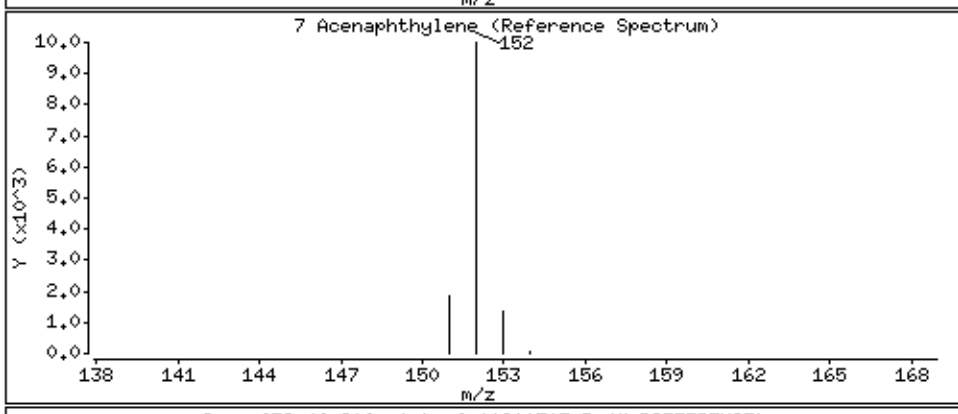
Column diameter: 0.25

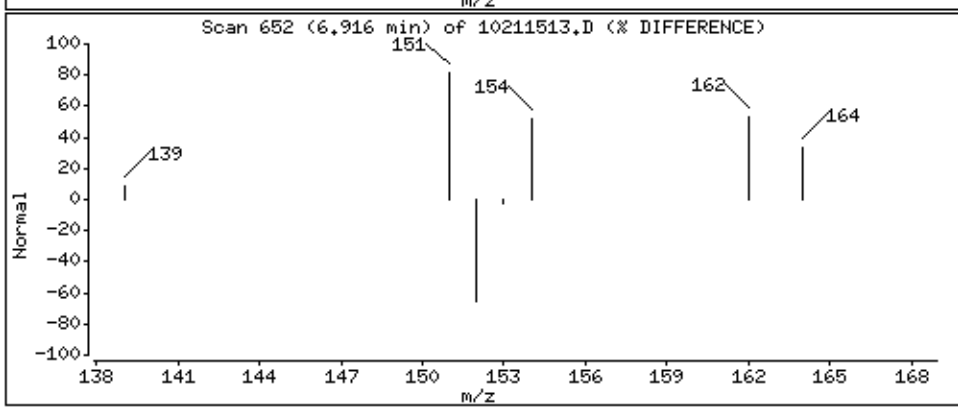
7 Acenaphthylene

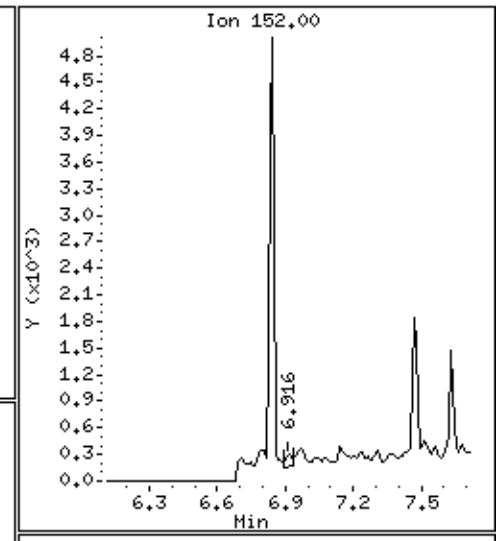
Concentration: 0.0162 ug/L

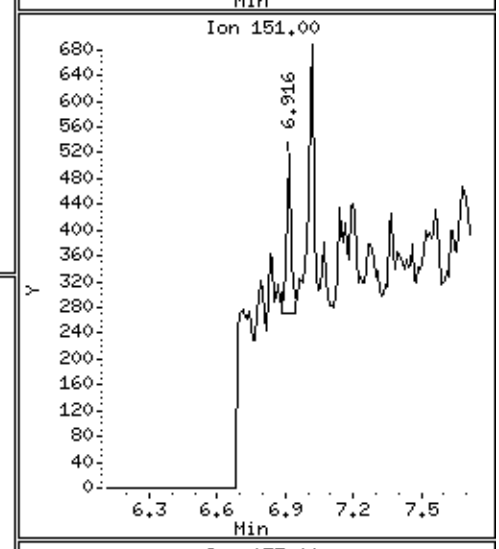


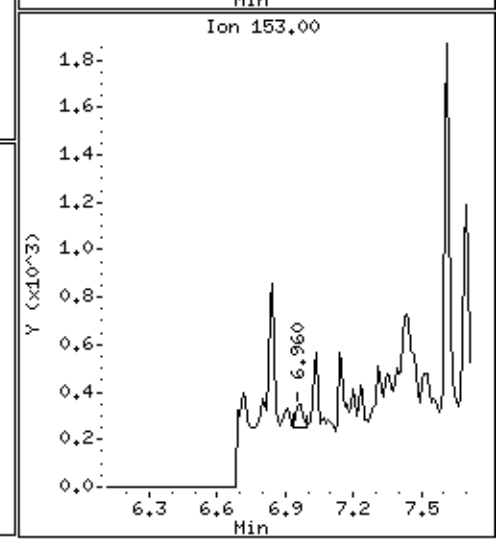












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

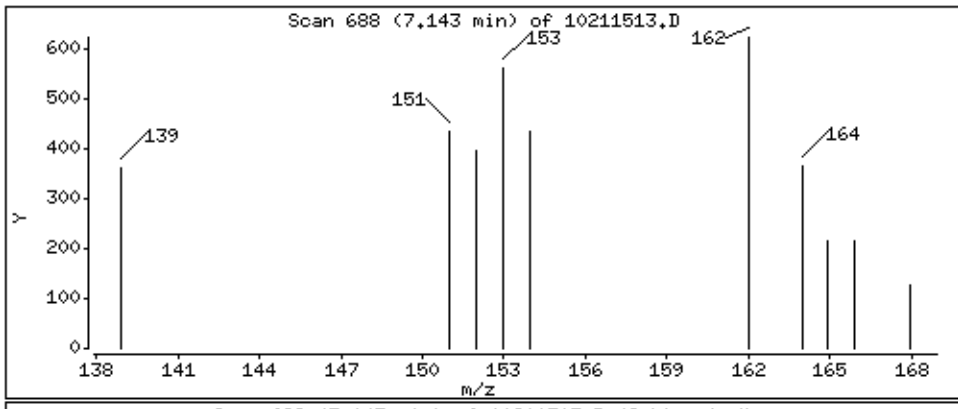
Operator: AS1

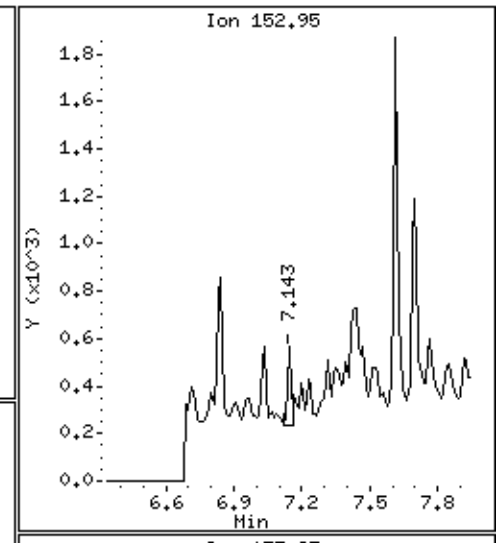
Column phase: DB-5MS

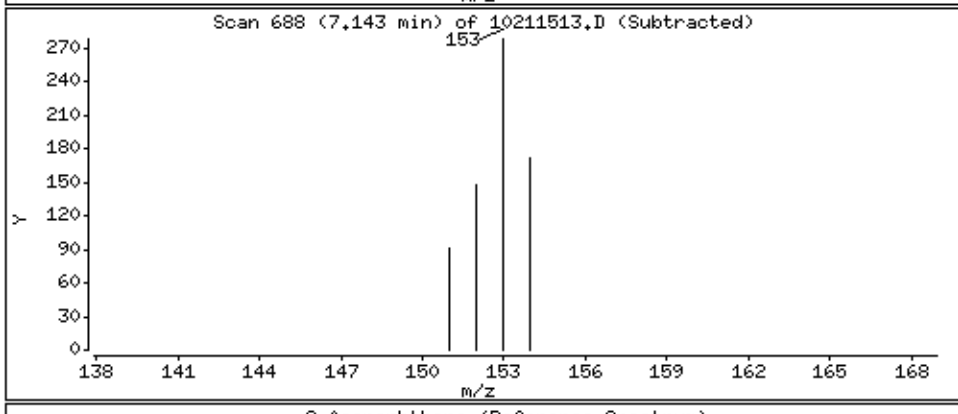
Column diameter: 0.25

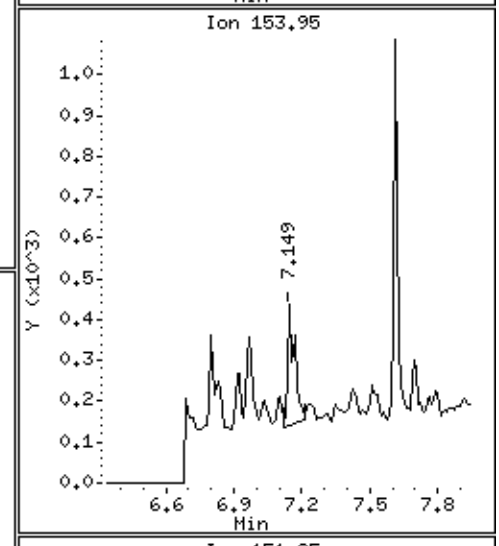
9 Acenaphthene

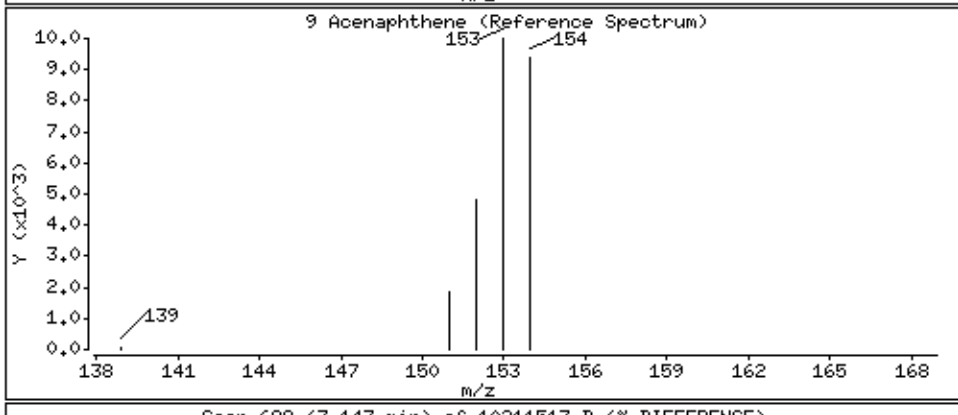
Concentration: 0.0394 ug/L

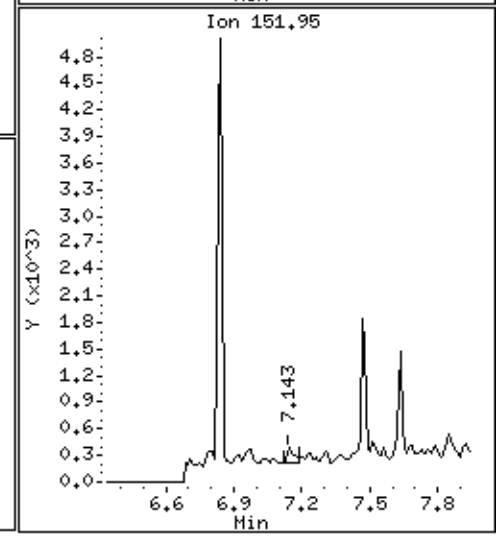


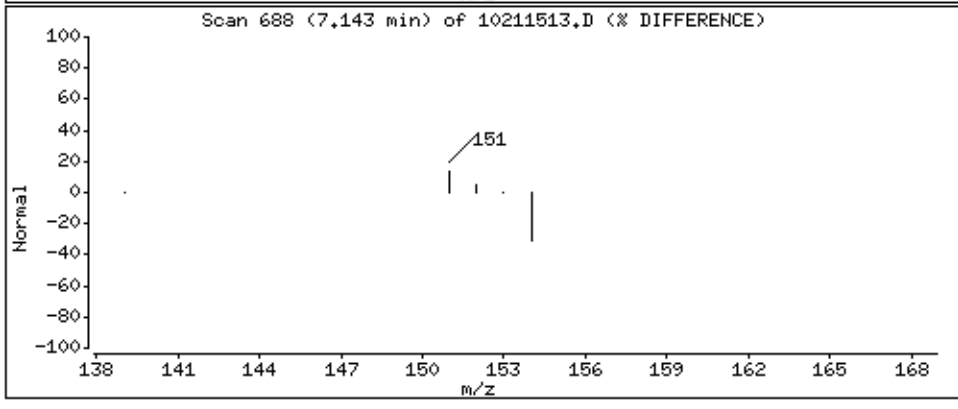












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

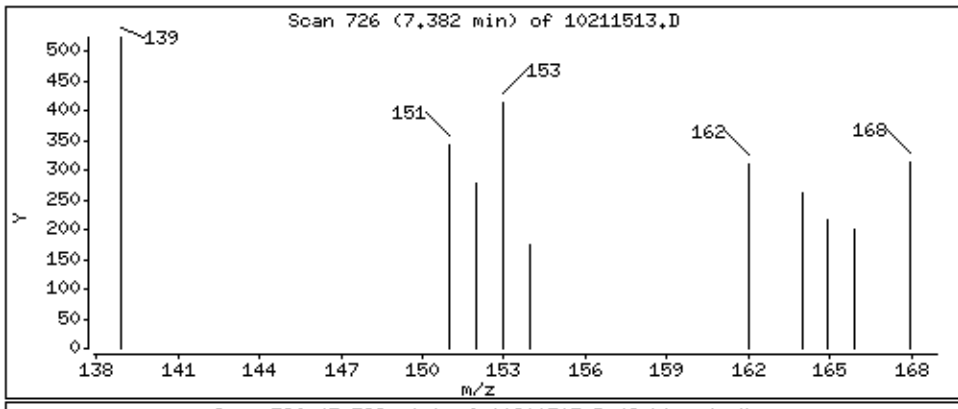
Operator: AS1

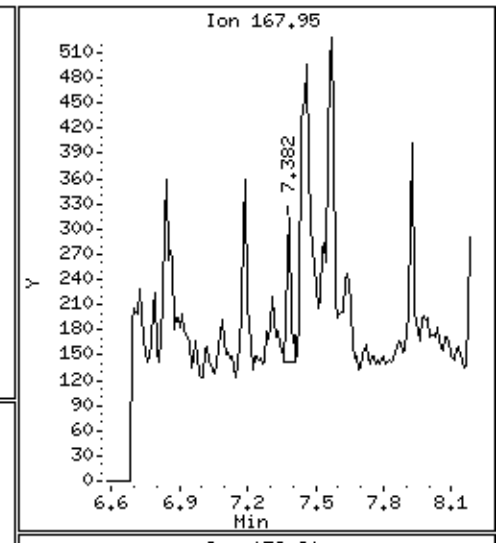
Column phase: DB-5MS

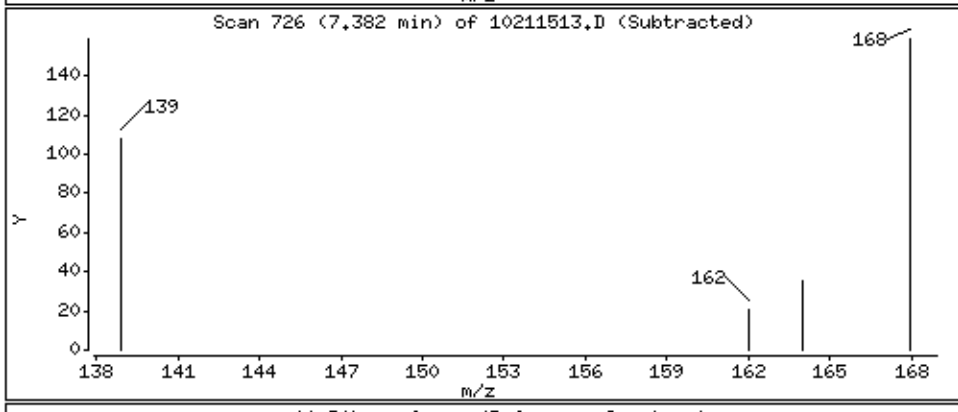
Column diameter: 0.25

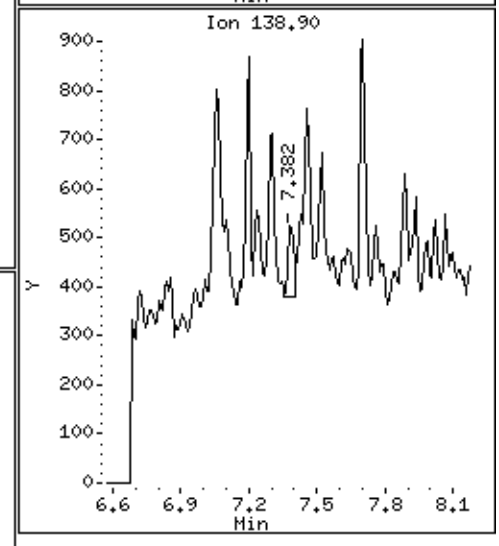
10 Dibenzofuran

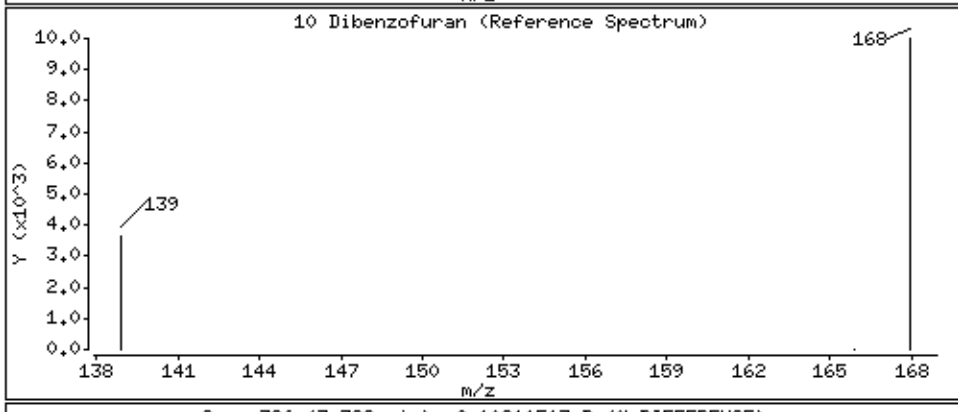
Concentration: 0.0139 ug/L

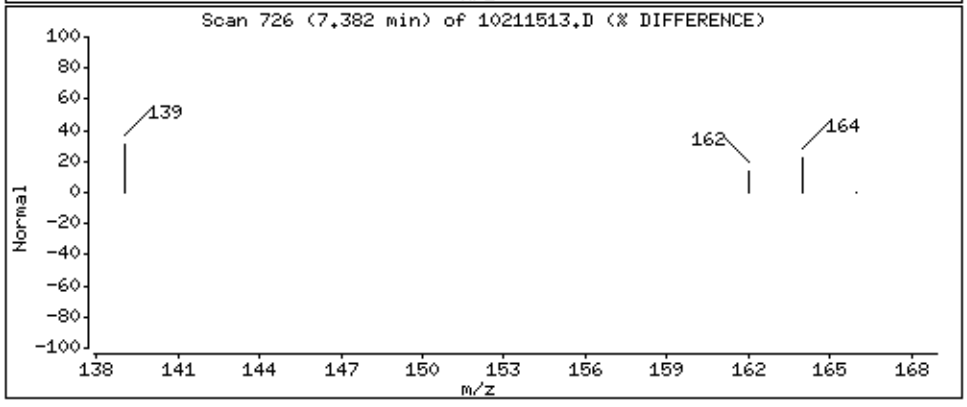












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

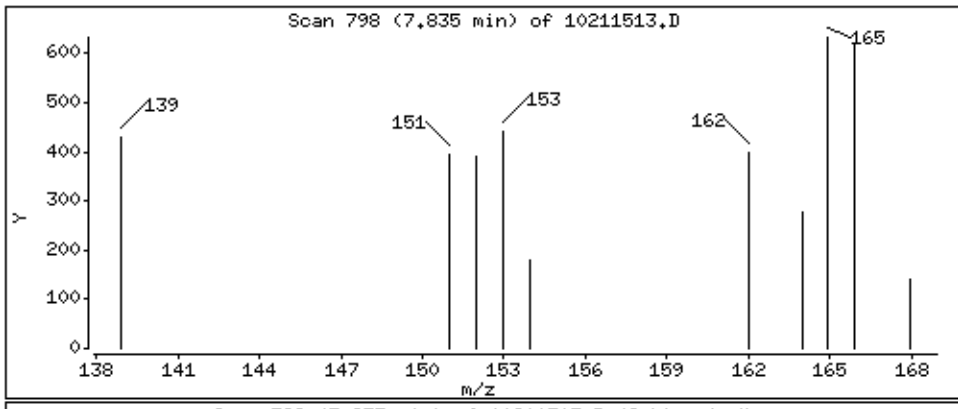
Operator: AS1

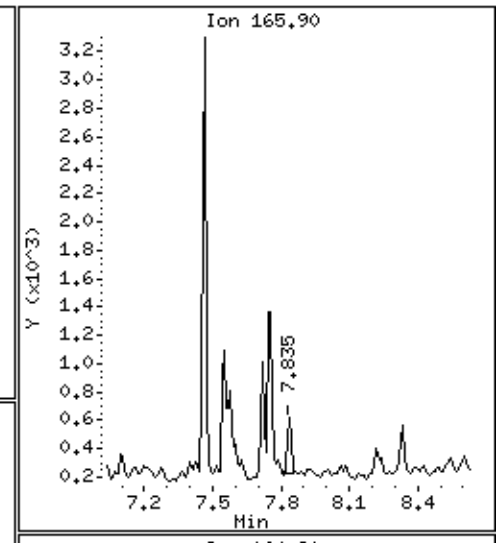
Column phase: DB-5MS

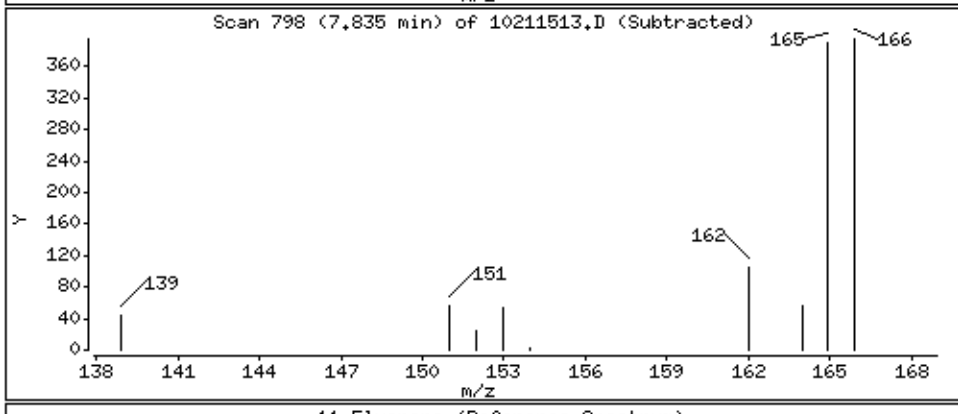
Column diameter: 0.25

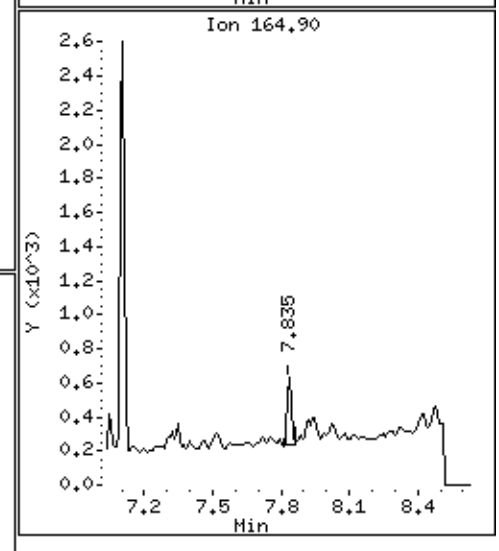
11 Fluorene

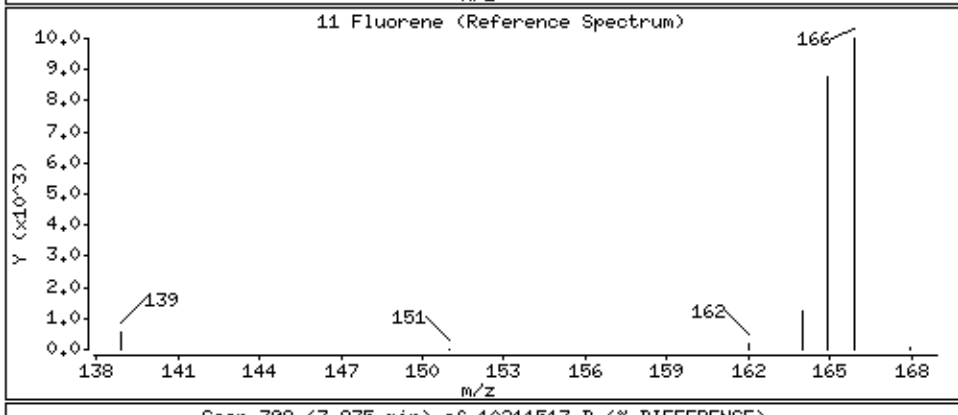
Concentration: 0.0352 ug/L

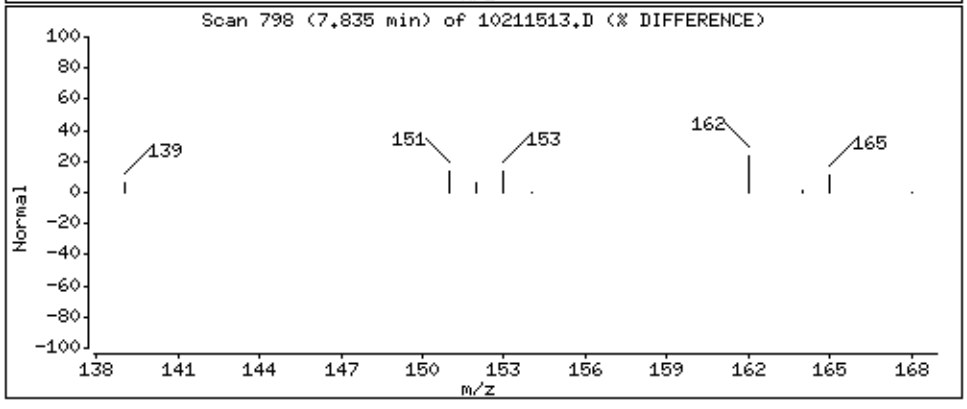












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

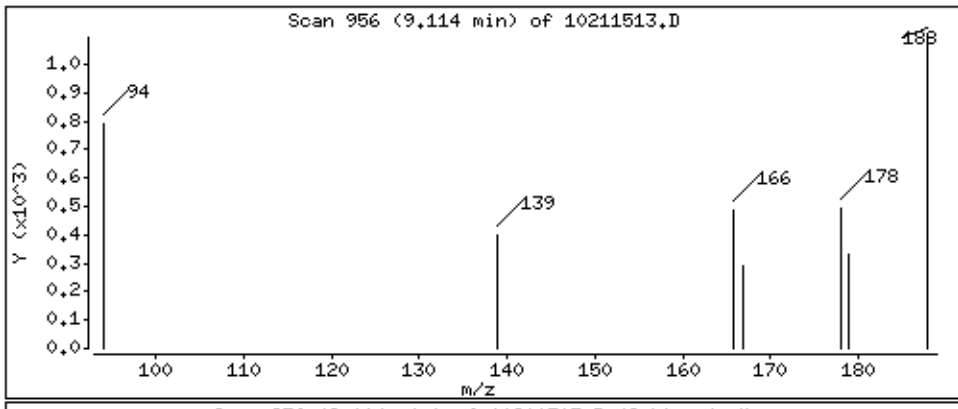
Operator: AS1

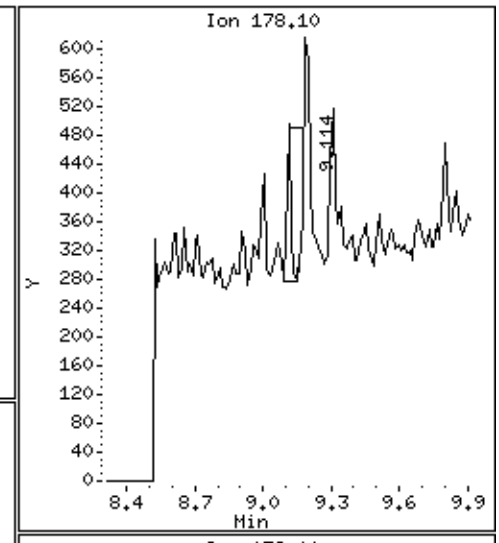
Column phase: DB-5MS

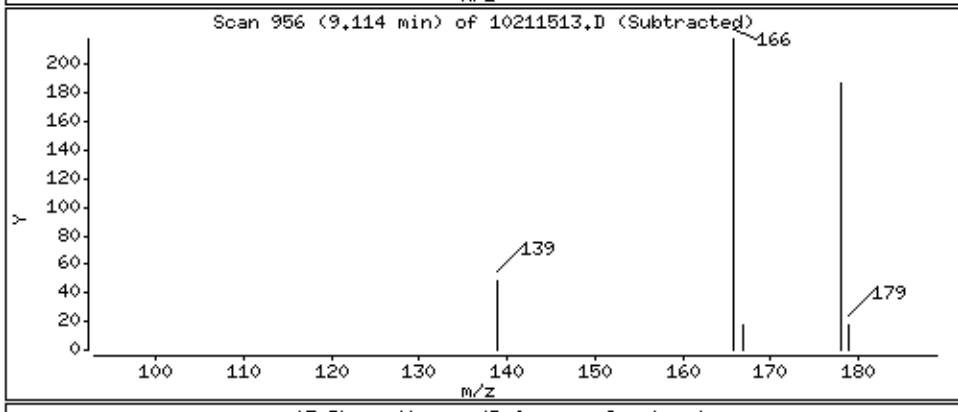
Column diameter: 0.25

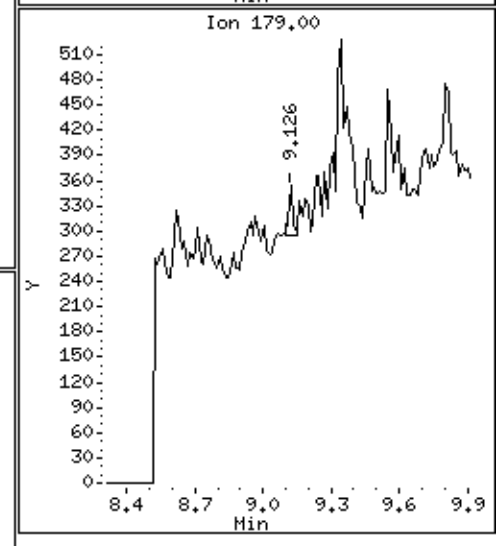
13 Phenanthrene

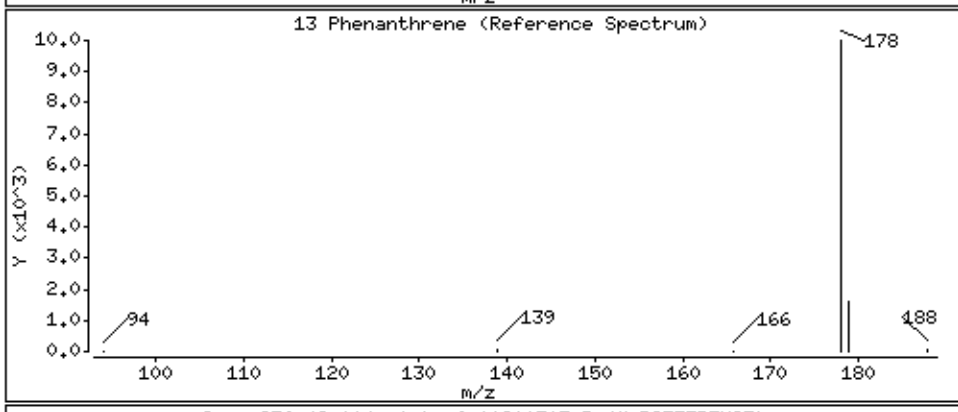
Concentration: 0.0152 ug/L

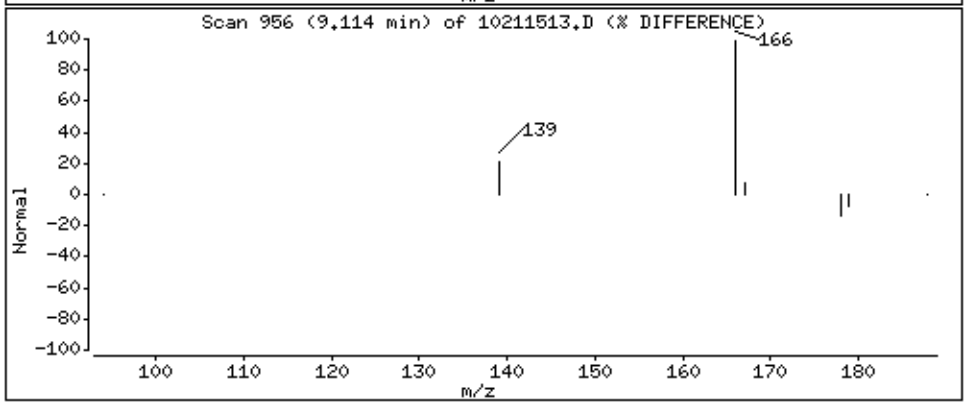












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

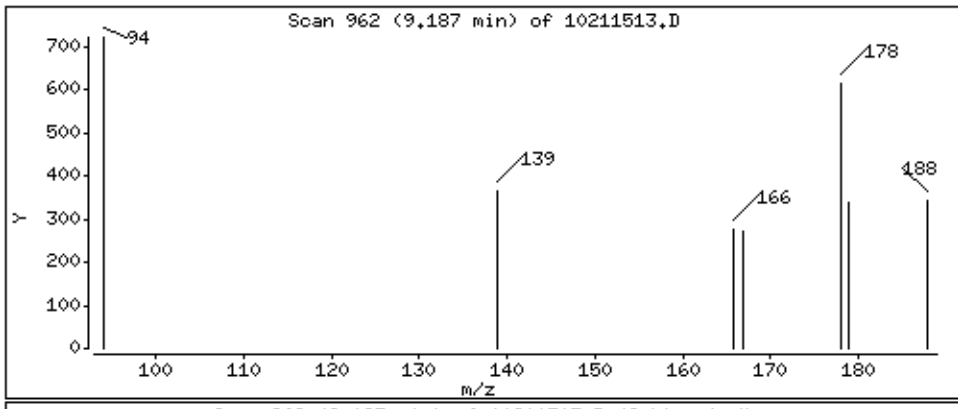
Operator: AS1

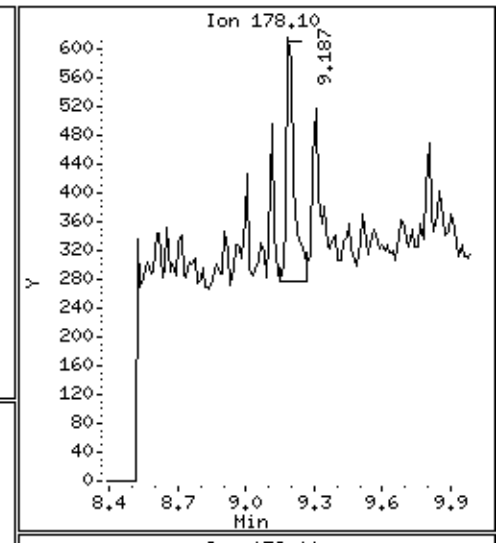
Column phase: DB-5MS

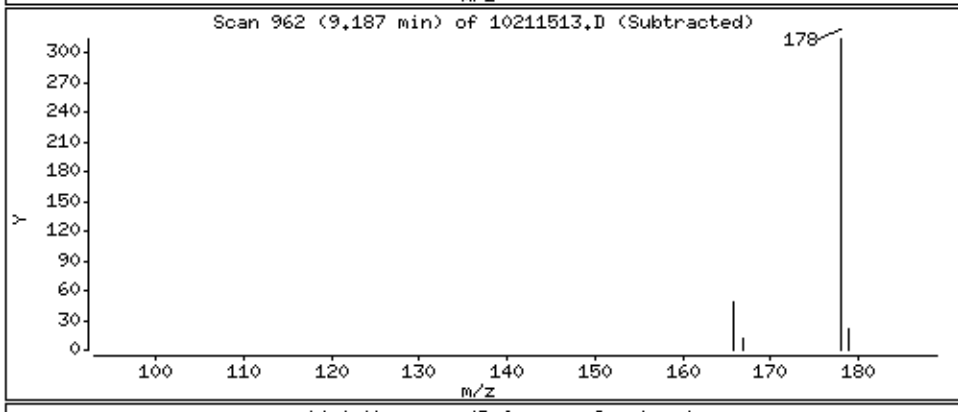
Column diameter: 0.25

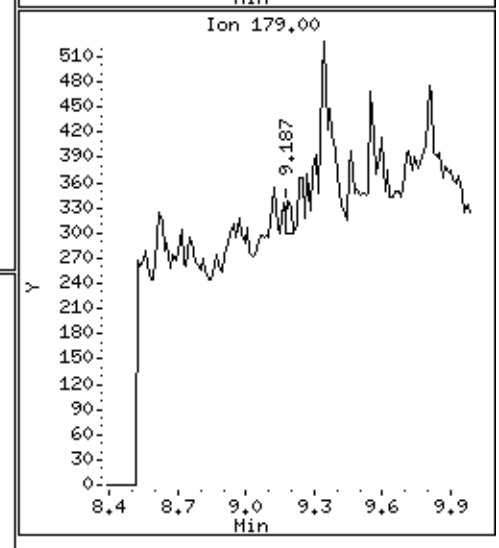
14 Anthracene

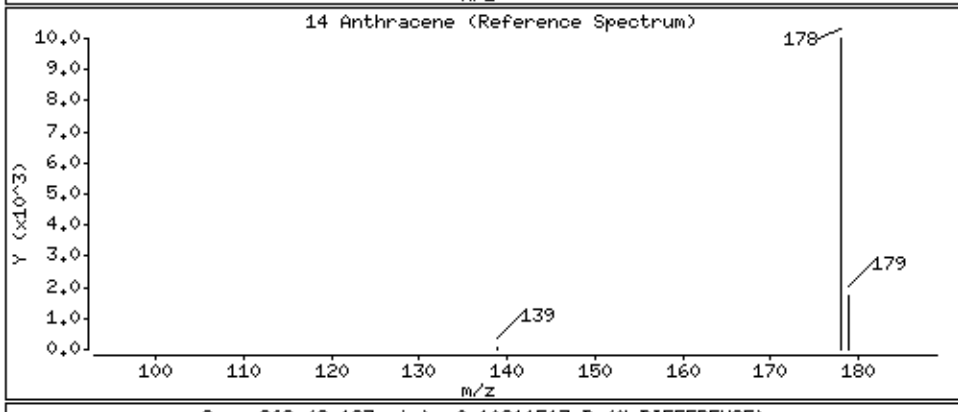
Concentration: 0.0482 ug/L

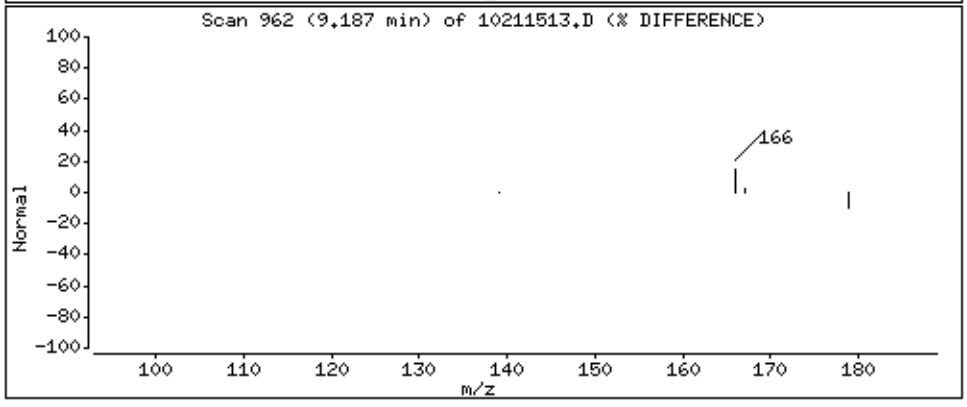












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

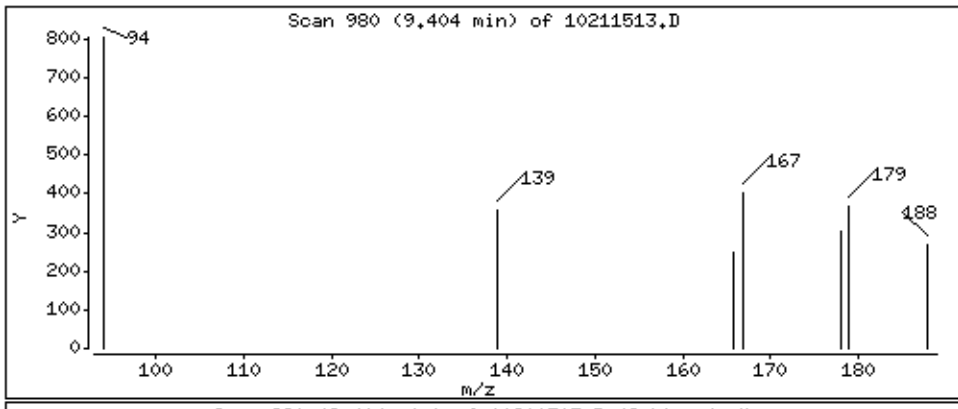
Operator: AS1

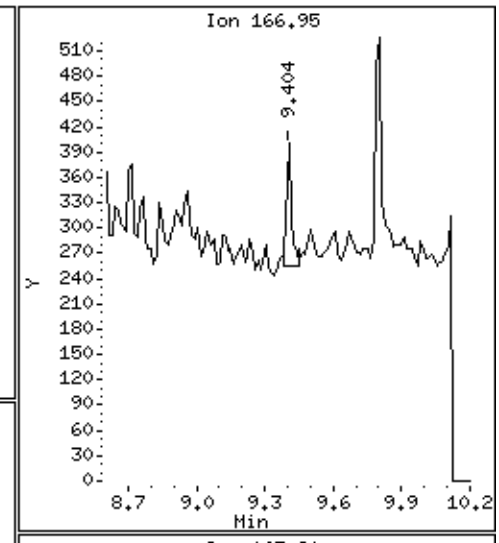
Column phase: DB-5MS

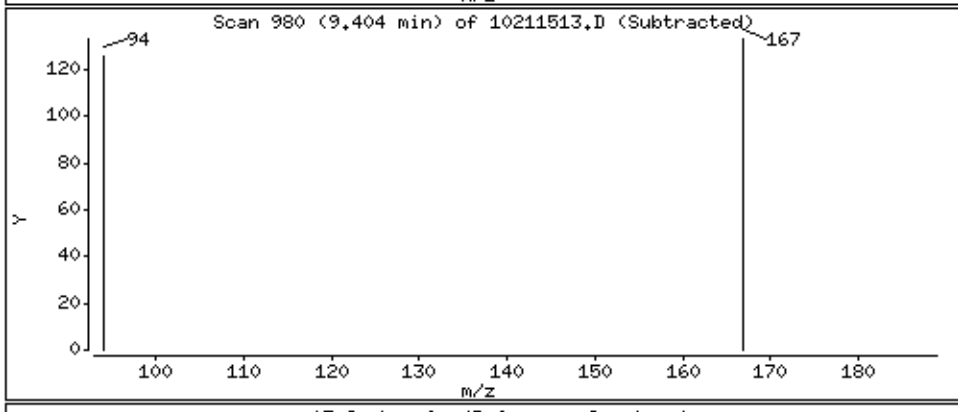
Column diameter: 0.25

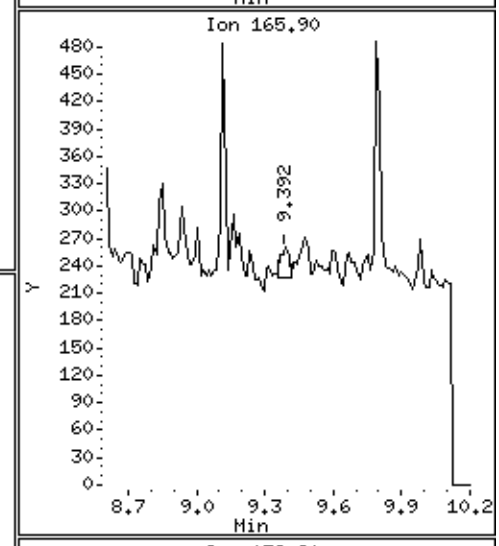
15 Carbazole

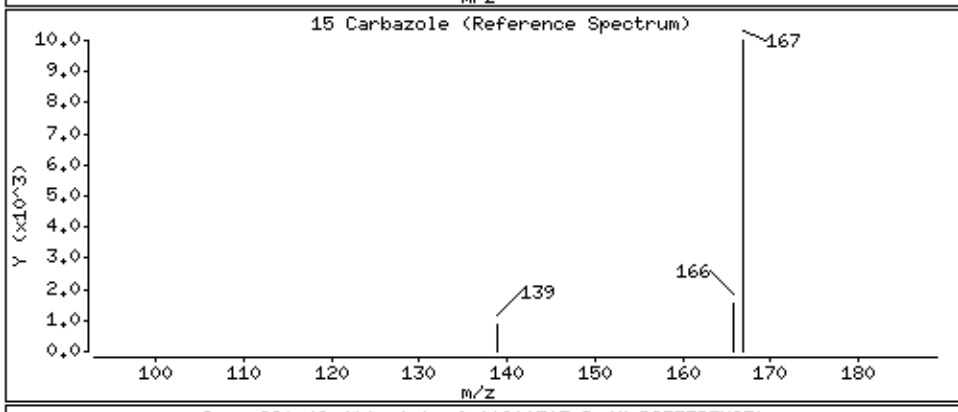
Concentration: 0.0154 ug/L

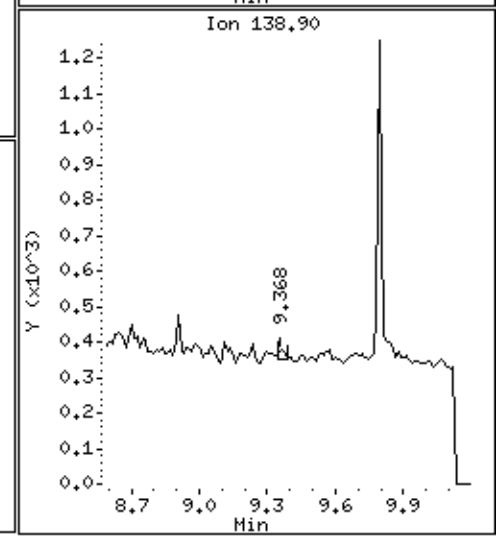


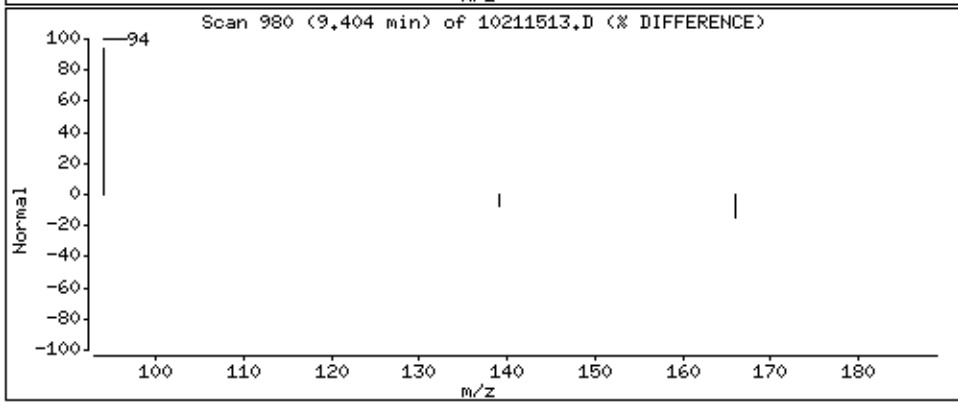












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Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

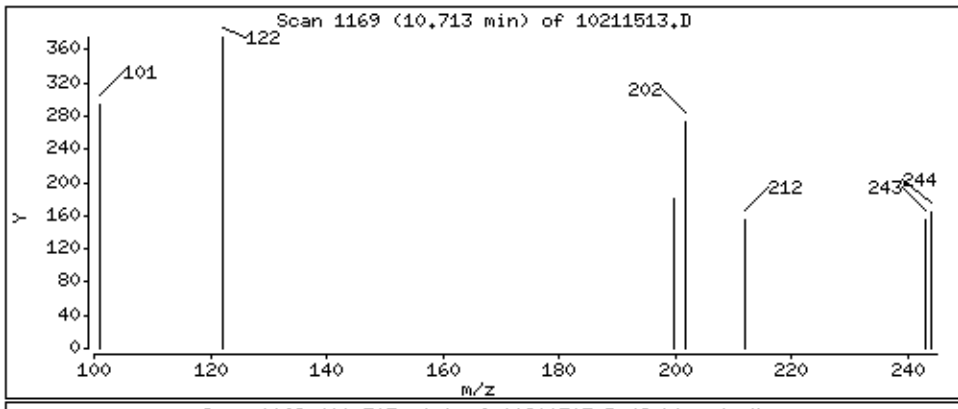
Operator: AS1

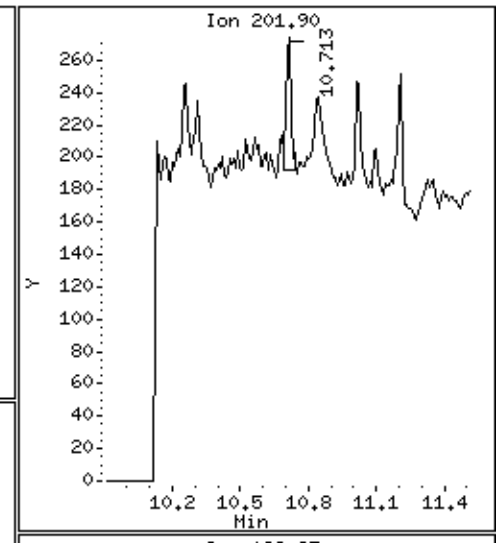
Column phase: DB-5MS

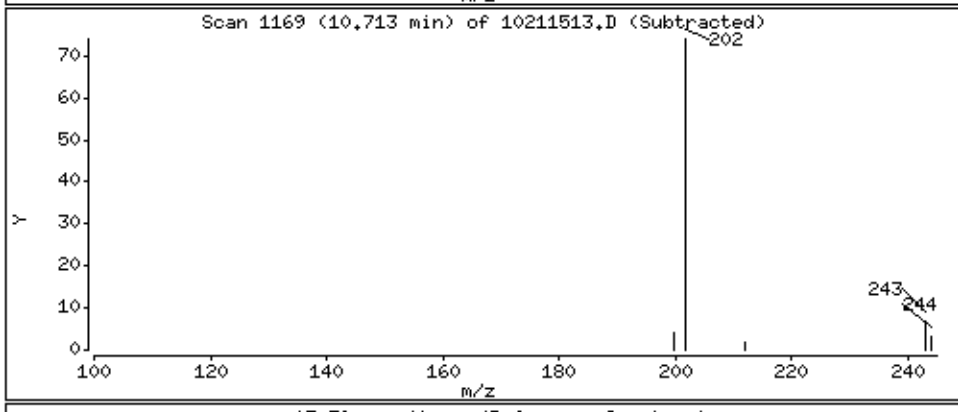
Column diameter: 0.25

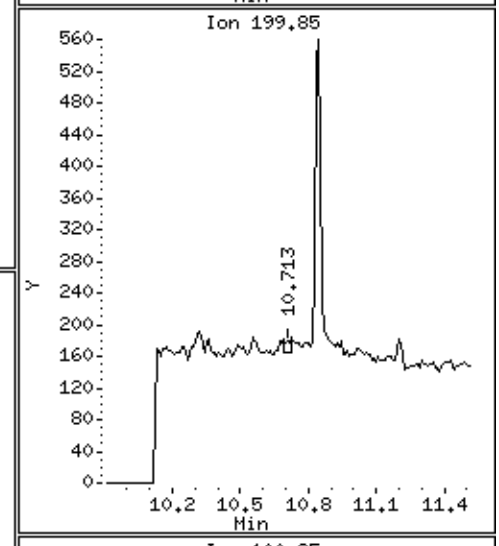
17 Fluoranthene

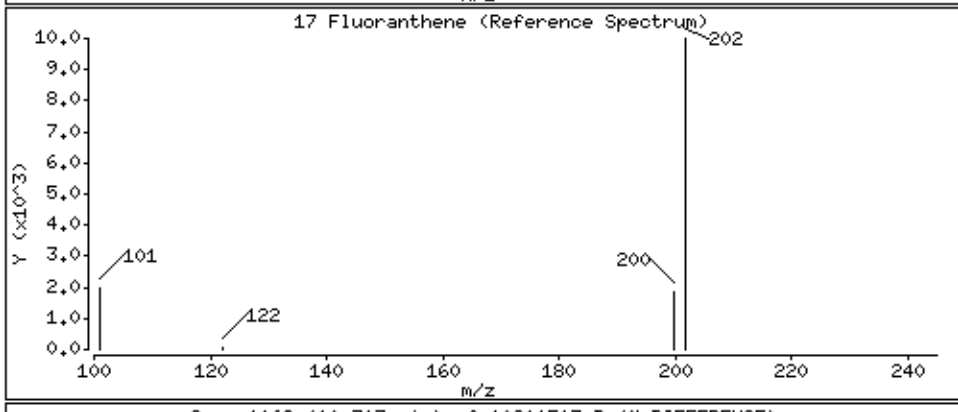
Concentration: 0.00563 ug/L

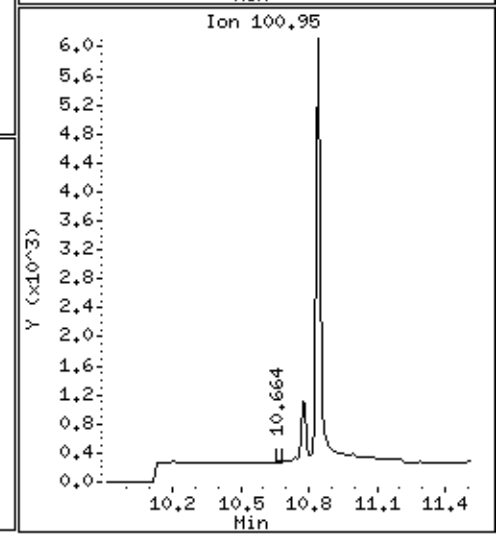


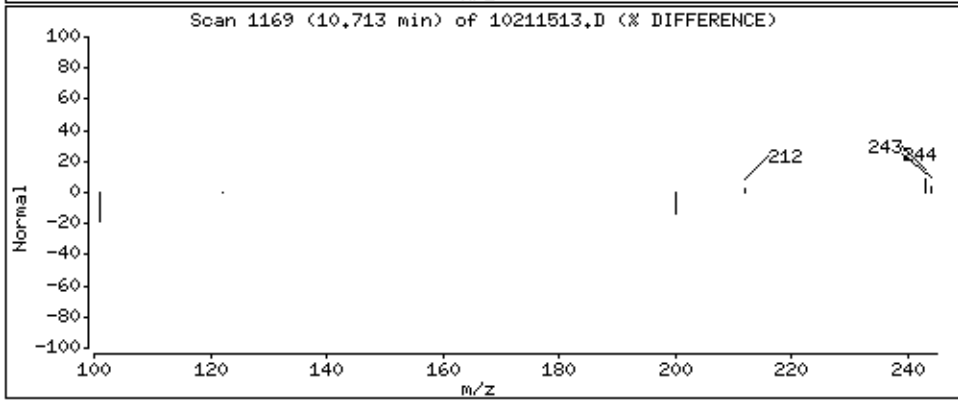












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Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

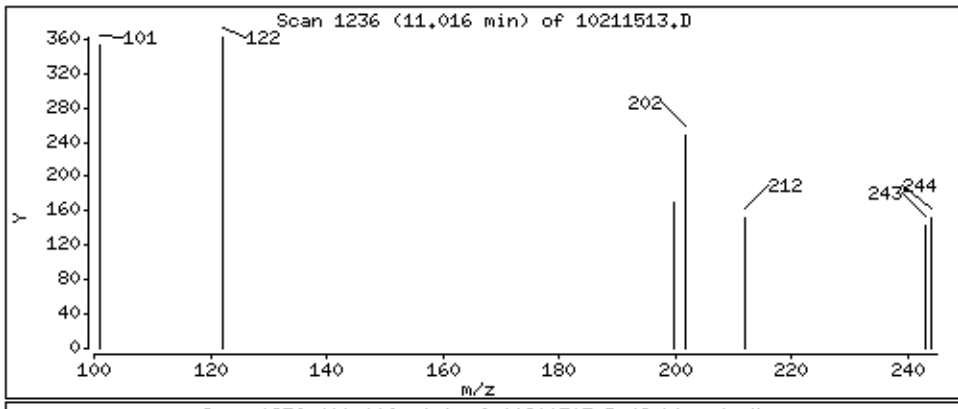
Operator: AS1

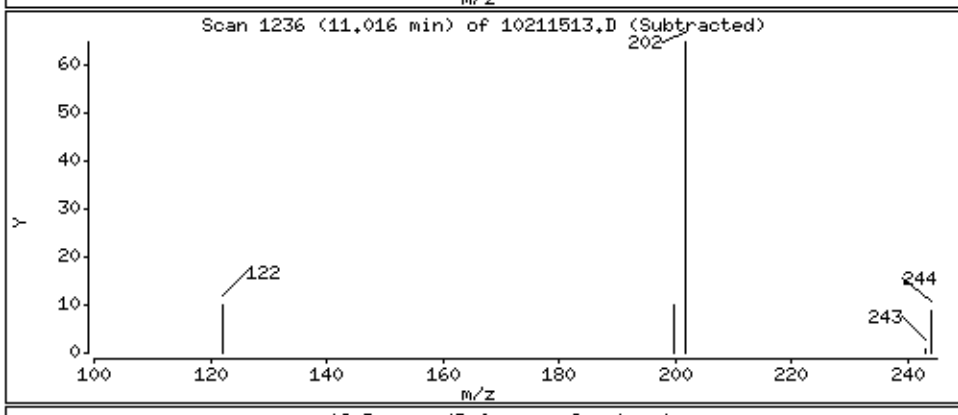
Column phase: DB-5MS

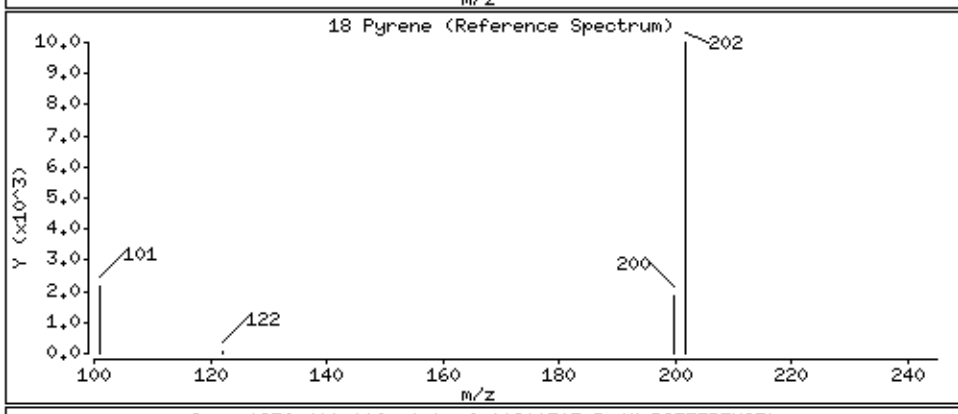
Column diameter: 0.25

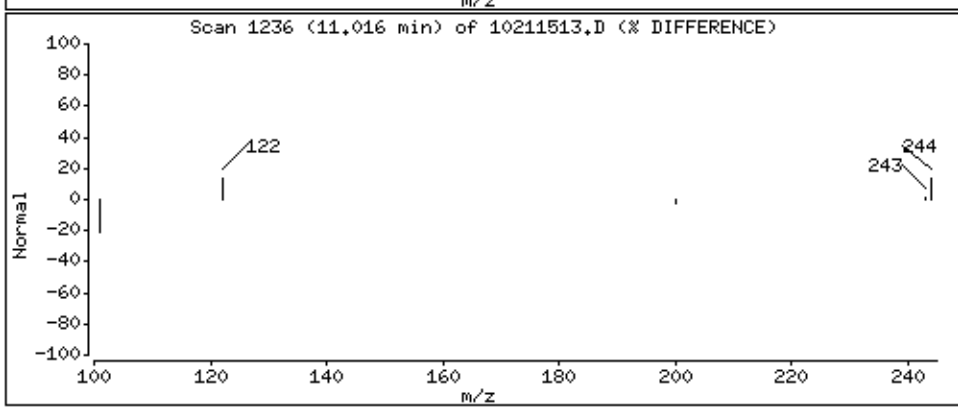
18 Pyrene

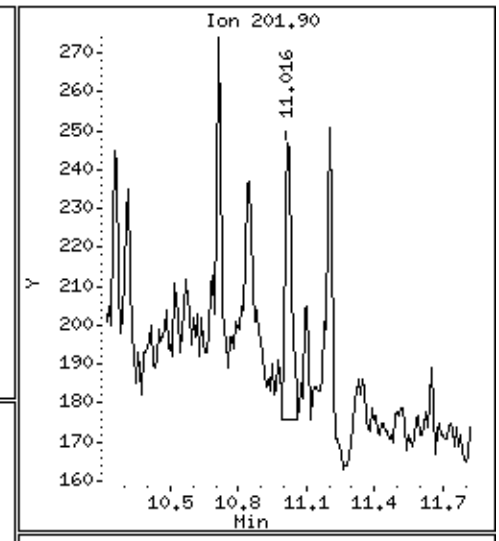
Concentration: 0.00587 ug/L

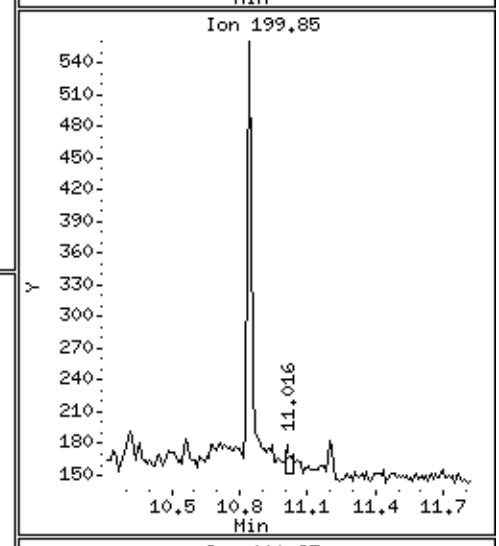


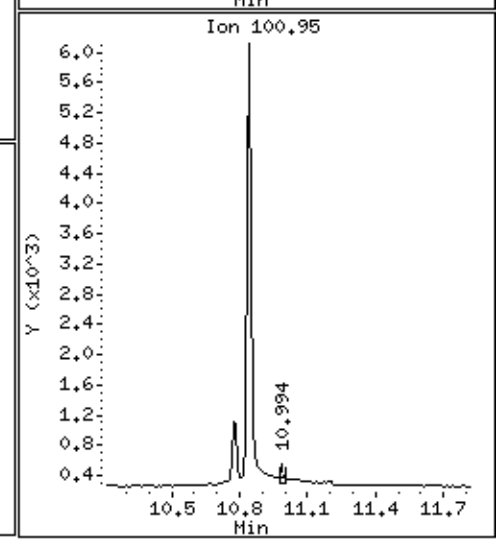












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Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

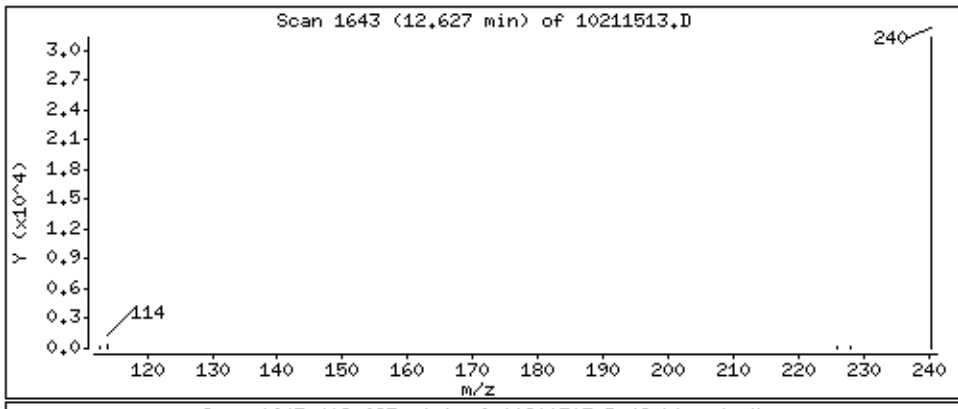
Operator: AS1

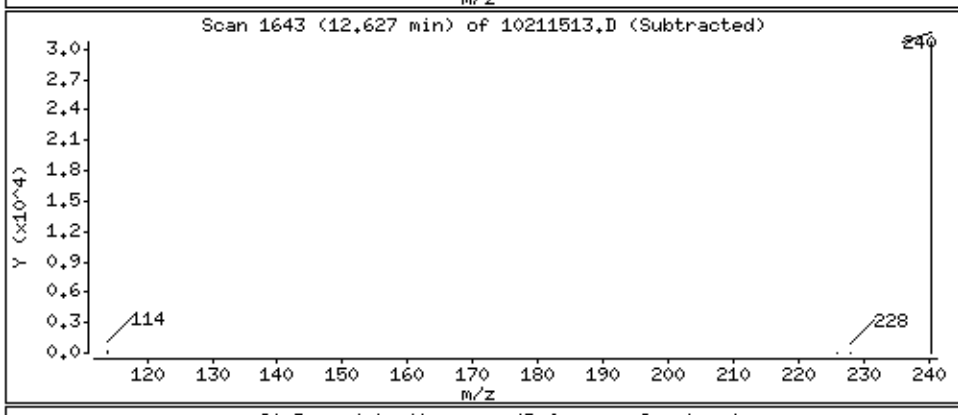
Column phase: DB-5MS

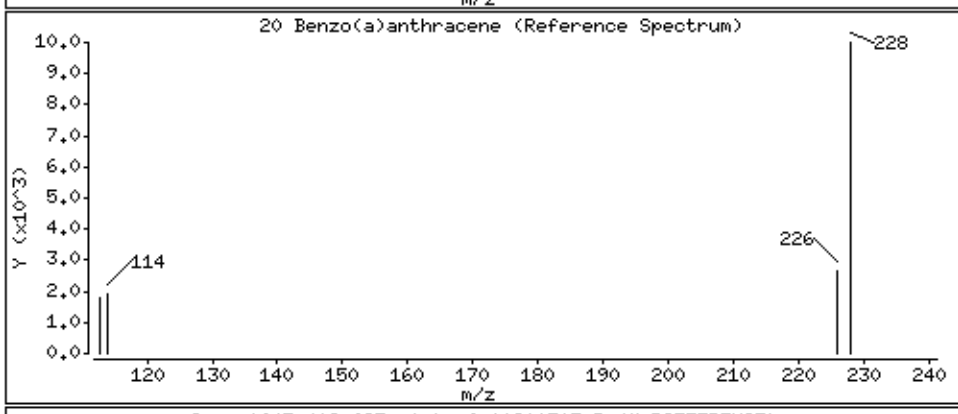
Column diameter: 0.25

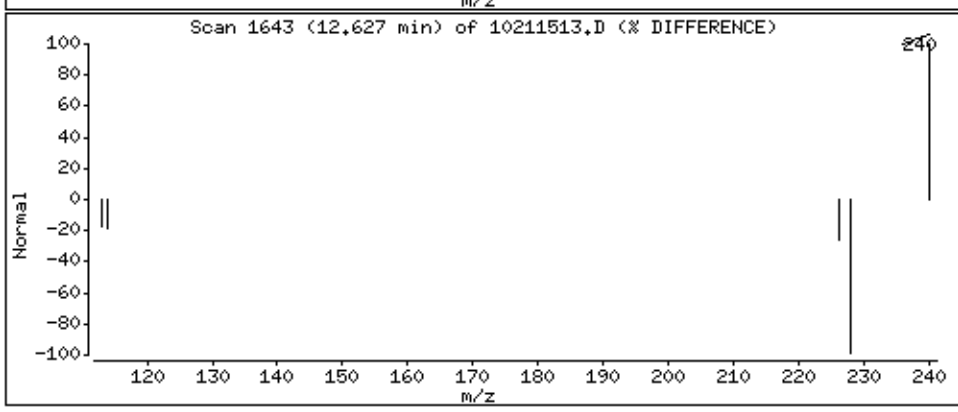
20 Benzo(a)anthracene

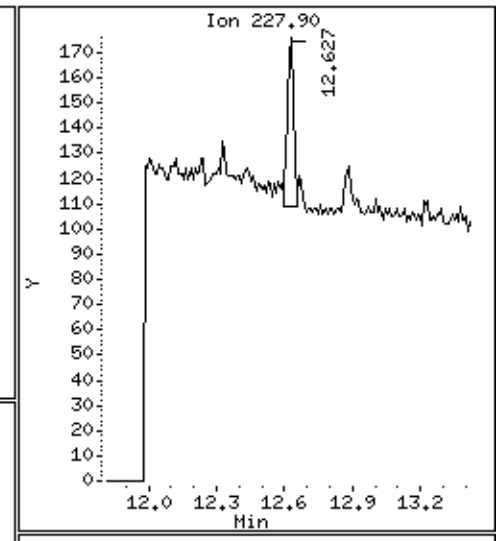
Concentration: 0.00645 ug/L

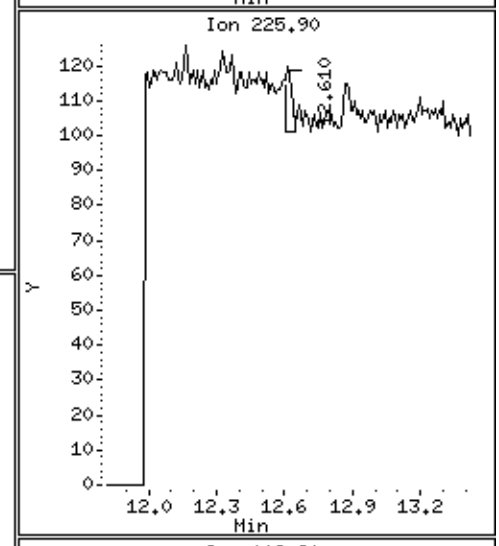


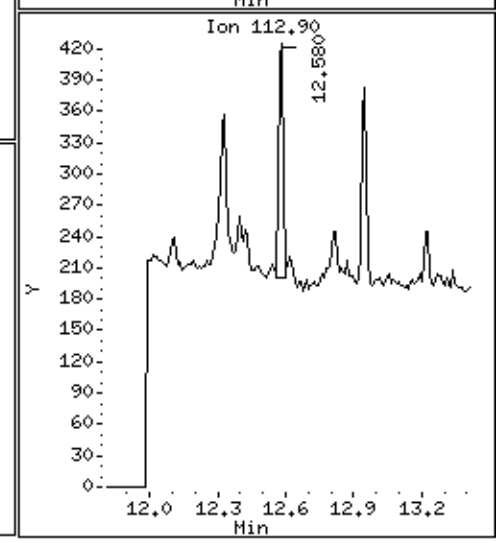












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Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

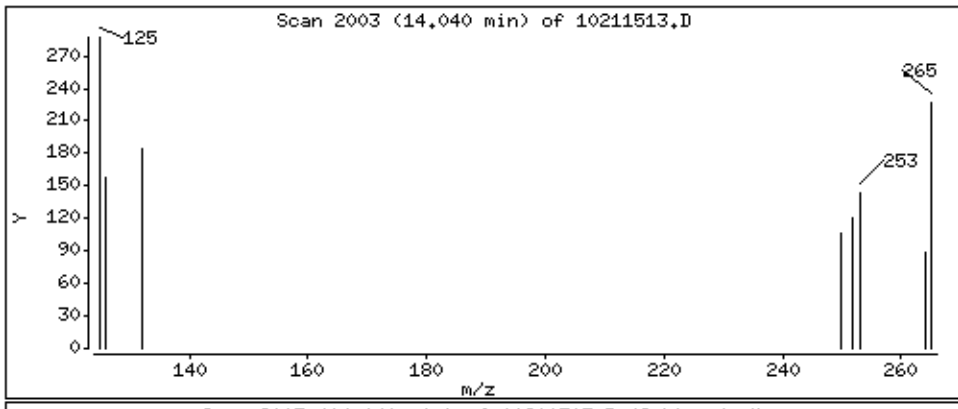
Operator: AS1

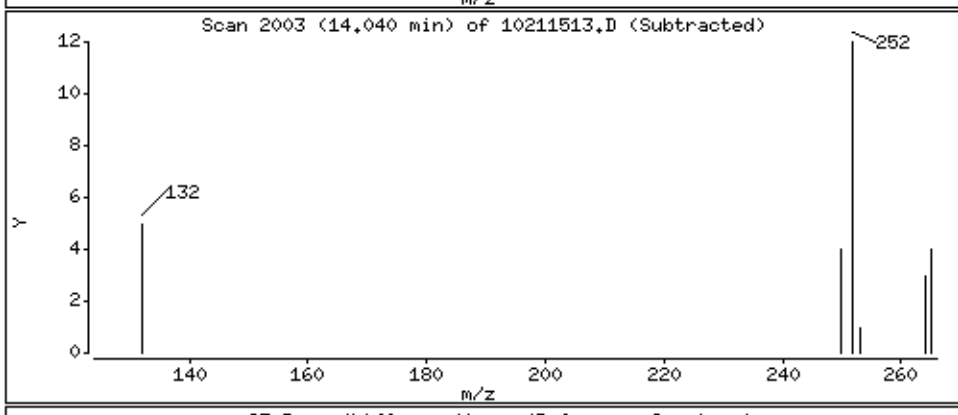
Column phase: DB-5MS

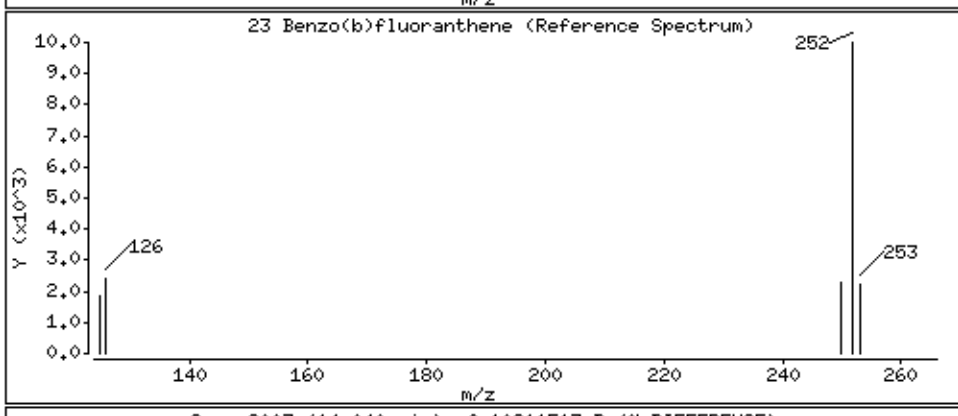
Column diameter: 0.25

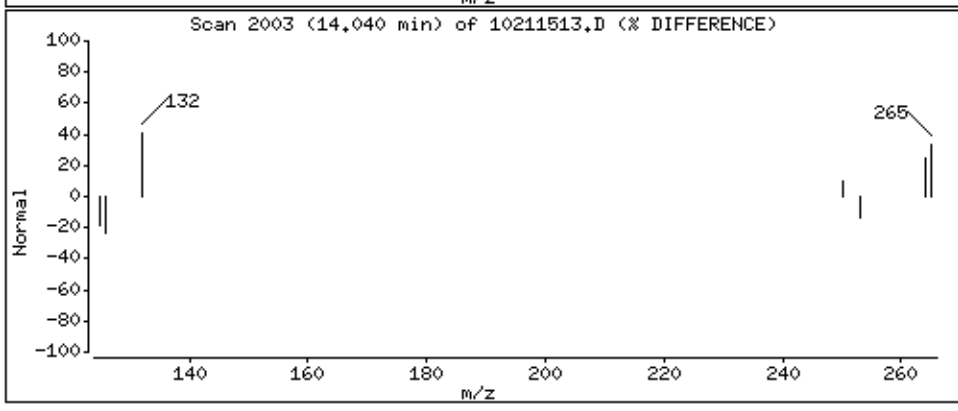
23 Benzo(b)fluoranthene

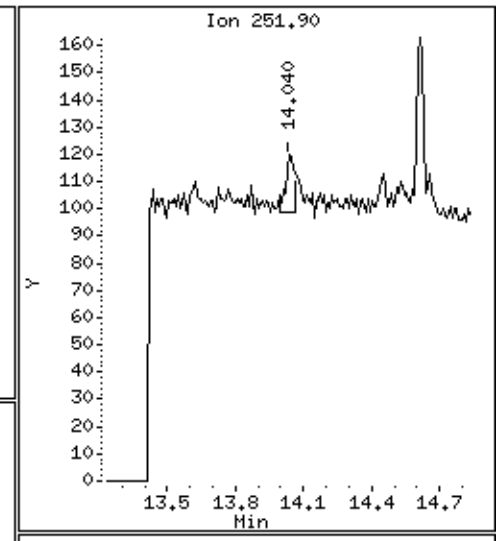
Concentration: 0.00291 ug/L

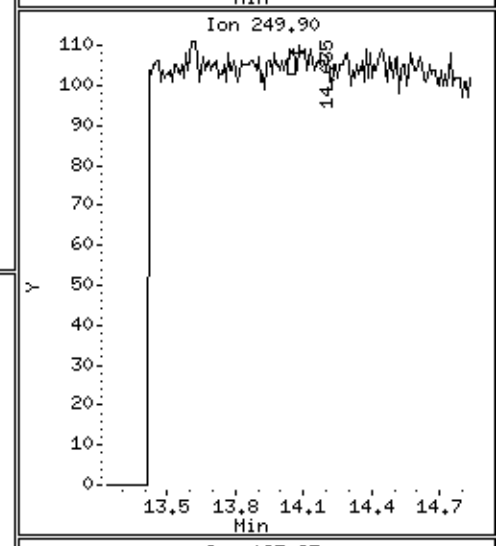


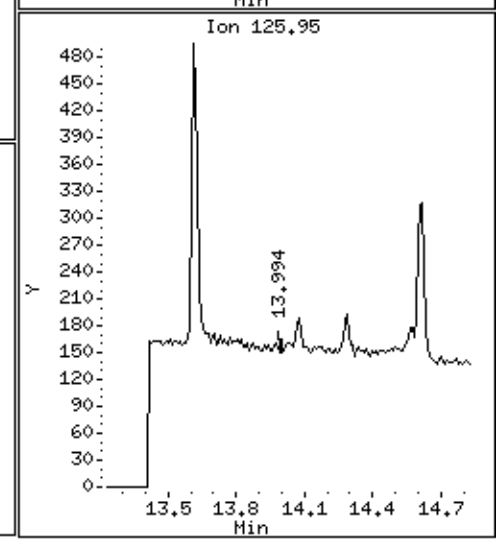












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211513.D

Date : 21-OCT-2015 11:25

Client ID: MW-11-101315

Instrument: 10mssA.i

Sample Info: 10326303009,

Volume Injected (uL): 1.0

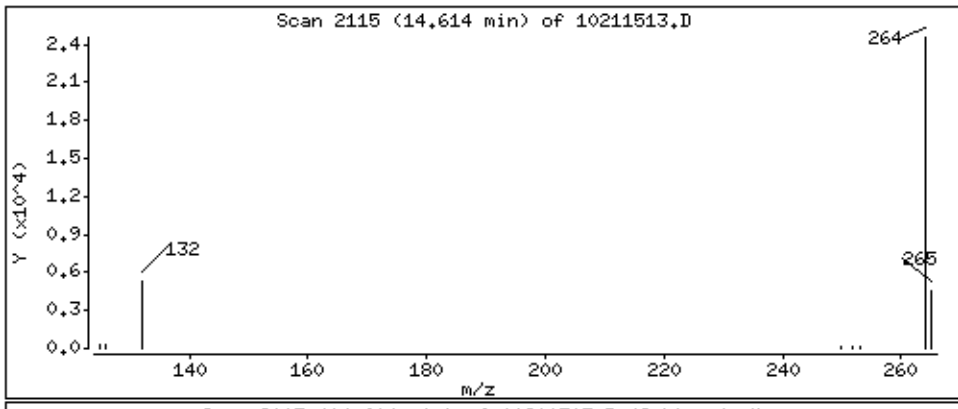
Operator: AS1

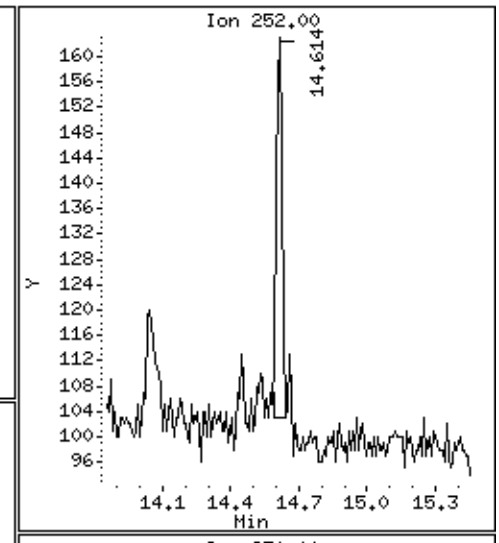
Column phase: DB-5MS

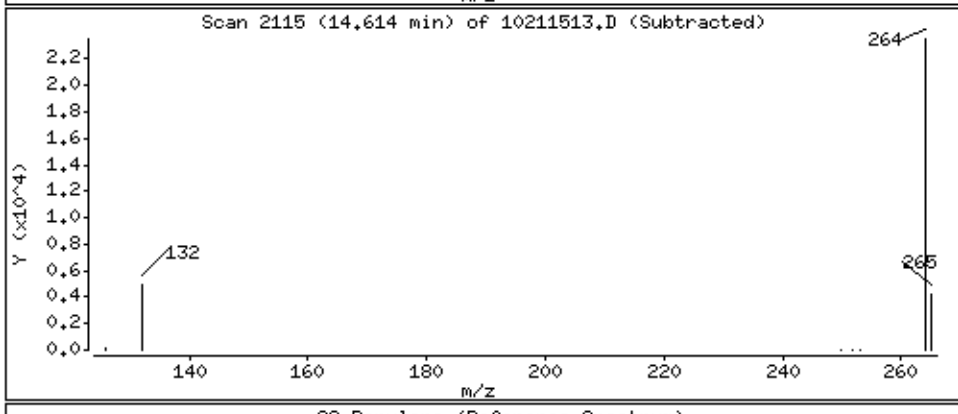
Column diameter: 0.25

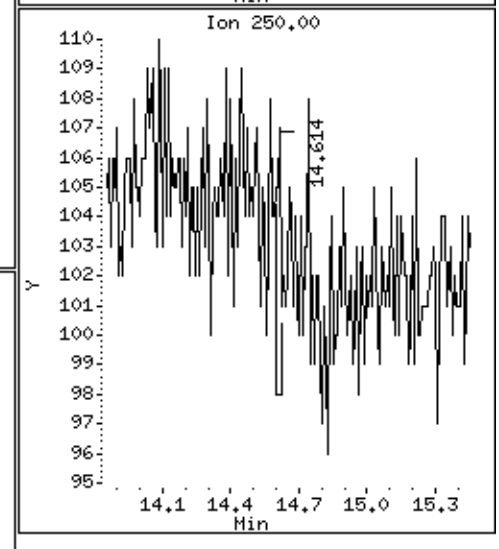
28 Perylene

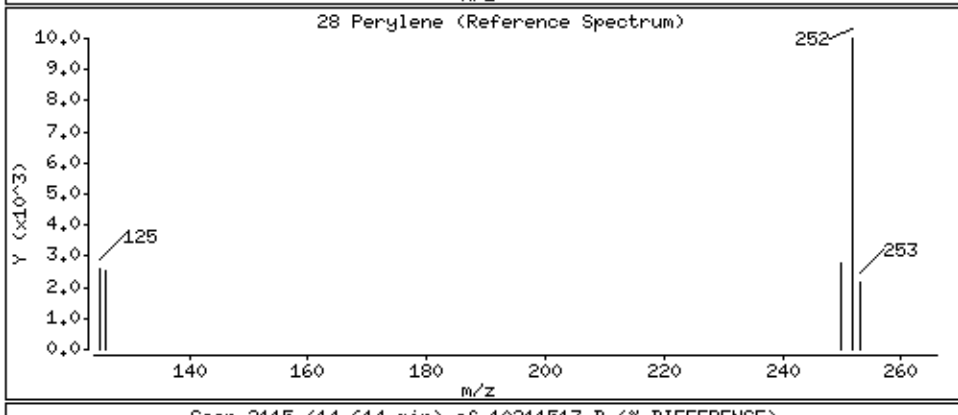
Concentration: 0.00778 ug/L

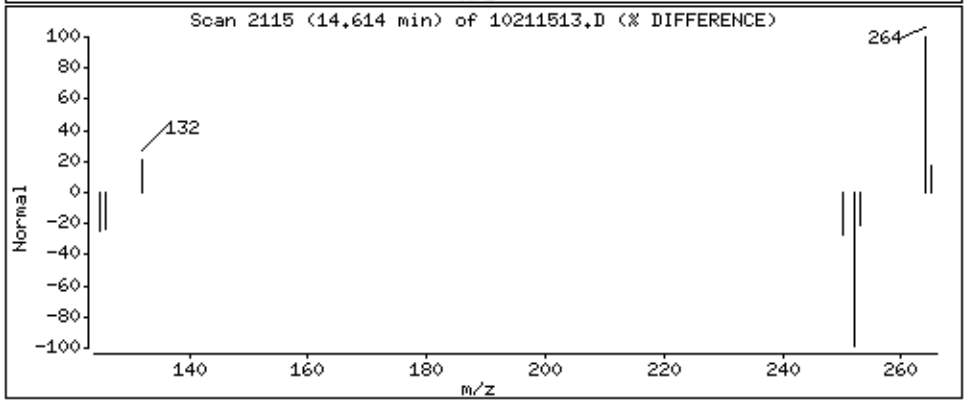






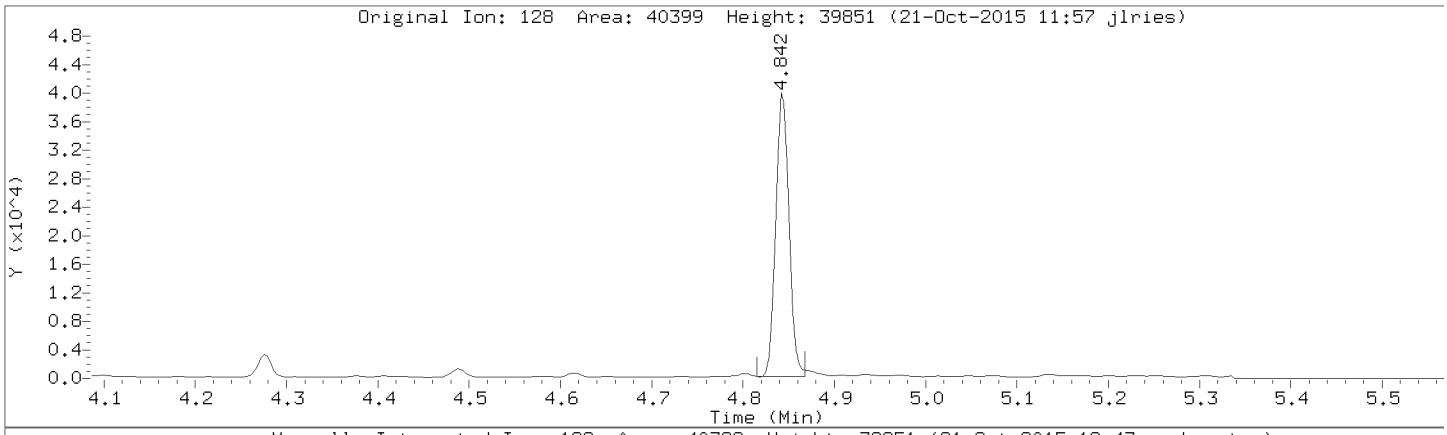


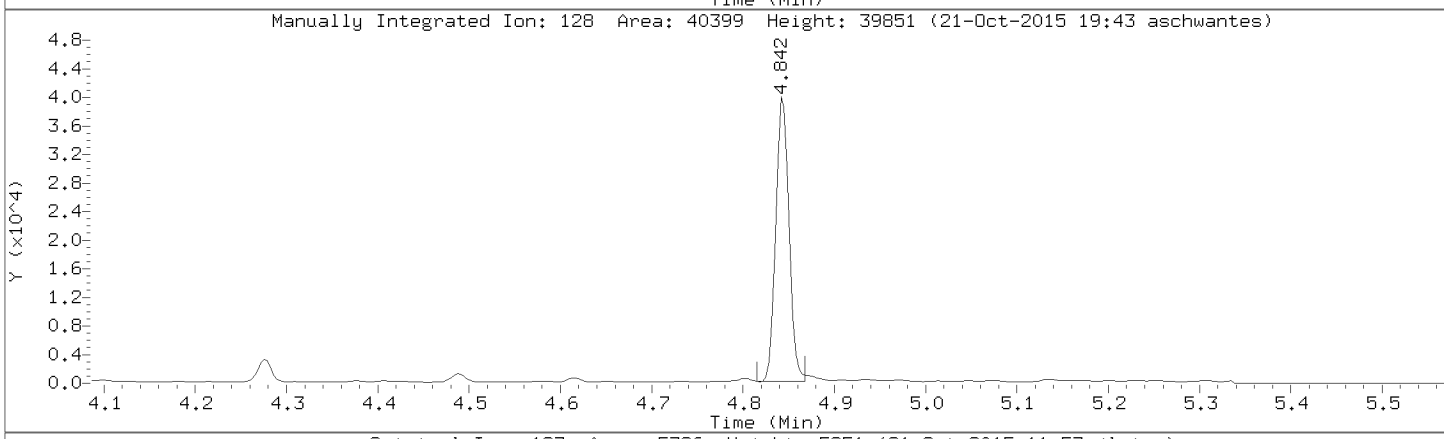


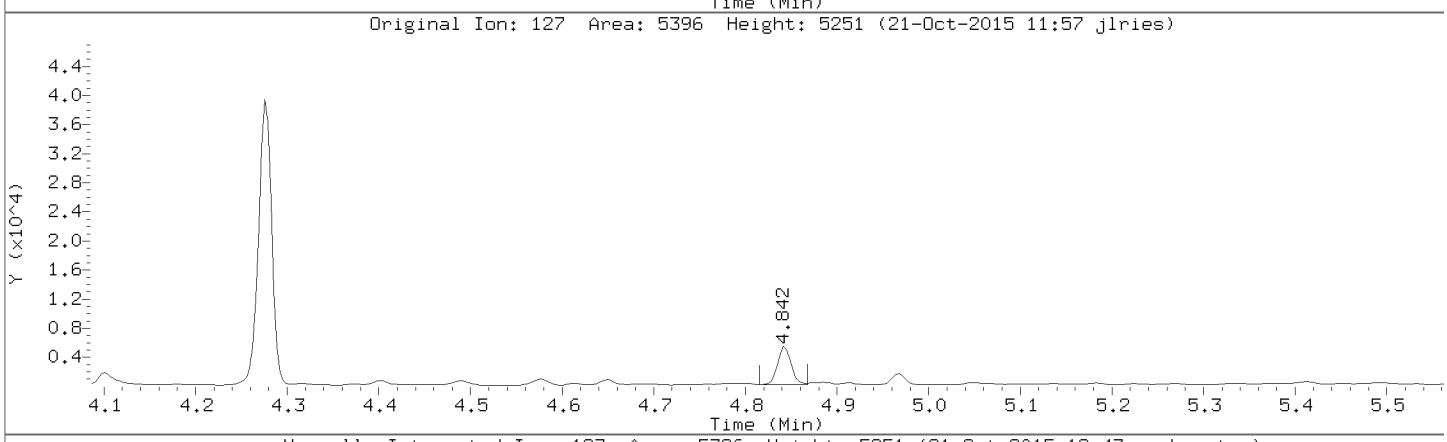


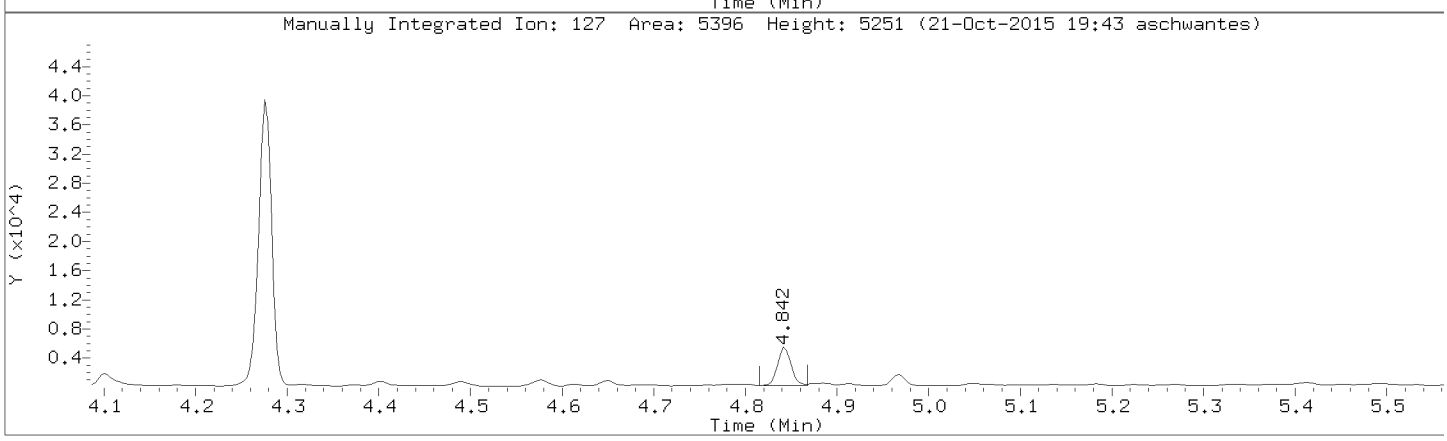
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211513.D
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009

Compound: Naphthalene
CAS Number: 91-20-3

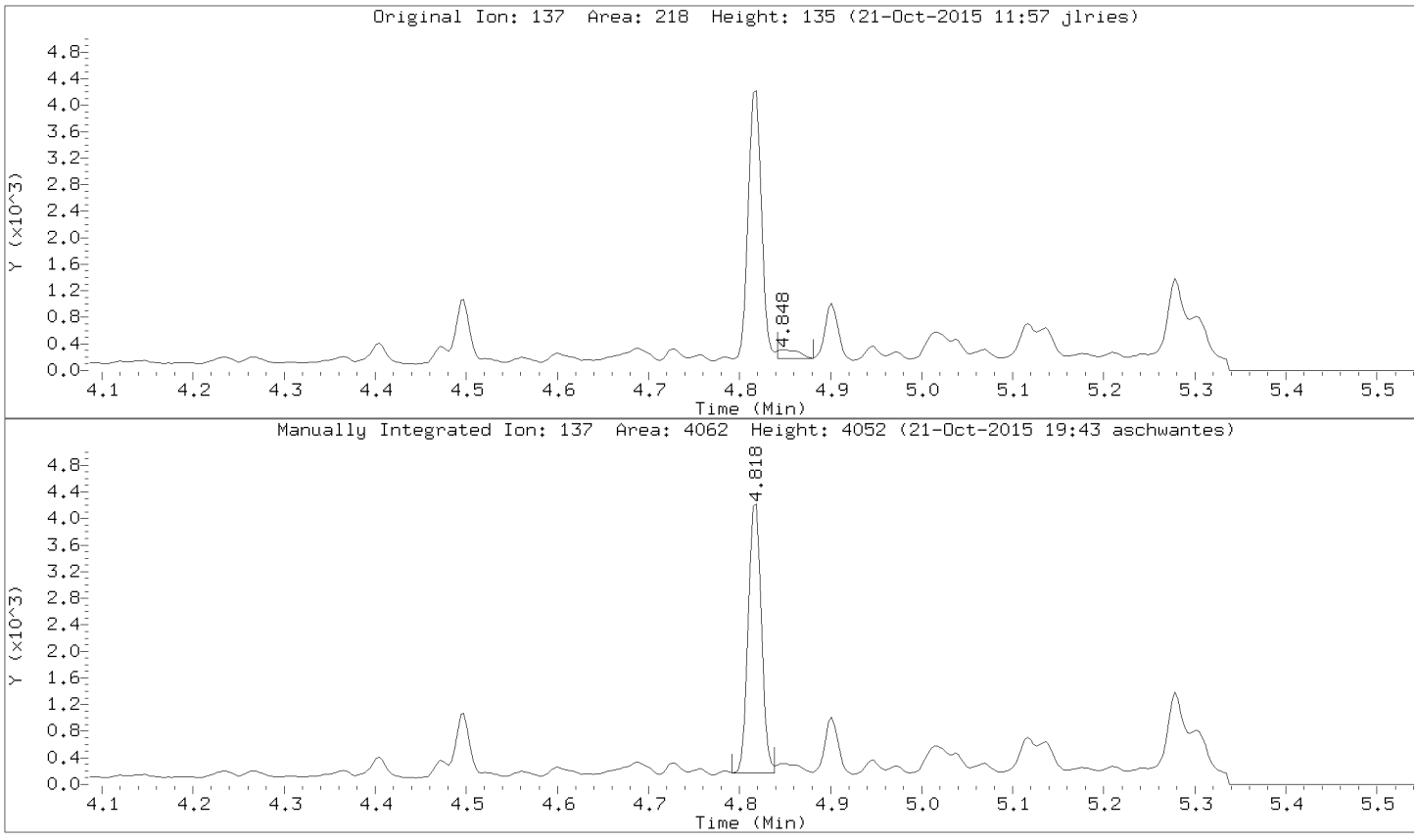






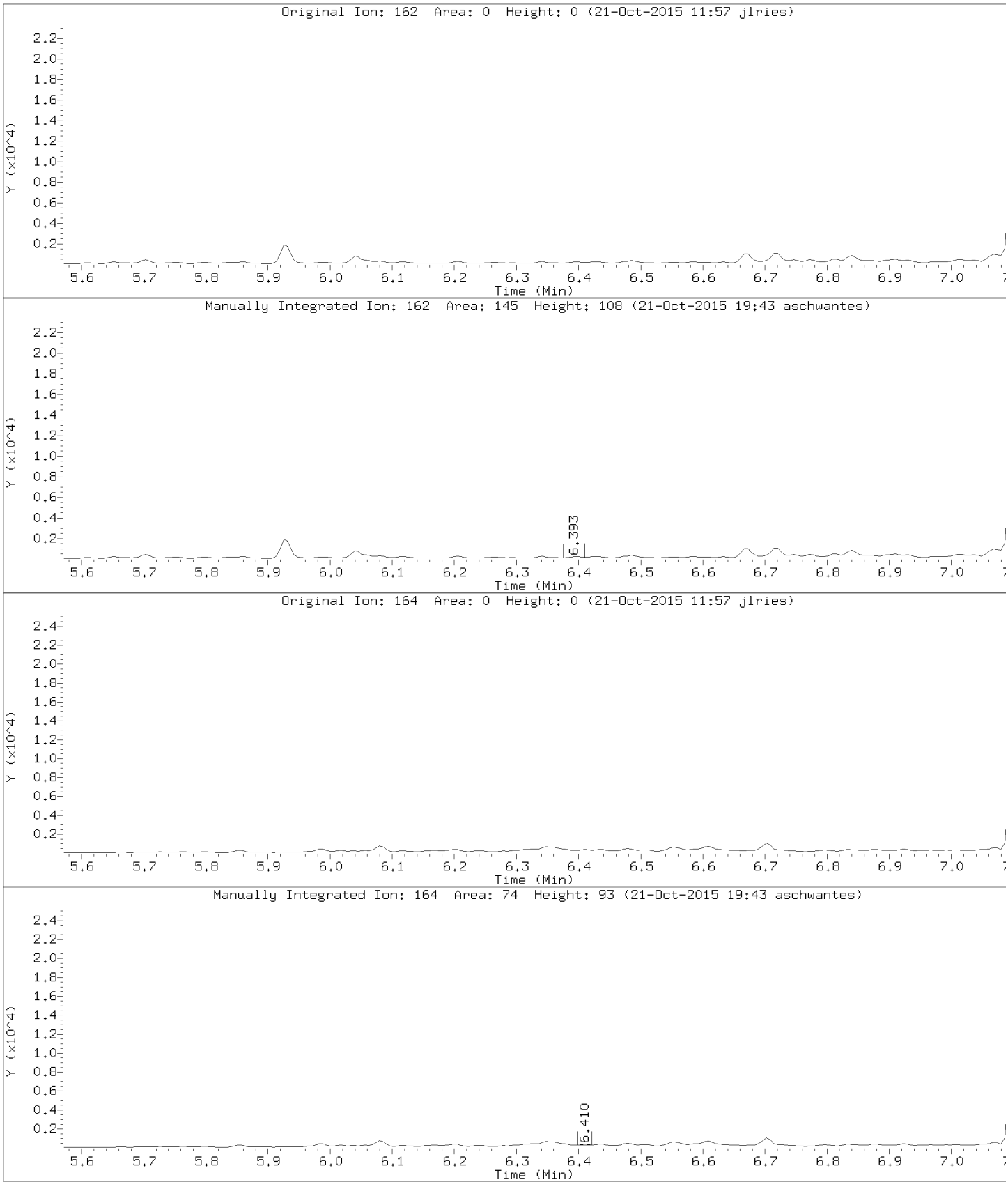


Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211513.D
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009



Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211513.D
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009

Compound: 2-Chloronapthalene
CAS Number: 91-58-7



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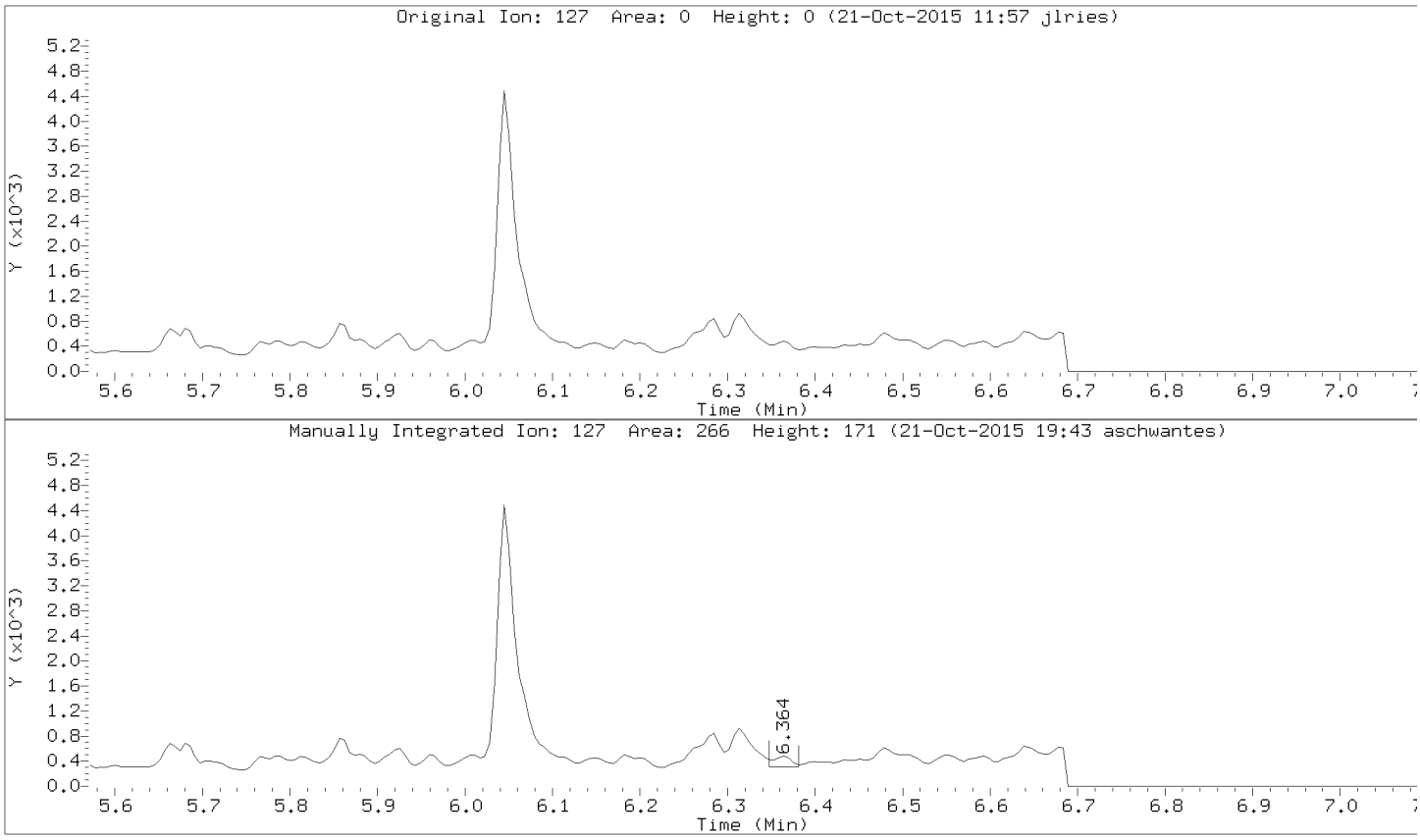
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009



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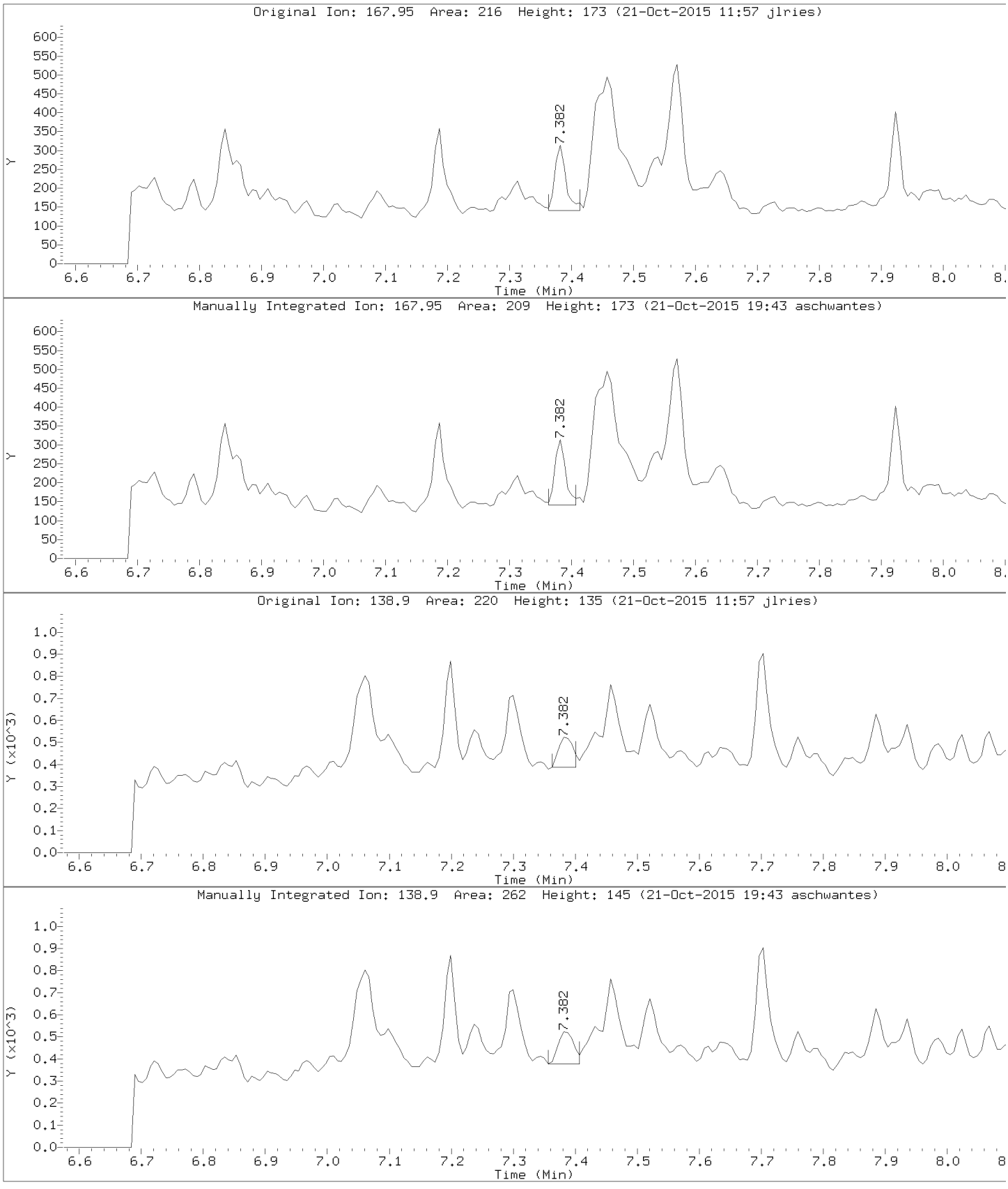
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009

Compound: Dibenzofuran
CAS Number: 132-64-9



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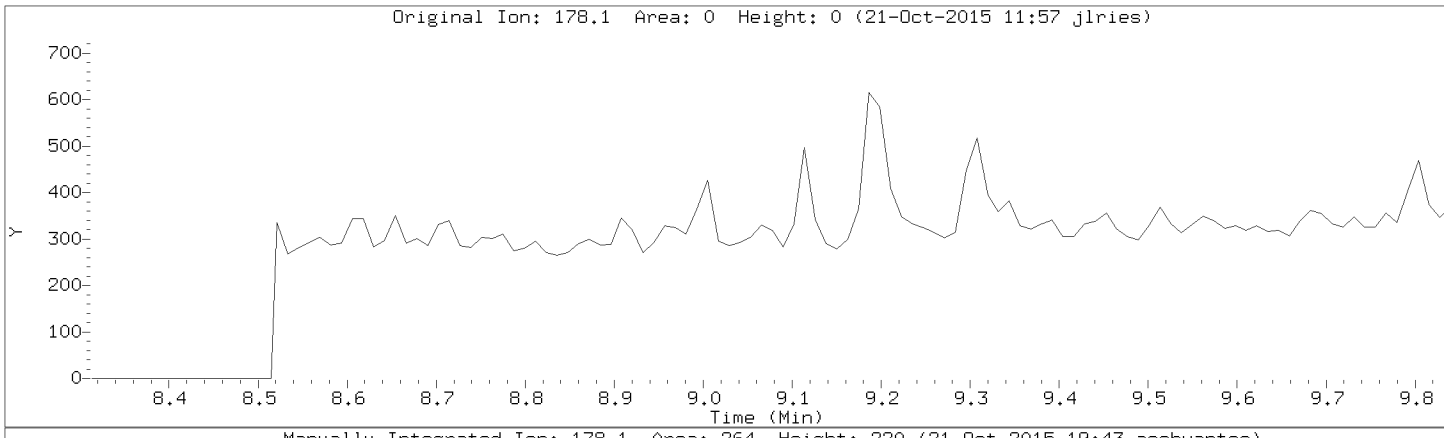
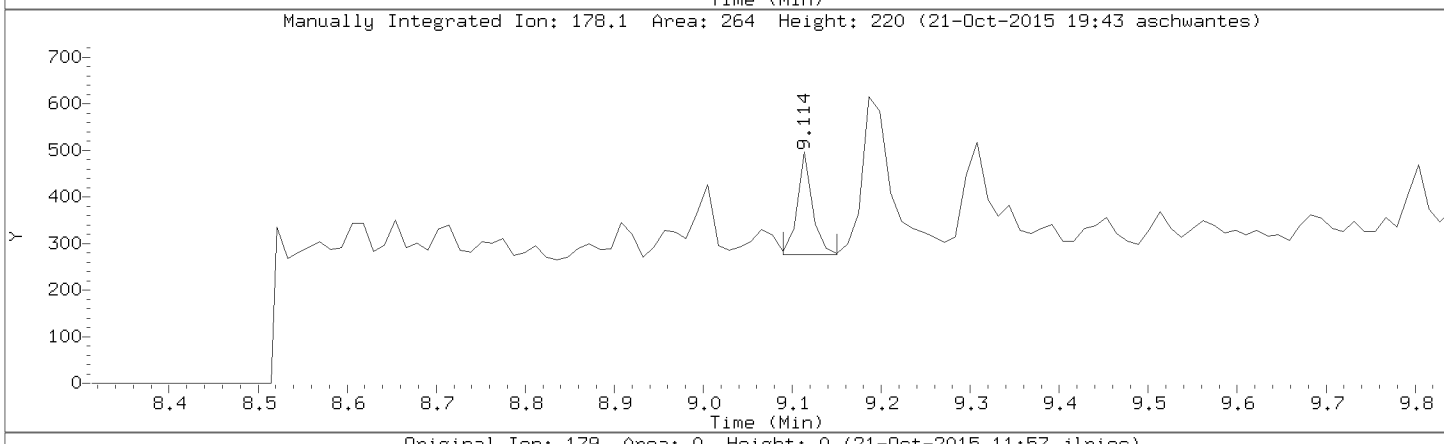
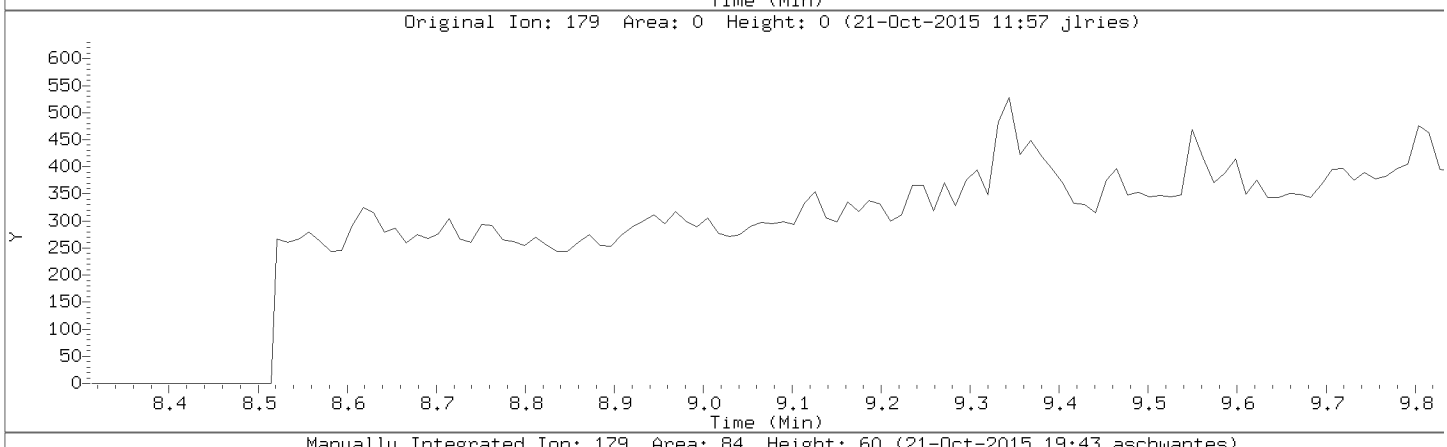
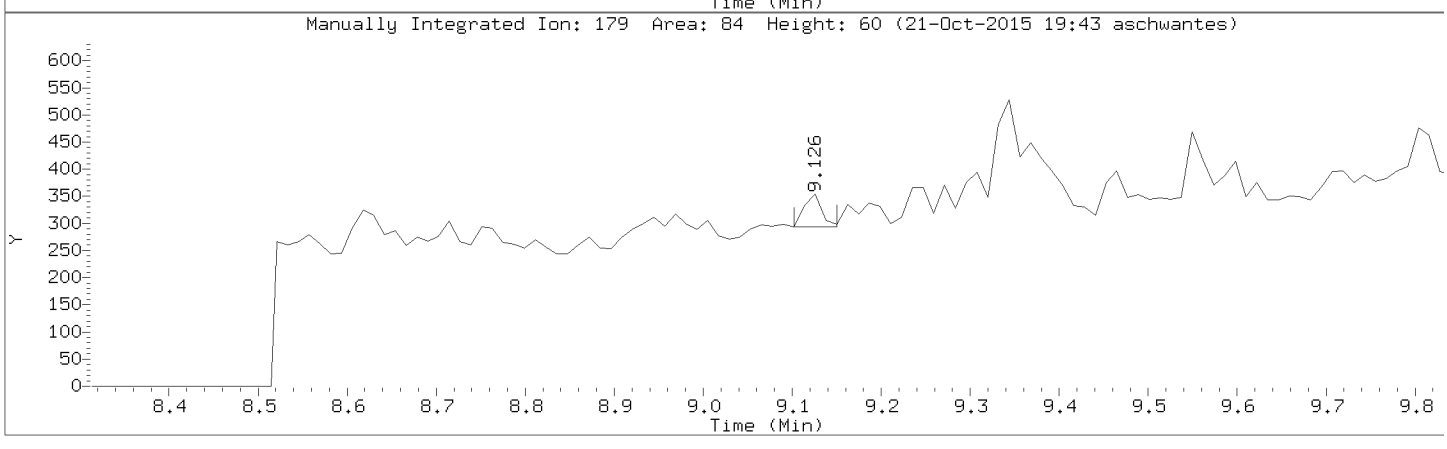
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009

Compound: Phenanthrene
CAS Number: 85-01-8



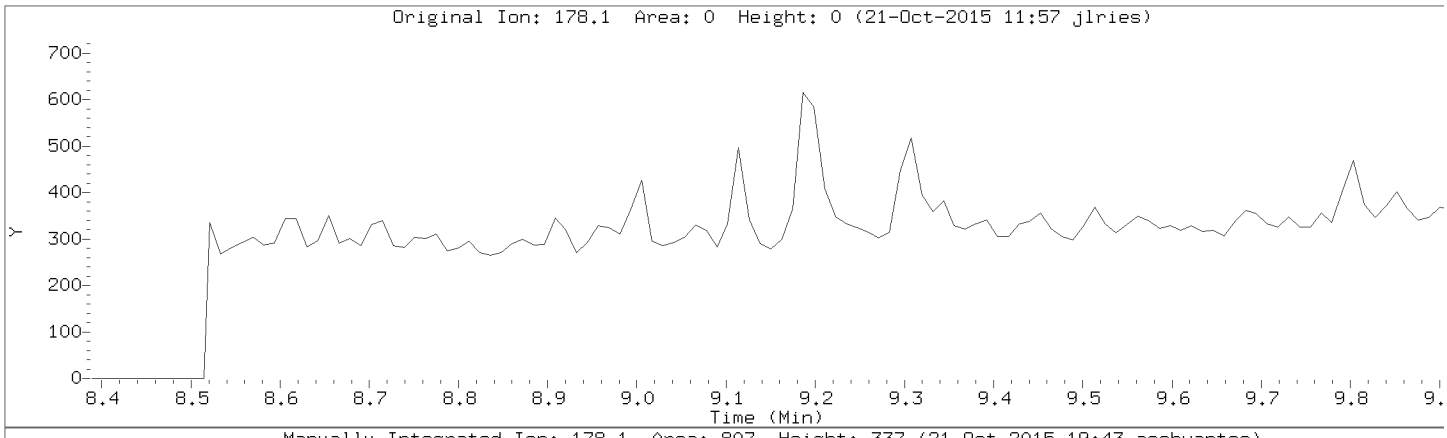


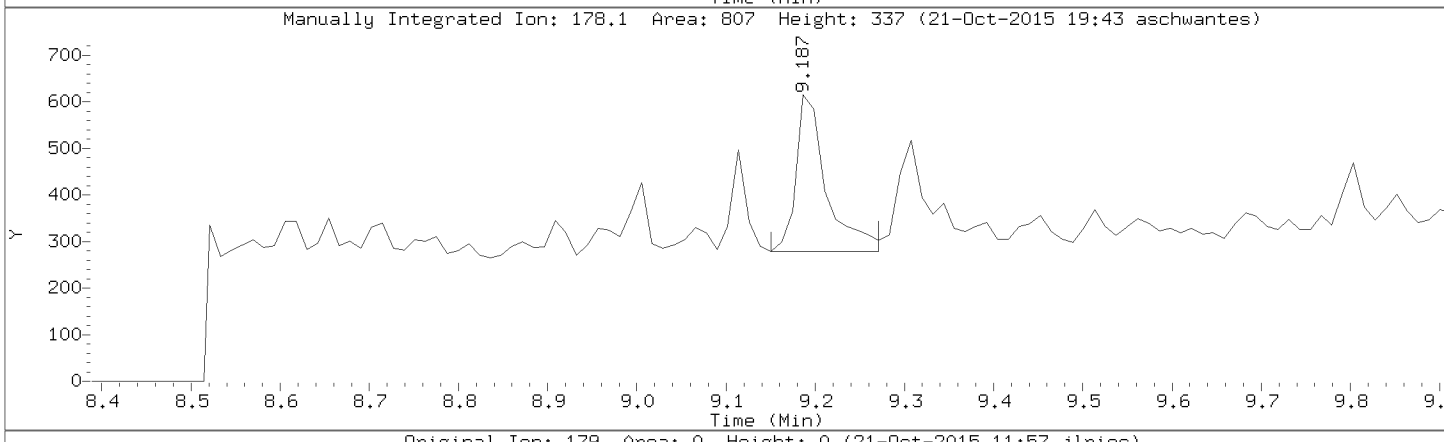


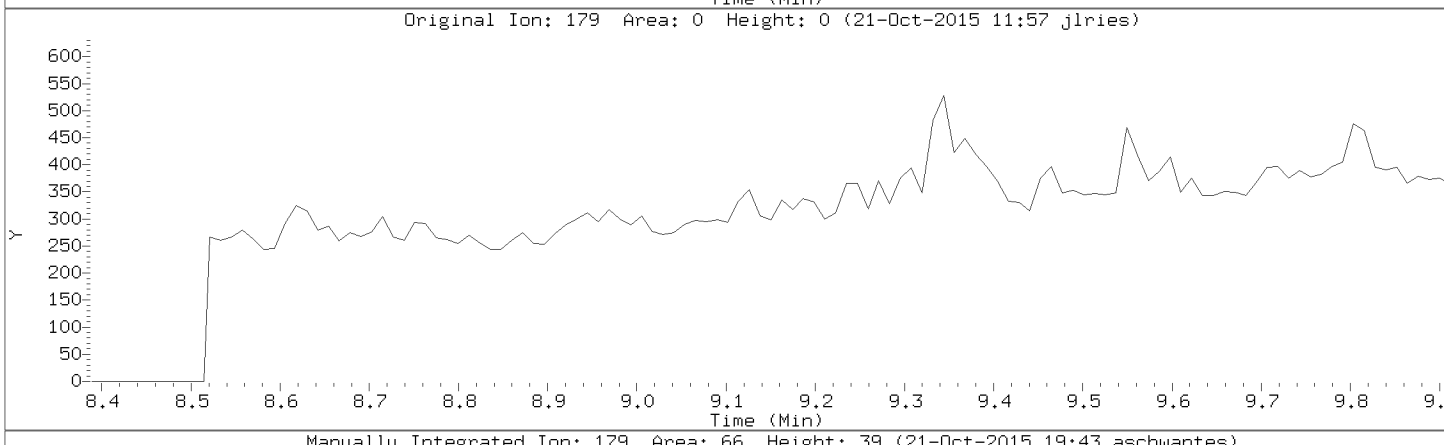


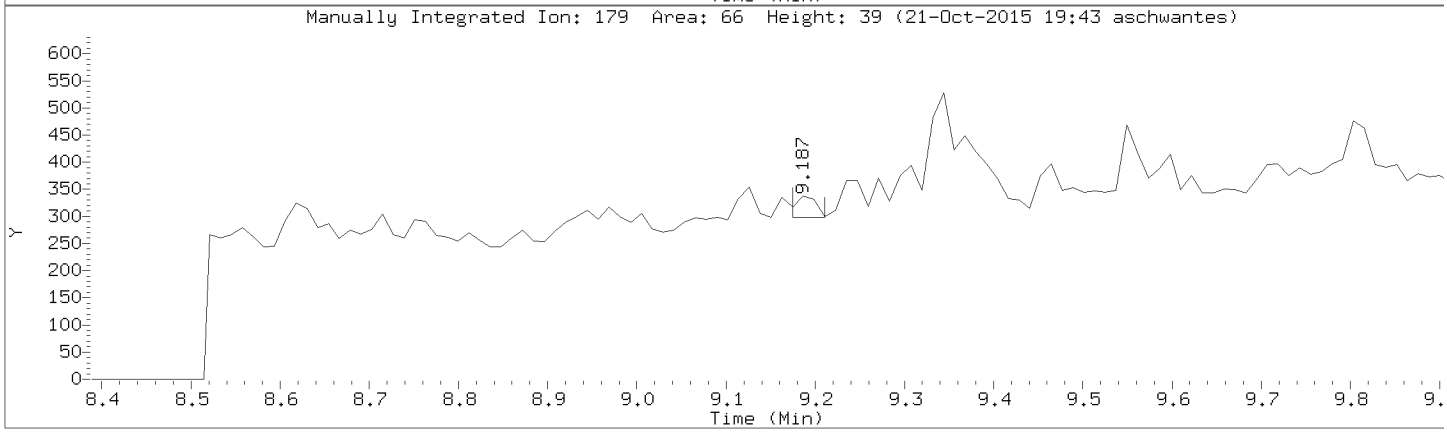
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211513.D
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009

Compound: Anthracene
CAS Number: 120-12-7



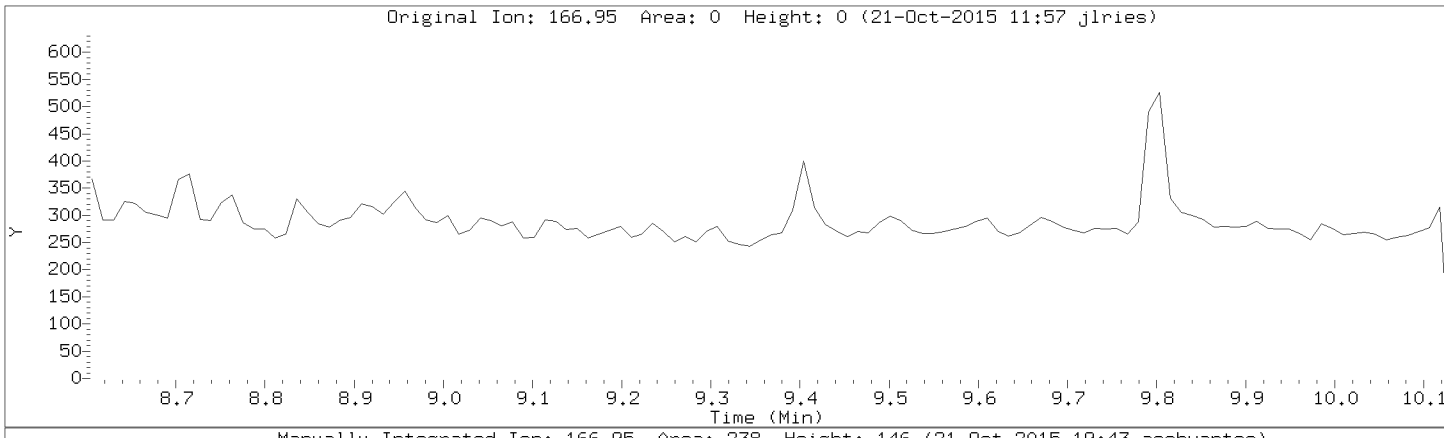


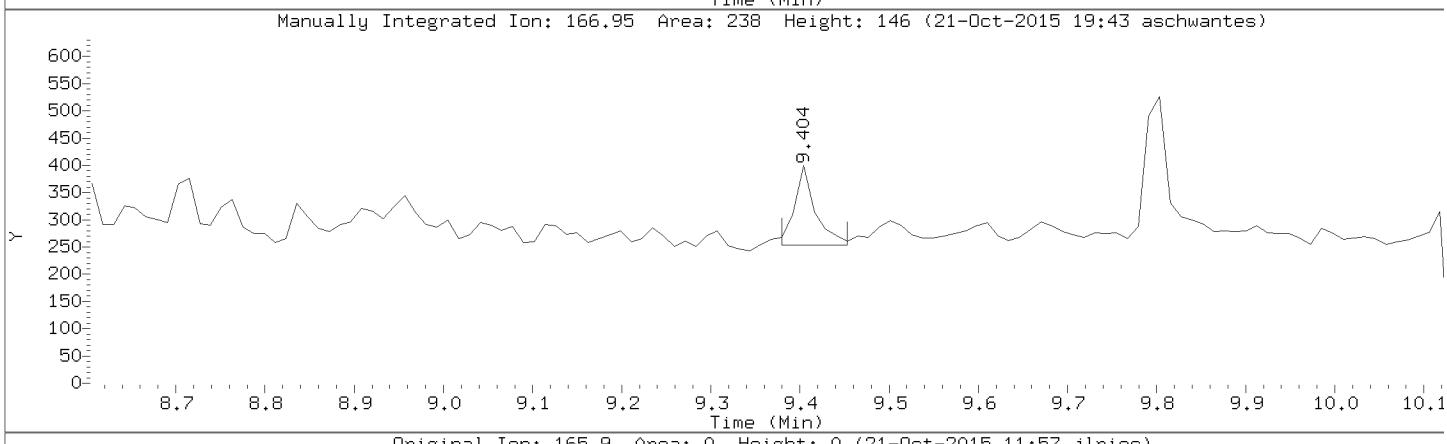


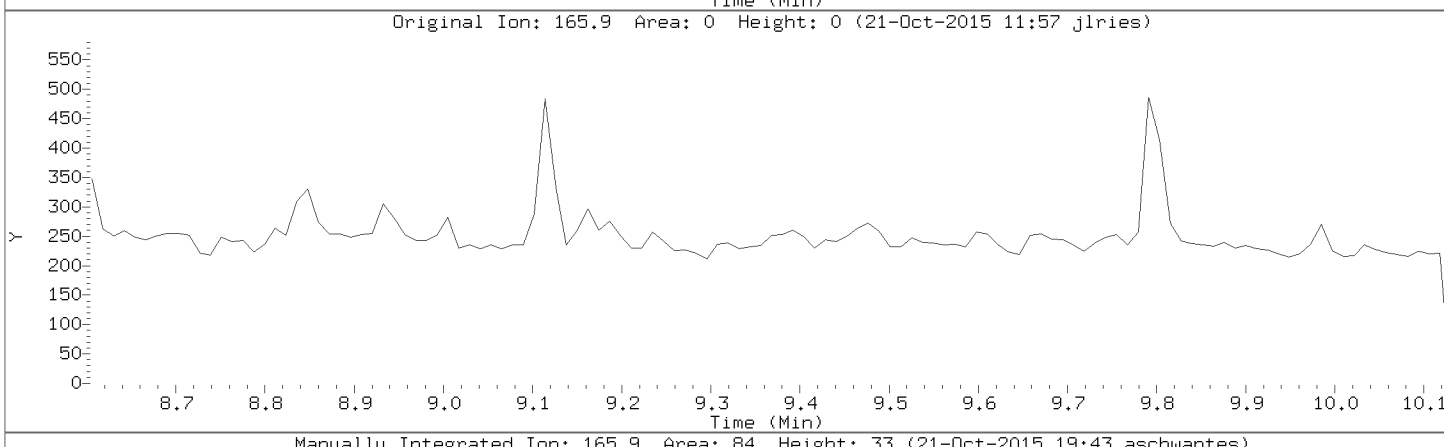


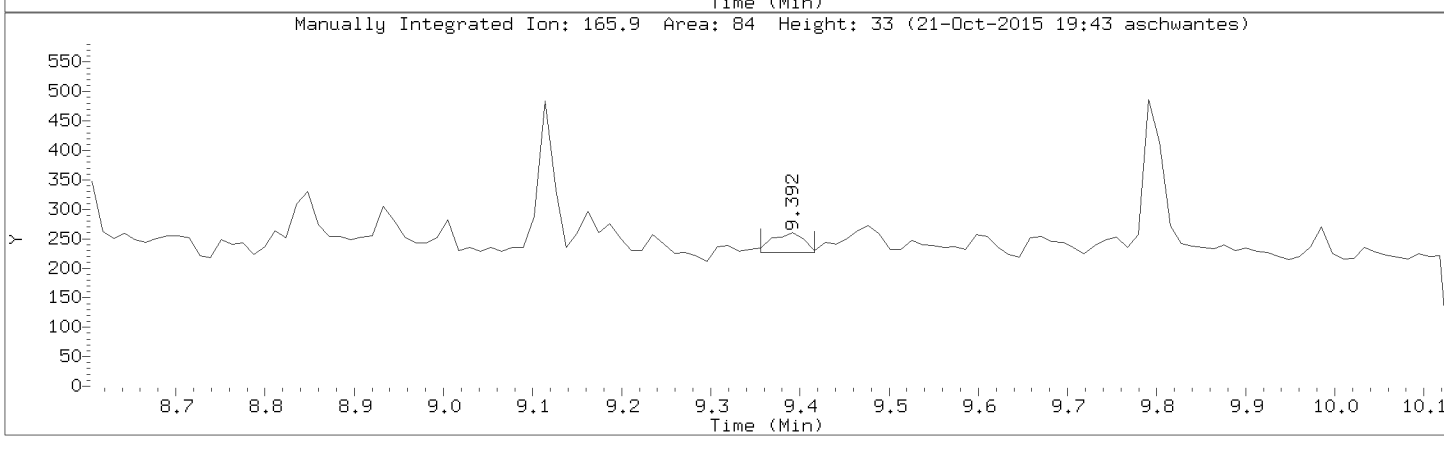
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211513.D
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009

Compound: Carbazole
CAS Number: 86-74-8

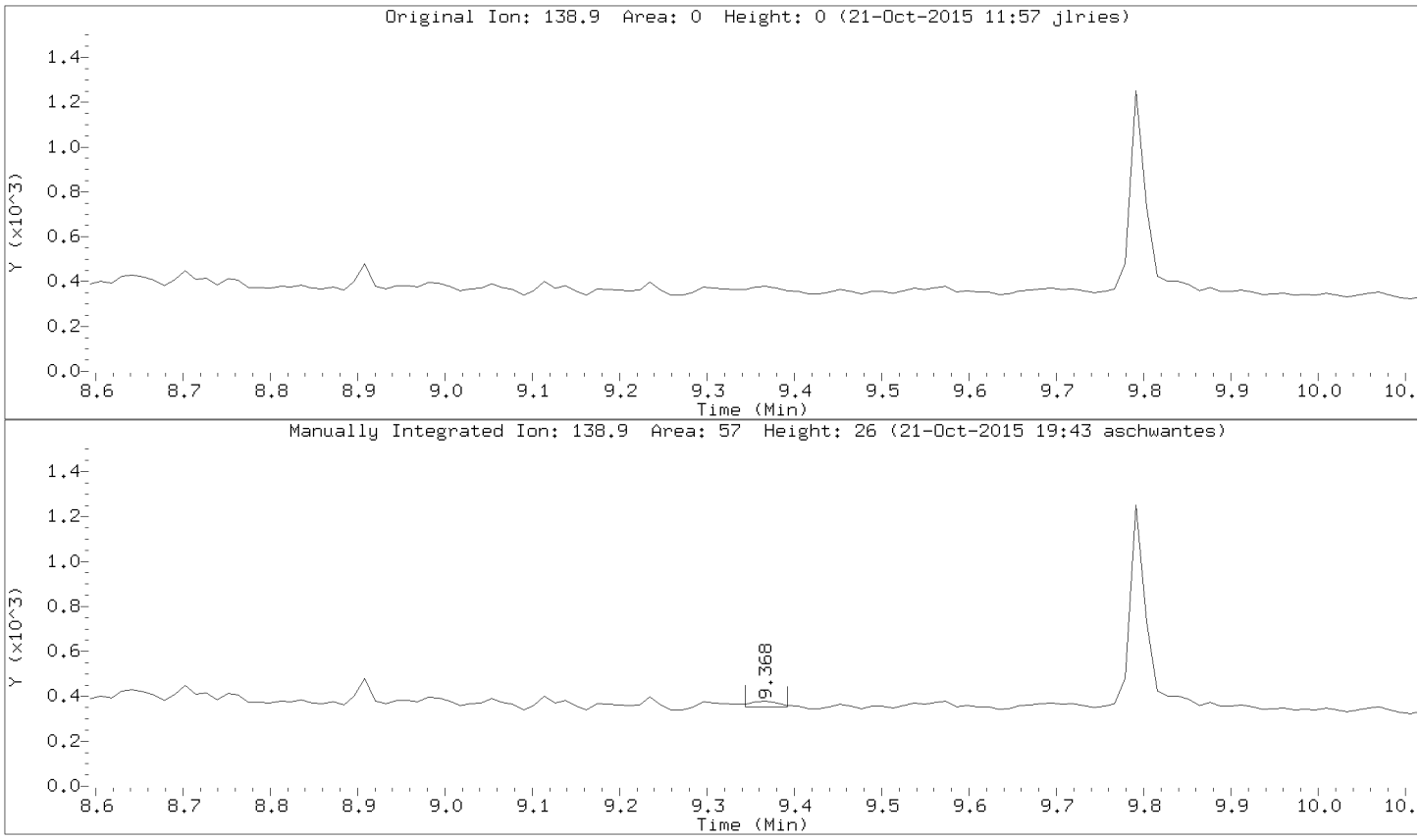








Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211513.D
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009



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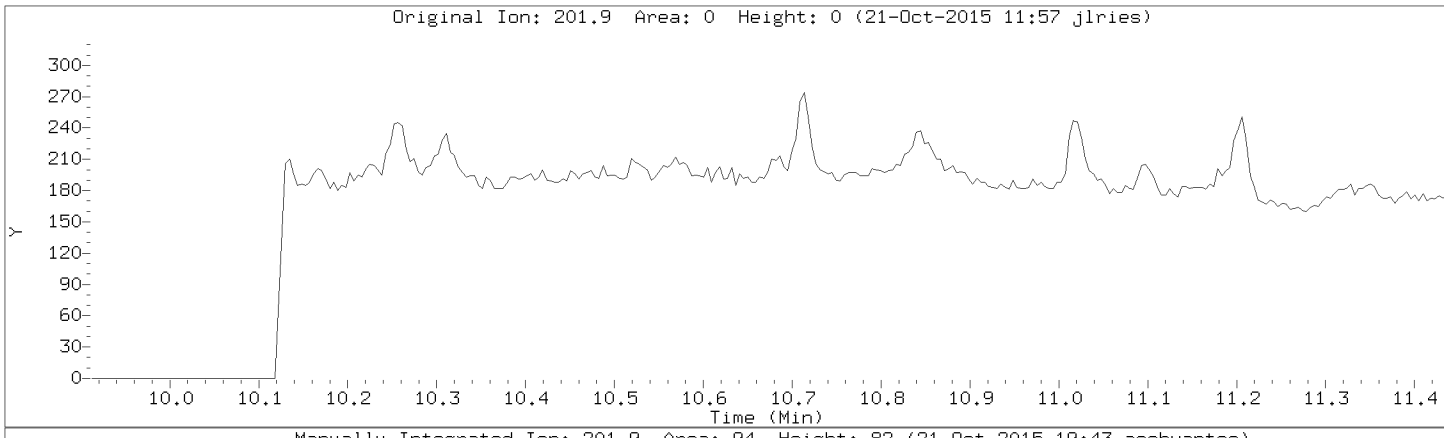
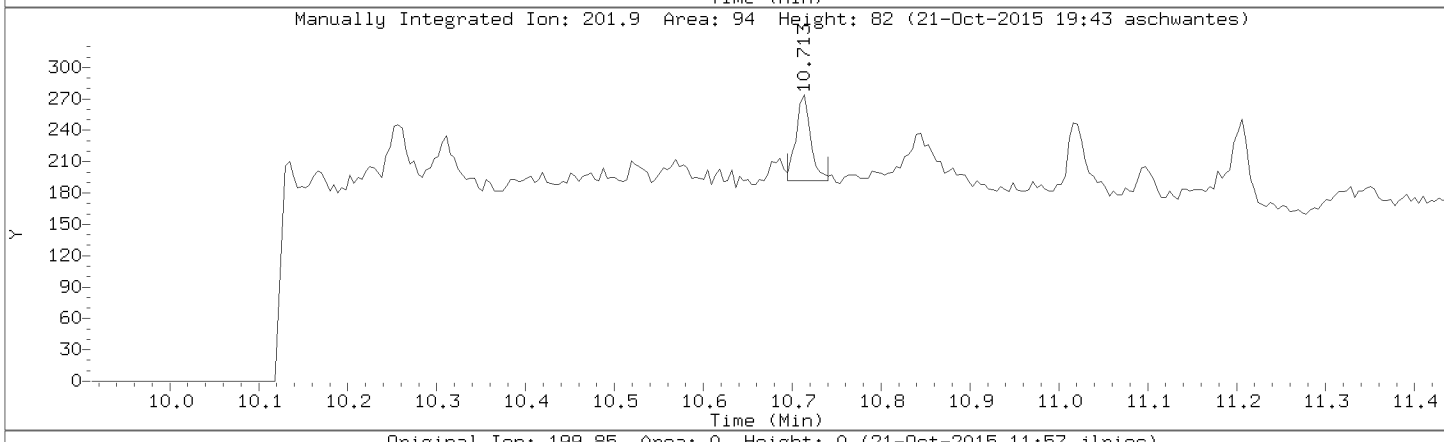
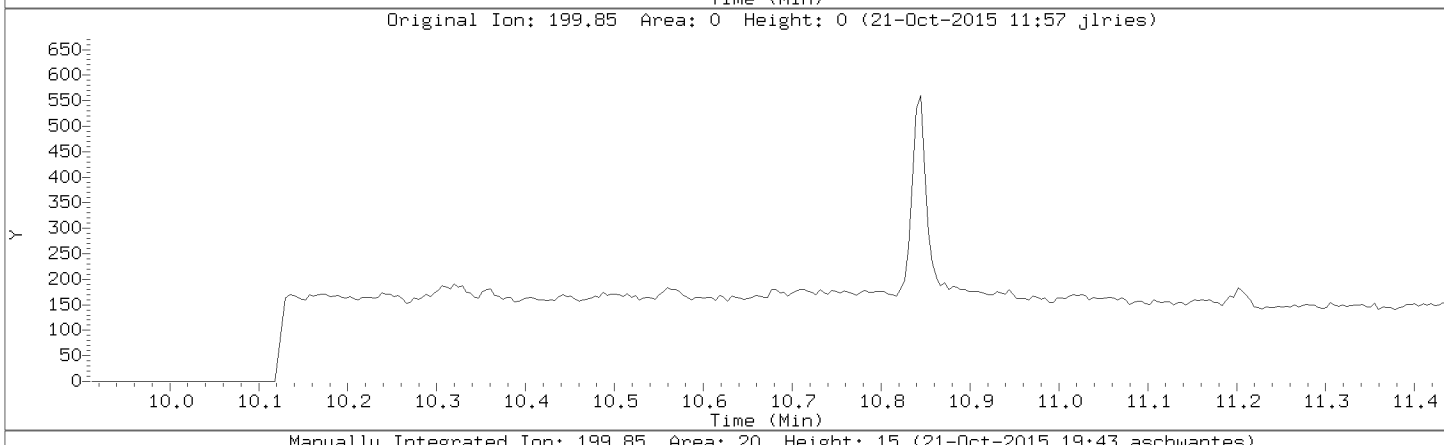
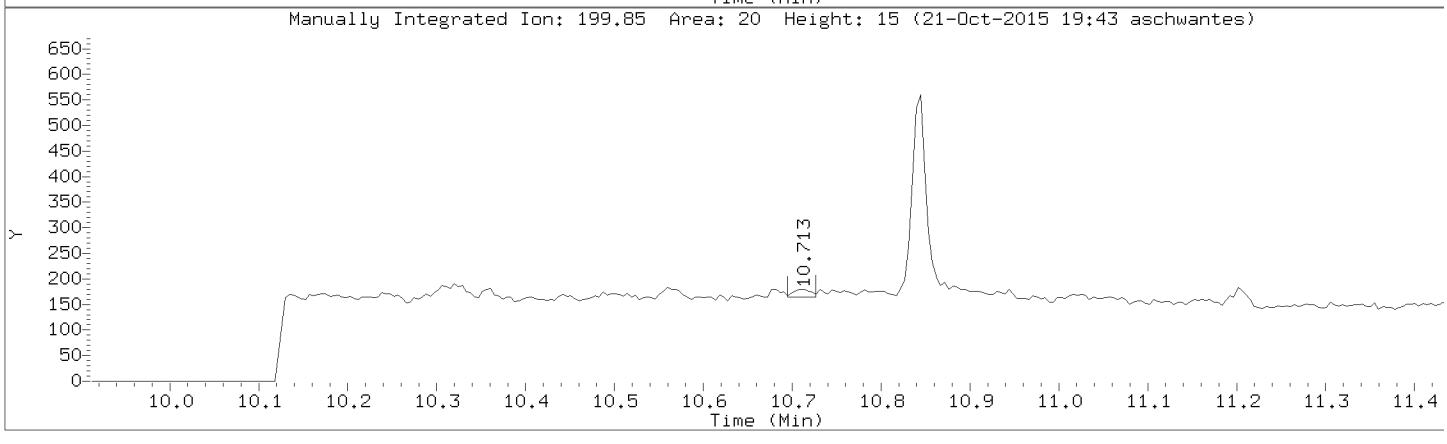
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009

Compound: Fluoranthene
CAS Number: 206-44-0









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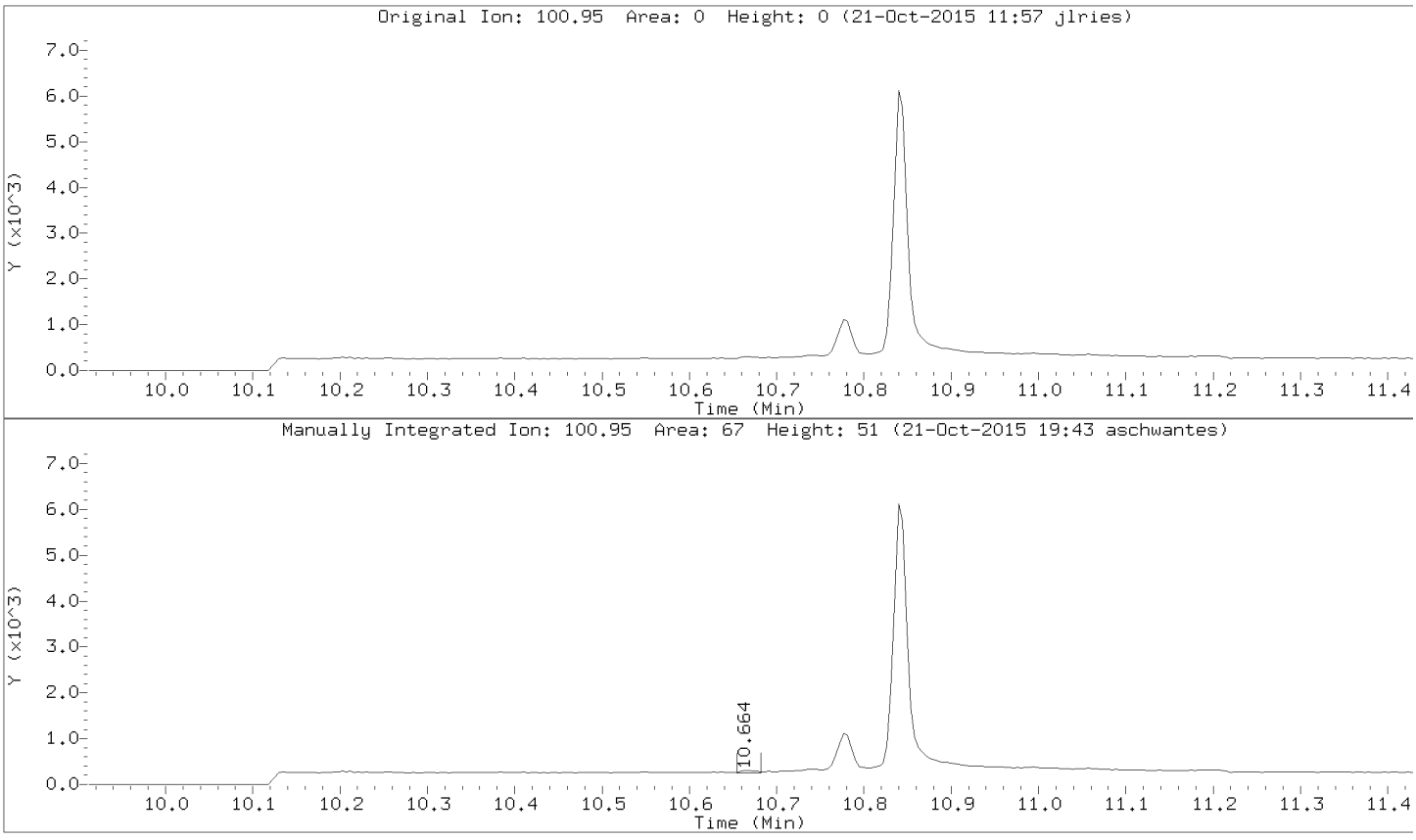
Instrument: 10mssA.i
Lab Sample ID: 10326303009



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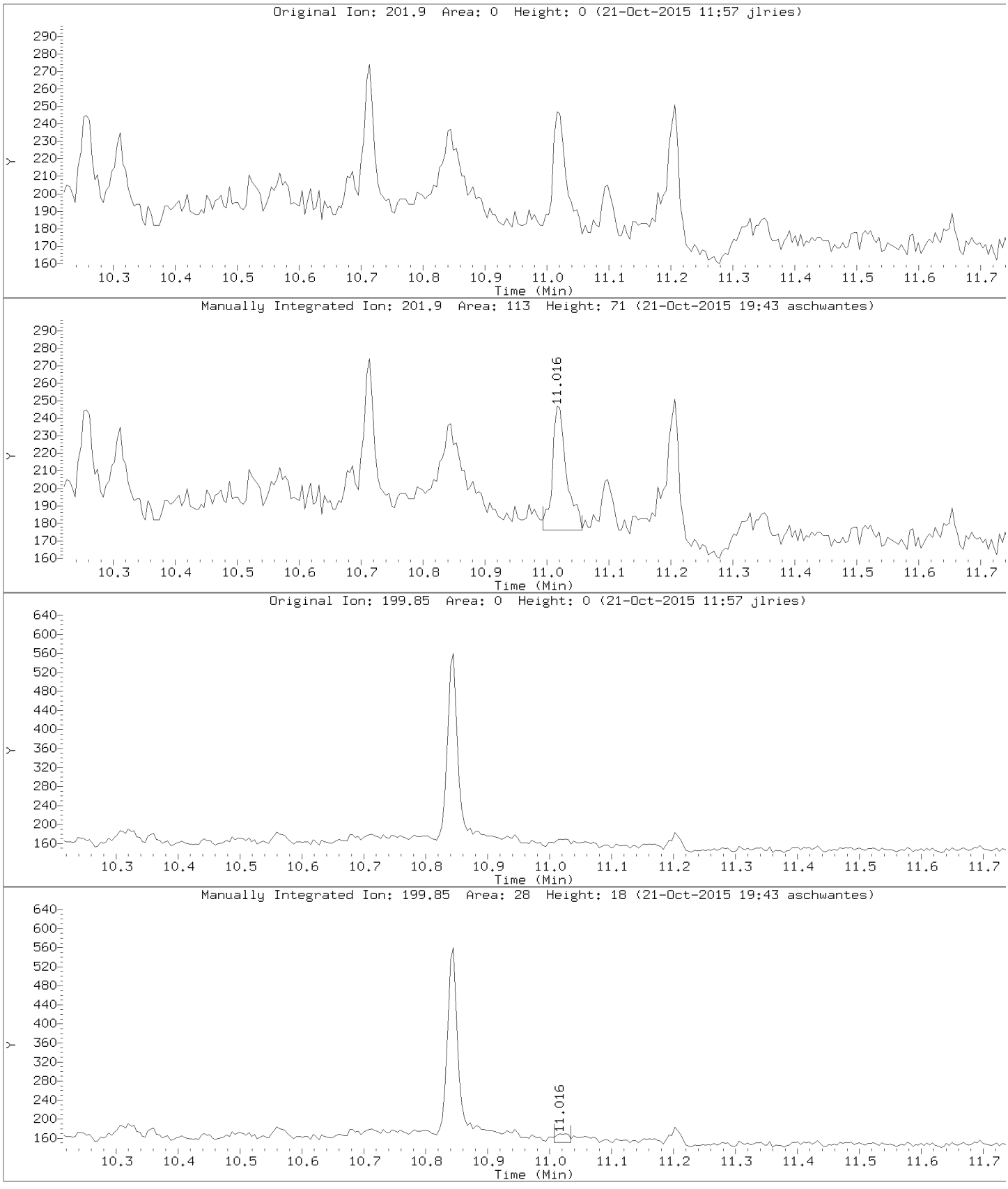
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009

Compound: Pyrene
CAS Number: 129-00-0



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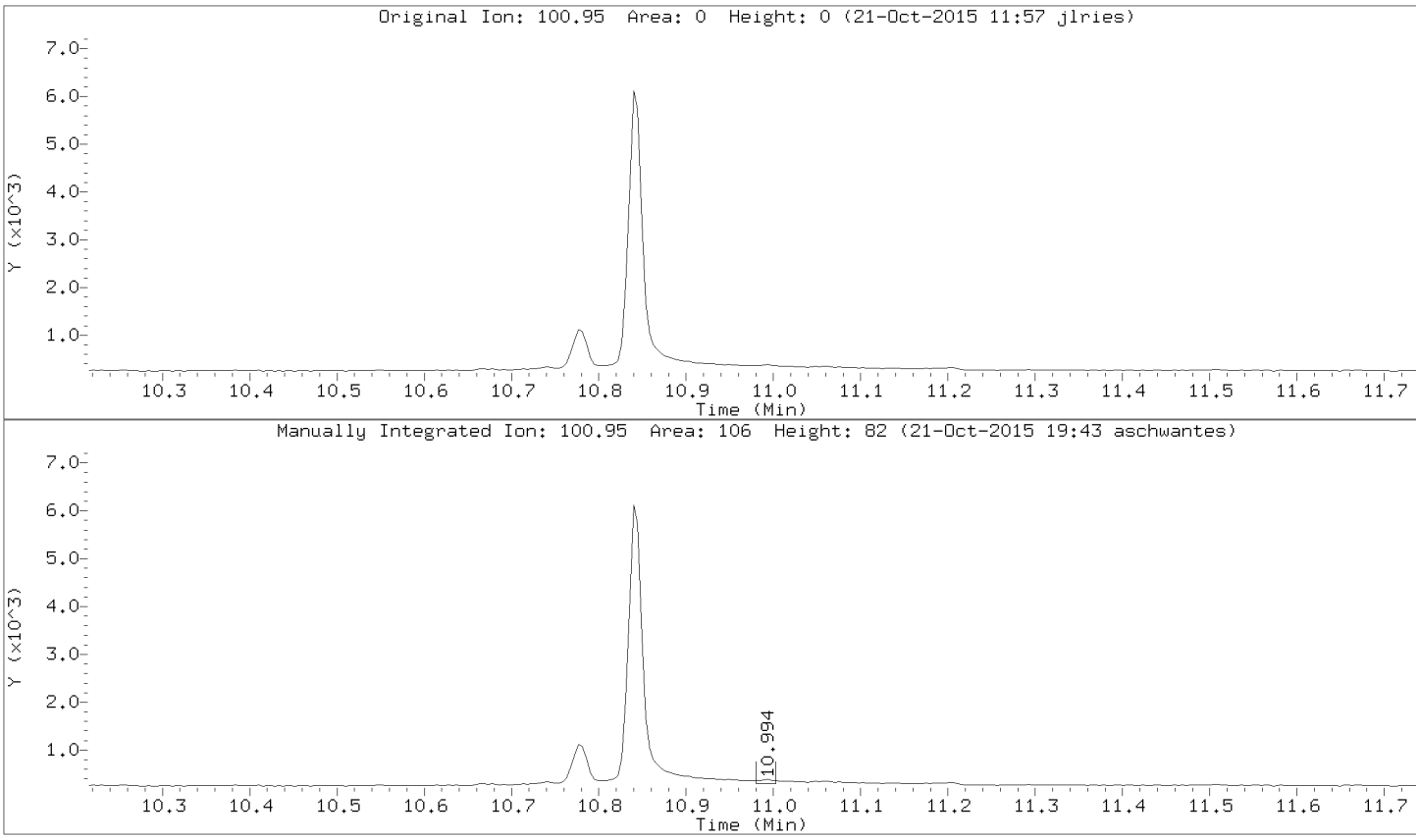
Instrument: 10mssA.i
Lab Sample ID: 10326303009



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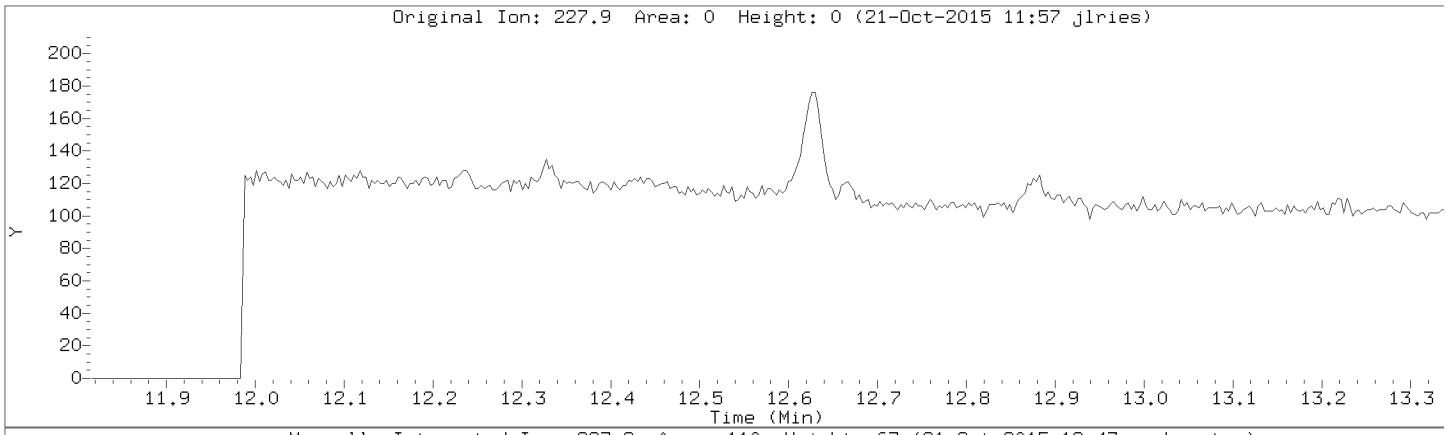
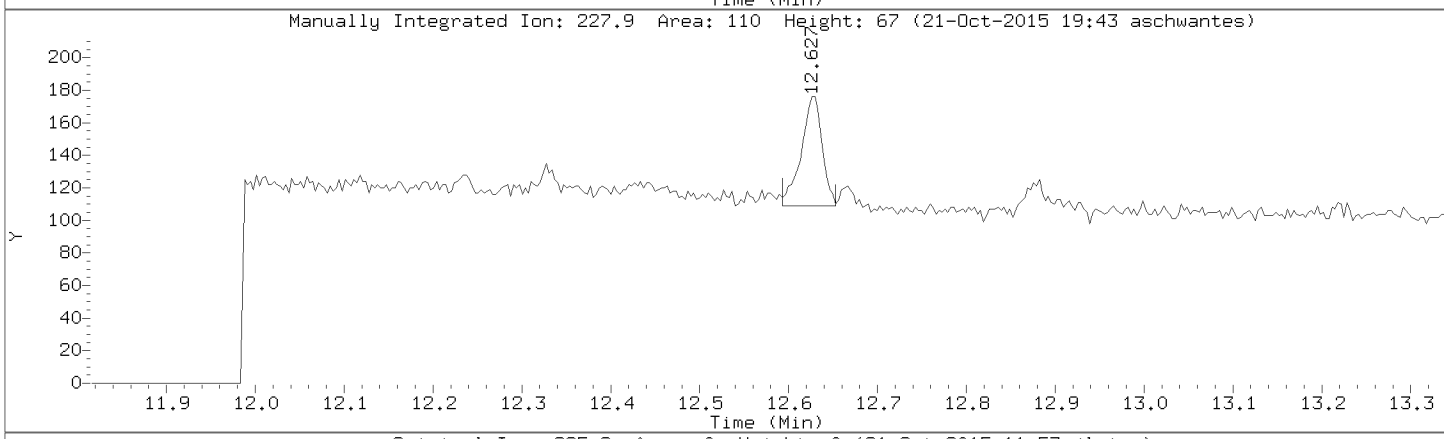
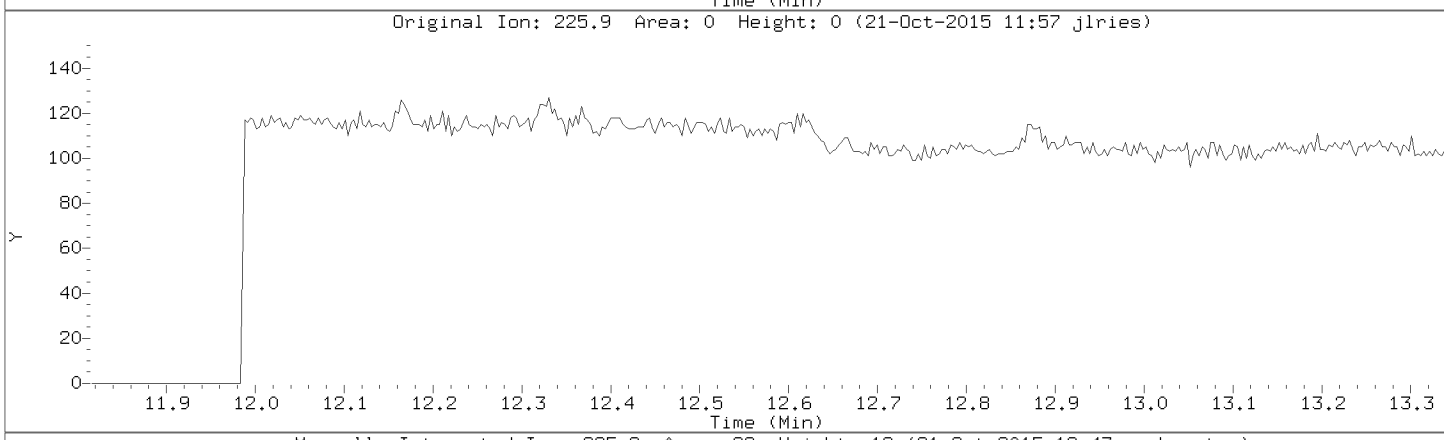
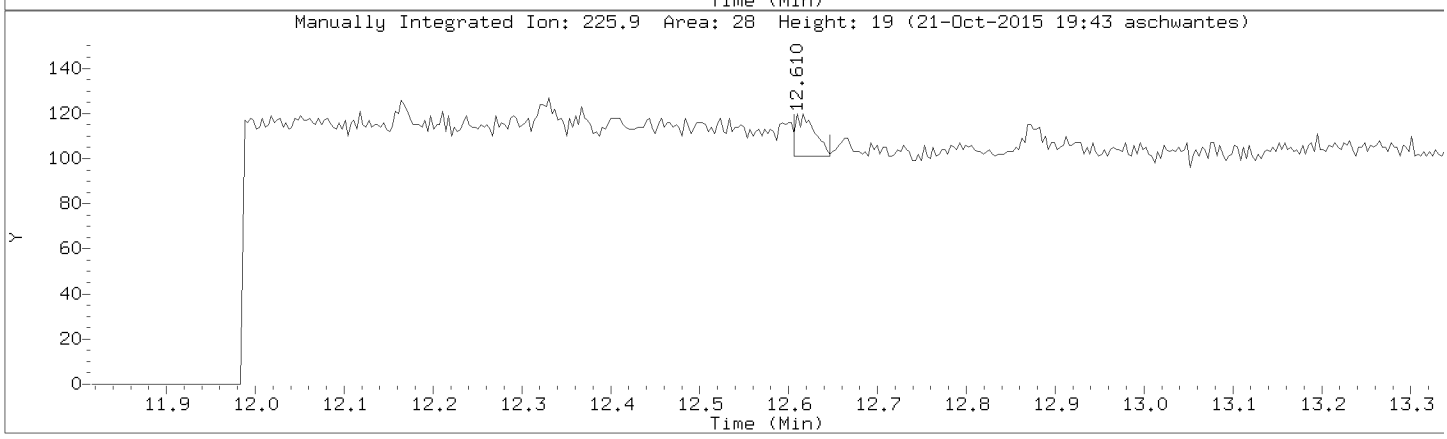
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009

Compound: Benzo(a)anthracene
CAS Number: 56-55-3

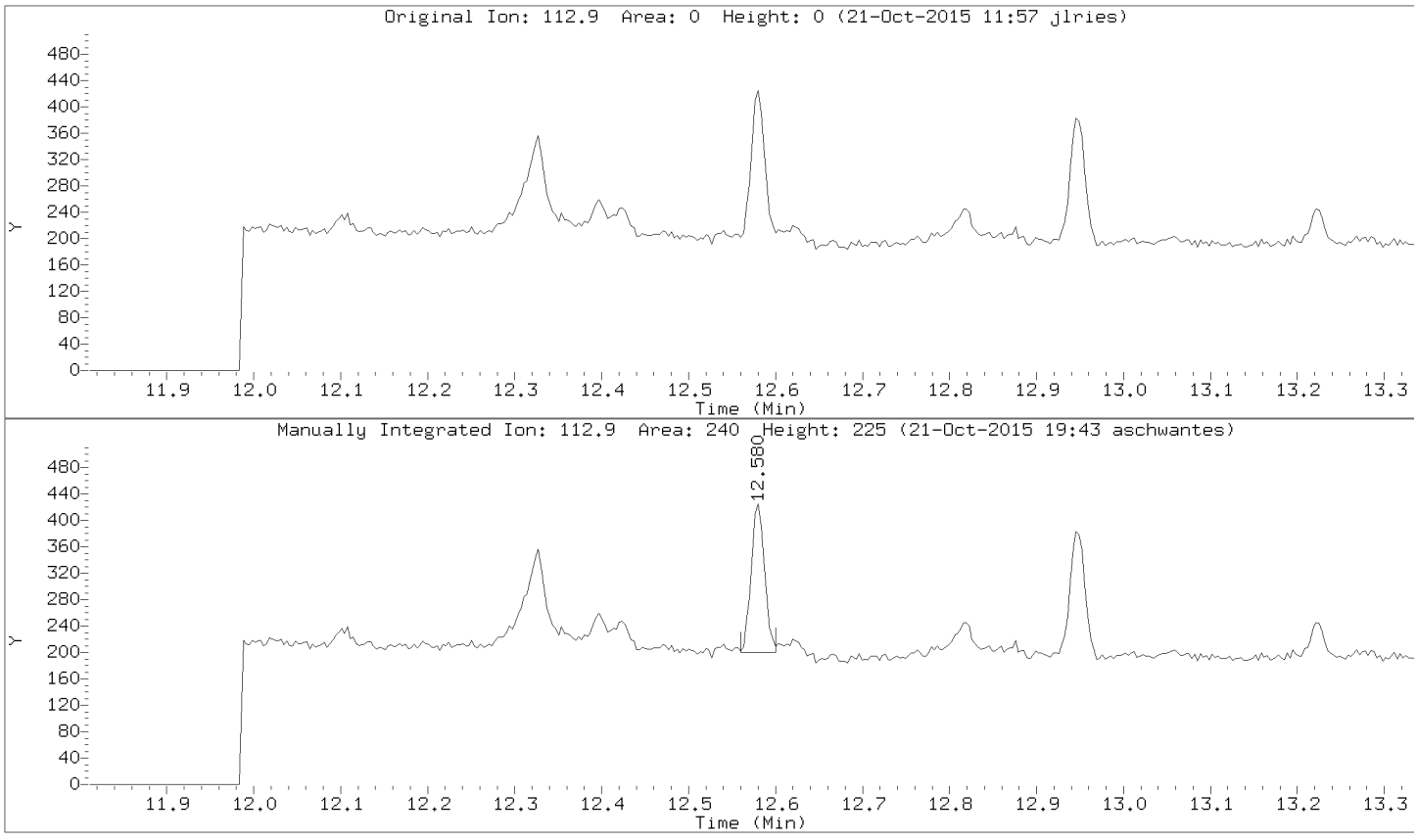






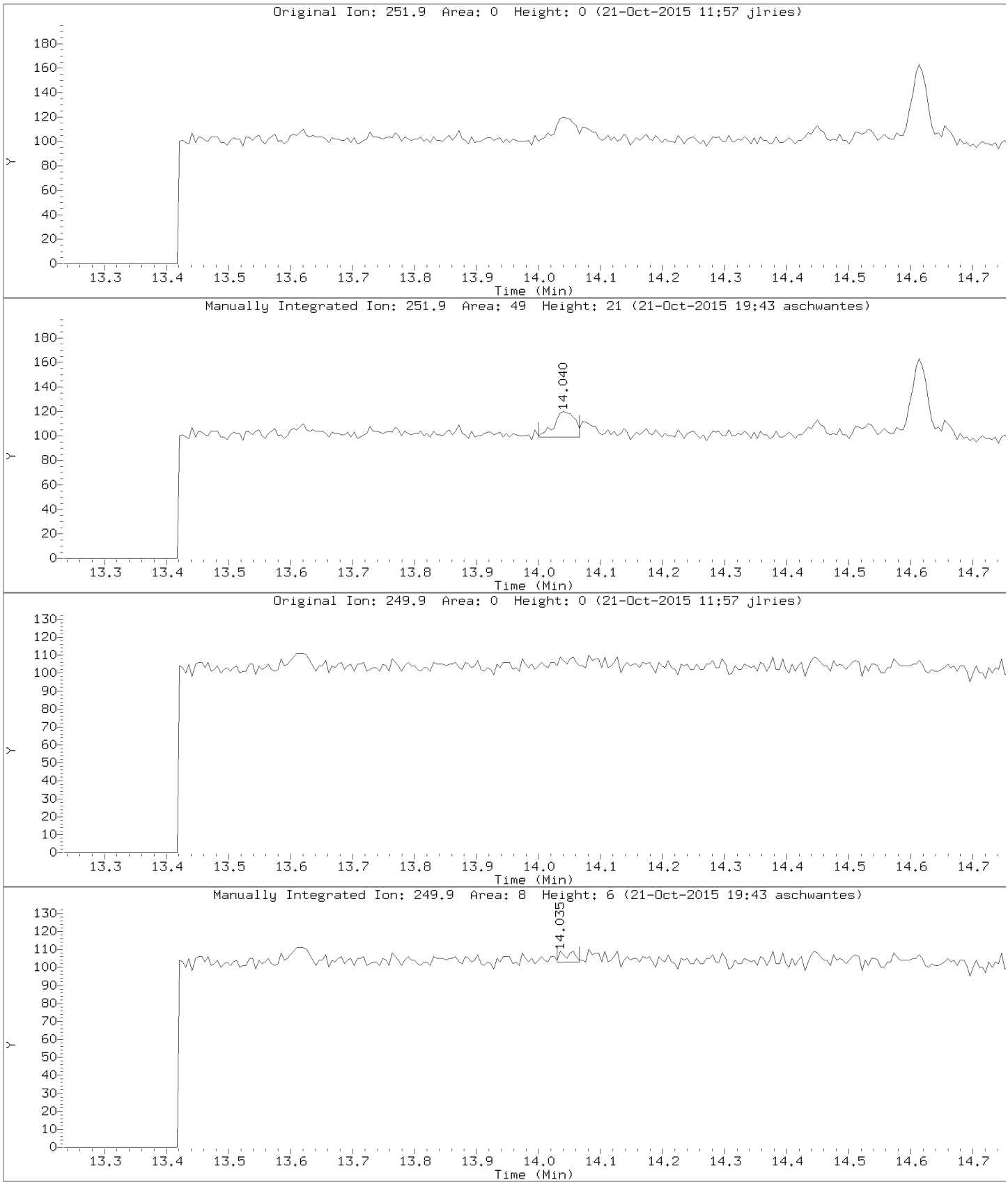


Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211513.D
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009



Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211513.D
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009

Compound: Benzo(b)fluoranthene
CAS Number: 205-99-2



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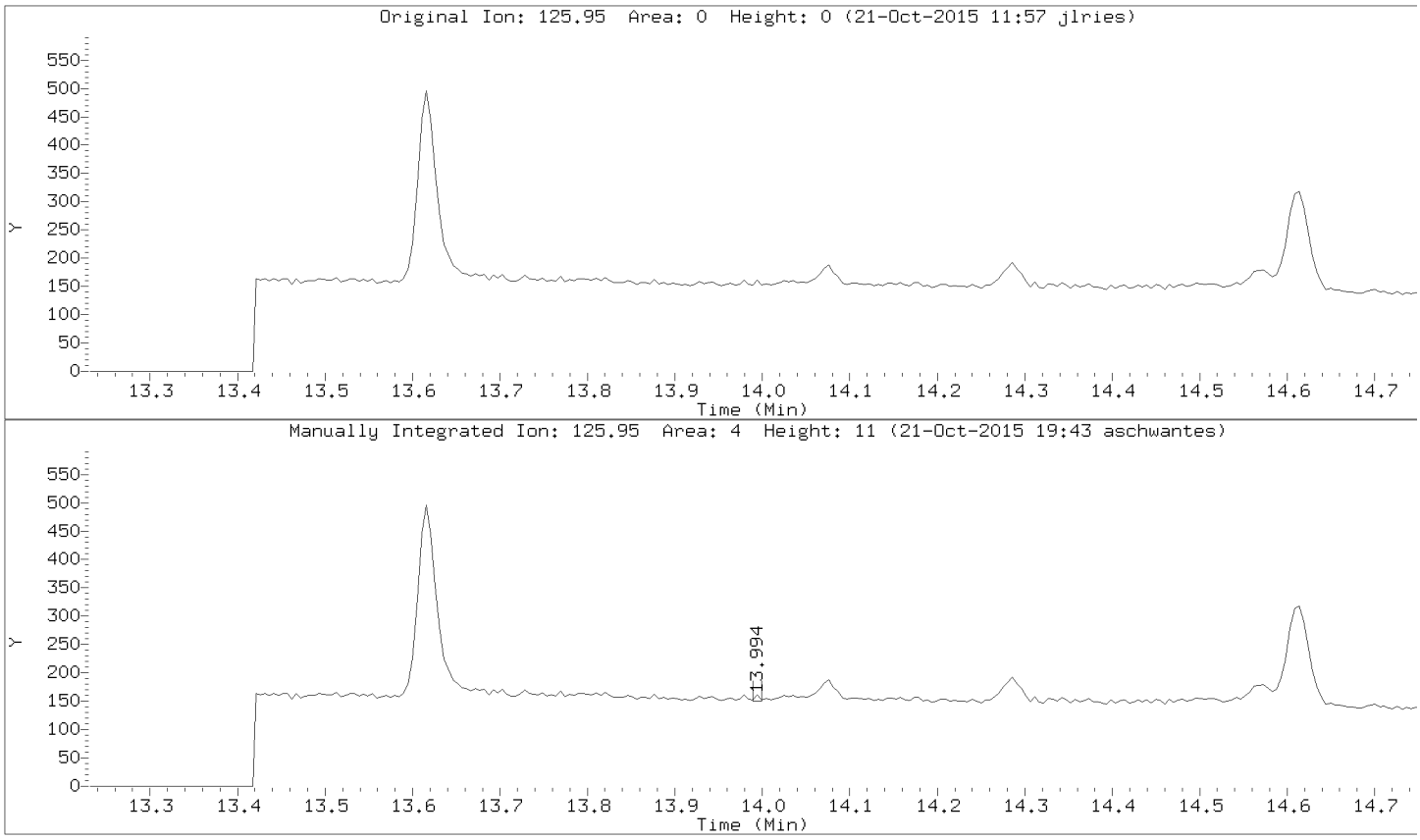
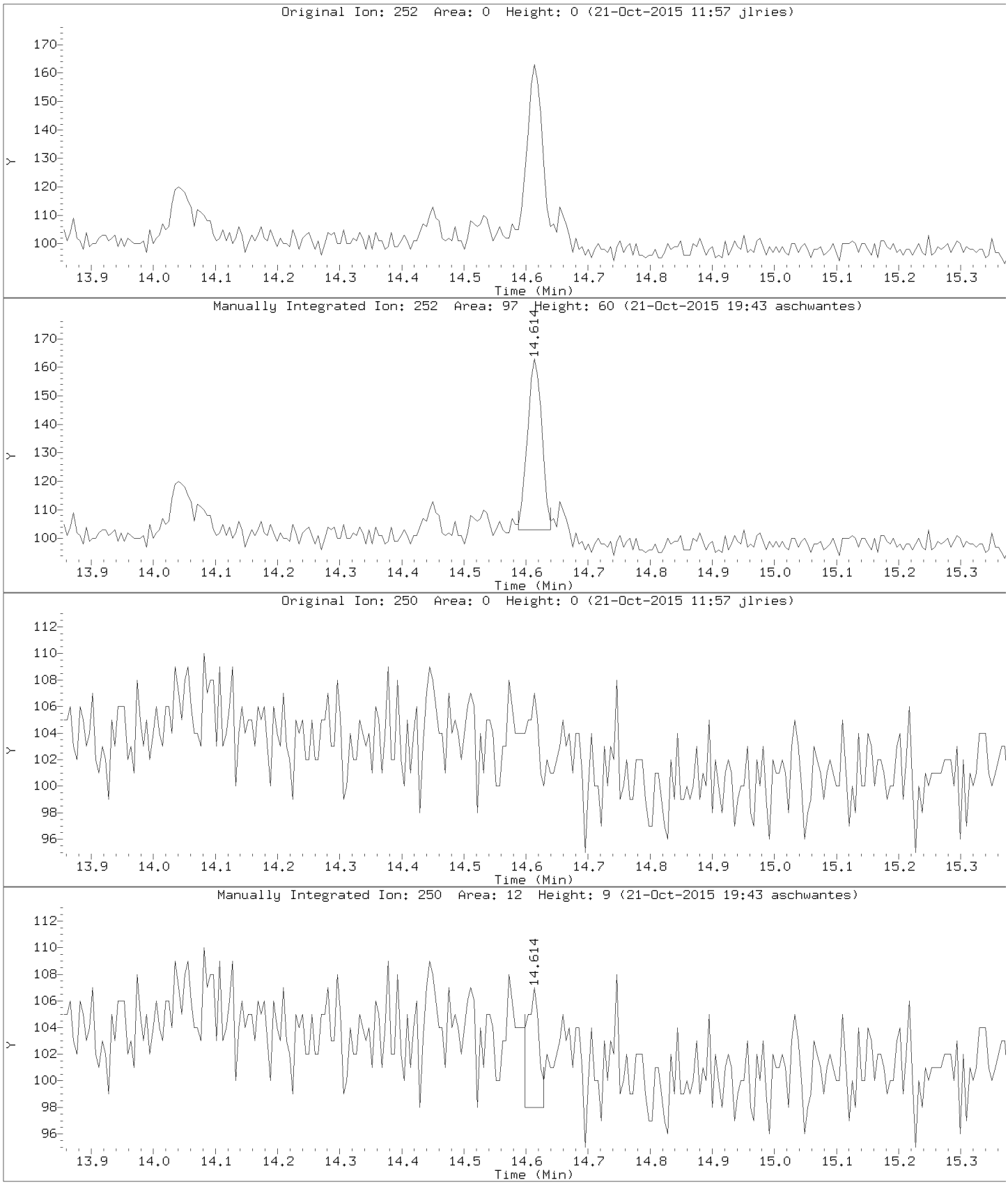
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009



Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211513.D
Injection Date: 21-OCT-2015 11:25
Instrument: 10mssA.i
Lab Sample ID: 10326303009

Compound: Perylene
CAS Number:



Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

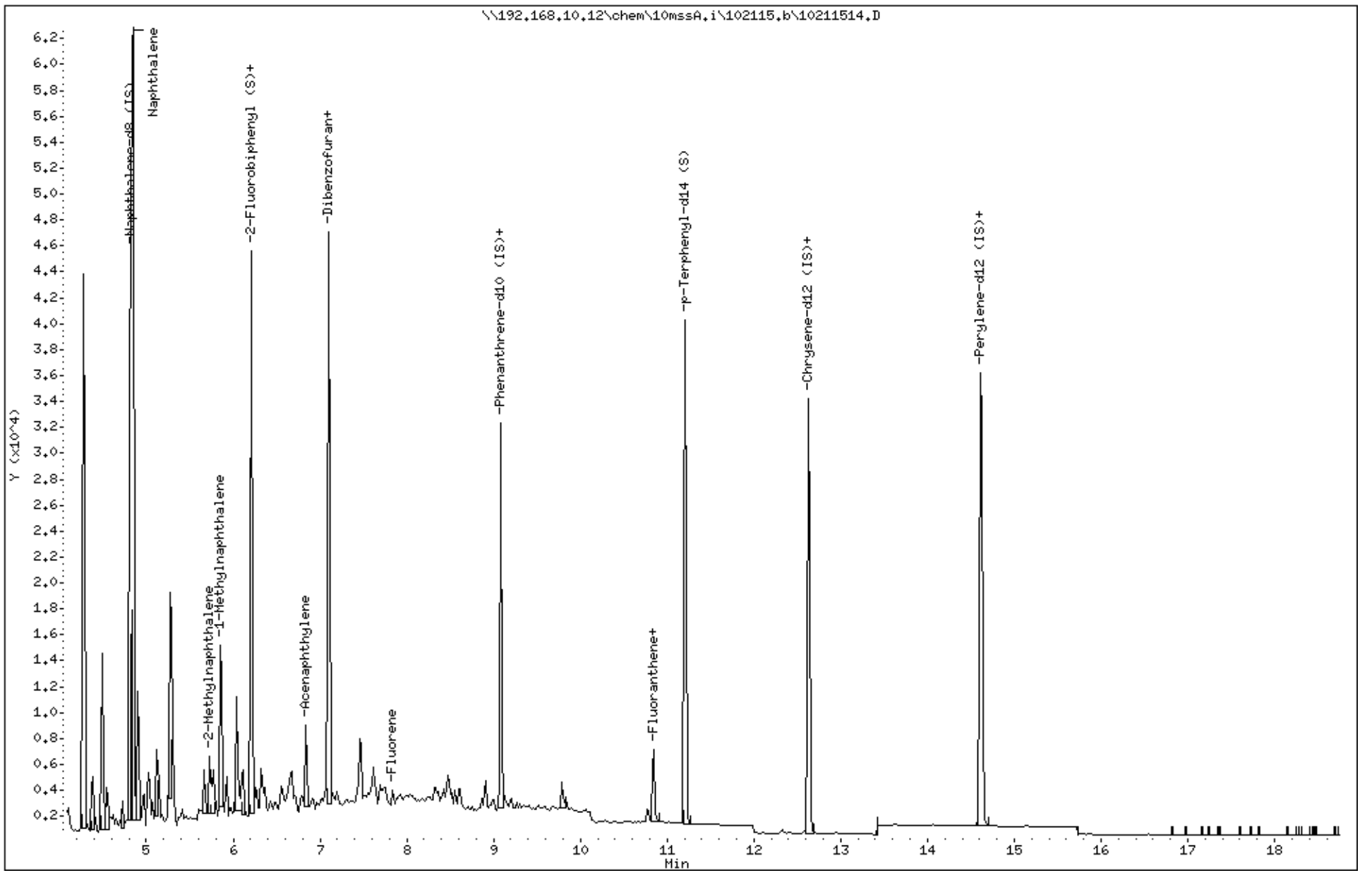
Sample Info: 10326303010,

Volume Injected (uL): 1.0

Operator: AS1

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

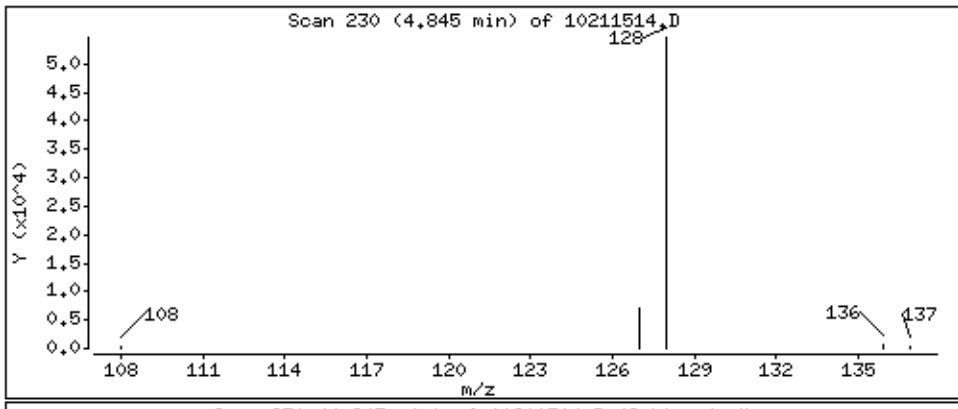
Operator: AS1

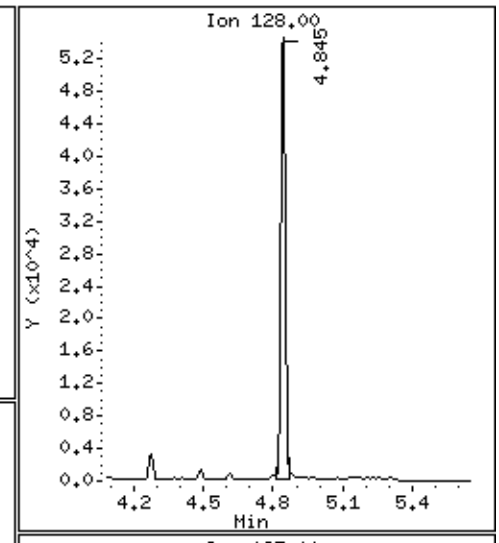
Column phase: DB-5MS

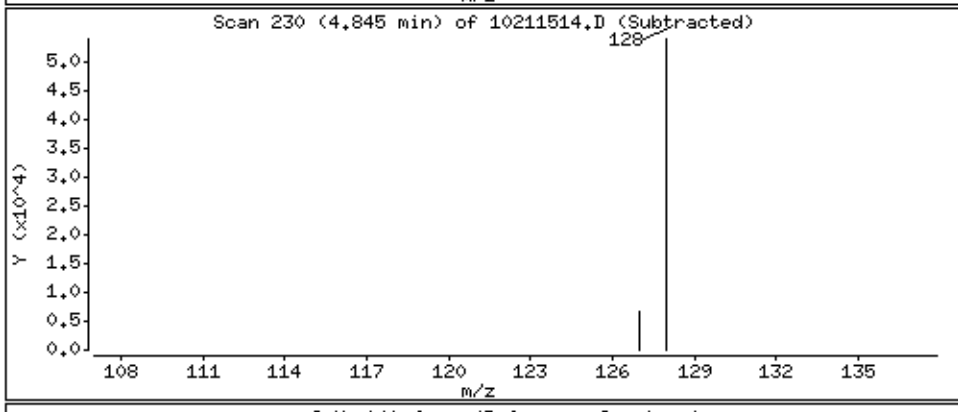
Column diameter: 0.25

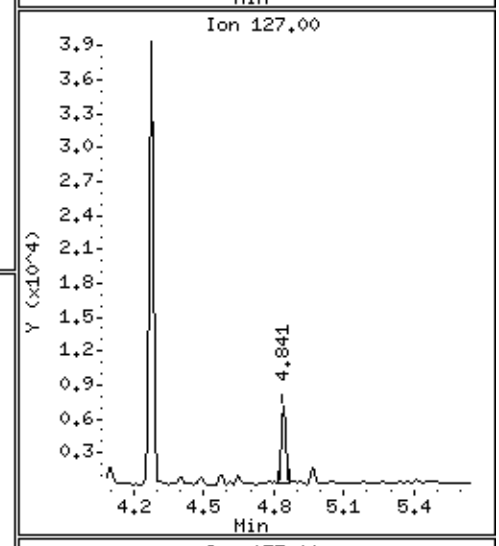
2 Naphthalene

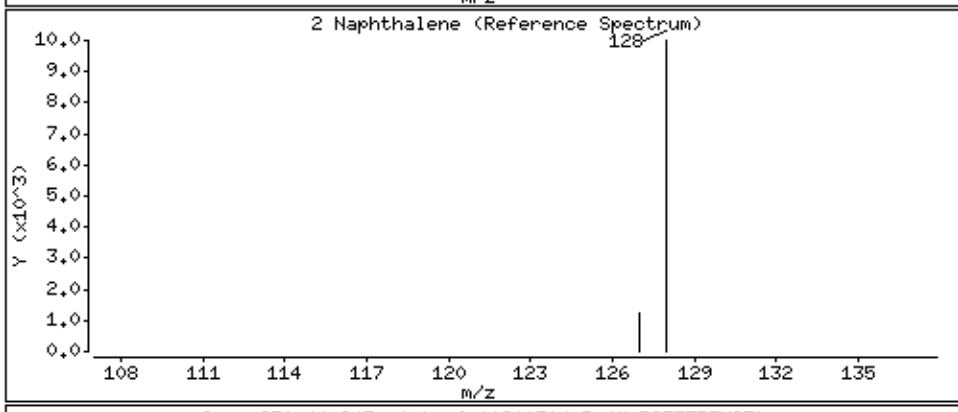
Concentration: 3.31 ug/L

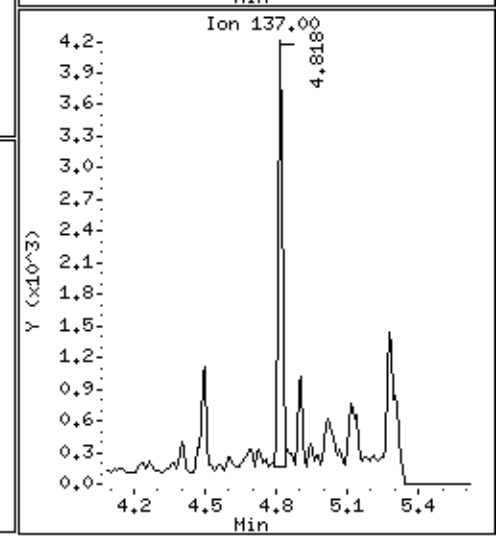


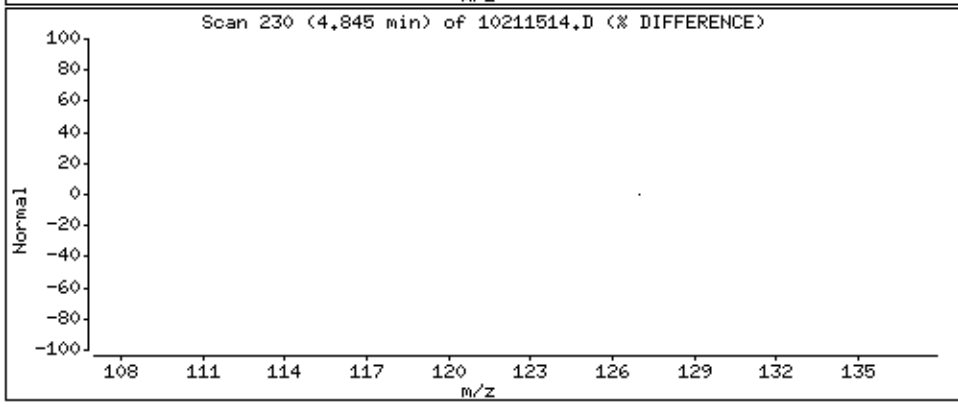












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

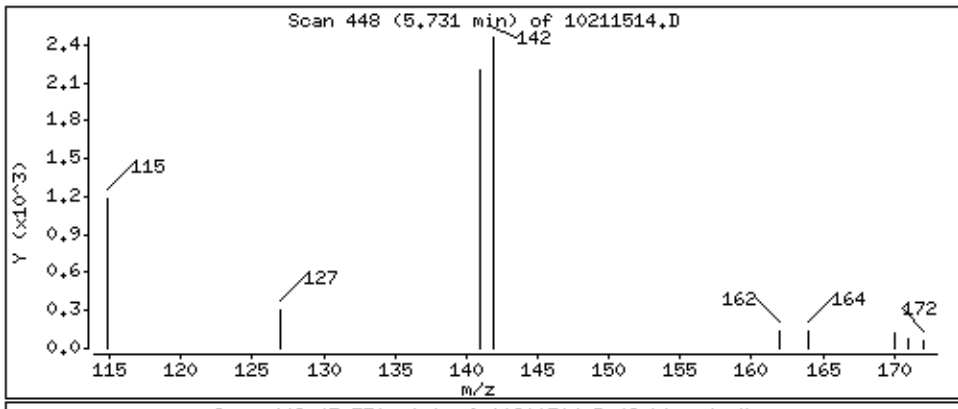
Operator: AS1

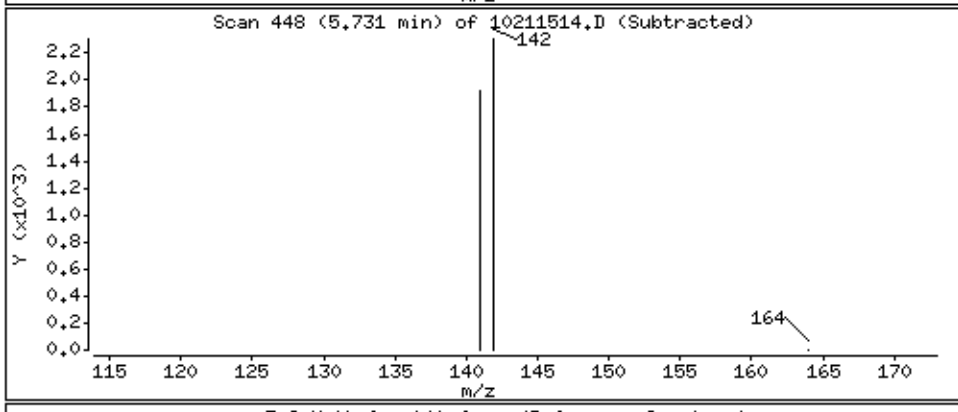
Column phase: DB-5MS

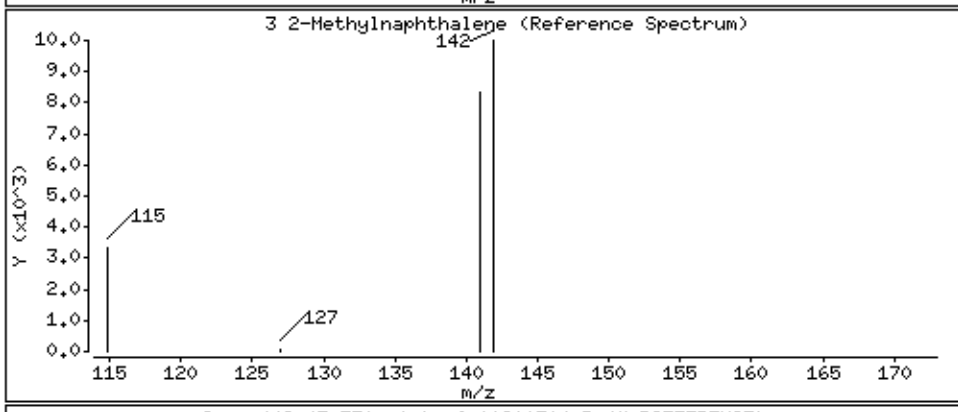
Column diameter: 0.25

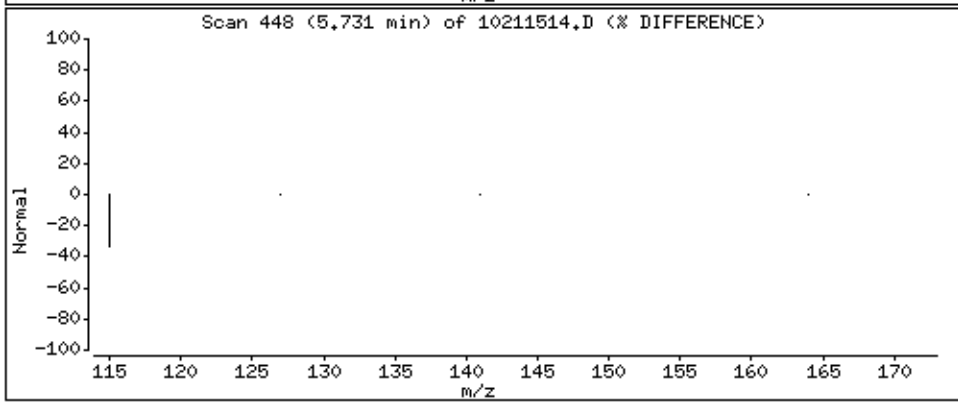
3 2-Methylnaphthalene

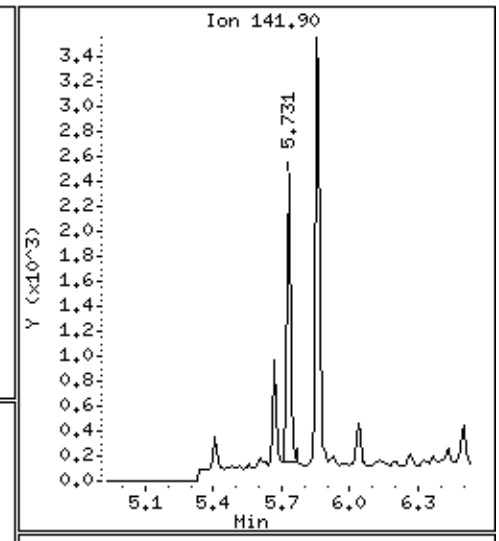
Concentration: 0.228 ug/L

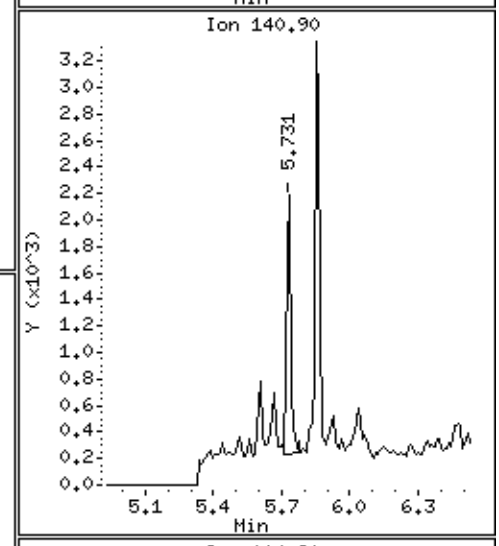


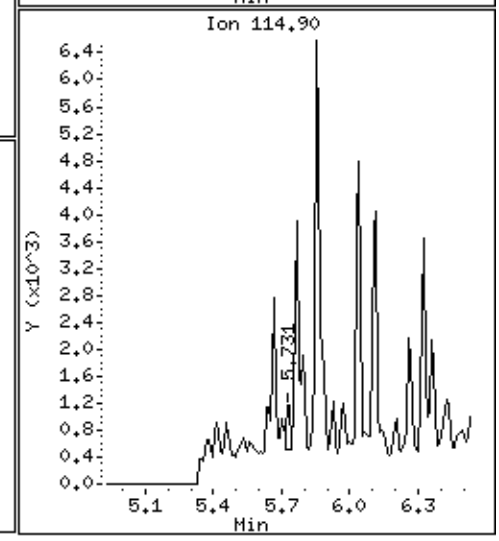












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

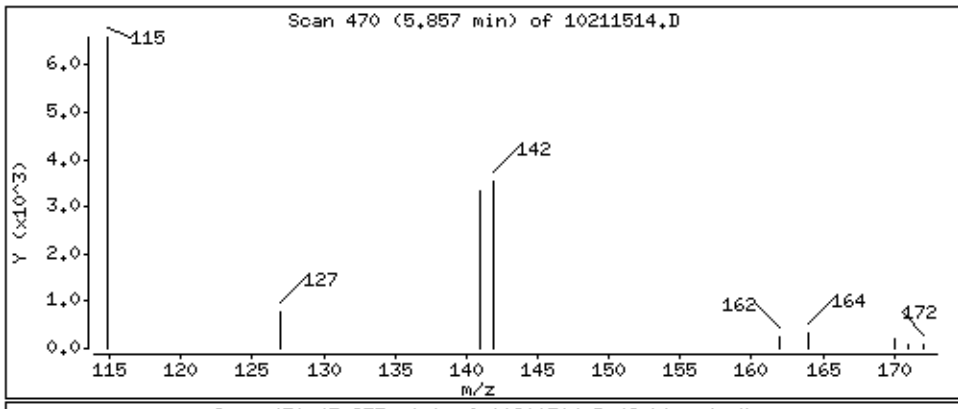
Operator: AS1

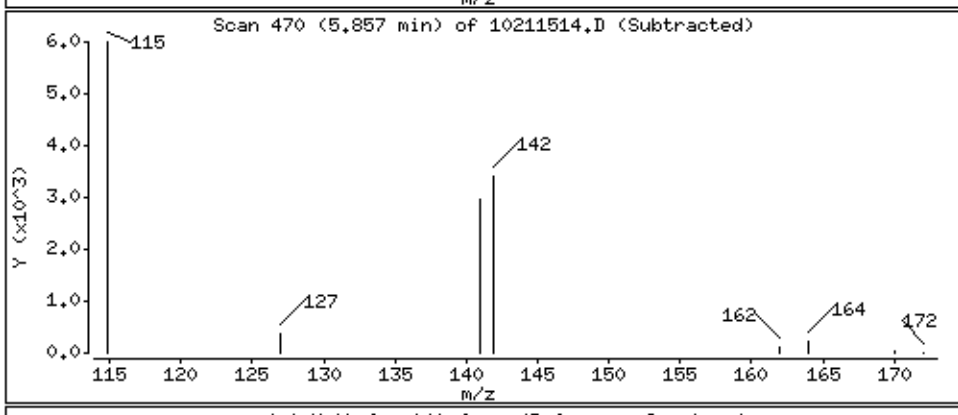
Column phase: DB-5MS

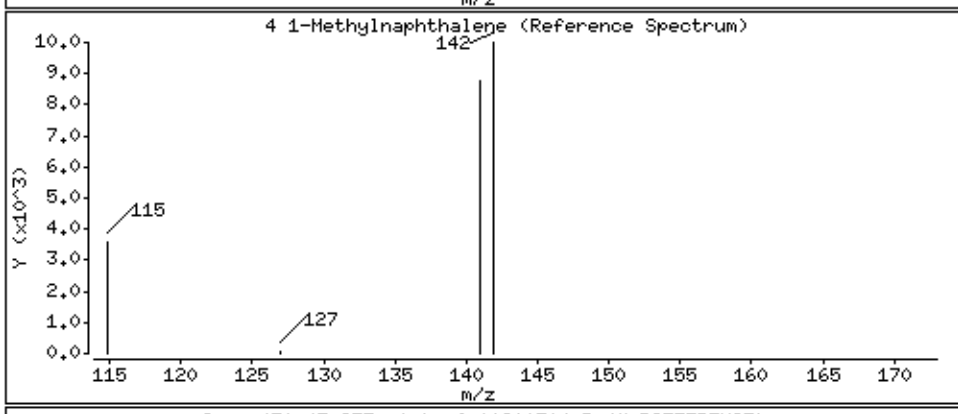
Column diameter: 0.25

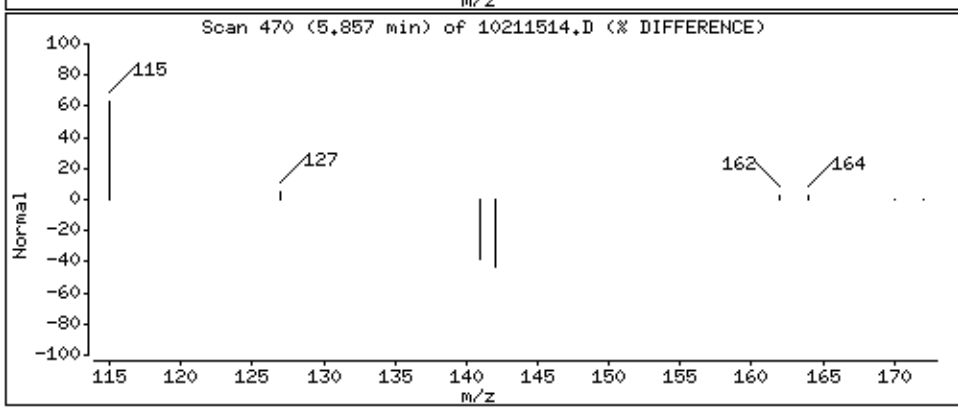
4 1-Methylnaphthalene

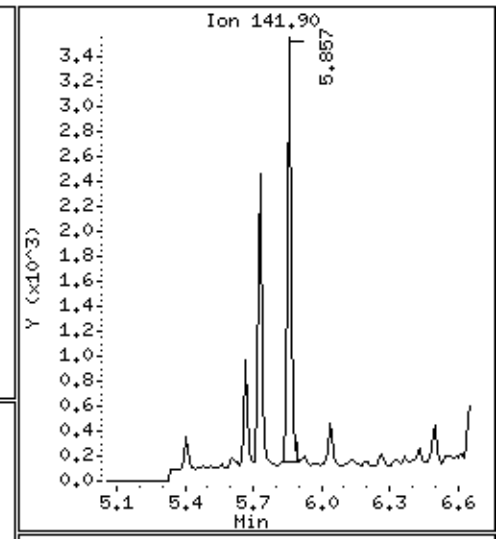
Concentration: 0.383 ug/L

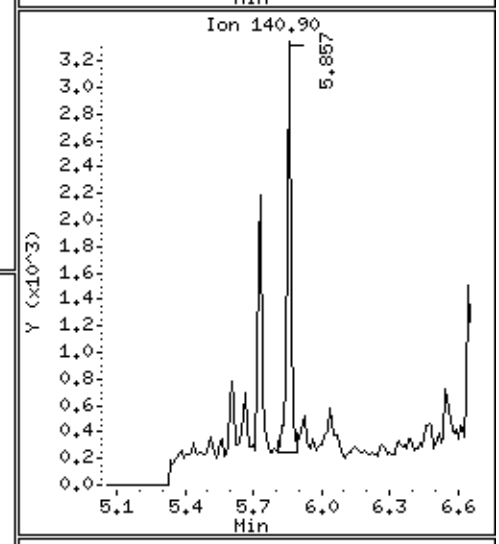


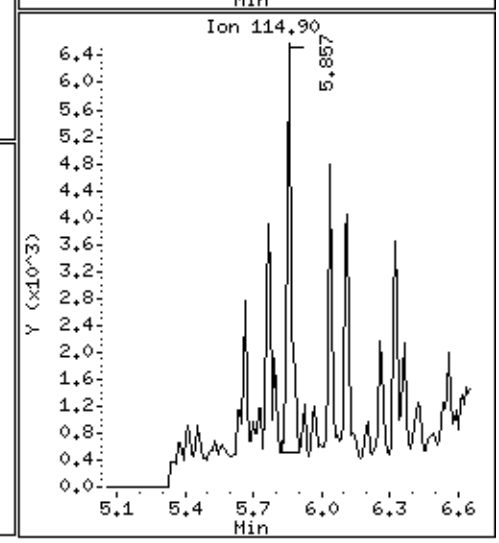












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

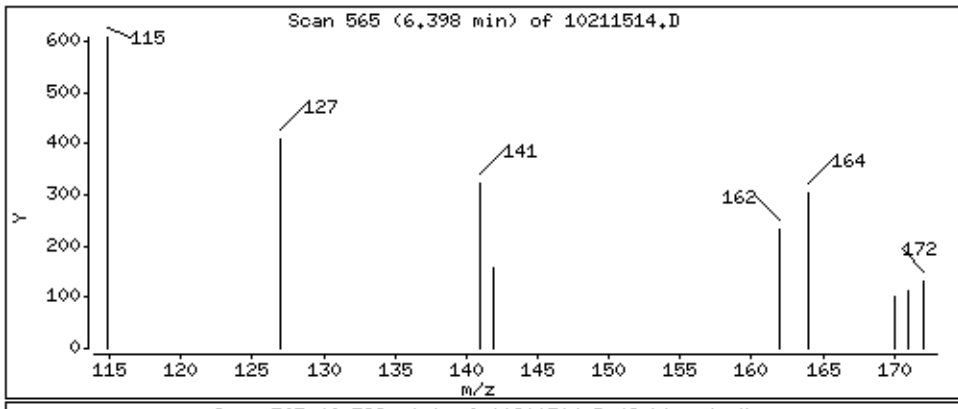
Operator: AS1

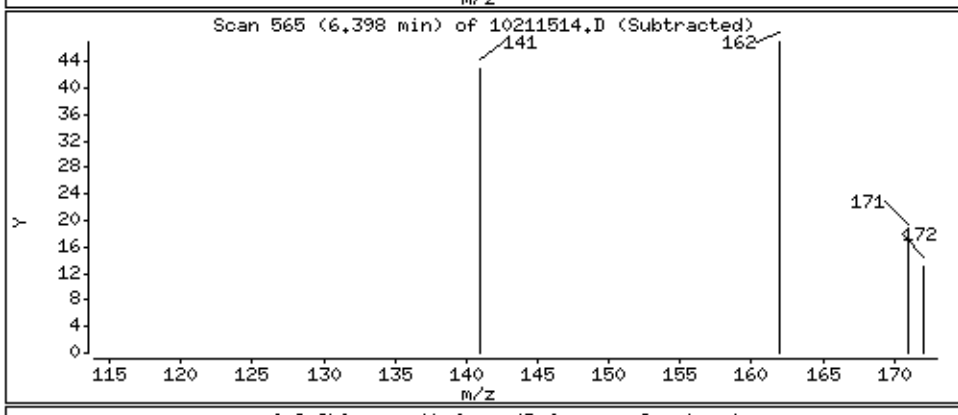
Column phase: DB-5MS

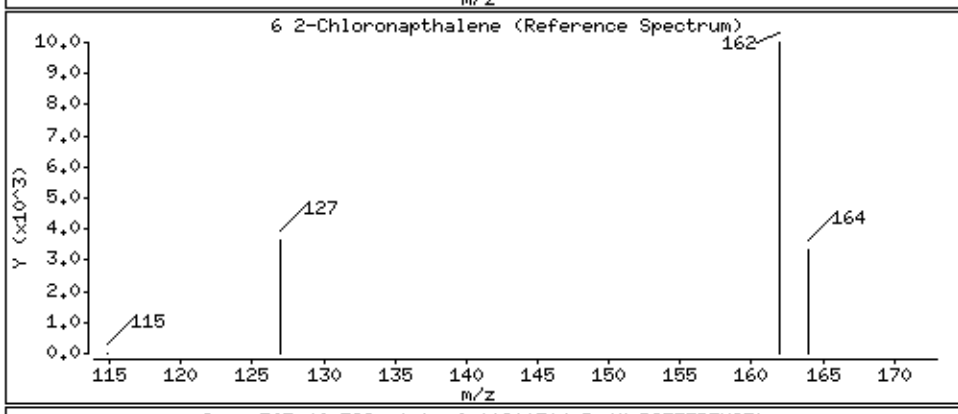
Column diameter: 0.25

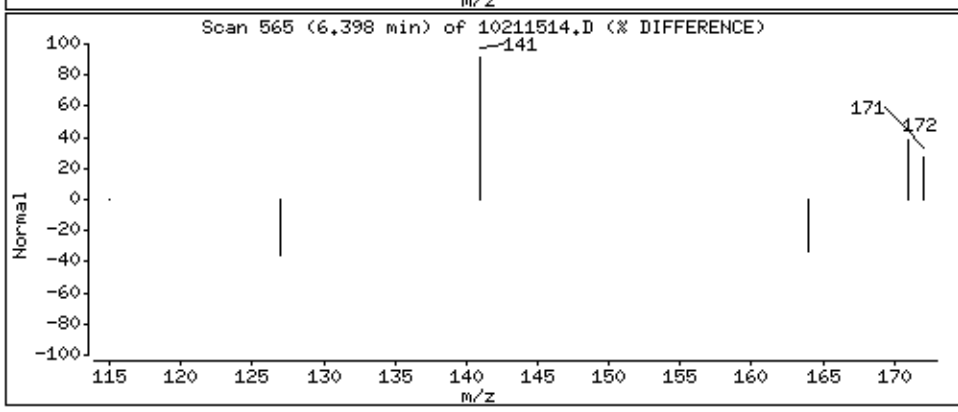
6 2-Chloronapthalene

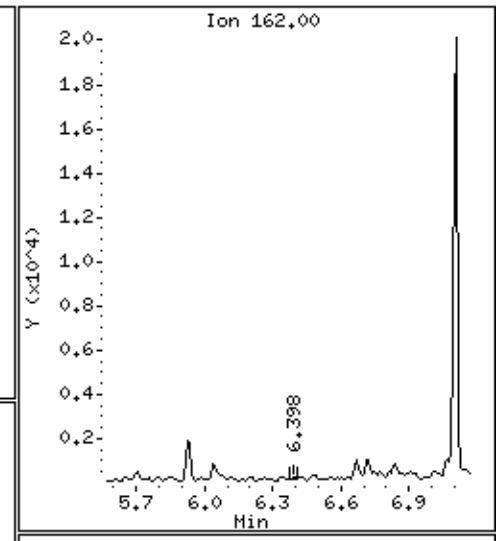
Concentration: 0.0111 ug/L

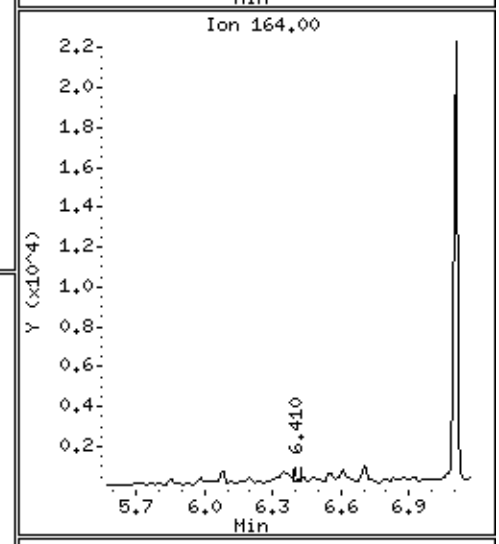


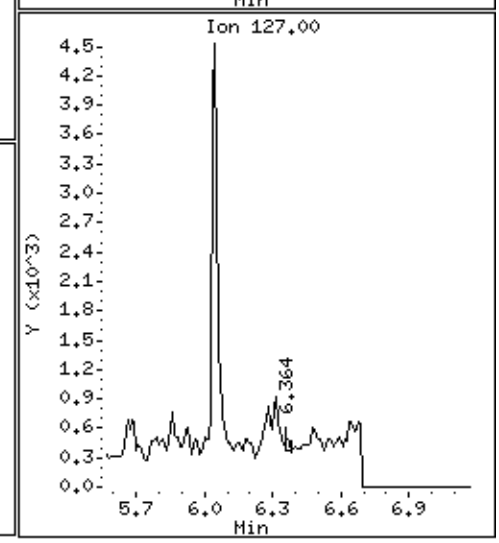












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

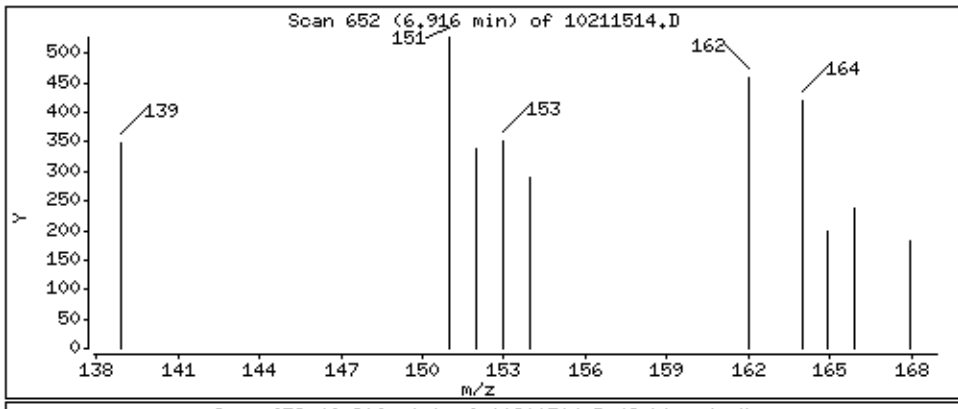
Operator: AS1

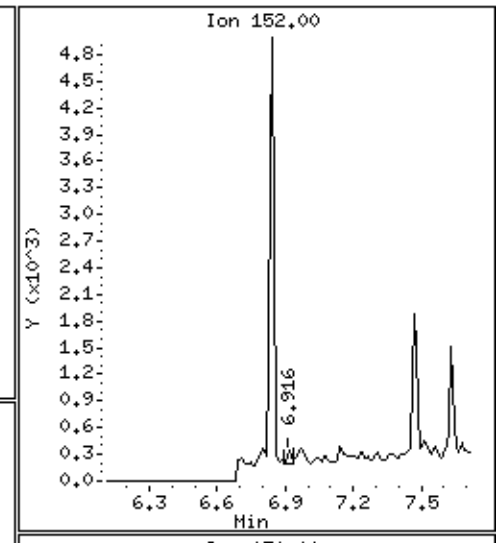
Column phase: DB-5MS

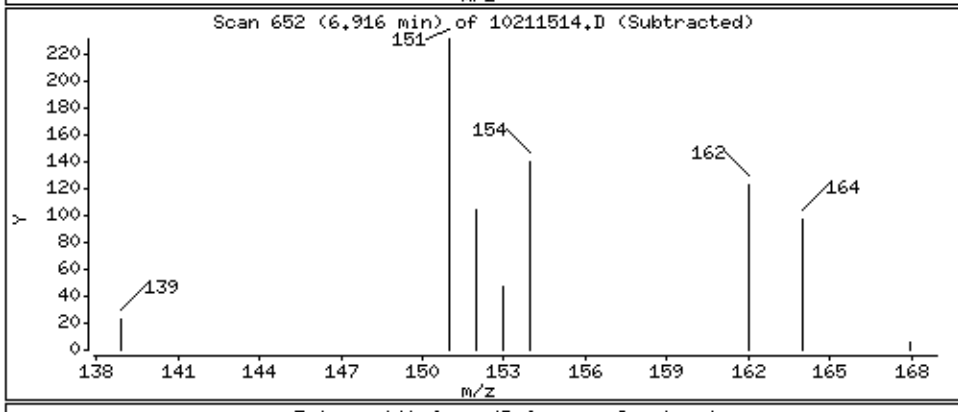
Column diameter: 0.25

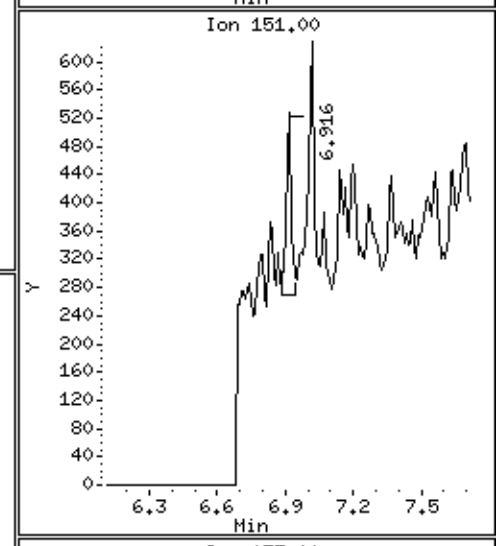
7 Acenaphthylene

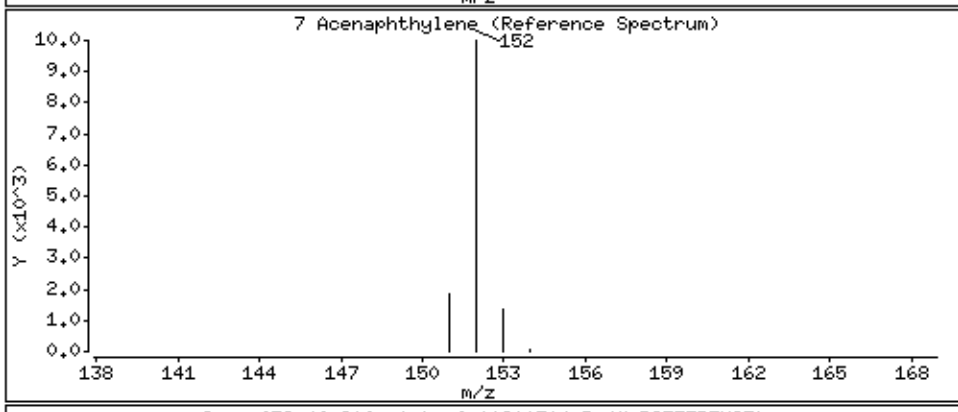
Concentration: 0.00967 ug/L

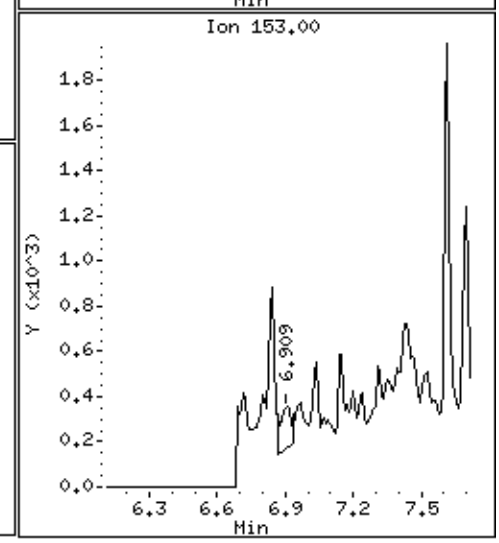


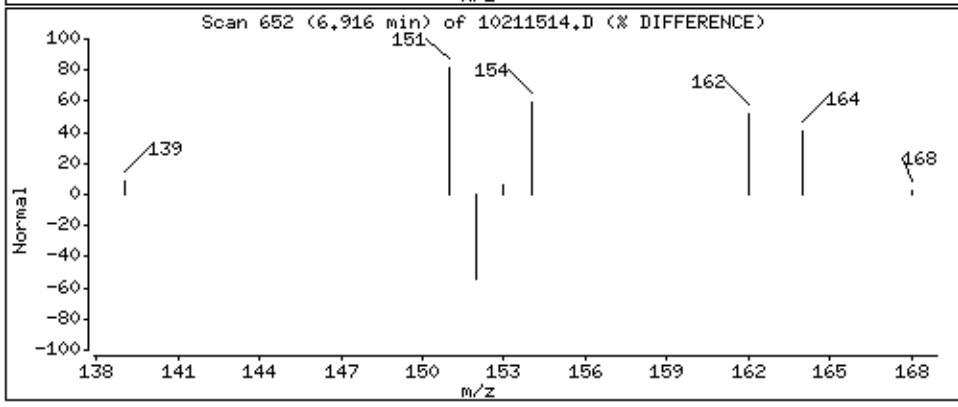












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

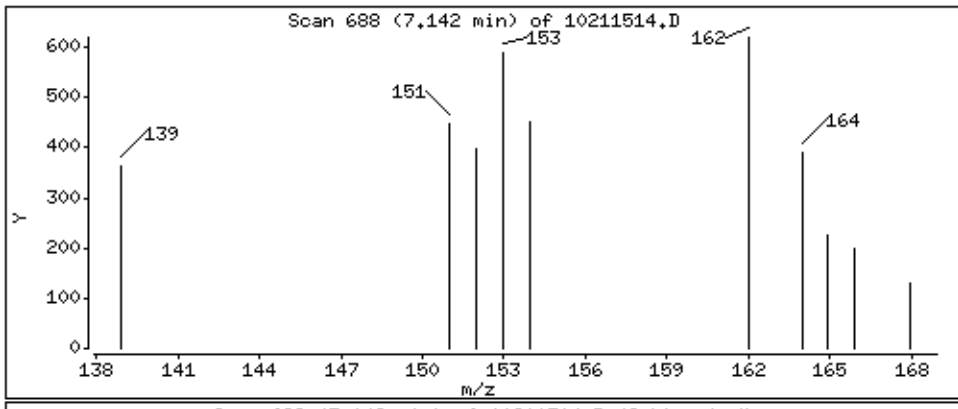
Operator: AS1

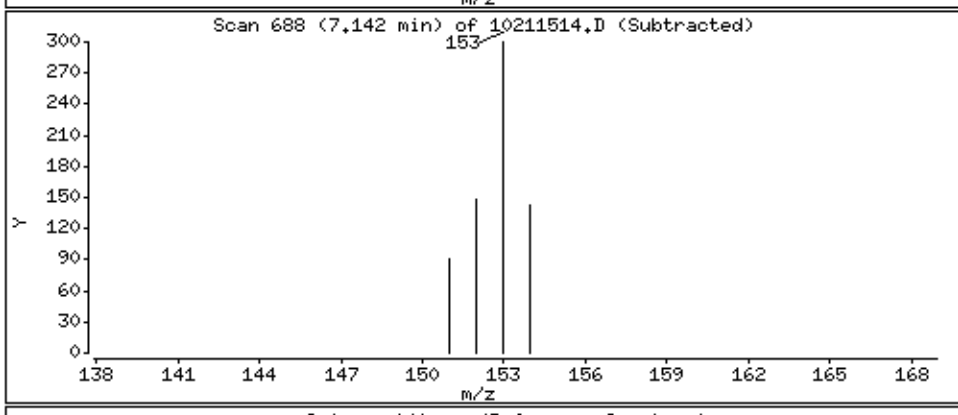
Column phase: DB-5MS

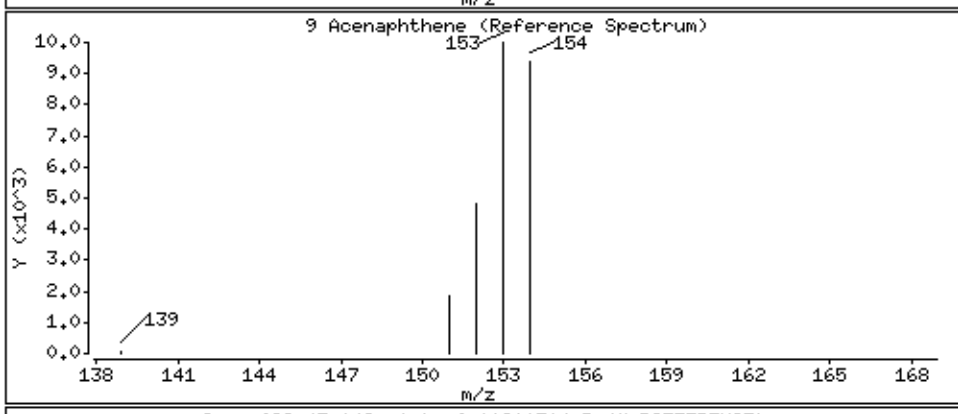
Column diameter: 0.25

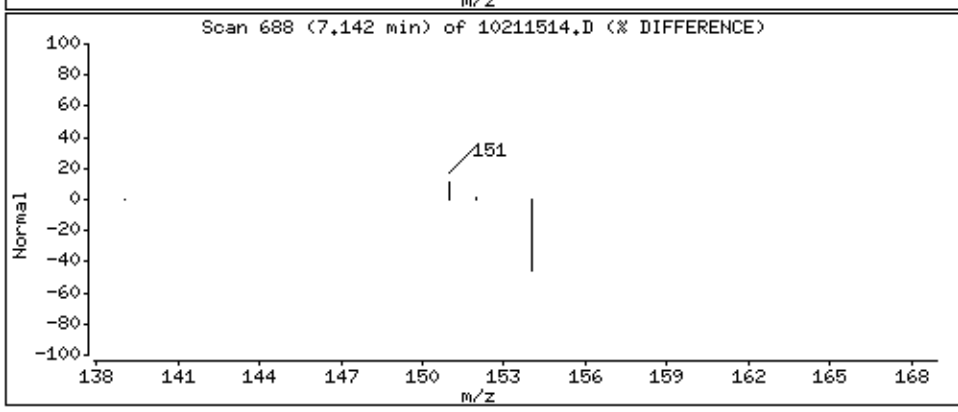
9 Acenaphthene

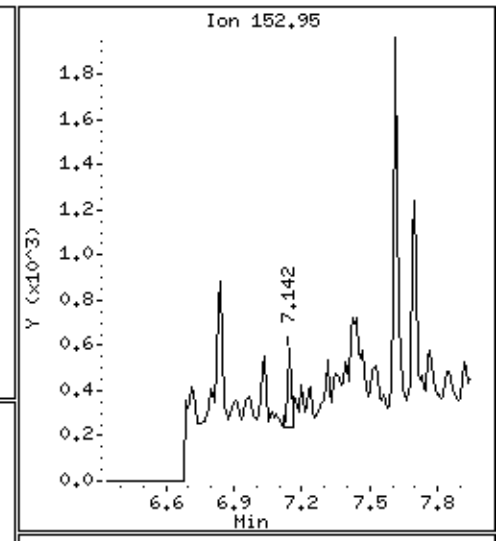
Concentration: 0.0397 ug/L

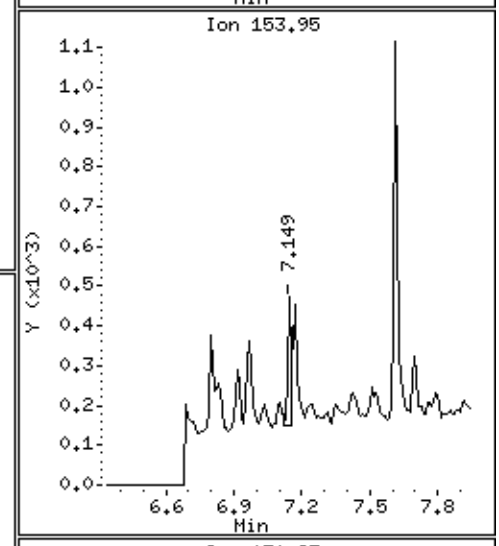


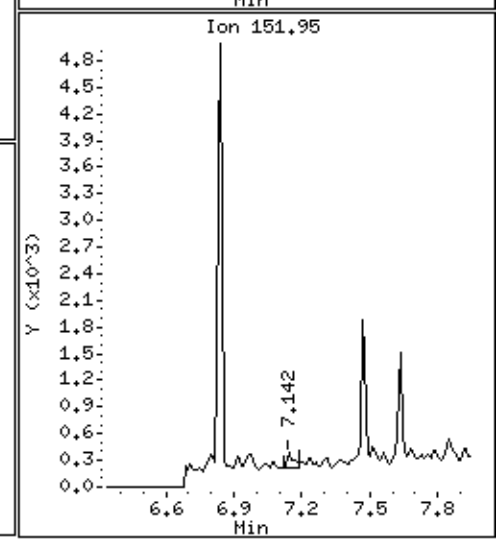












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

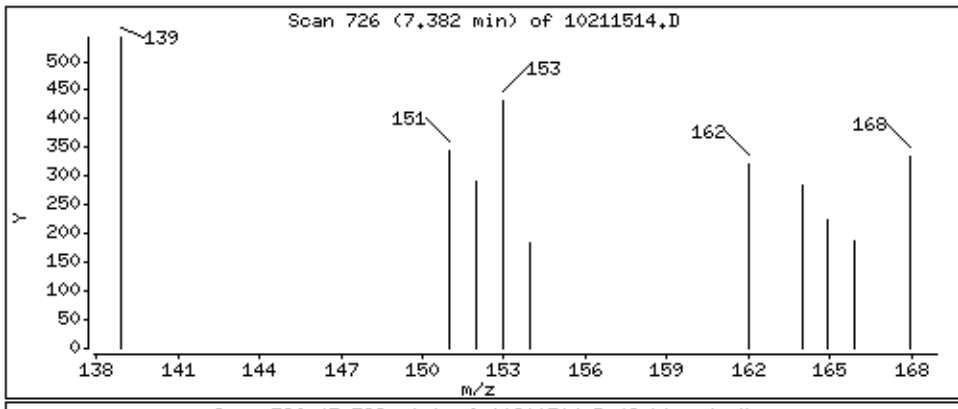
Operator: AS1

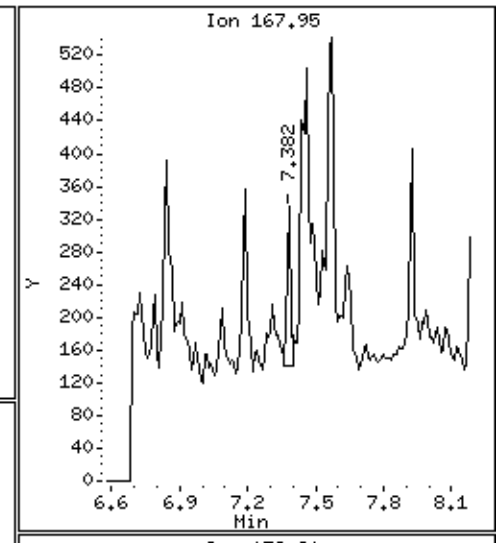
Column phase: DB-5MS

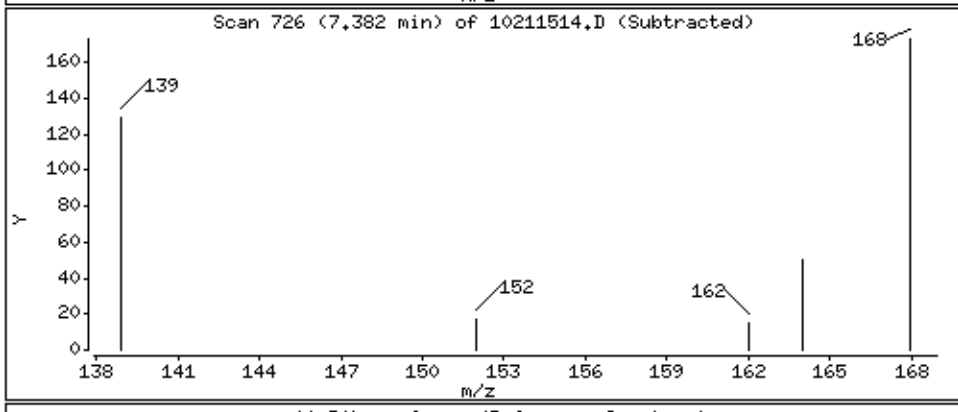
Column diameter: 0.25

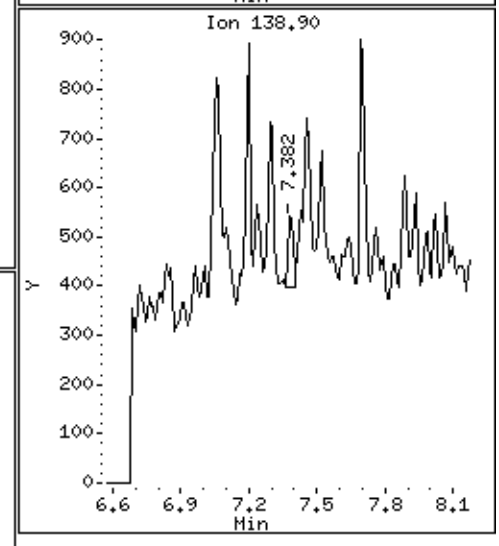
10 Dibenzofuran

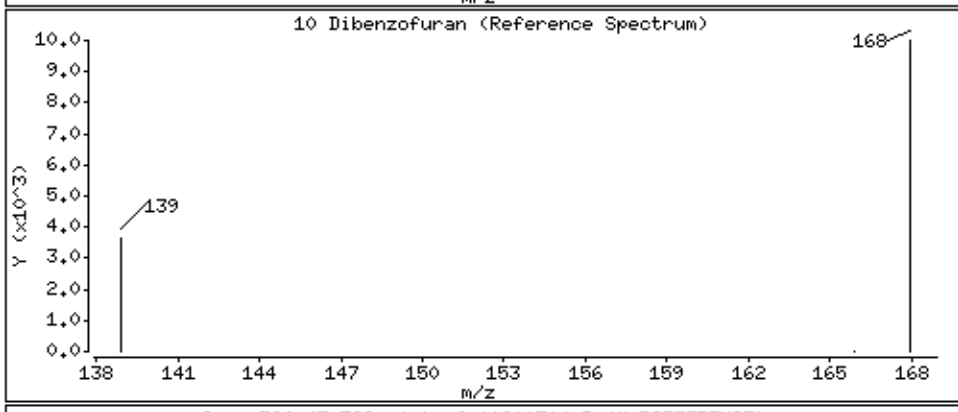
Concentration: 0.0133 ug/L

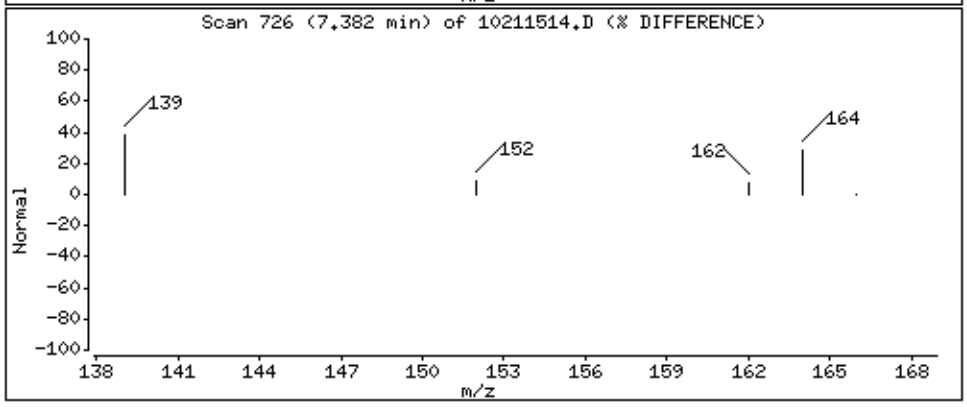












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

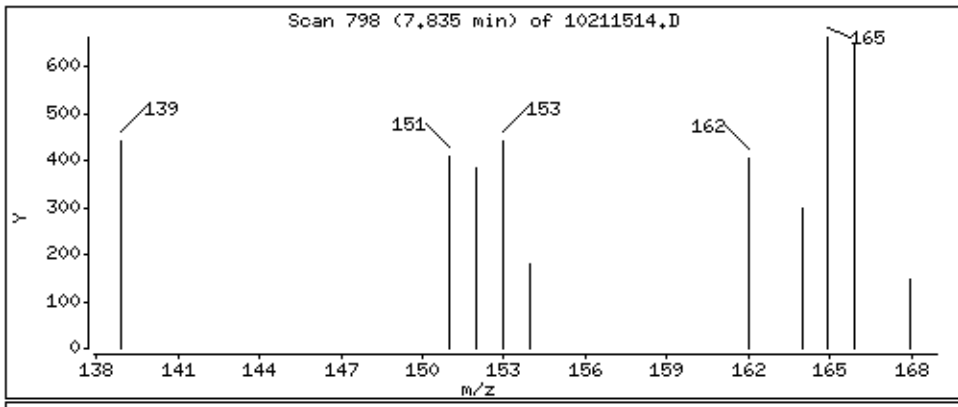
Operator: AS1

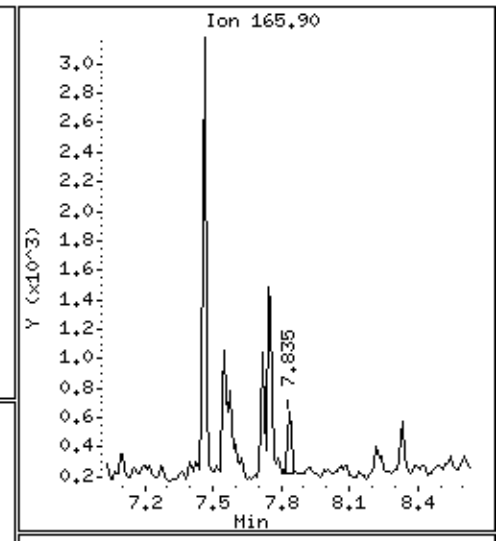
Column phase: DB-5MS

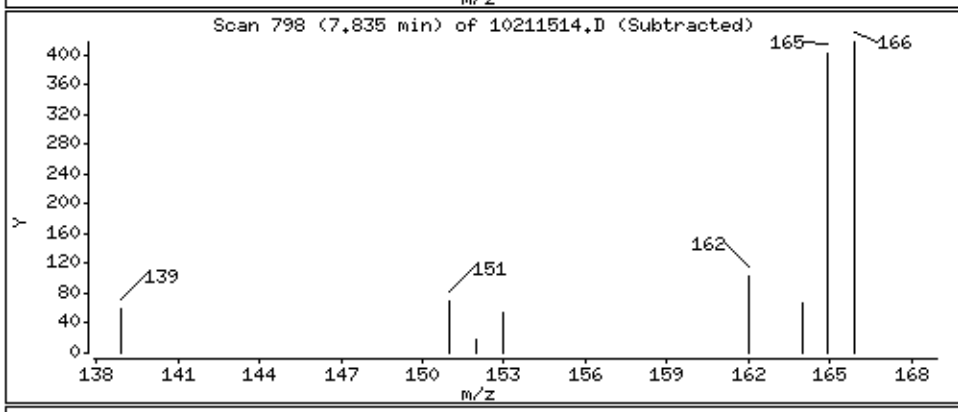
Column diameter: 0.25

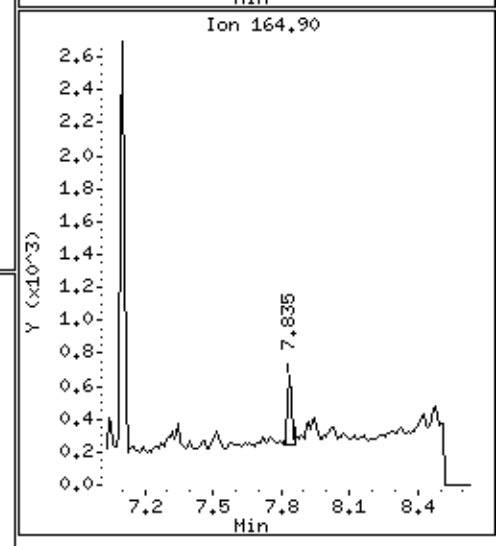
11 Fluorene

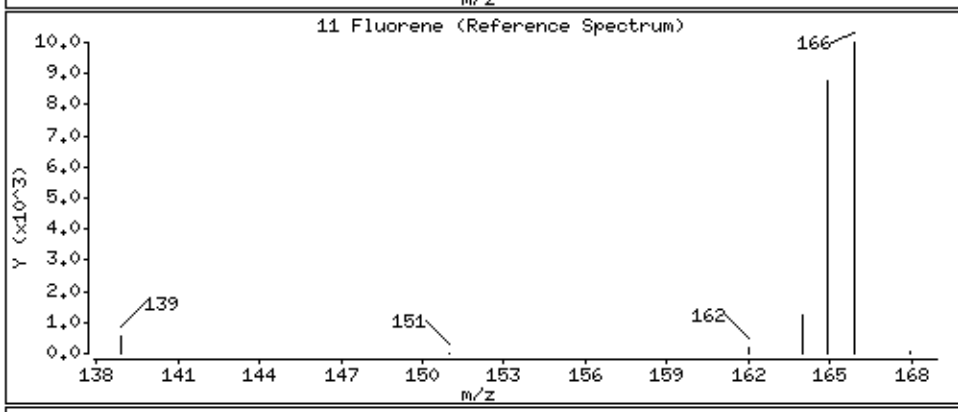
Concentration: 0.0343 ug/L

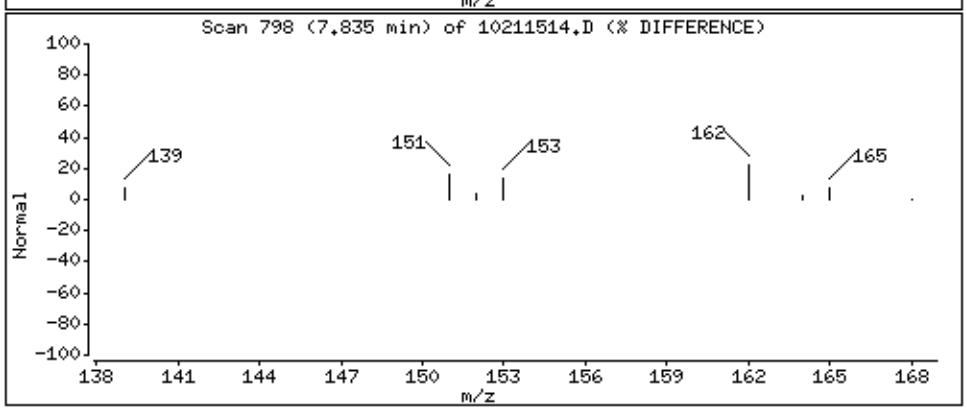












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

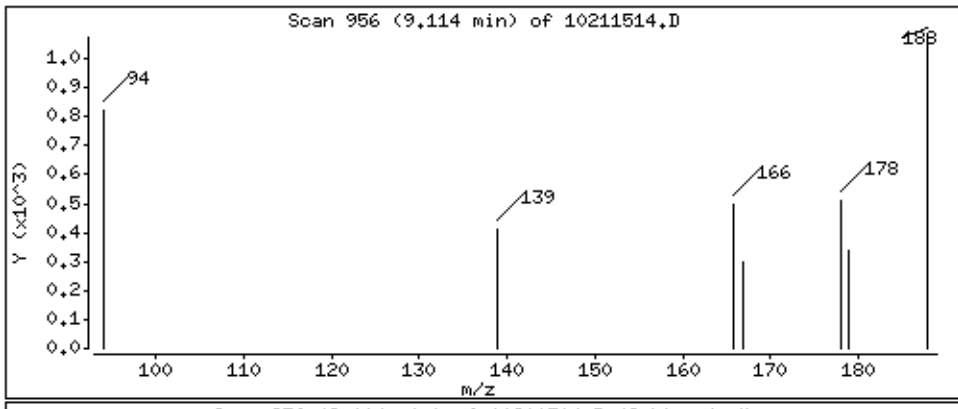
Operator: AS1

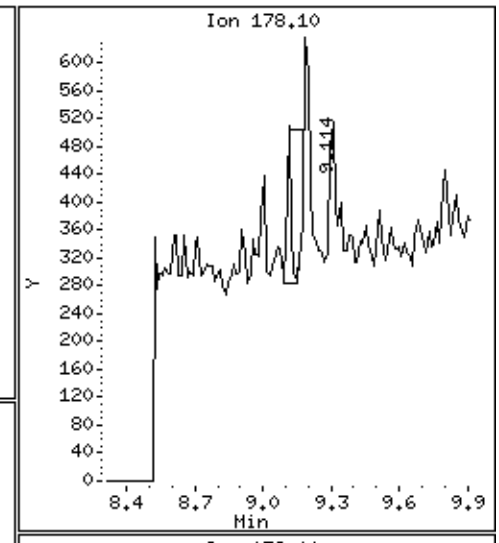
Column phase: DB-5MS

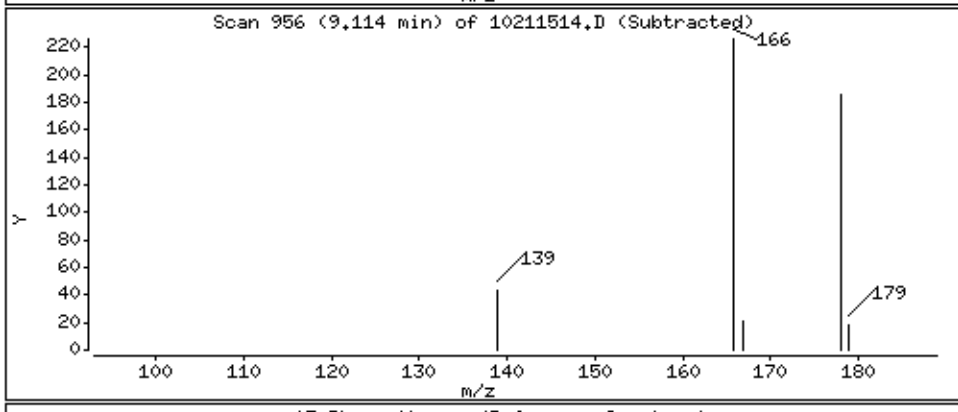
Column diameter: 0.25

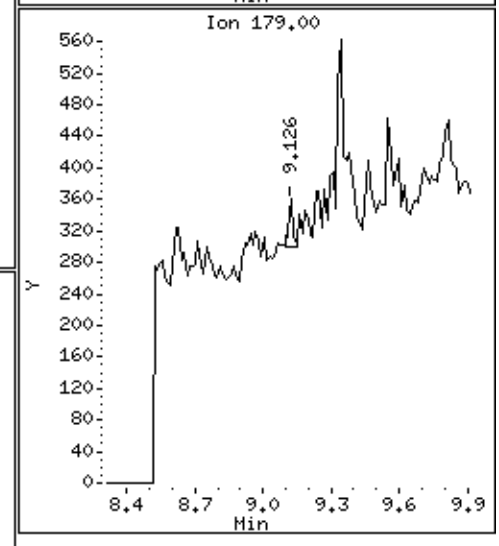
13 Phenanthrene

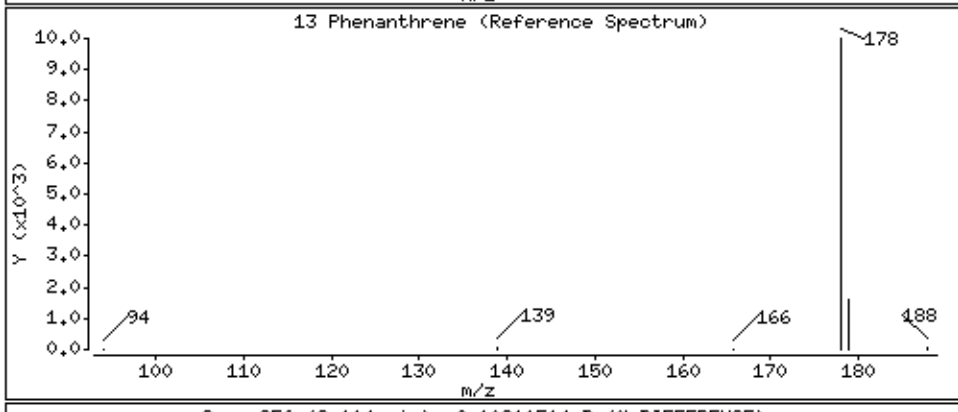
Concentration: 0.0150 ug/L

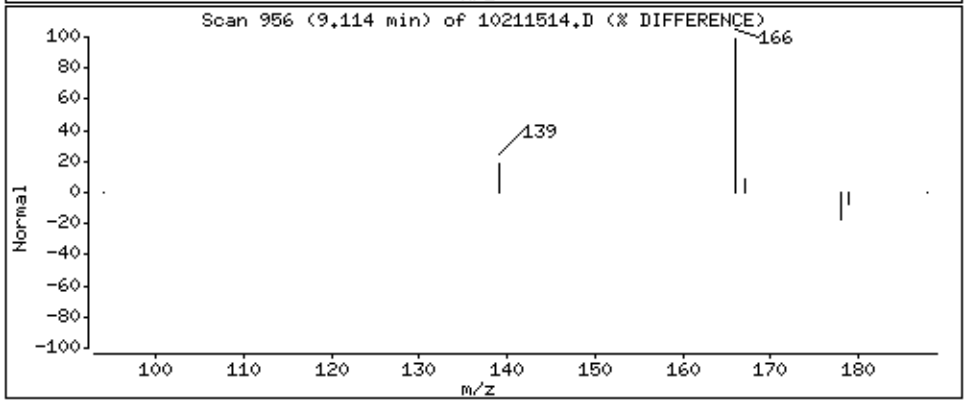












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

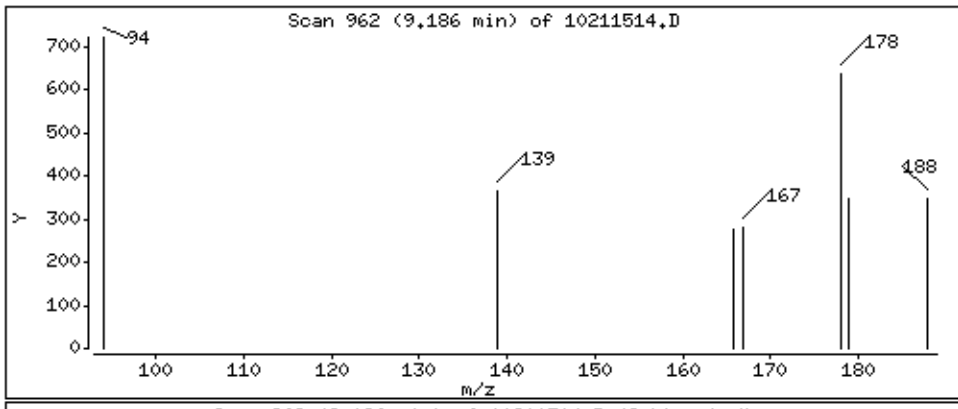
Operator: AS1

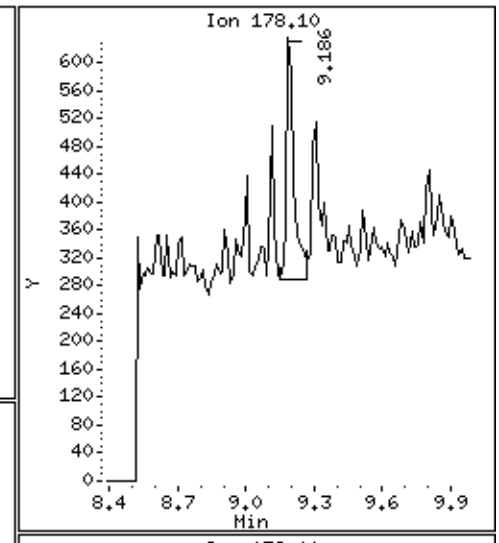
Column phase: DB-5MS

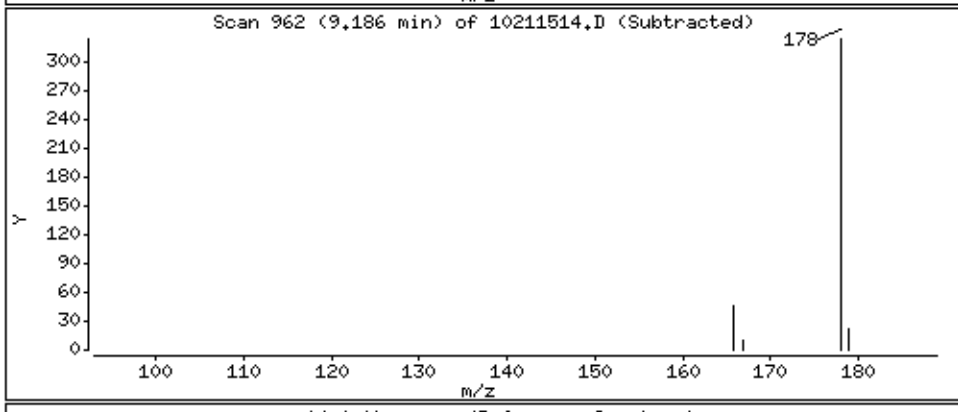
Column diameter: 0.25

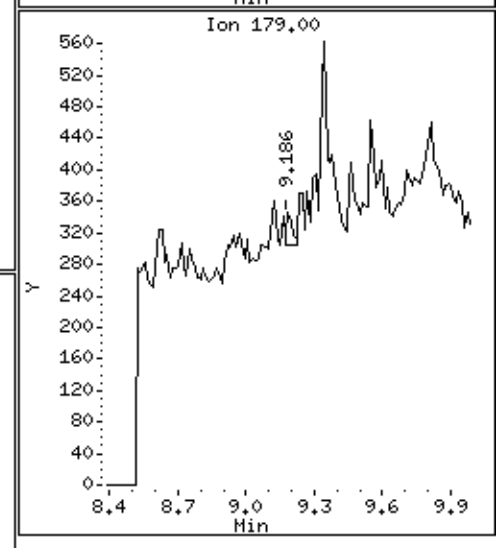
14 Anthracene

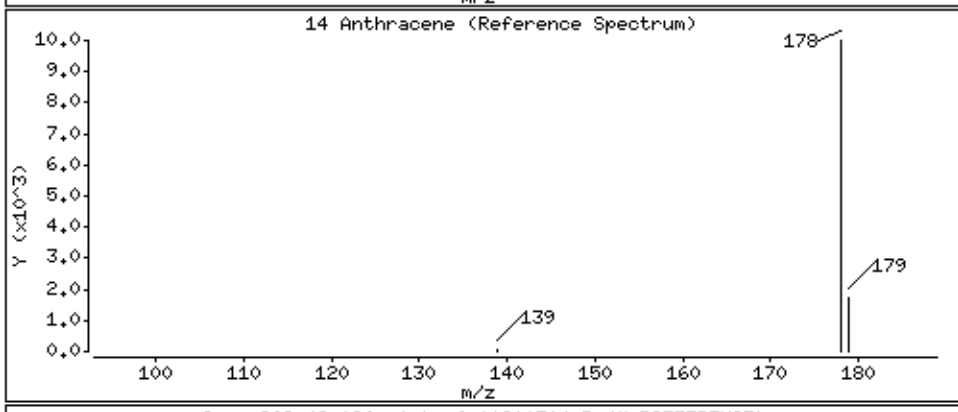
Concentration: 0.0457 ug/L

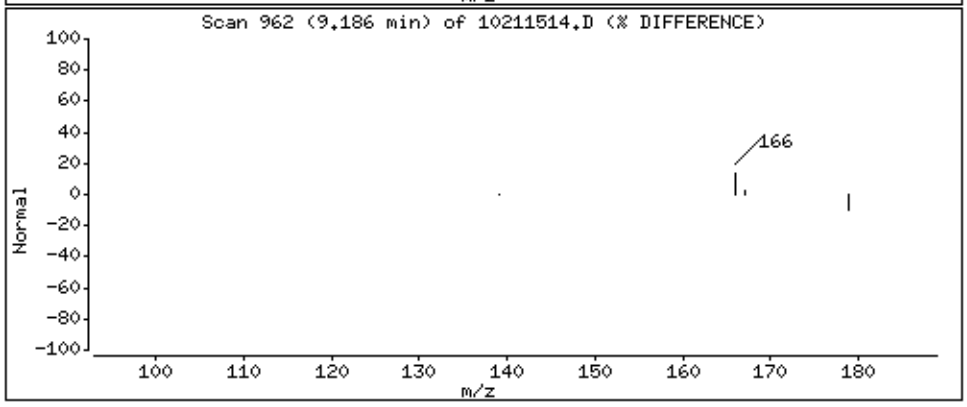












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

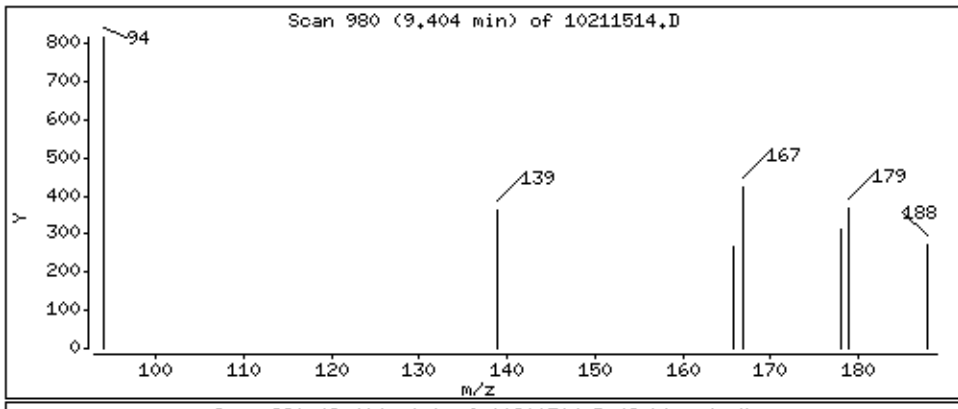
Operator: AS1

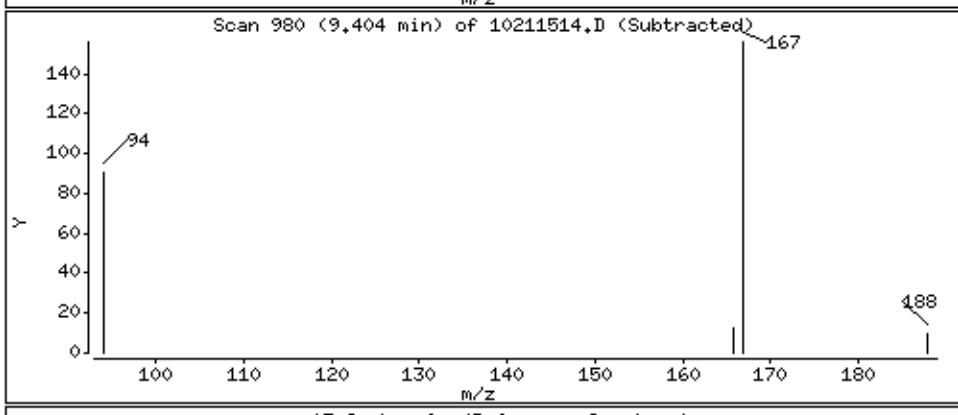
Column phase: DB-5MS

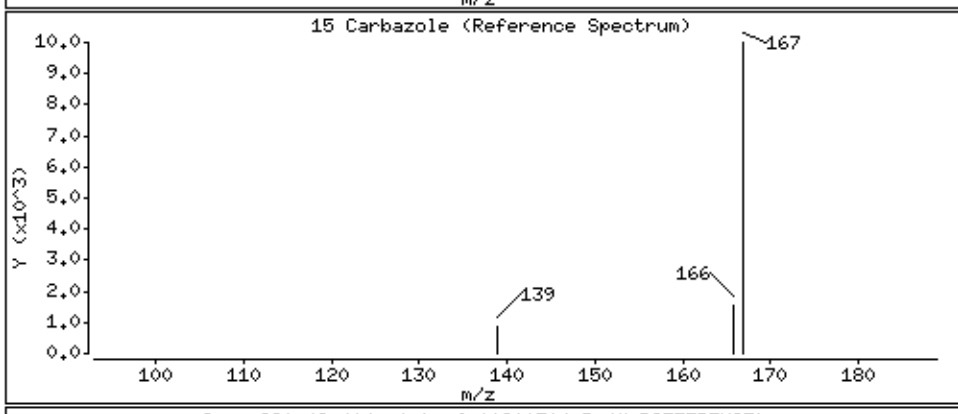
Column diameter: 0.25

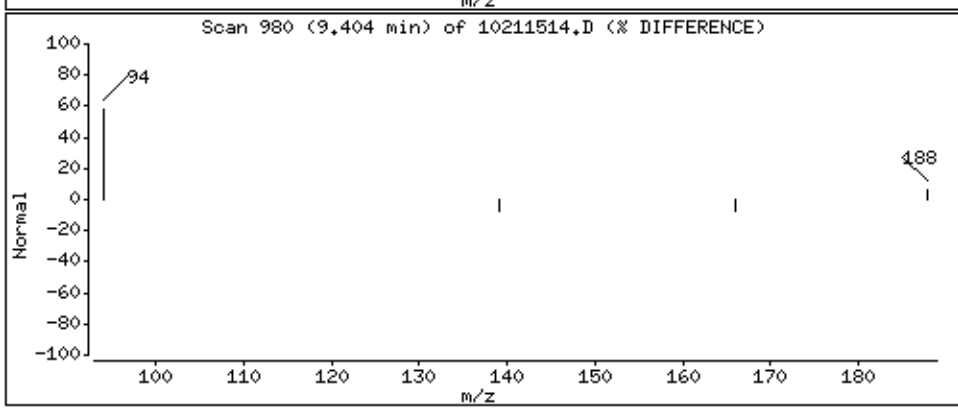
15 Carbazole

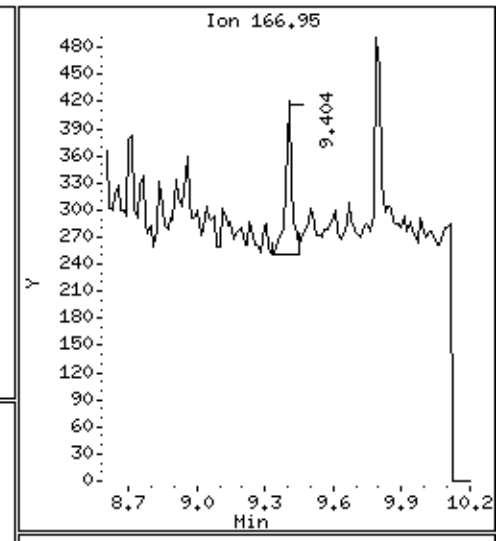
Concentration: 0.0208 ug/L

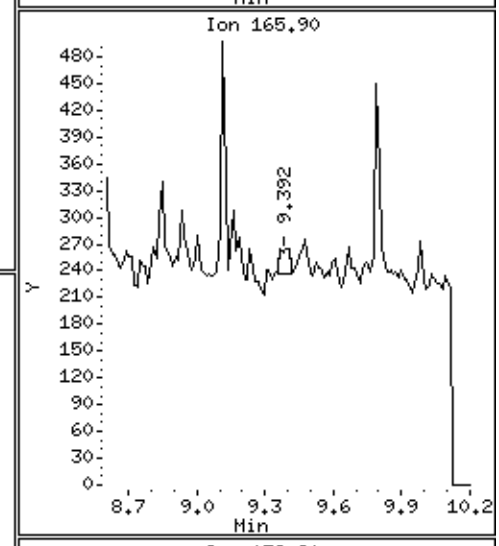


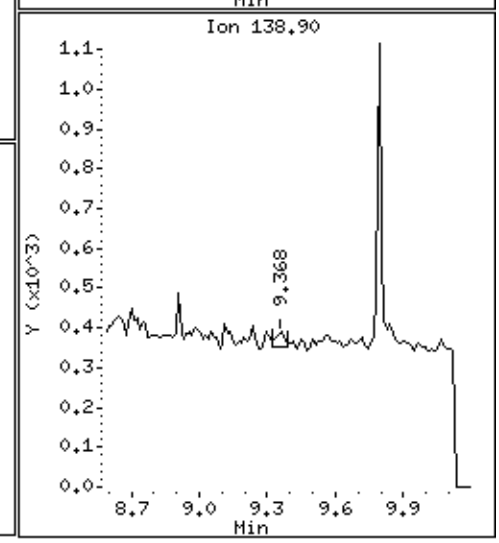












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

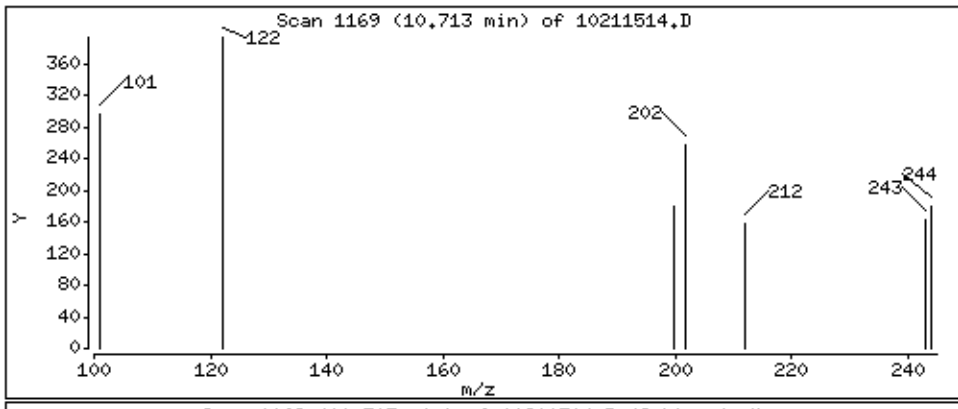
Operator: AS1

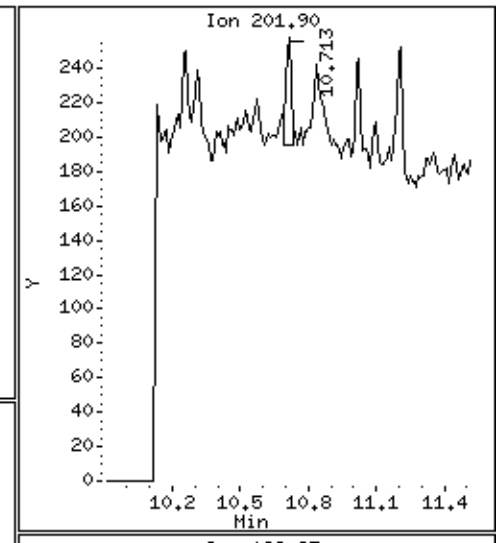
Column phase: DB-5MS

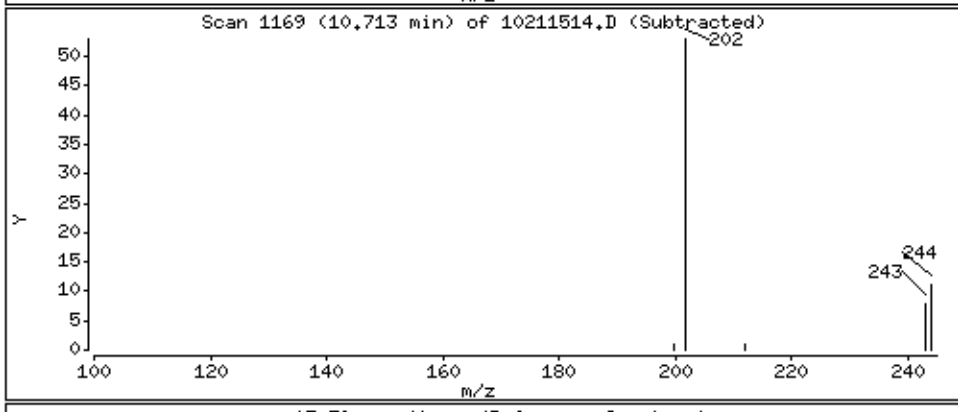
Column diameter: 0.25

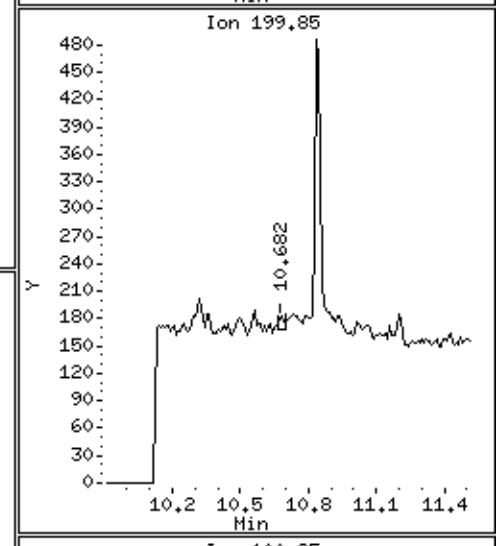
17 Fluoranthene

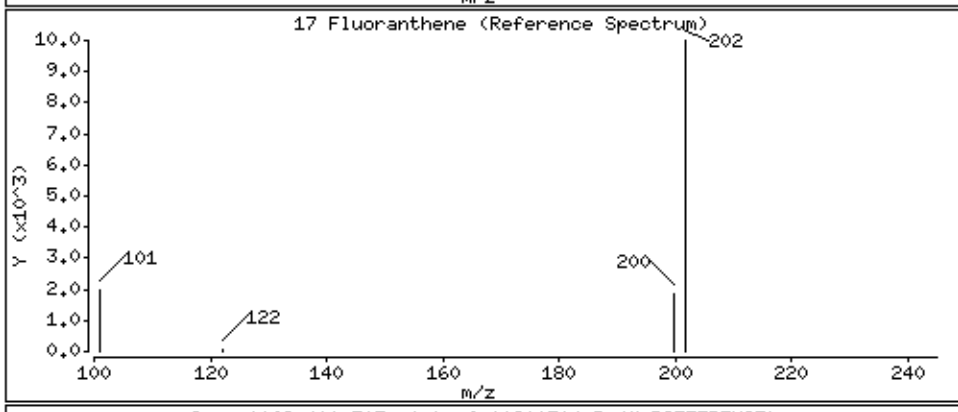
Concentration: 0.00409 ug/L

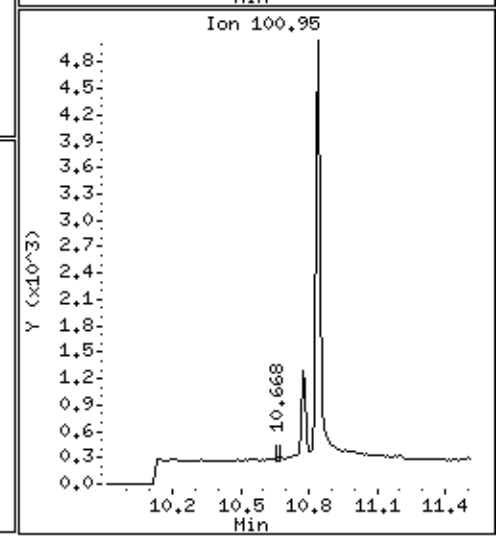


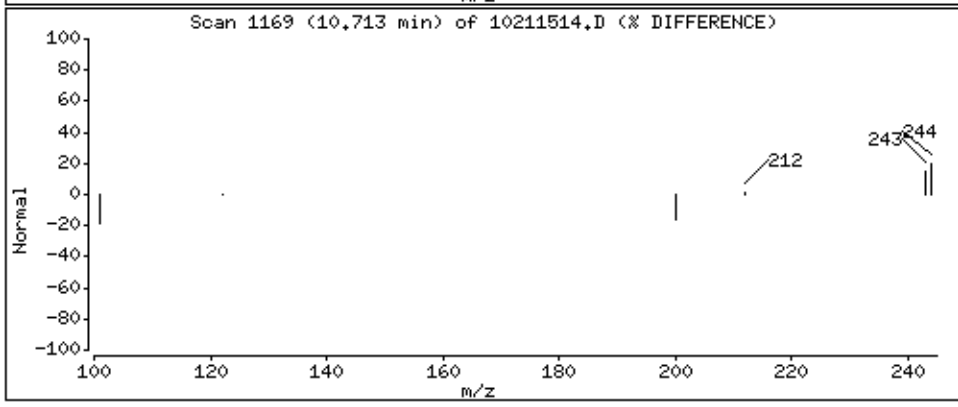












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

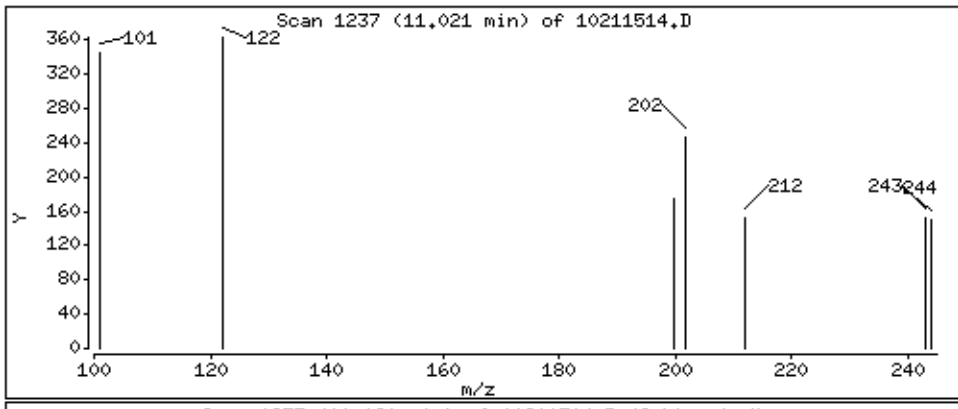
Operator: AS1

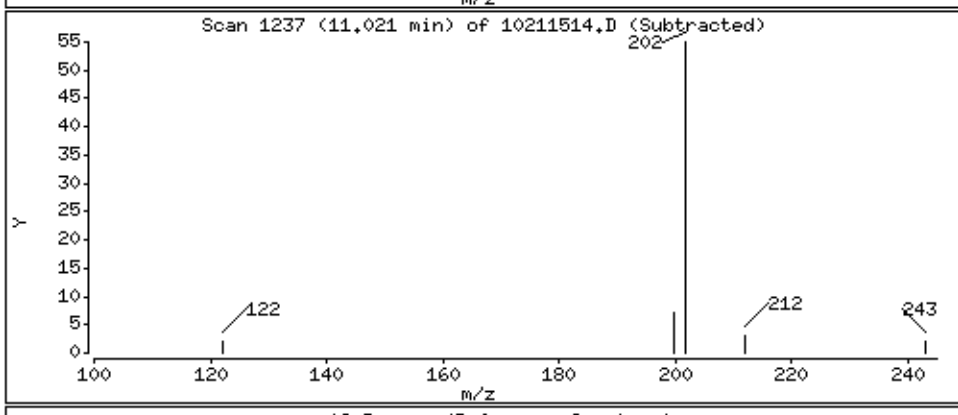
Column phase: DB-5MS

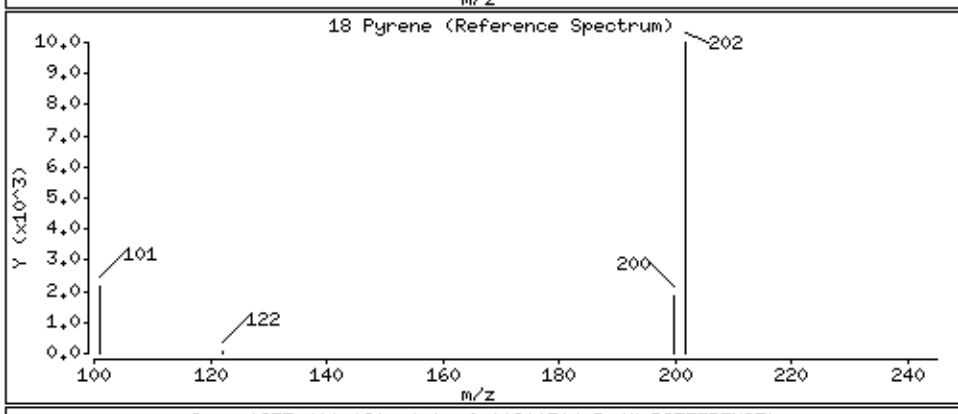
Column diameter: 0.25

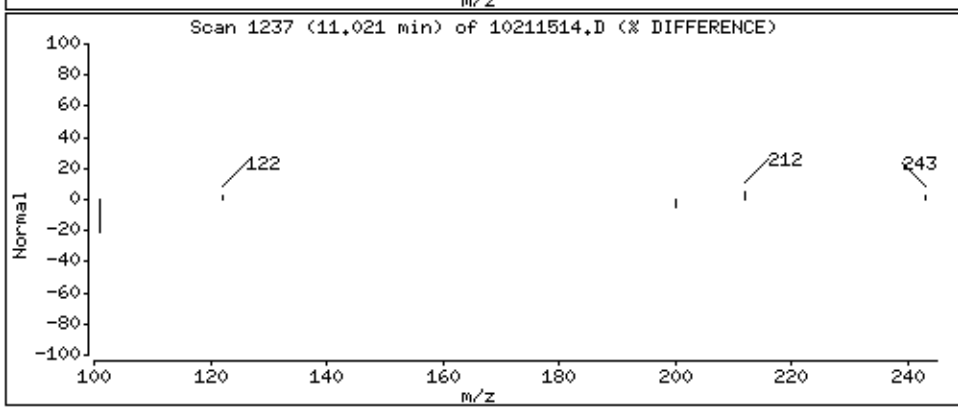
18 Pyrene

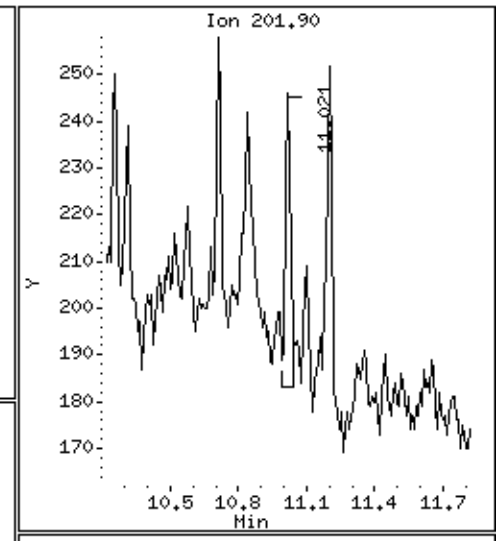
Concentration: 0.00400 ug/L

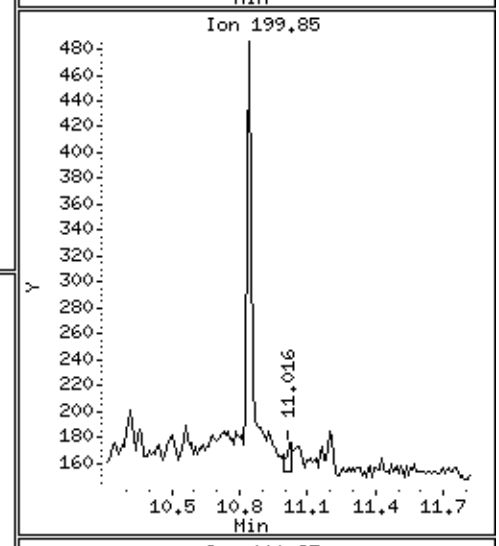


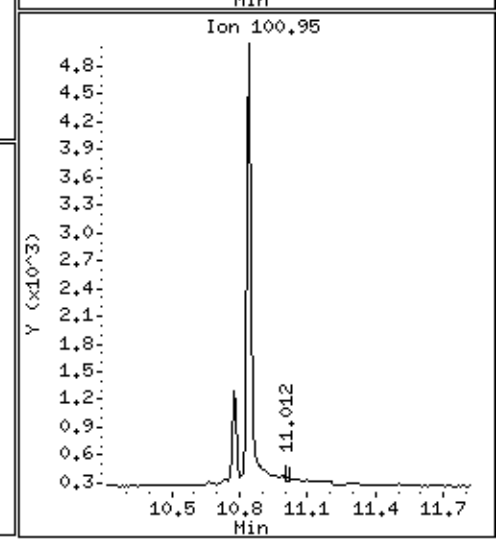












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

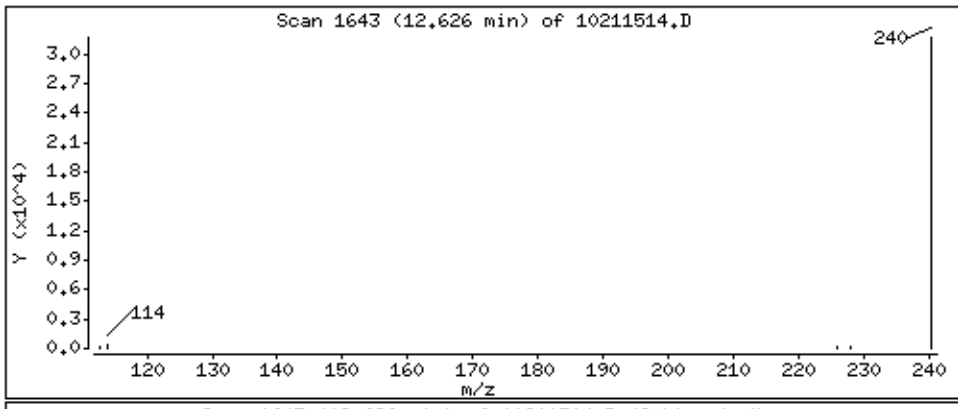
Operator: AS1

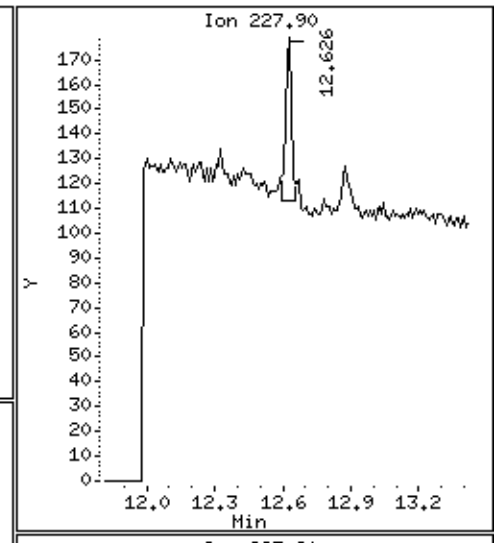
Column phase: DB-5MS

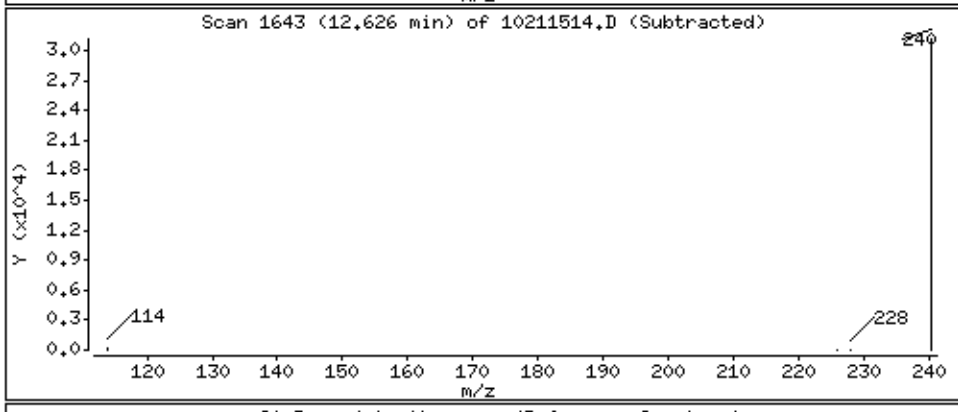
Column diameter: 0.25

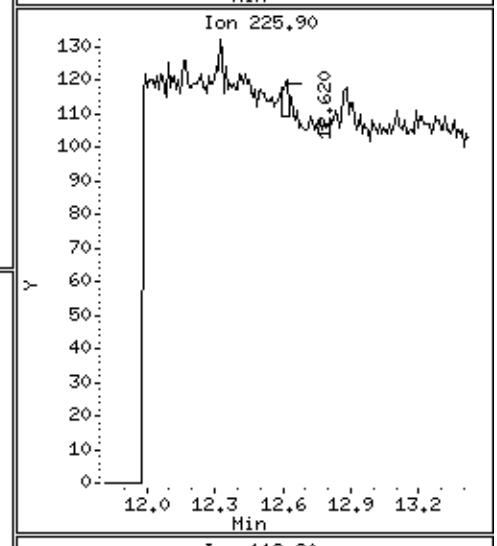
20 Benzo(a)anthracene

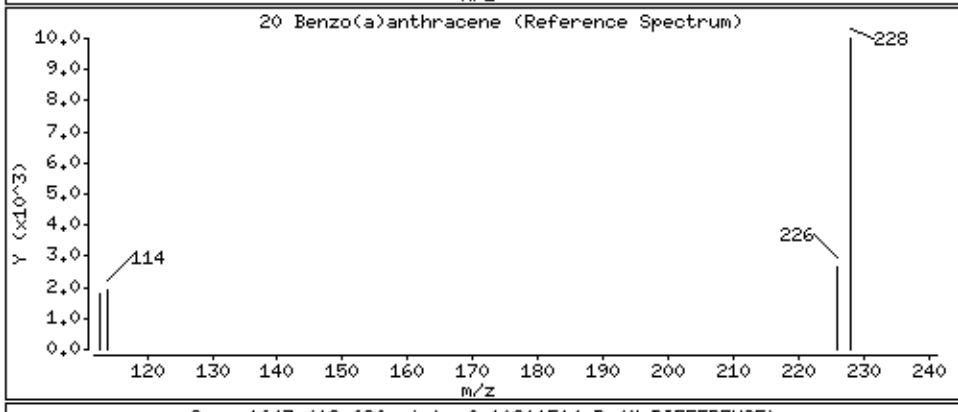
Concentration: 0.00553 ug/L

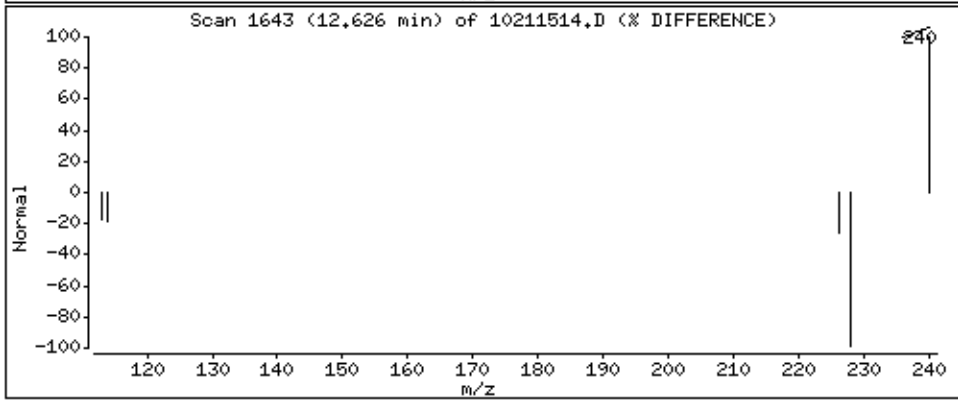


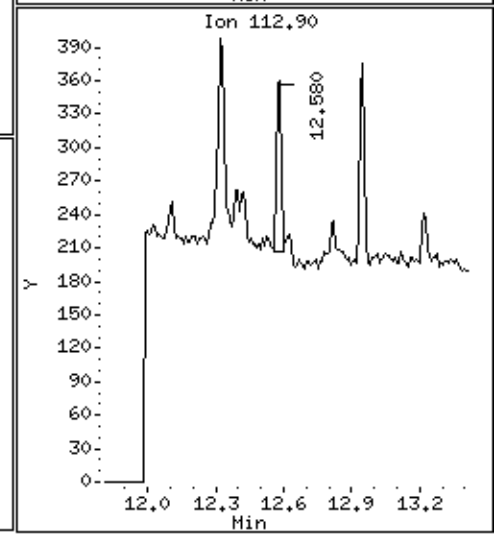












Data File: \\192.168.10.12\chem\10mssA.i\102115.b\10211514.D

Date : 21-OCT-2015 11:47

Client ID: DUP-1-101315

Instrument: 10mssA.i

Sample Info: 10326303010,

Volume Injected (uL): 1.0

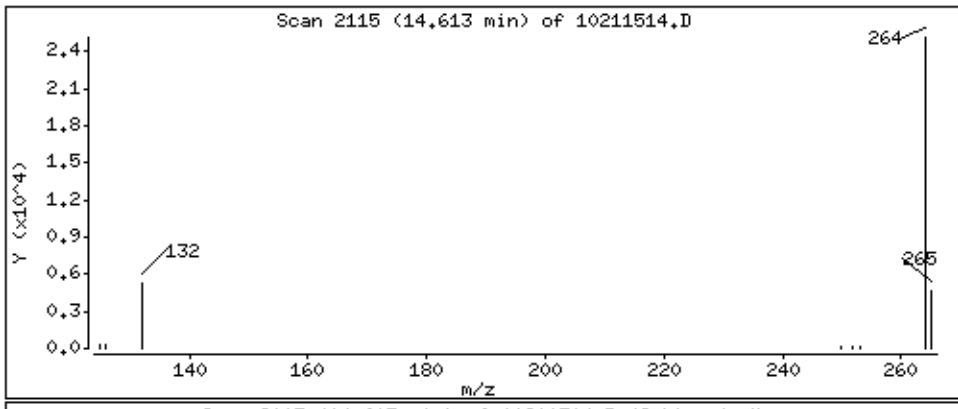
Operator: AS1

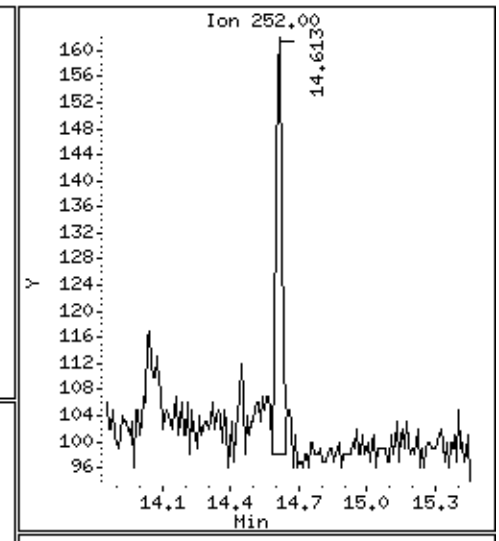
Column phase: DB-5MS

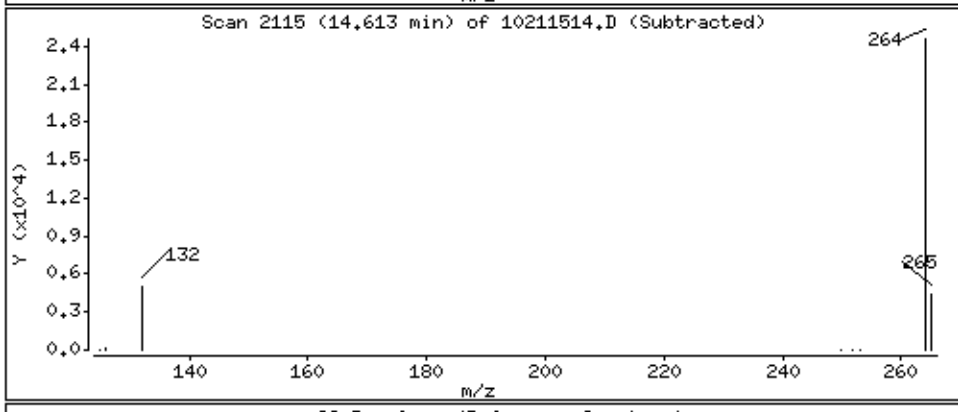
Column diameter: 0.25

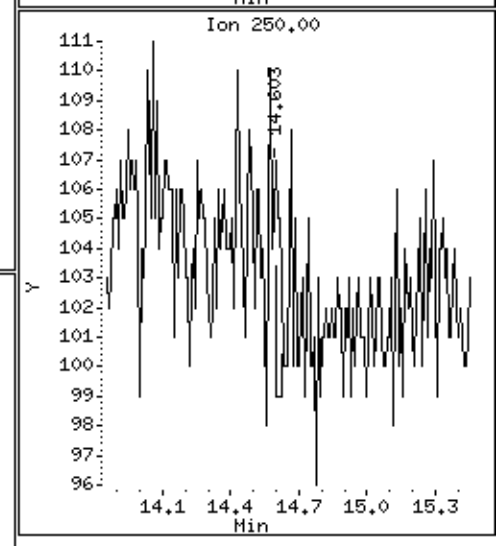
28 Perylene

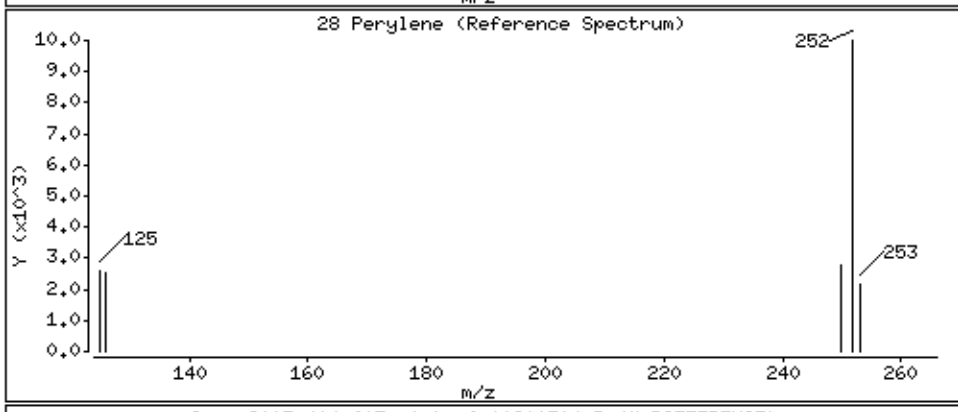
Concentration: 0.00848 ug/L

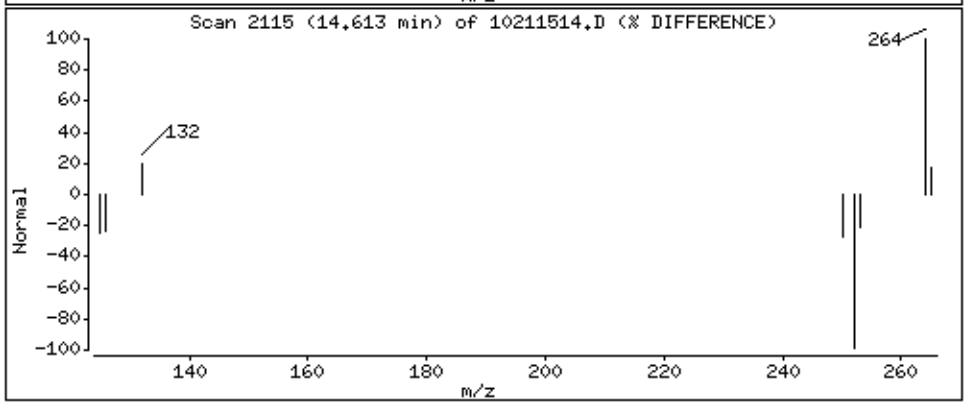






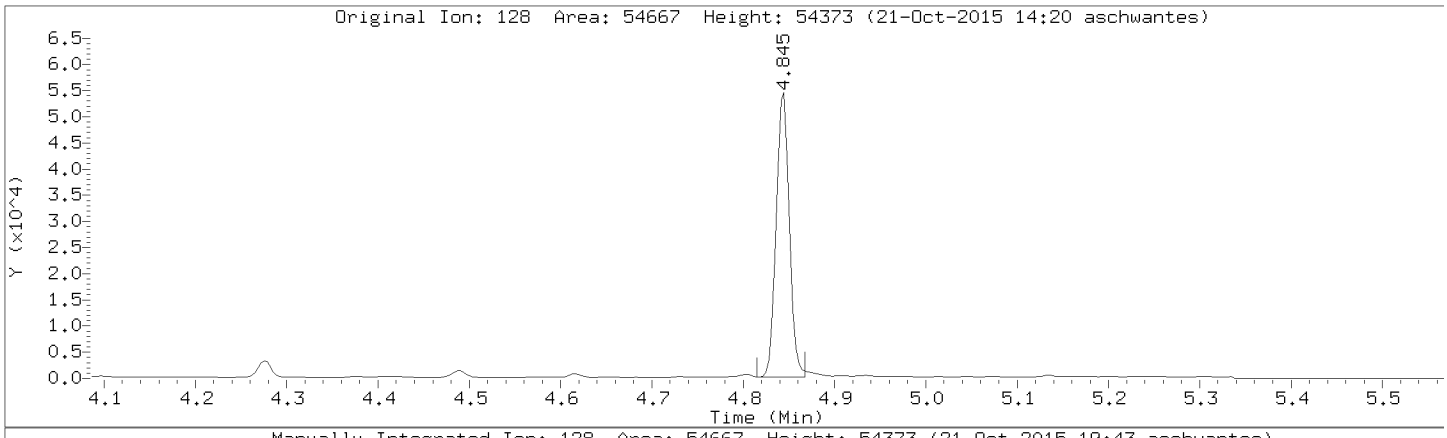


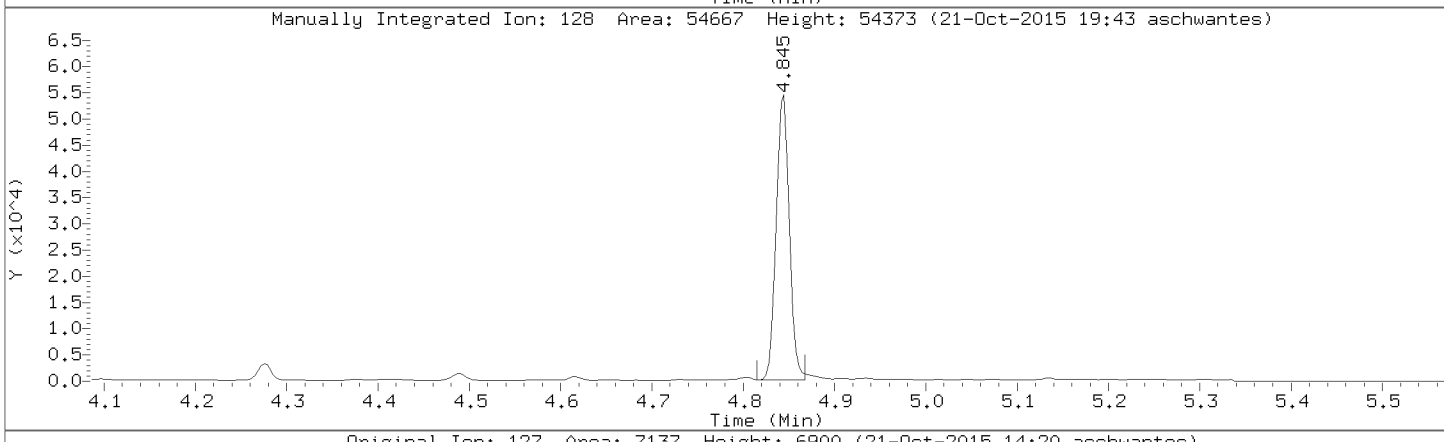


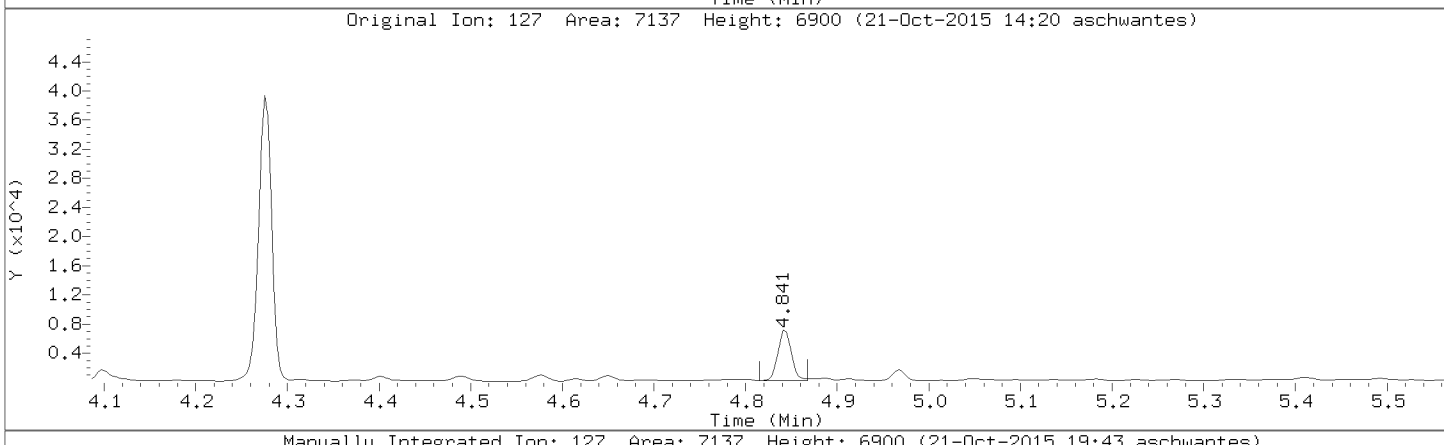


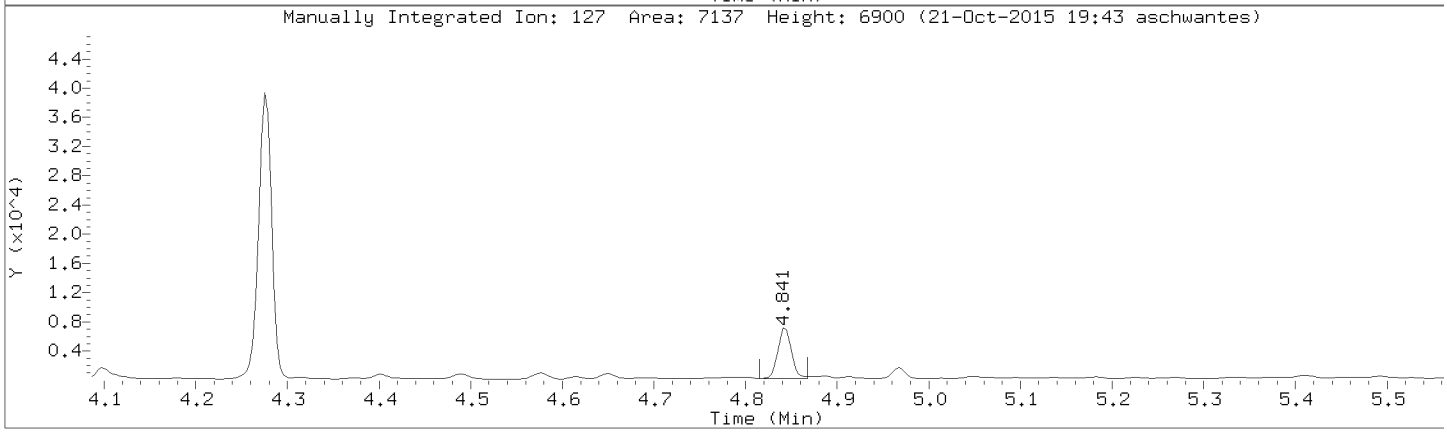
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211514.D
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

Compound: Naphthalene
CAS Number: 91-20-3

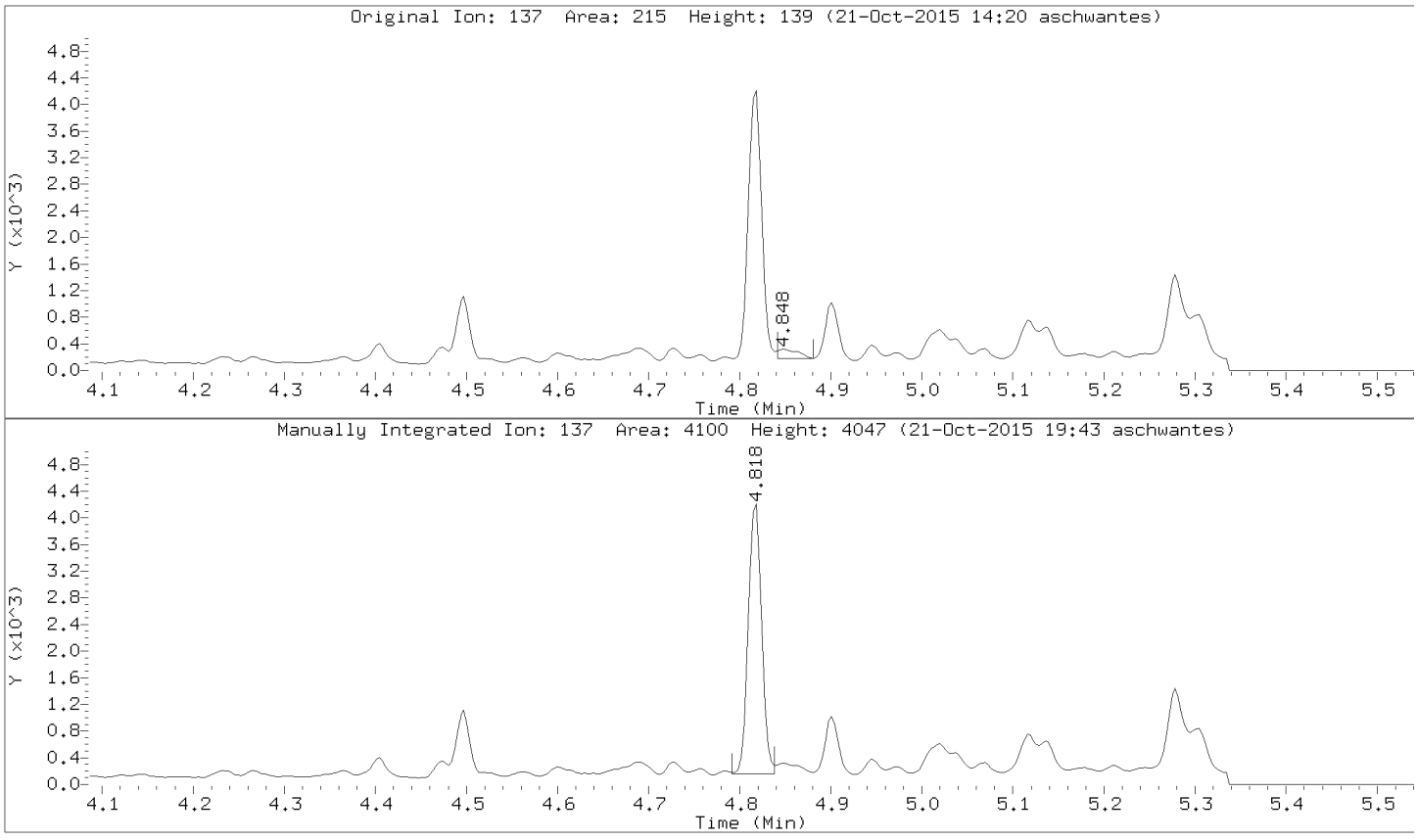






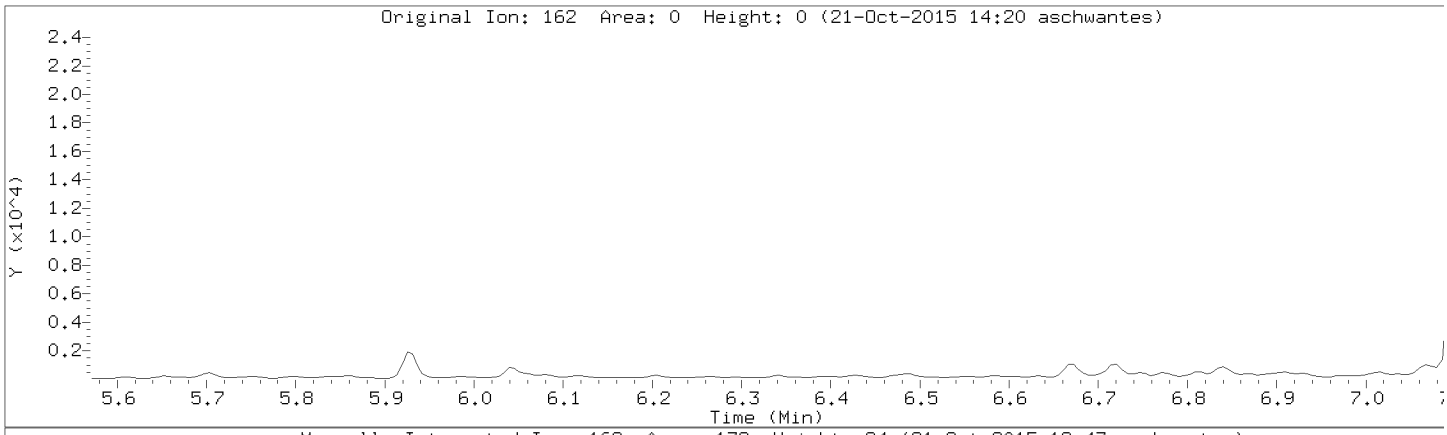


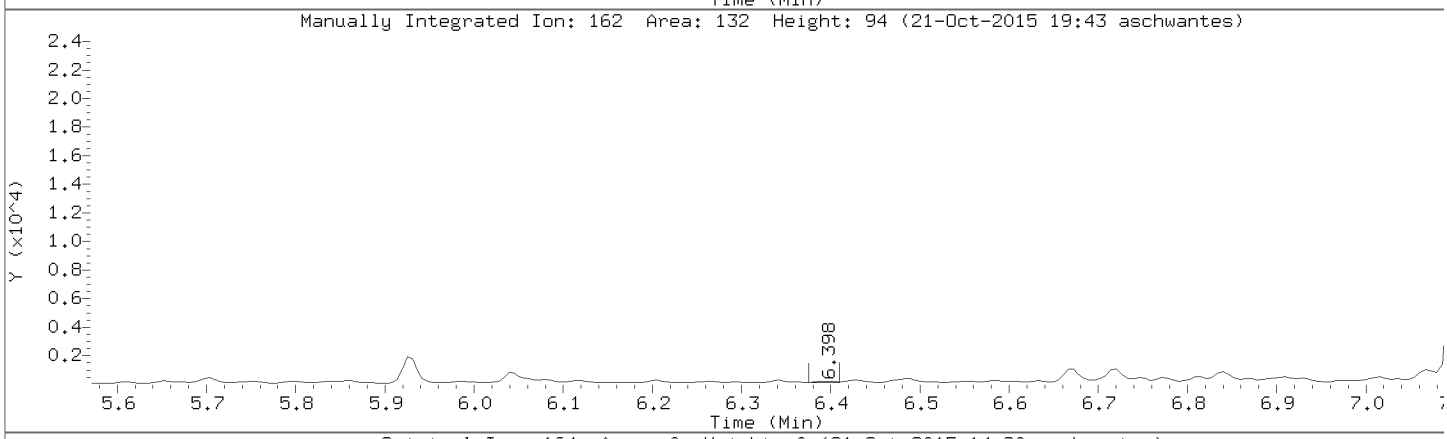
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211514.D
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

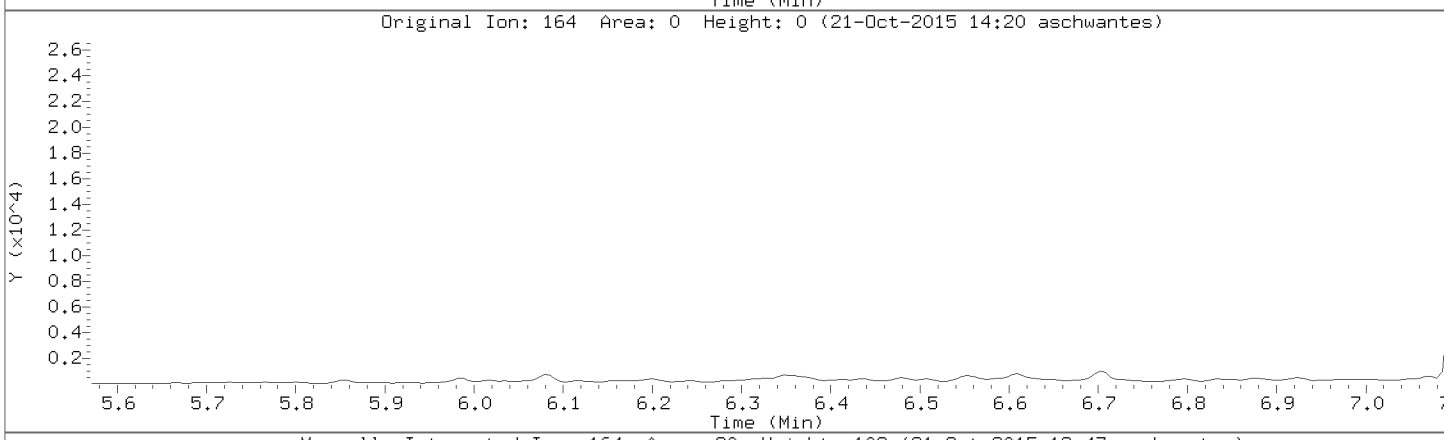


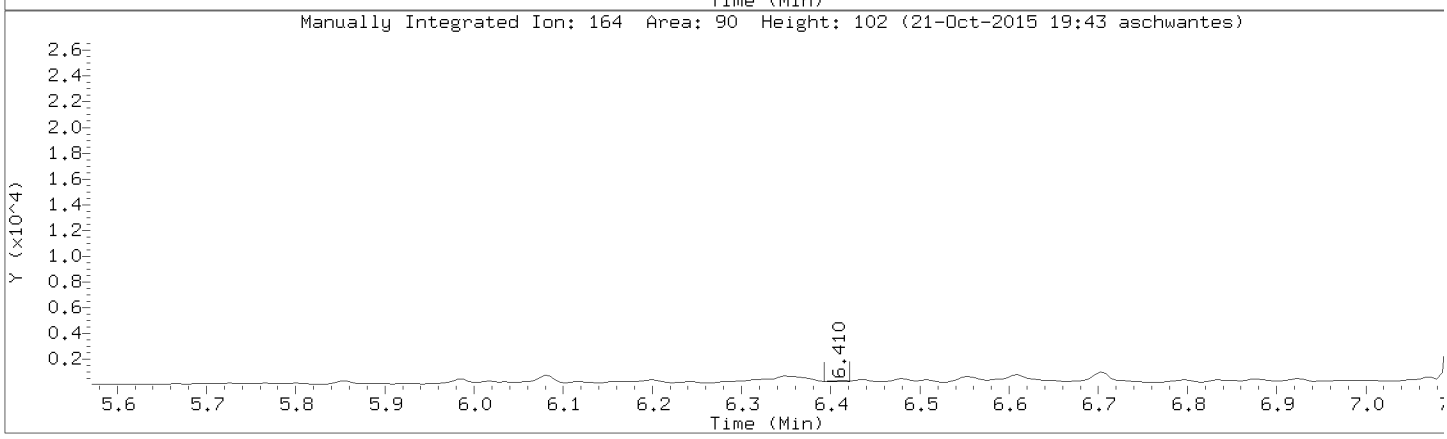
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211514.D
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

Compound: 2-Chloronapthalene
CAS Number: 91-58-7

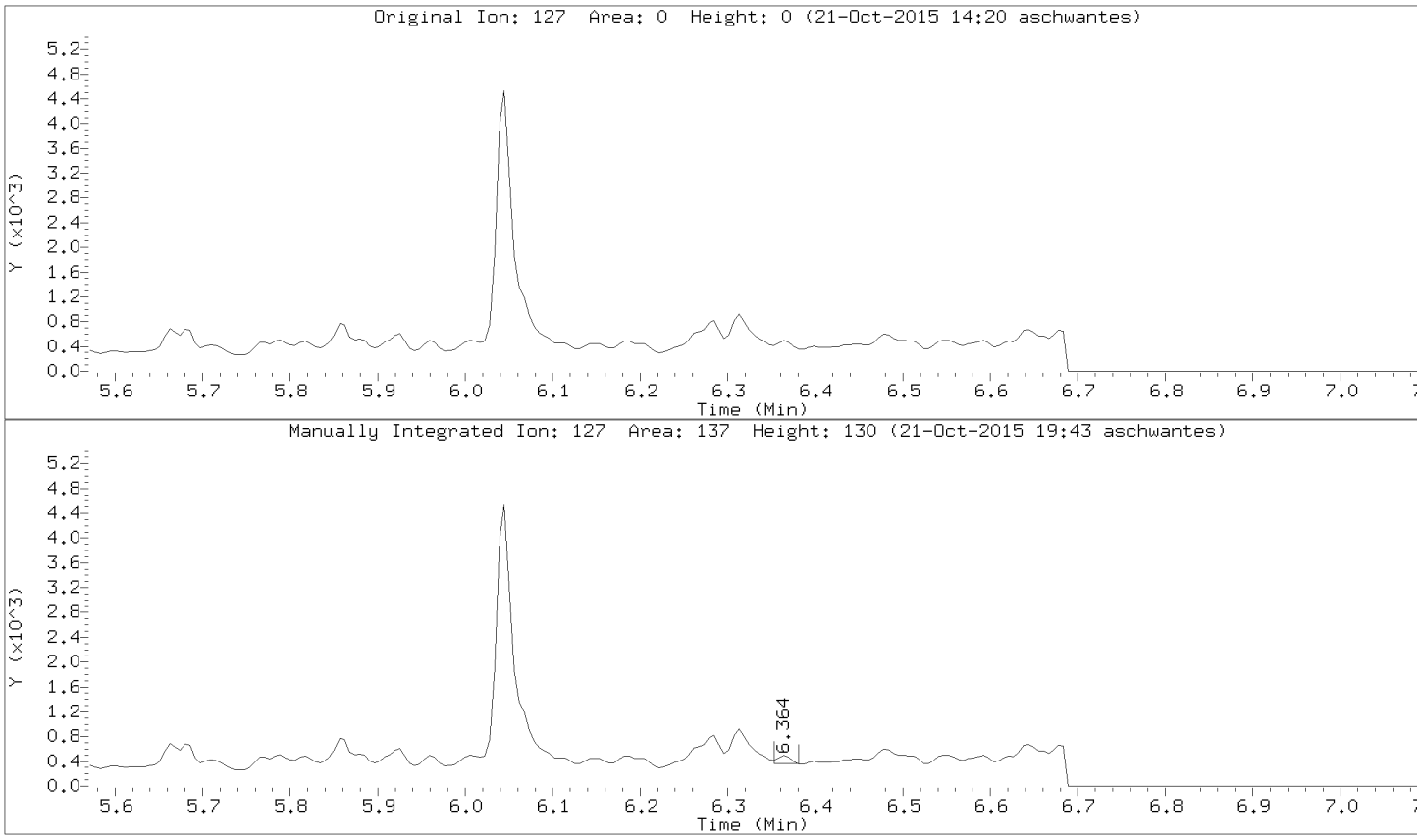






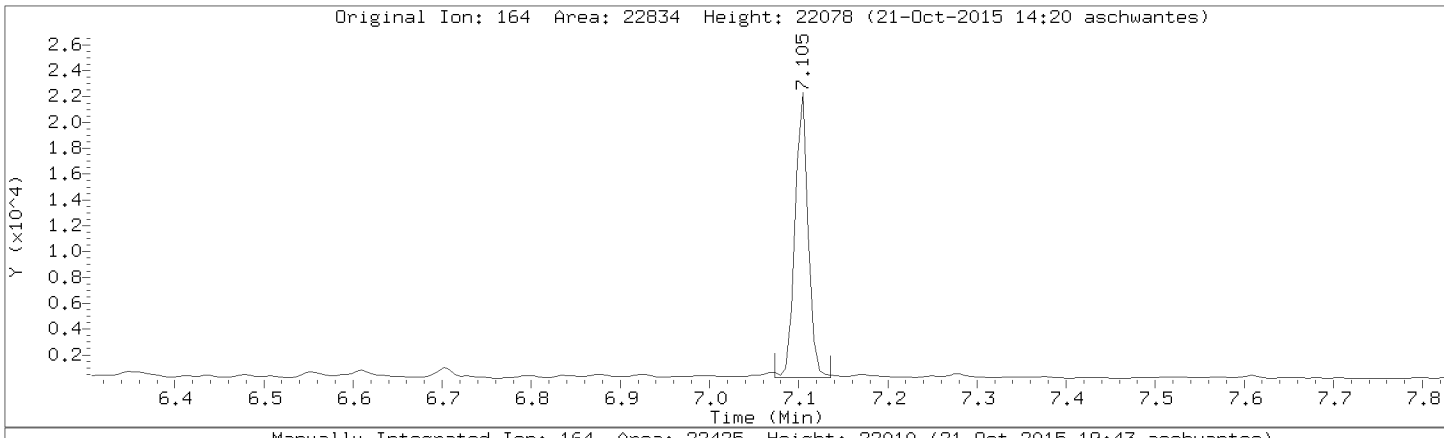


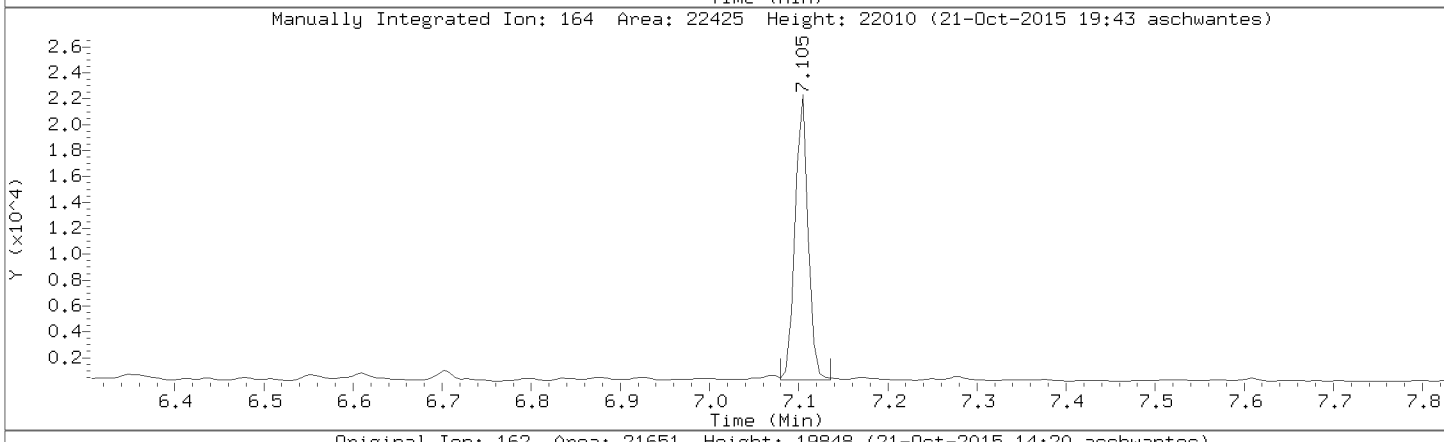
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211514.D
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

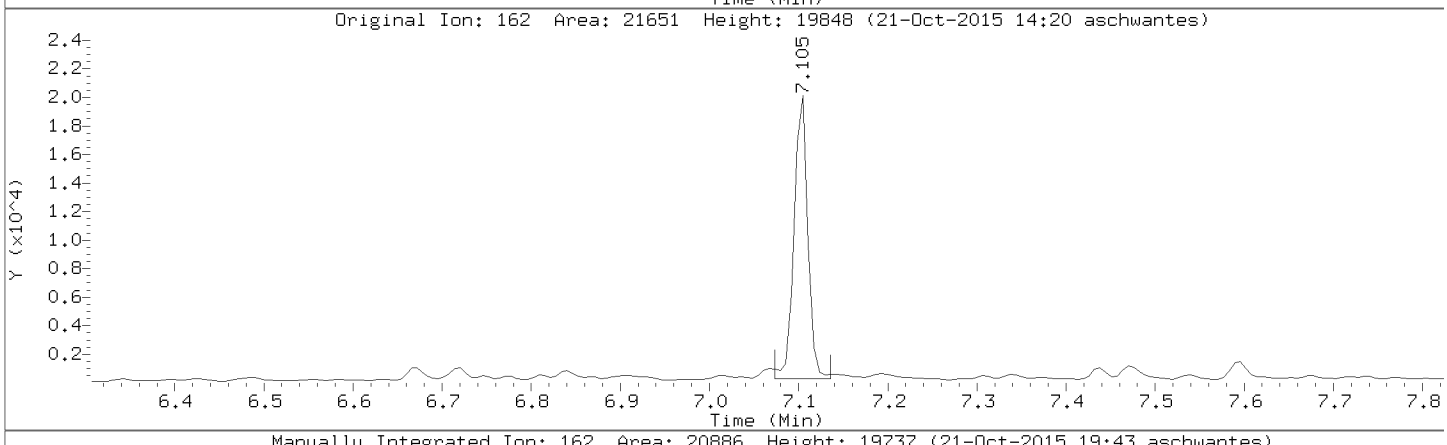


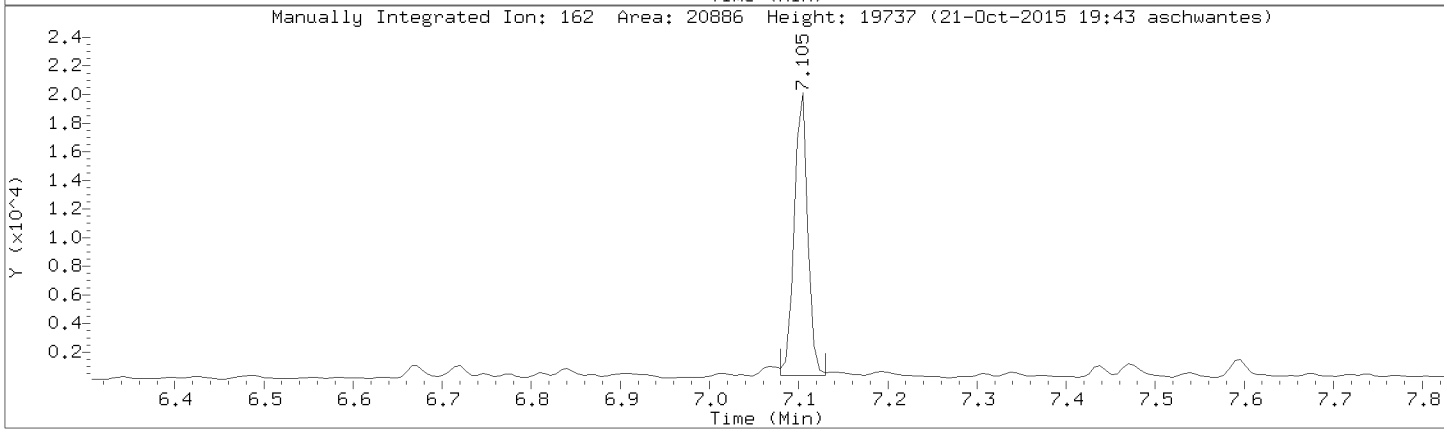
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211514.D
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

Compound: Acenaphthene-d10 (IS)
CAS Number: 15067-26-2



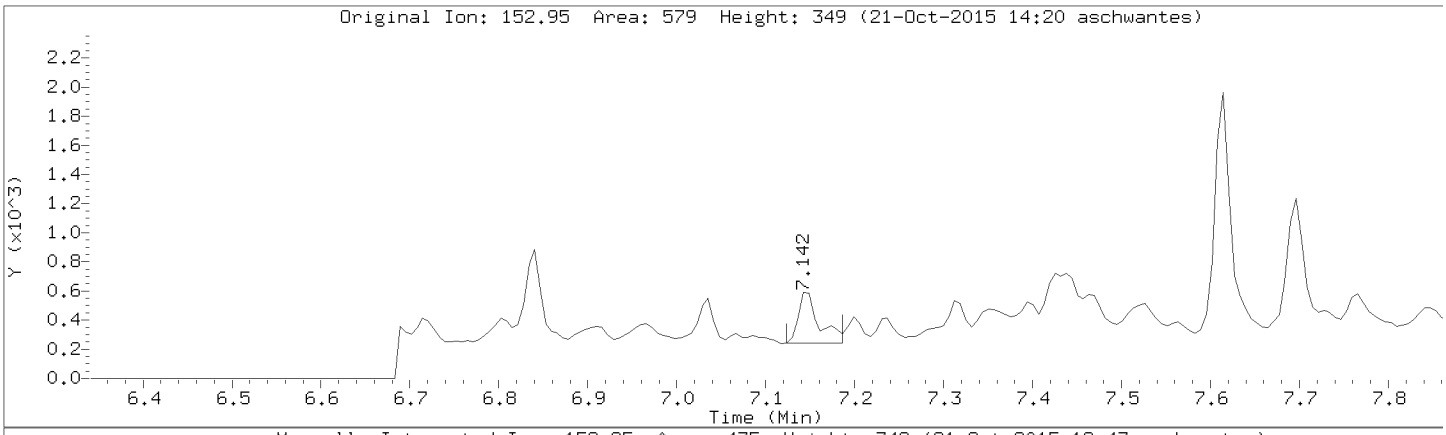


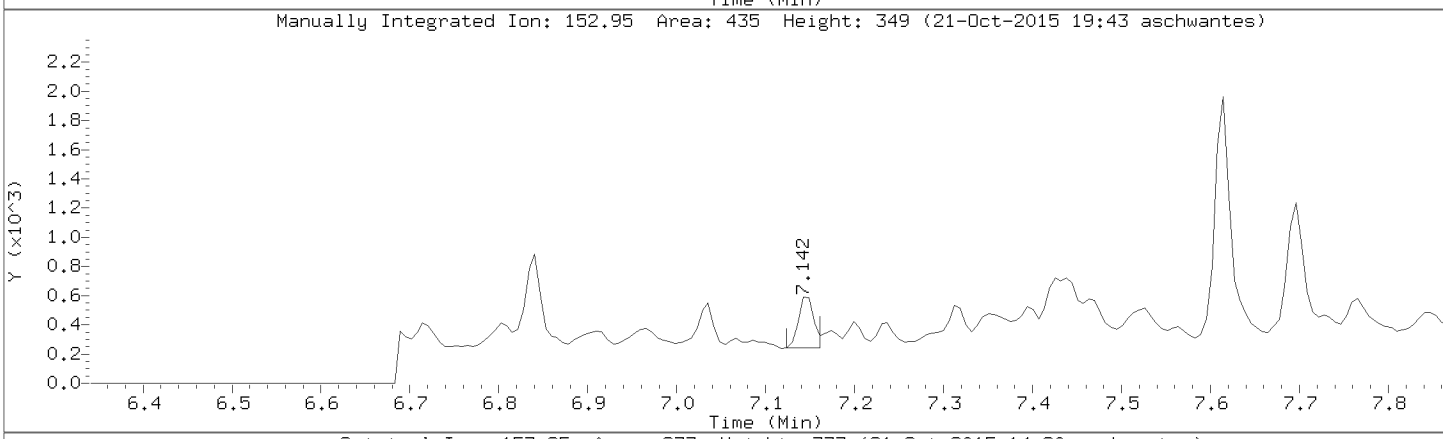


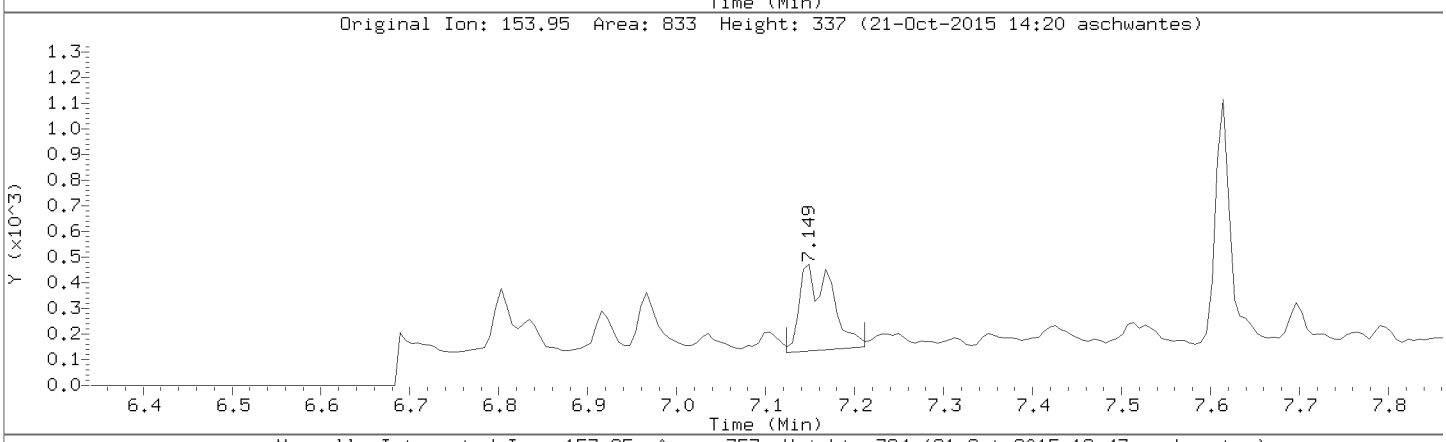


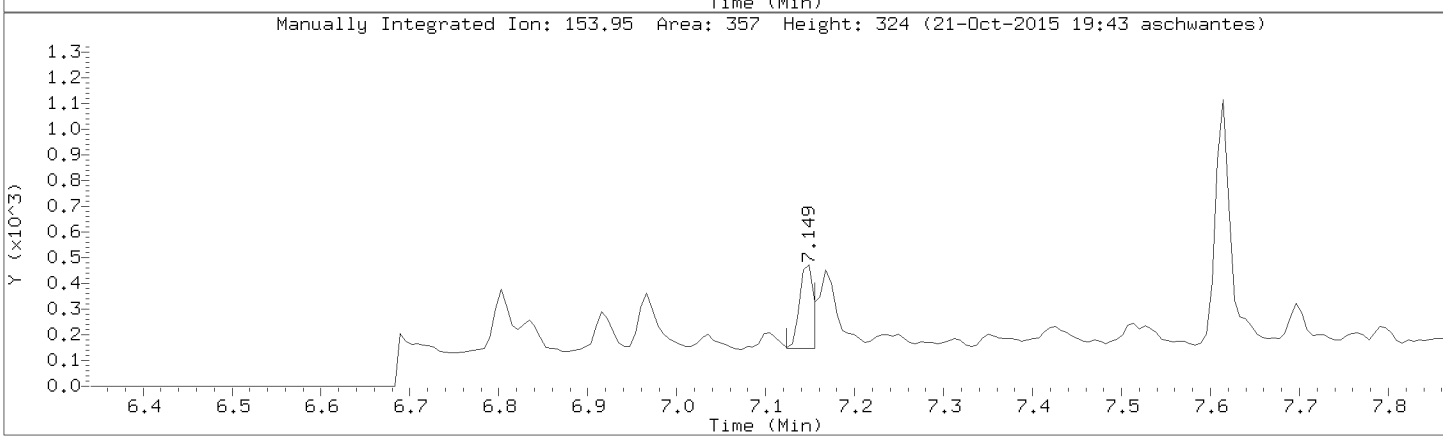
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211514.D
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

Compound: Acenaphthene
CAS Number: 83-32-9









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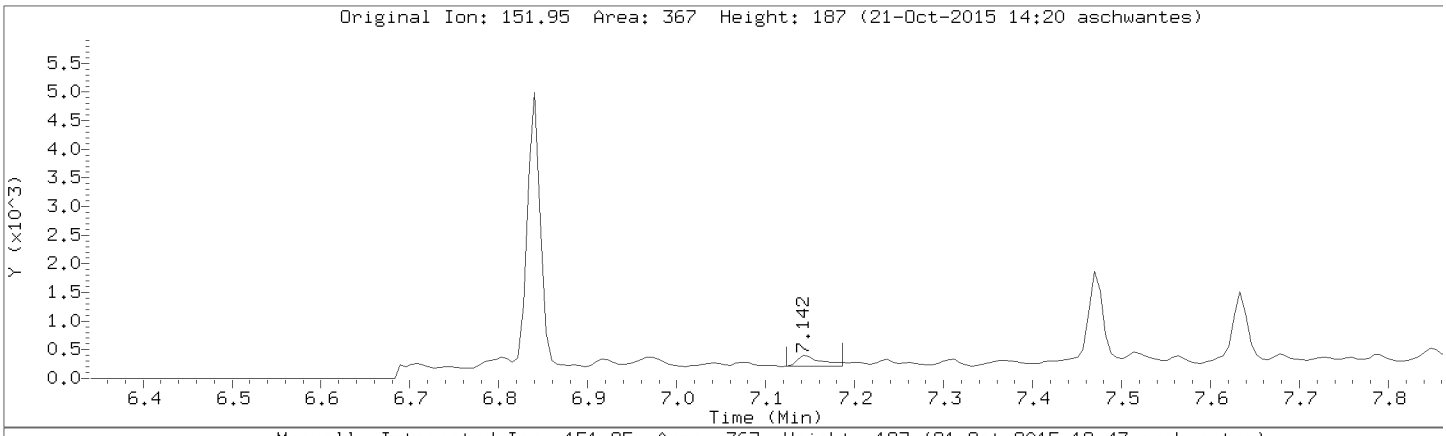
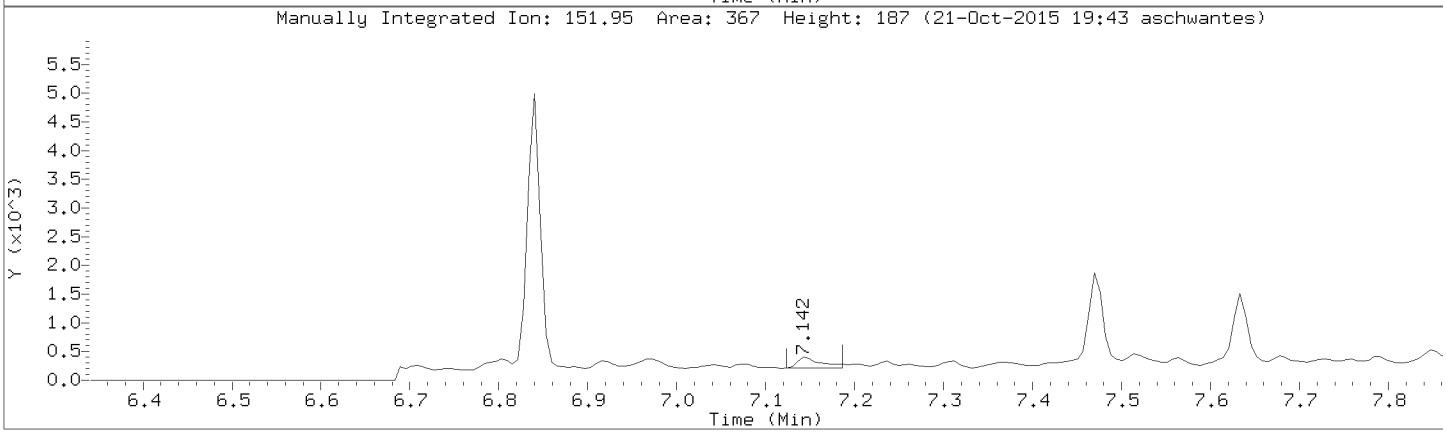
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010





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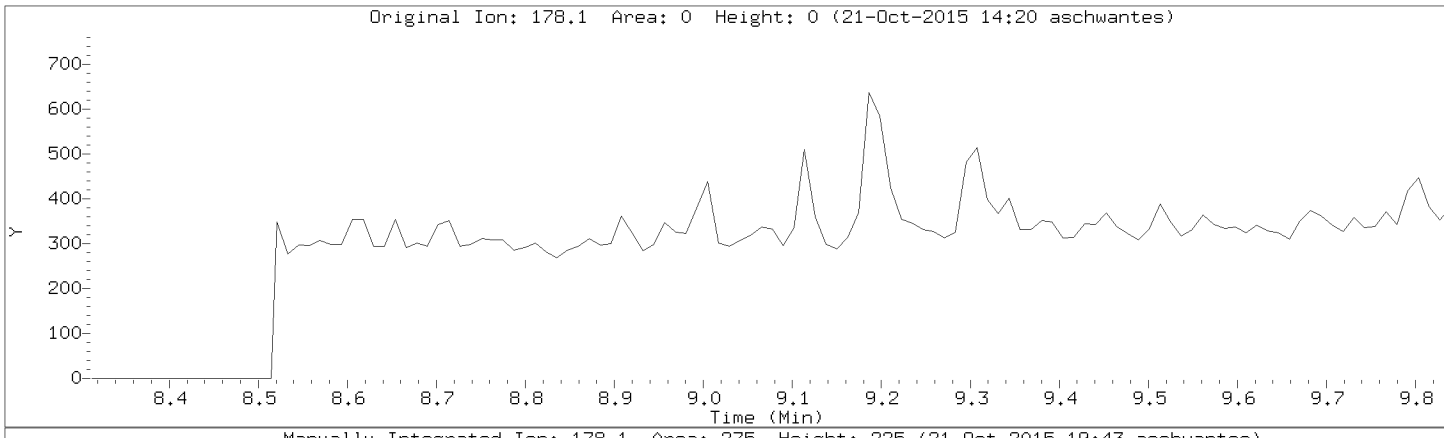
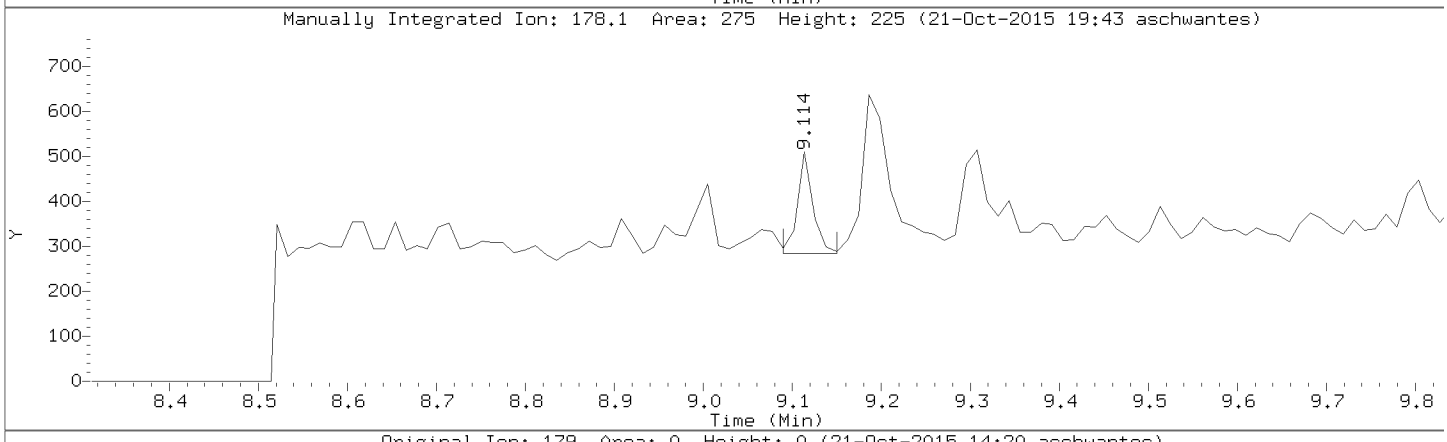
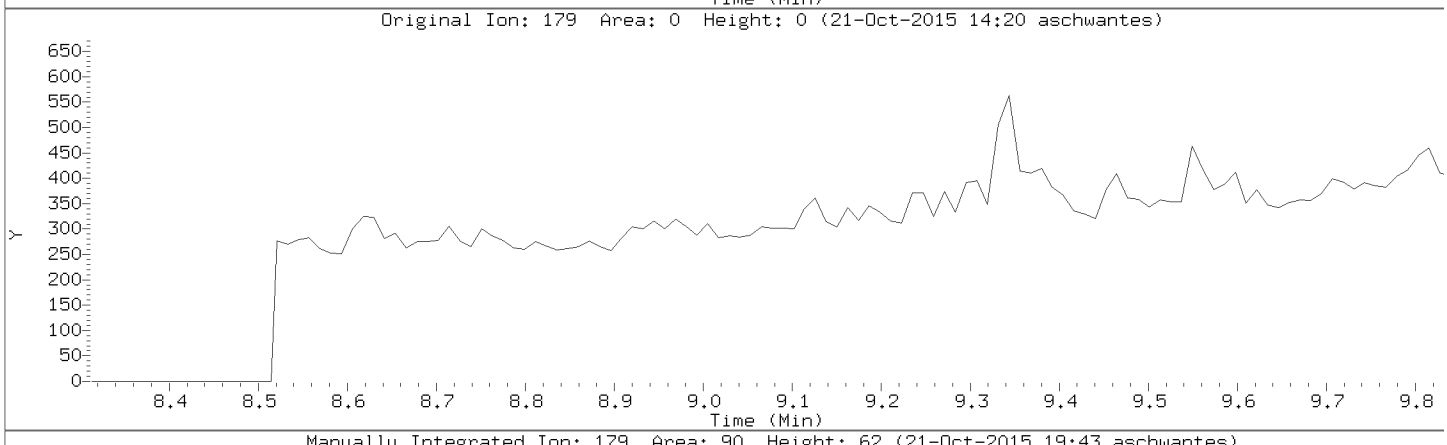
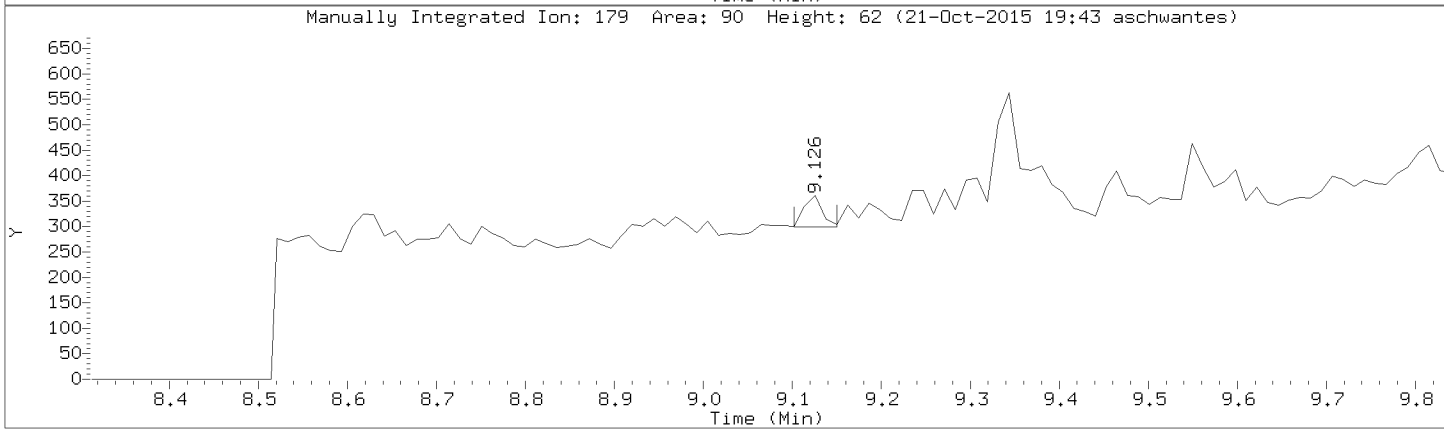
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

Compound: Phenanthrene
CAS Number: 85-01-8



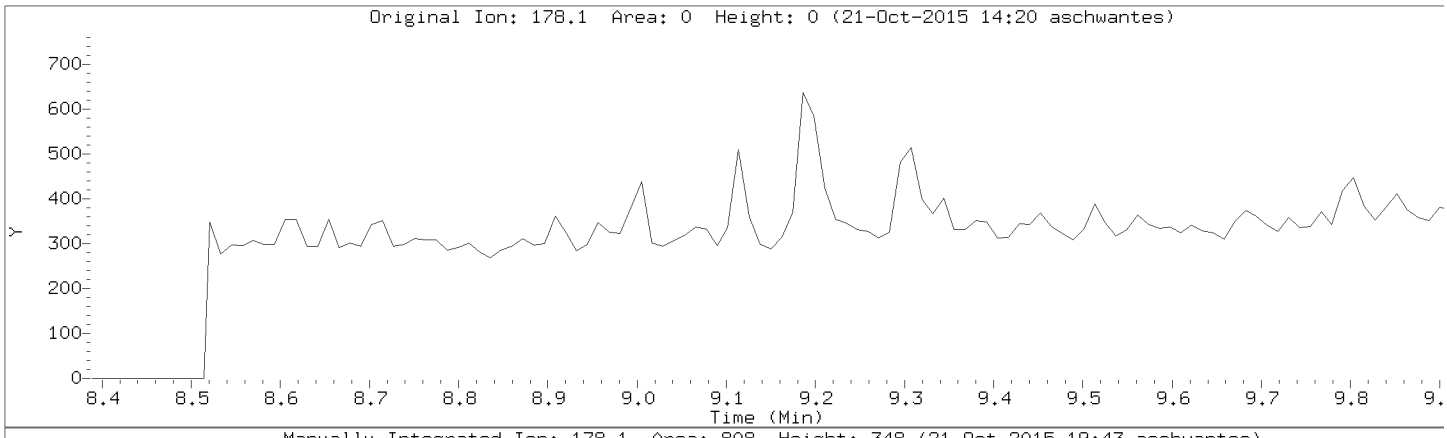


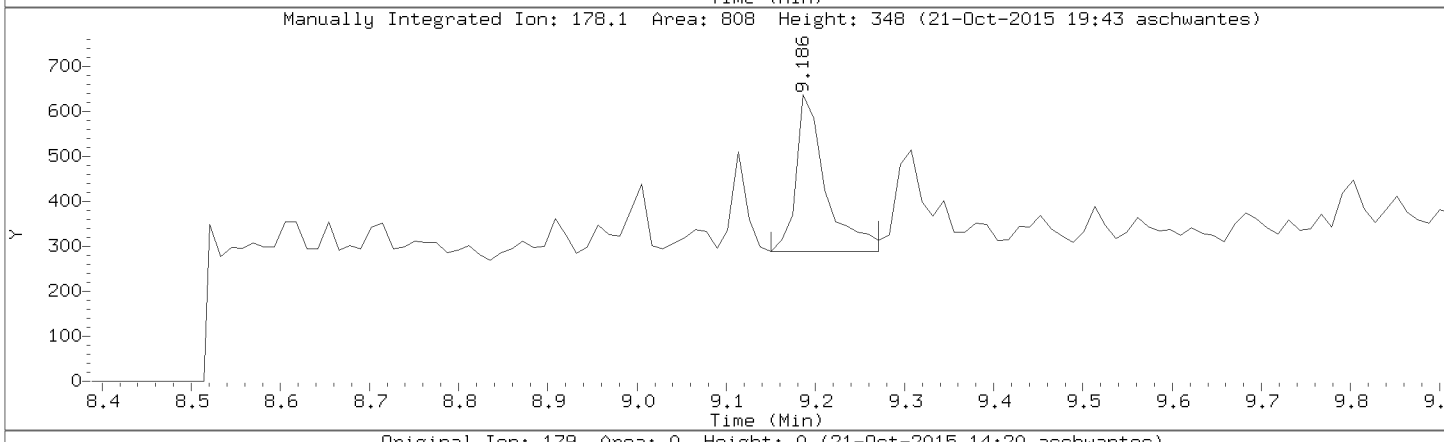


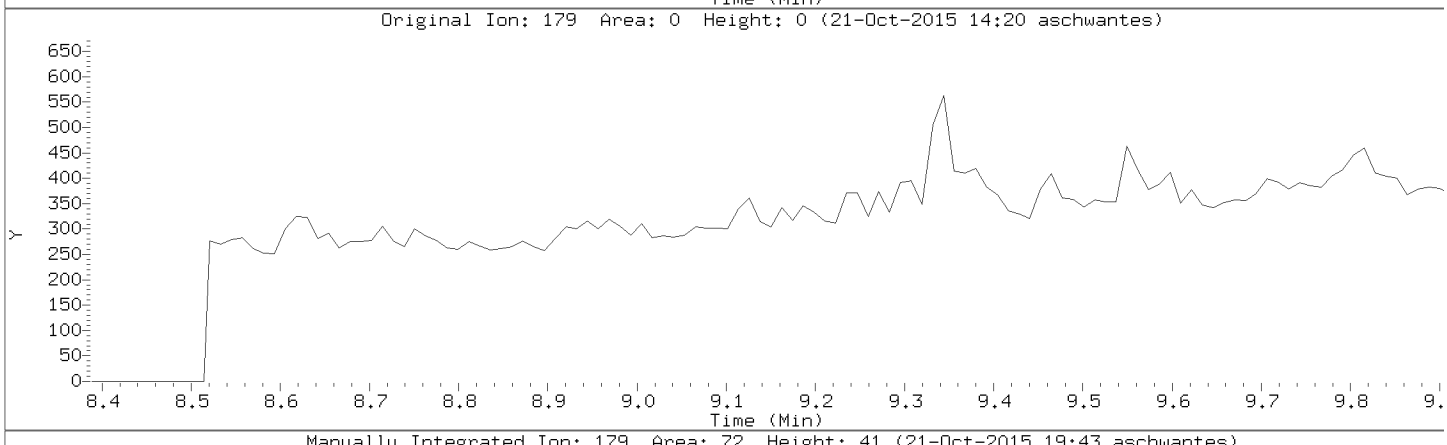


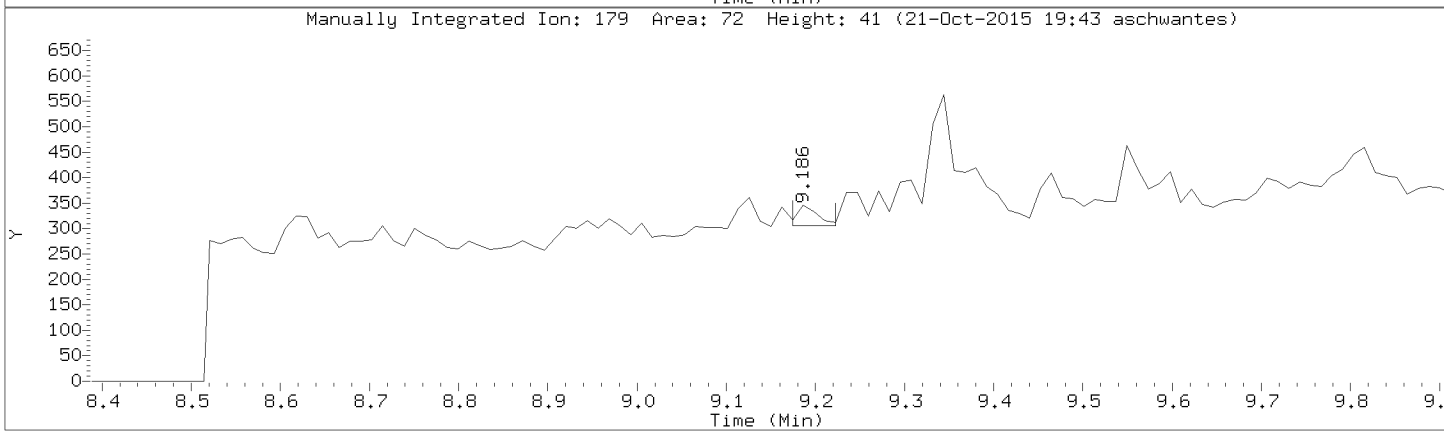
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211514.D
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

Compound: Anthracene
CAS Number: 120-12-7



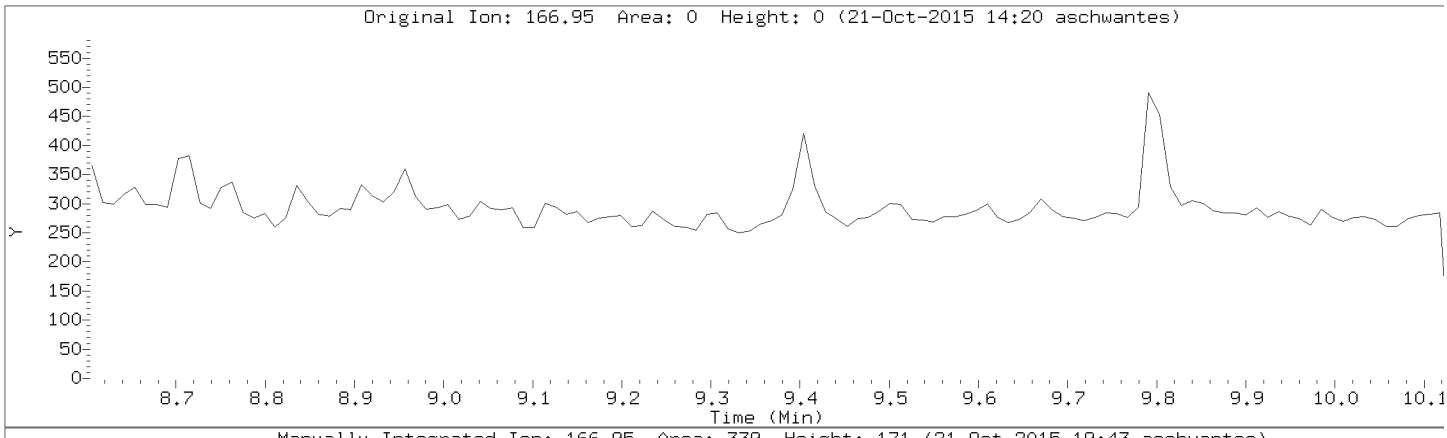


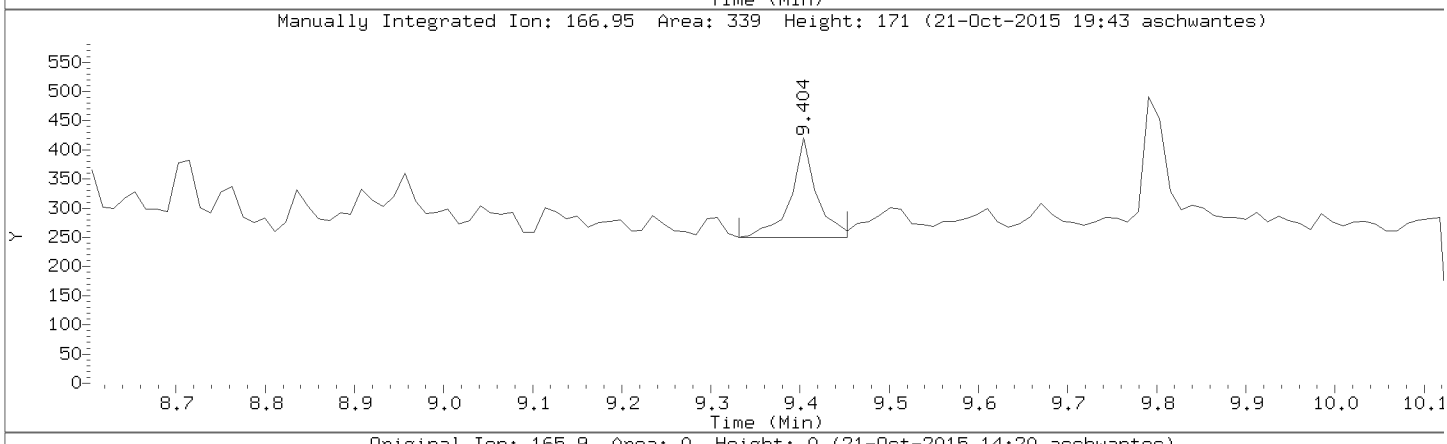


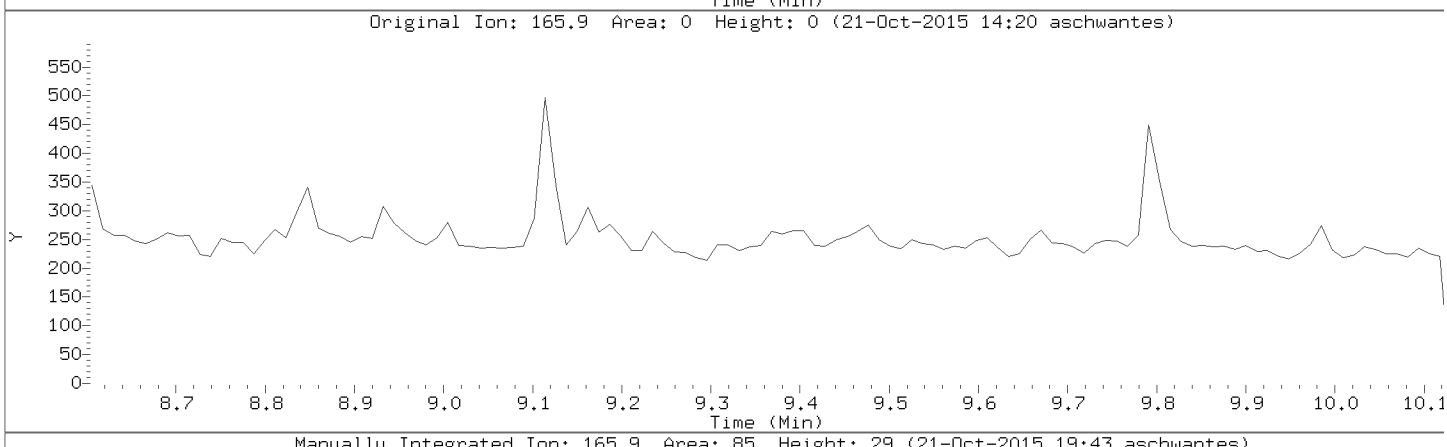


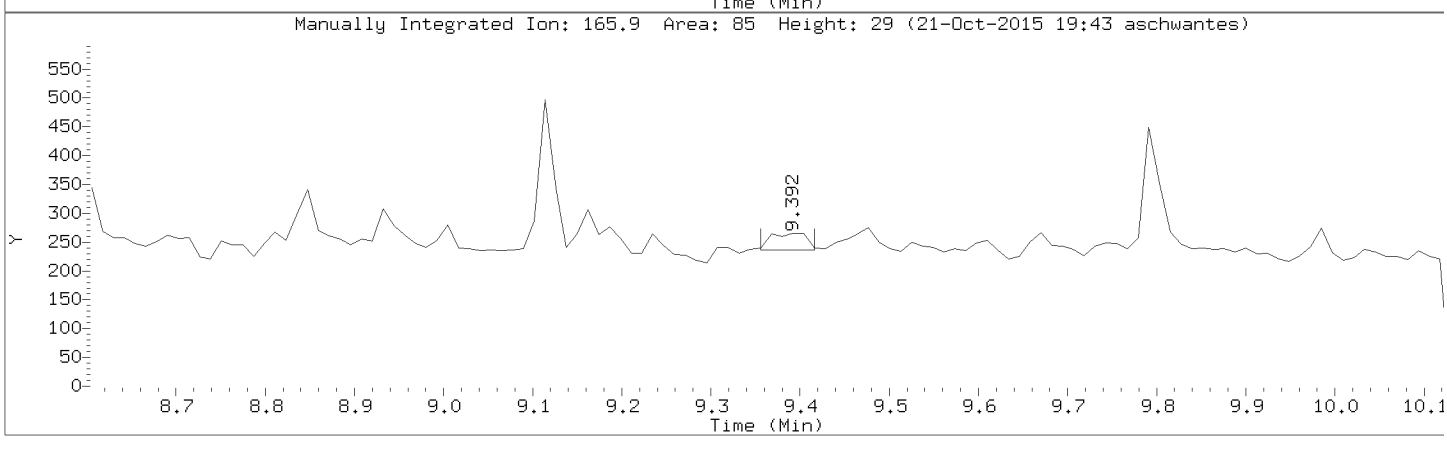
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211514.D
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

Compound: Carbazole
CAS Number: 86-74-8









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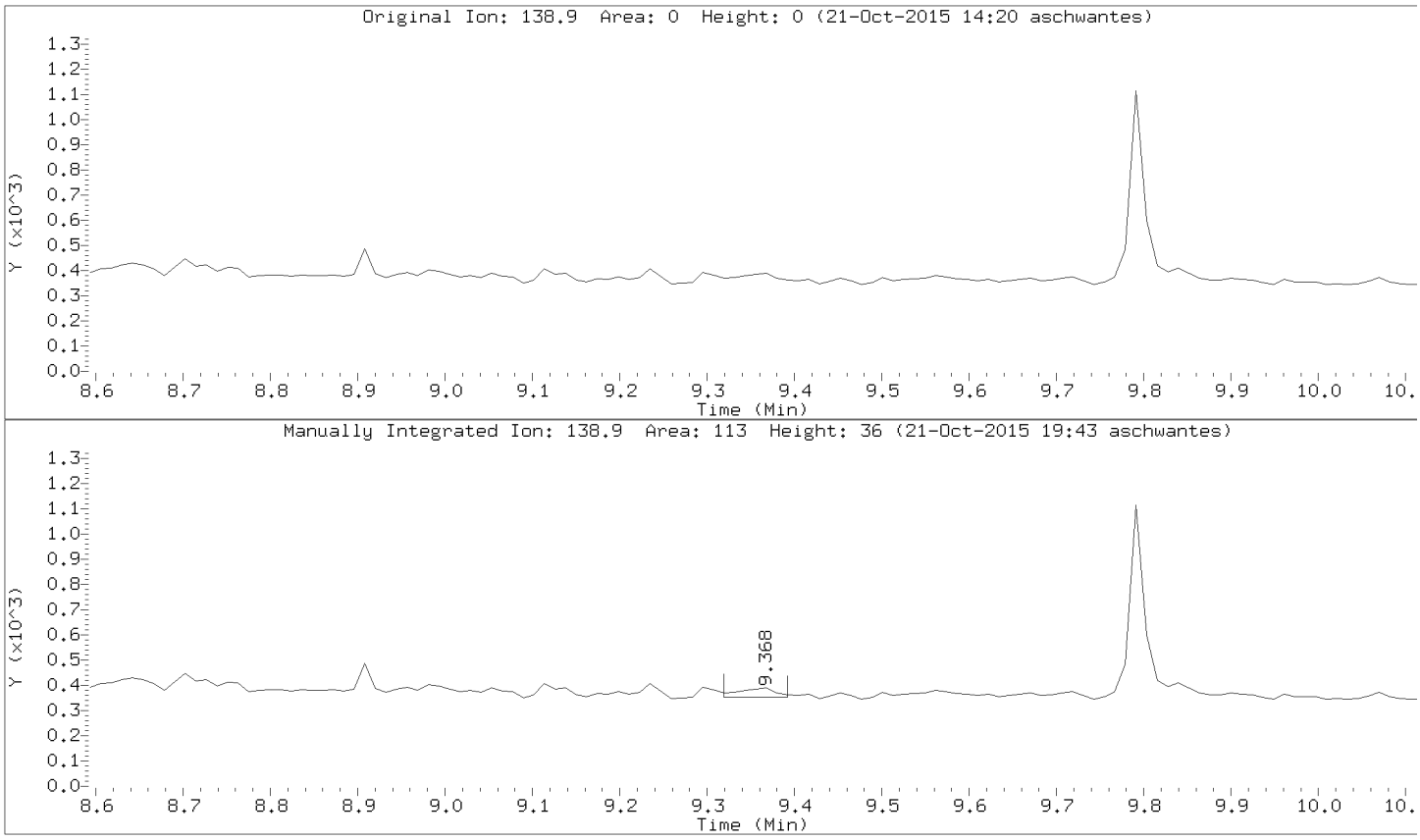
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010



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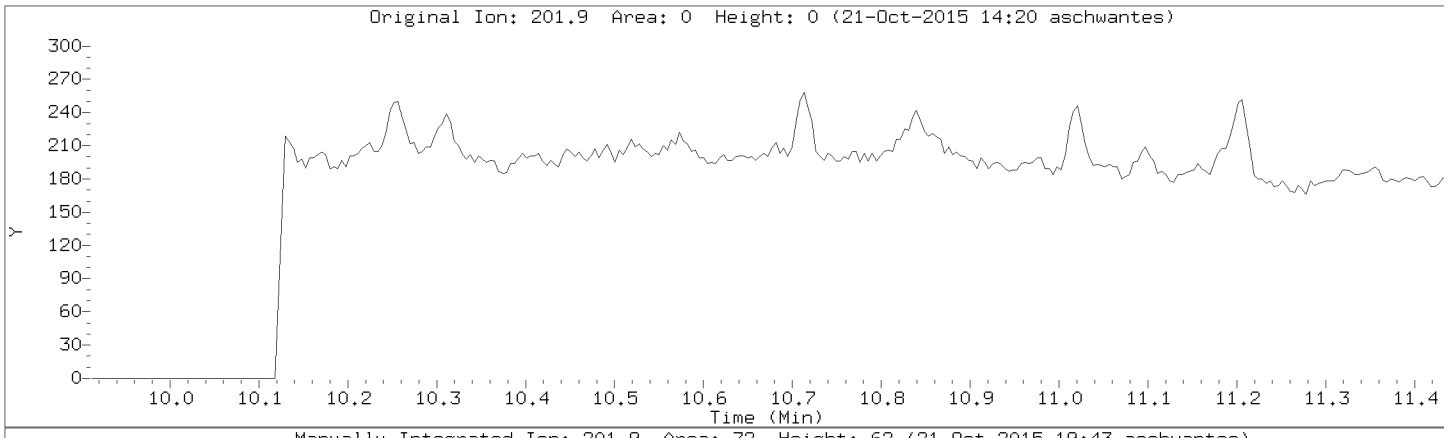
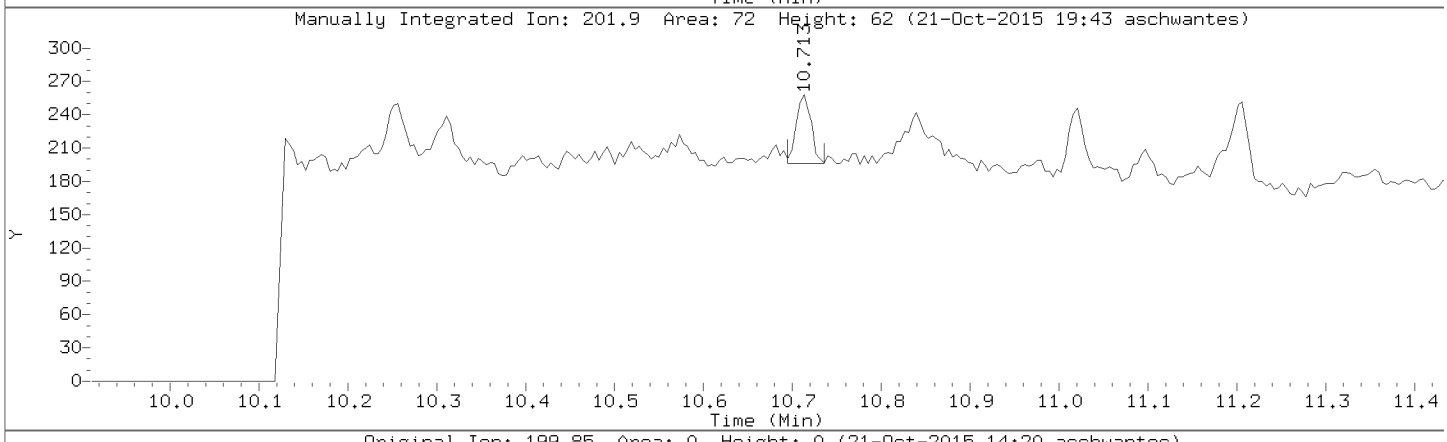
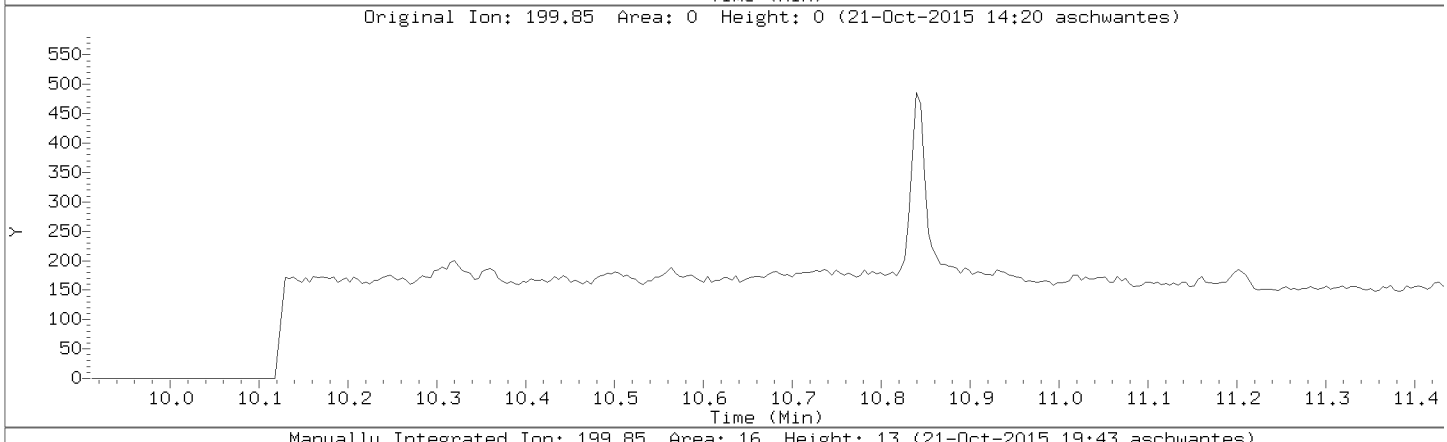
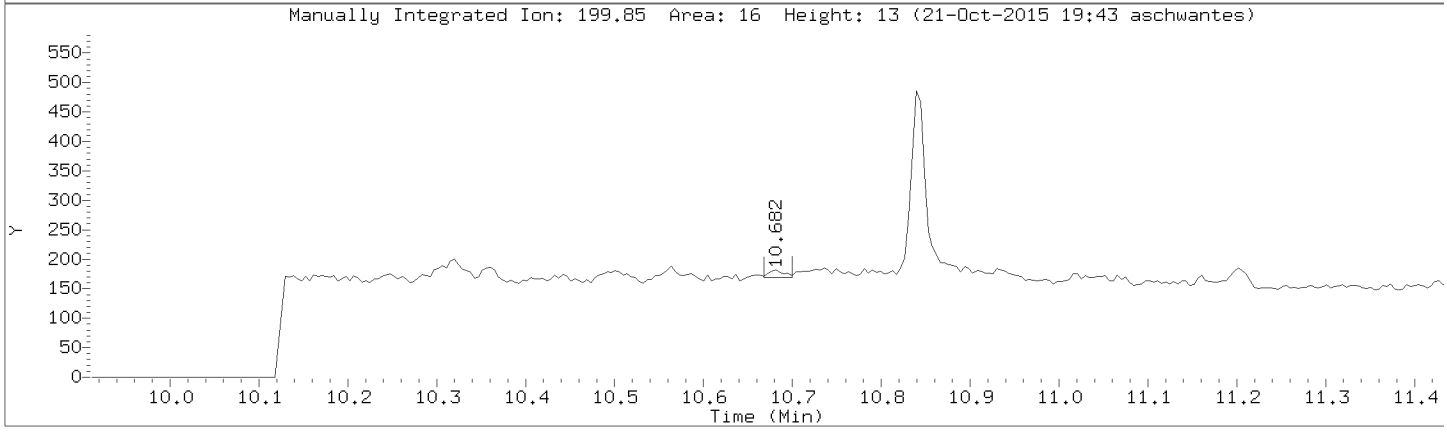
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

Compound: Fluoranthene
CAS Number: 206-44-0









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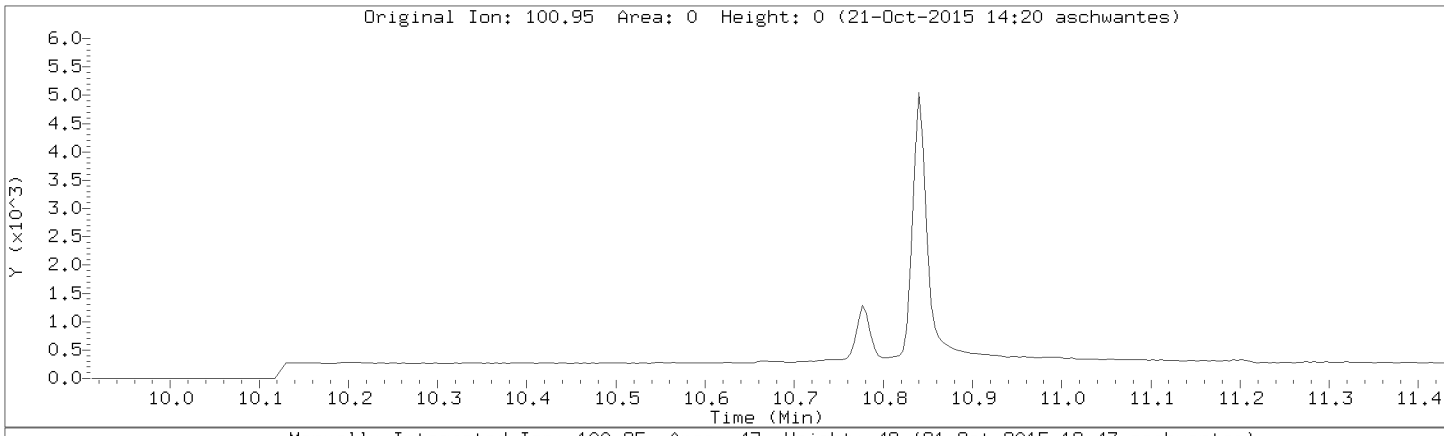
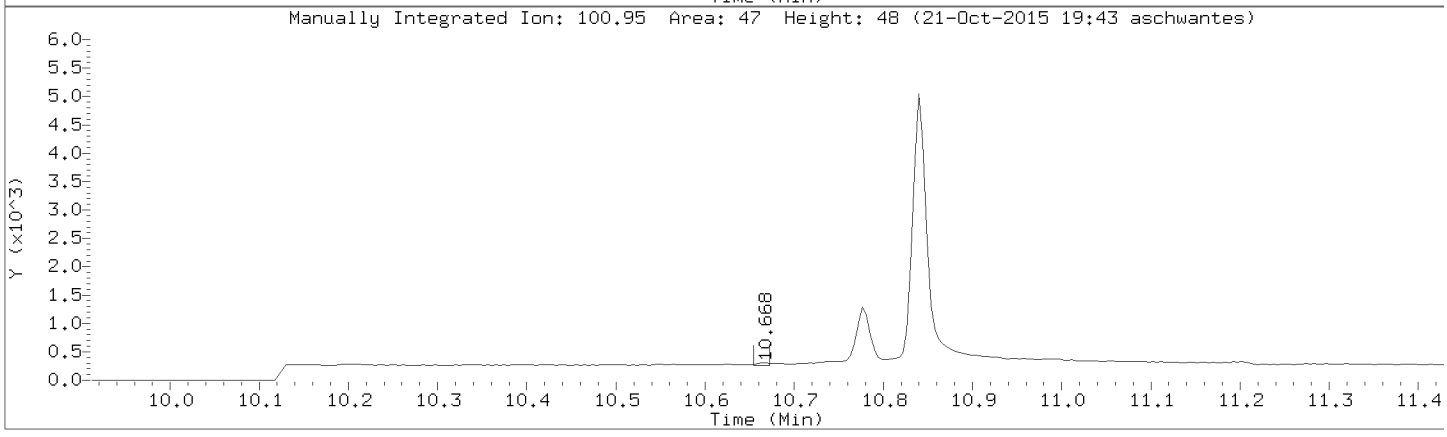
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010





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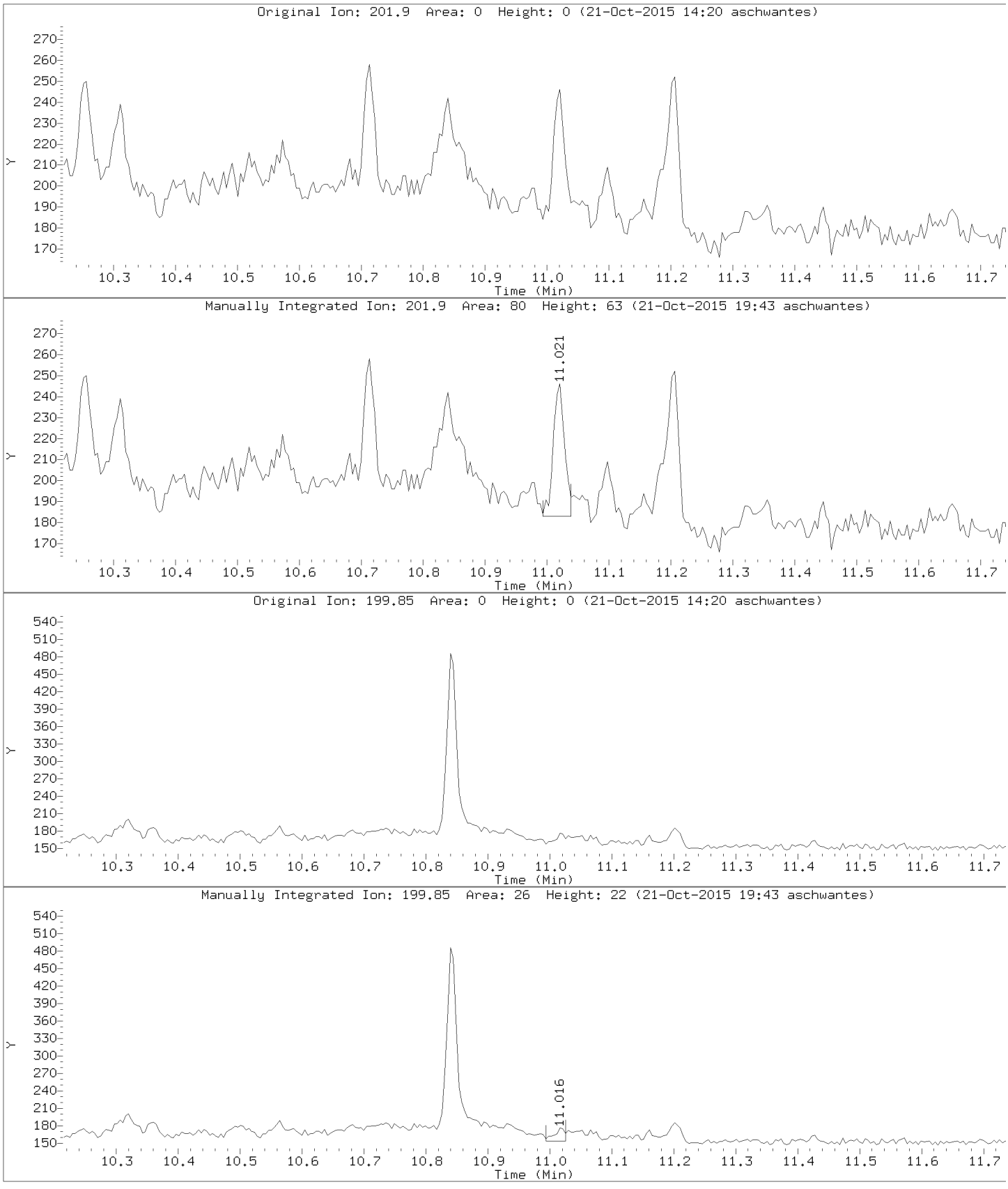
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

Compound: Pyrene
CAS Number: 129-00-0



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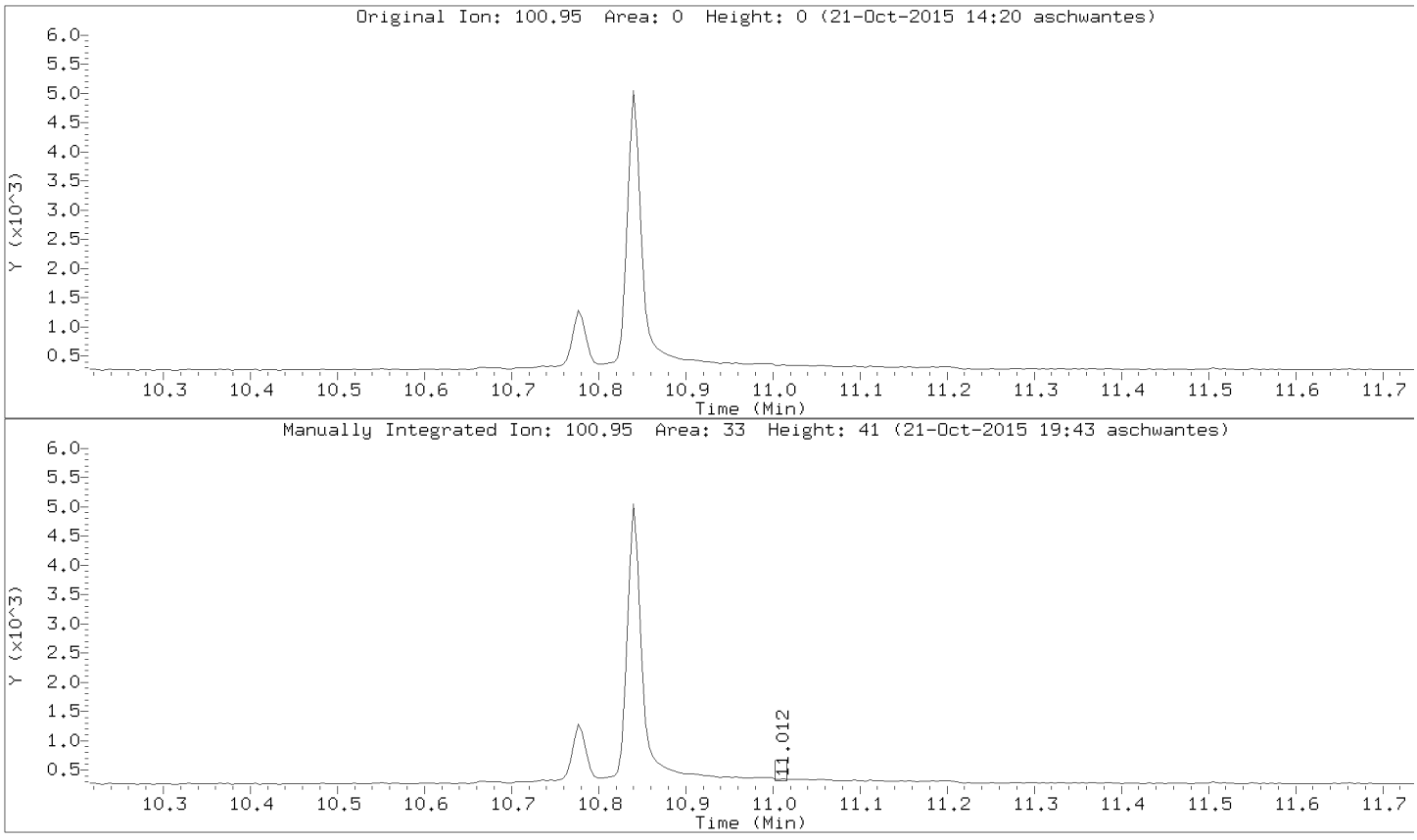
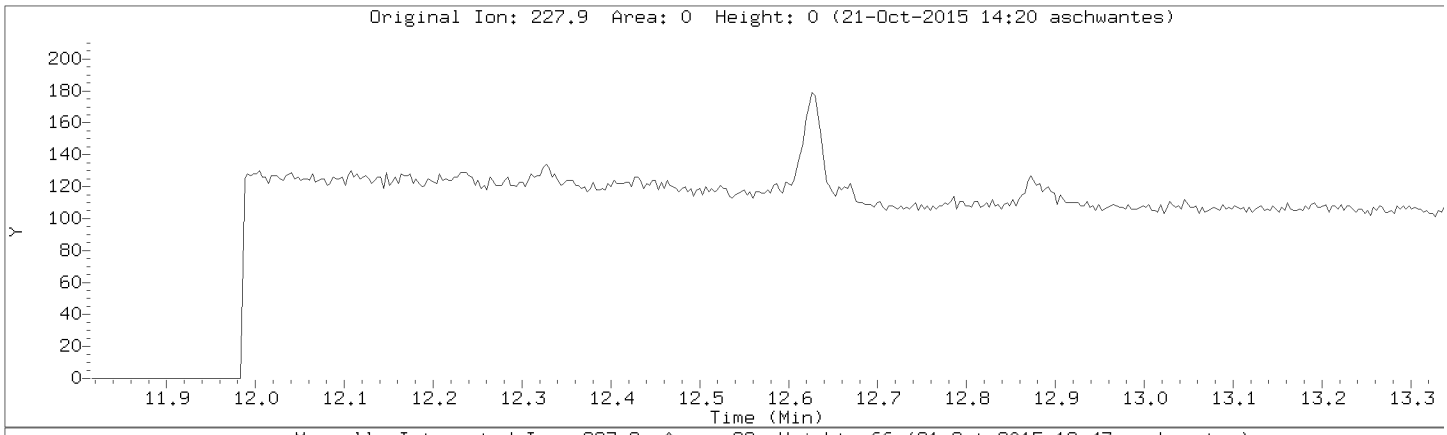
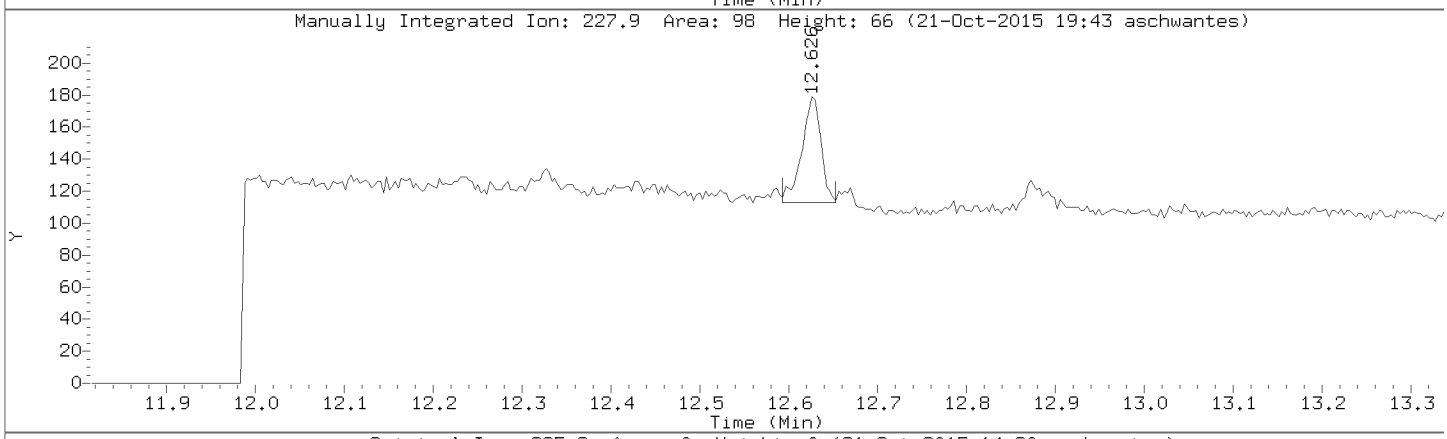
Lab Sample ID: 10326303010

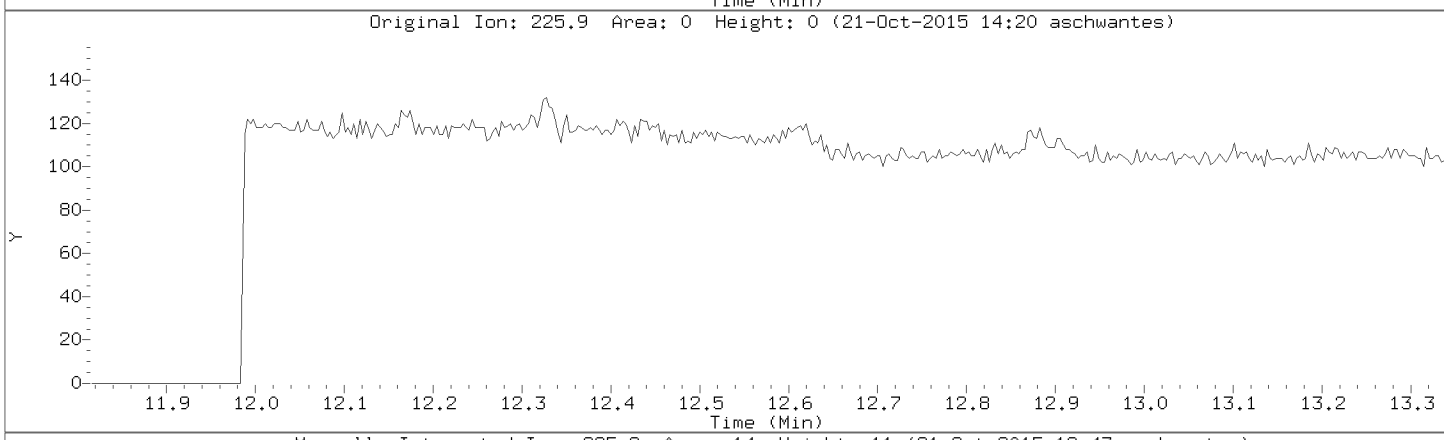


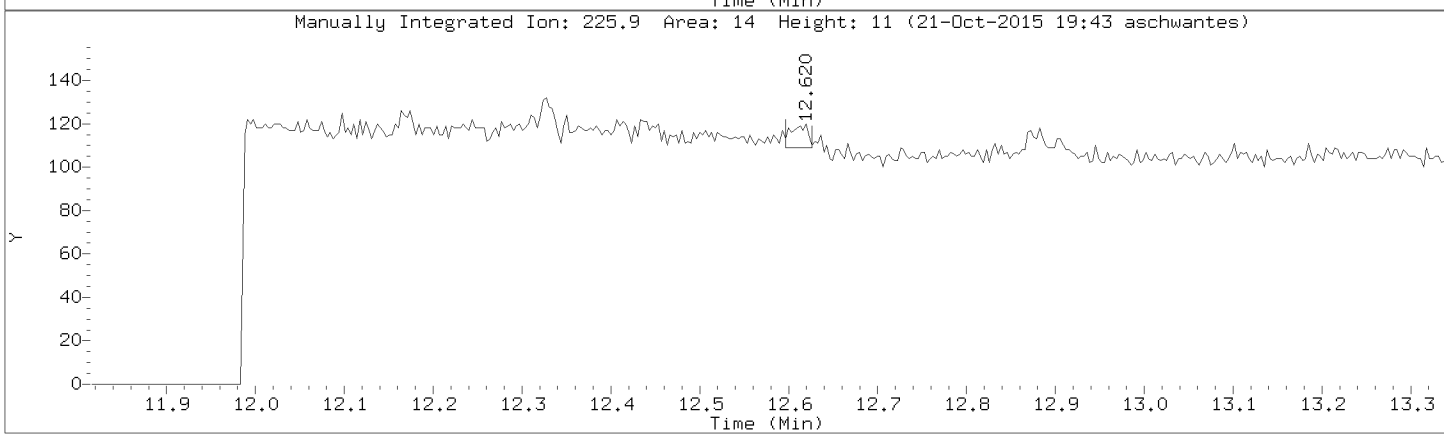
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211514.D
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

Compound: Benzo(a)anthracene
CAS Number: 56-55-3









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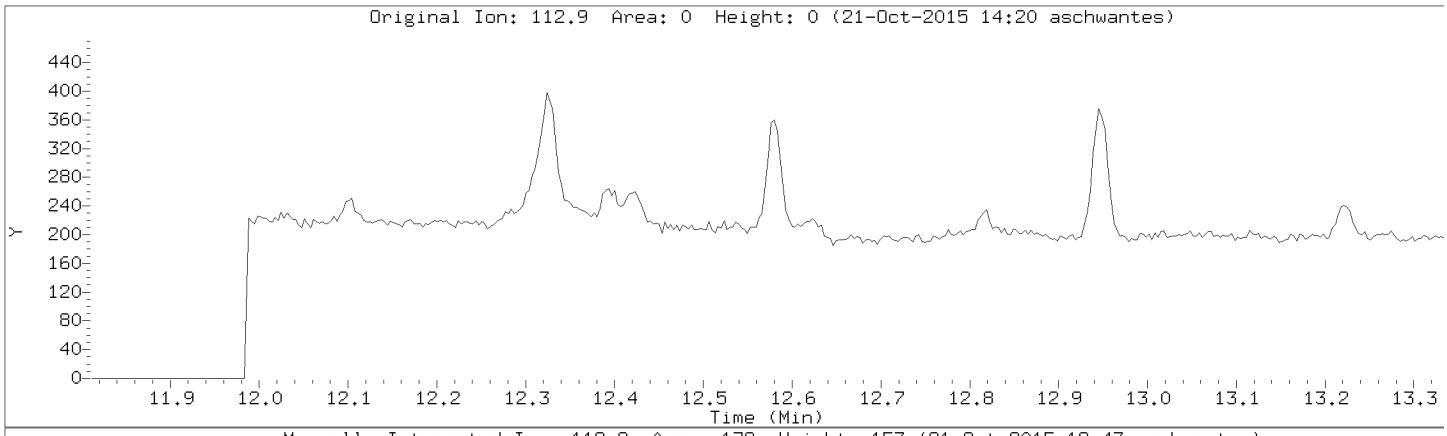
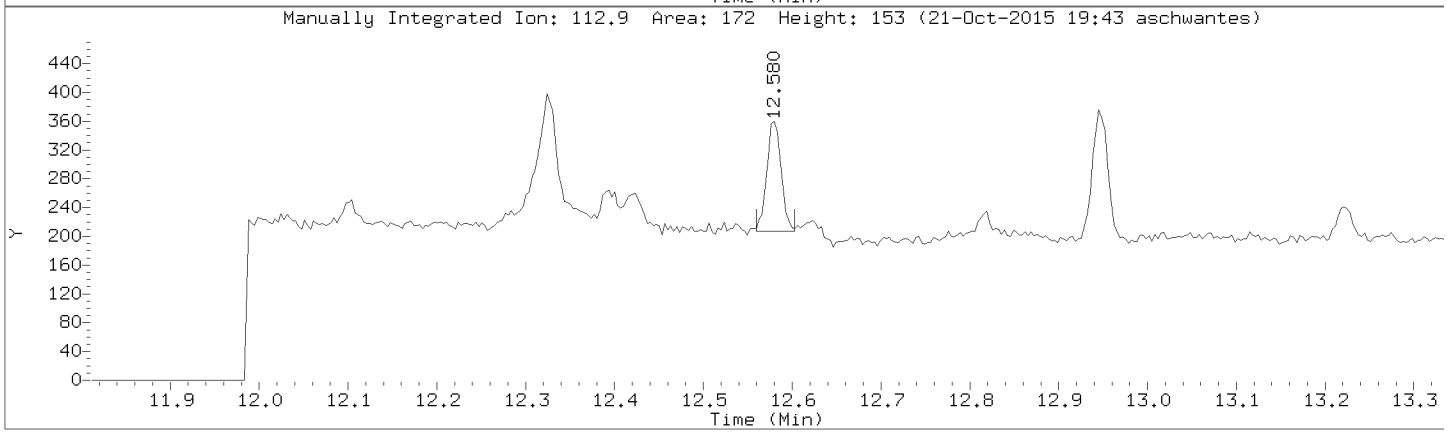
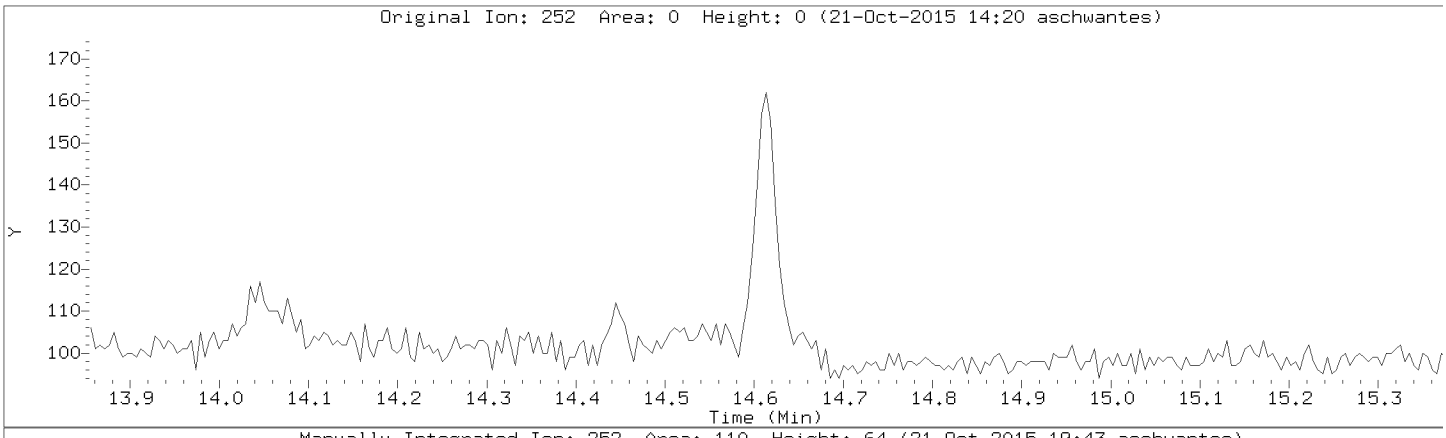
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

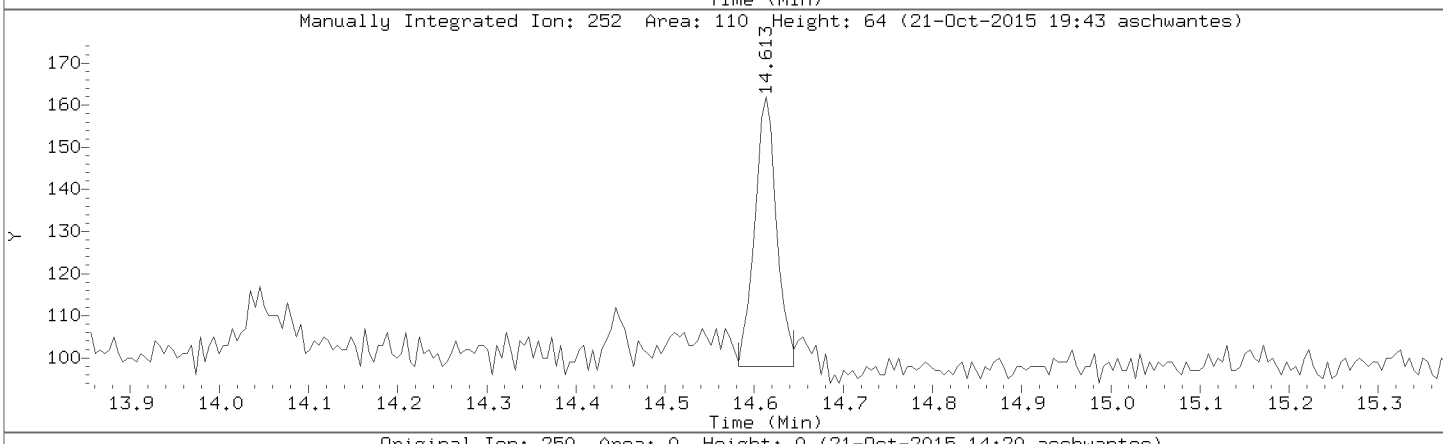


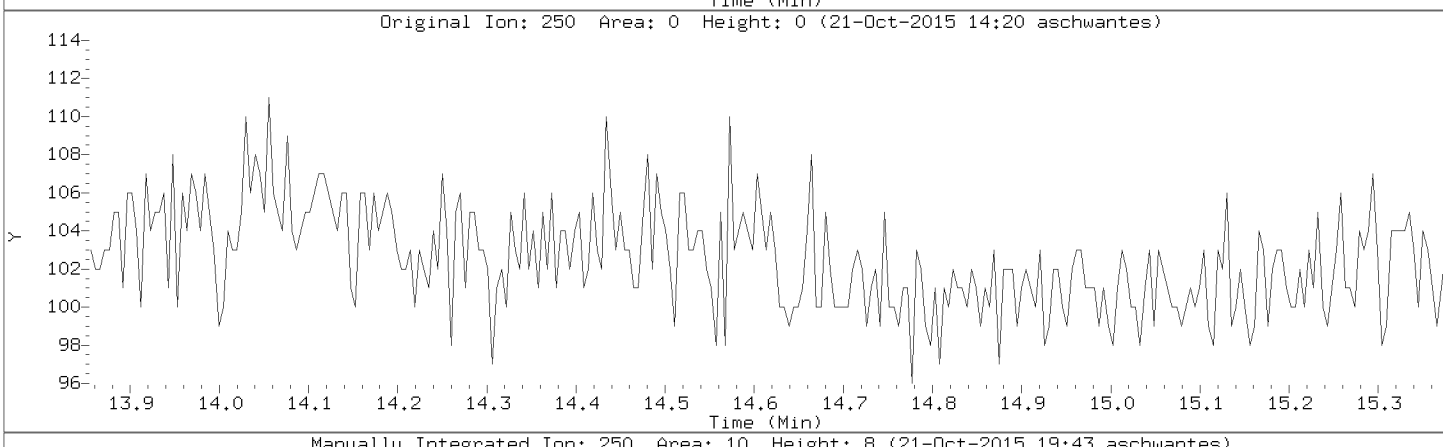


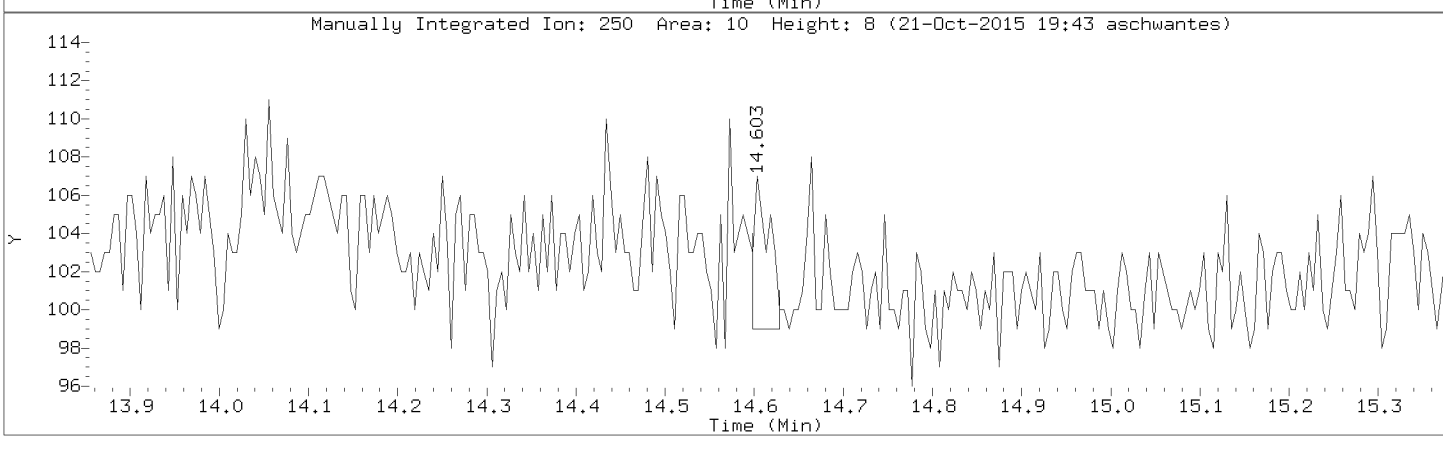
Data File: \\192.168.10.12\chem\10mssA.i\102115.b/10211514.D
Injection Date: 21-OCT-2015 11:47
Instrument: 10mssA.i
Lab Sample ID: 10326303010

Compound: Perylene
CAS Number:









Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b\29908.d

Date : 26-OCT-2015 14:12

Client ID:

Instrument: 10gcv6.i

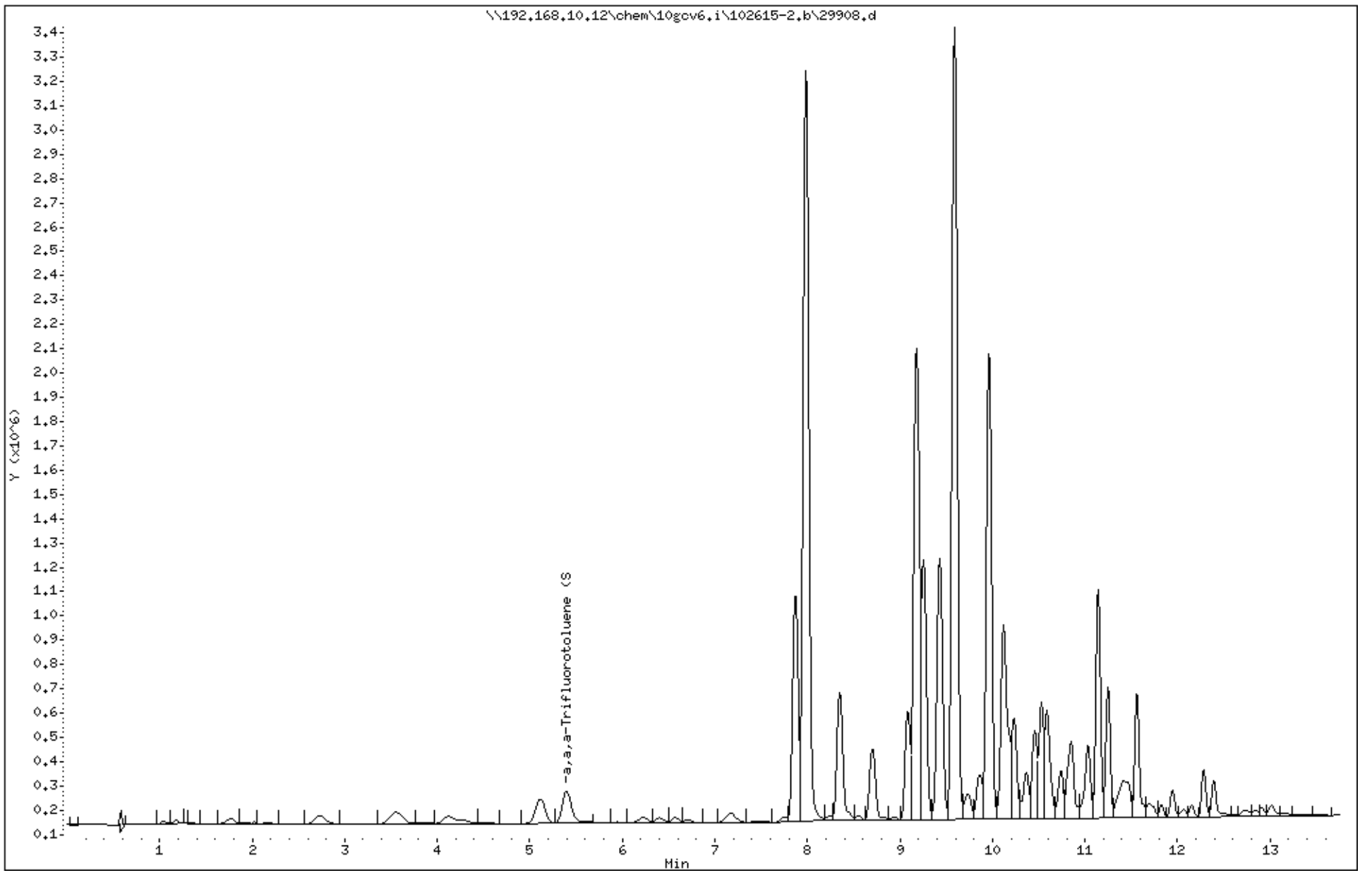
Sample Info: 10326303002

Purge Volume: 5.0

Operator: KMZ

Column phase: ZB-624

Column diameter: 0.53



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Injection Date: 26-OCT-2015 14:12
Instrument: 10gcv6.i
Lab Sample ID: 10326303002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10gcv5.i\102315-2.b\29608.d

Page 2

Date : 23-OCT-2015 16:44

Client ID: MW-13-101315

Instrument: 10gcv5.i

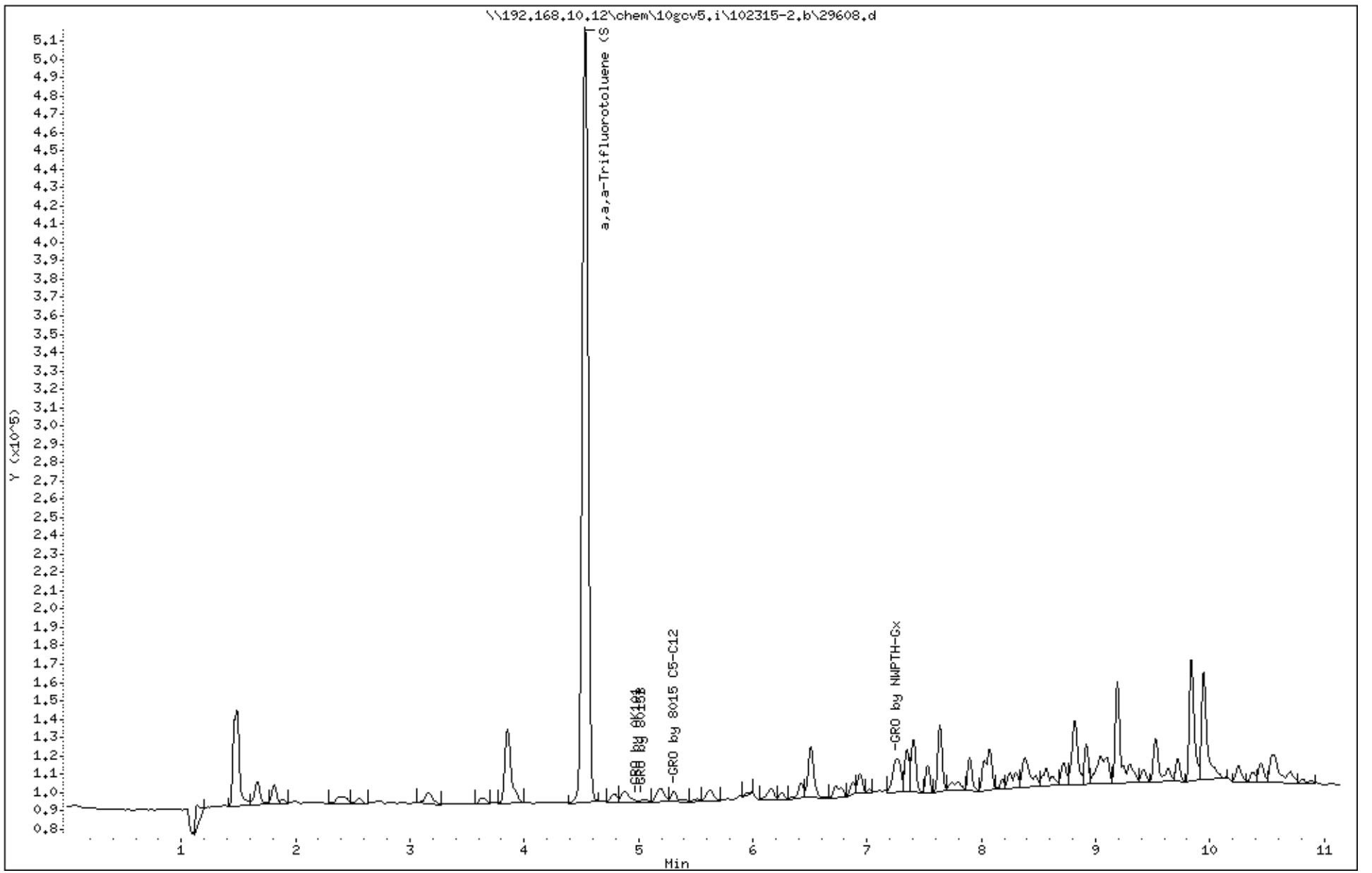
Sample Info: 10326303003,

Purge Volume: 5.0

Operator: KMZ

Column phase: DB-624

Column diameter: 0.53



Data File: \\192.168.10.12\chem\10gcv5.i\102315-2.b/29608.d (ManInt: ALLGRO.sub Orig: ALLGRO.sub)
Injection Date: 23-OCT-2015 16:44
Instrument: 10gcv5.i
Lab Sample ID: 10326303003

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
GRO by 8015 C5-C12	1325321	1325321
GRO by 8015B	875104	875104
GRO by AK101	587907	587907
GRO by NWPTH-Gx	1309753	1309753
a,a,a-Trifluorotoluene (S)	1252755	1252755

Data File: \\192.168.10.12\chem\10gcv5.i\102315-2.b\29609.d

Page 2

Date : 23-OCT-2015 17:06

Client ID: MW-12-101315

Instrument: 10gcv5.i

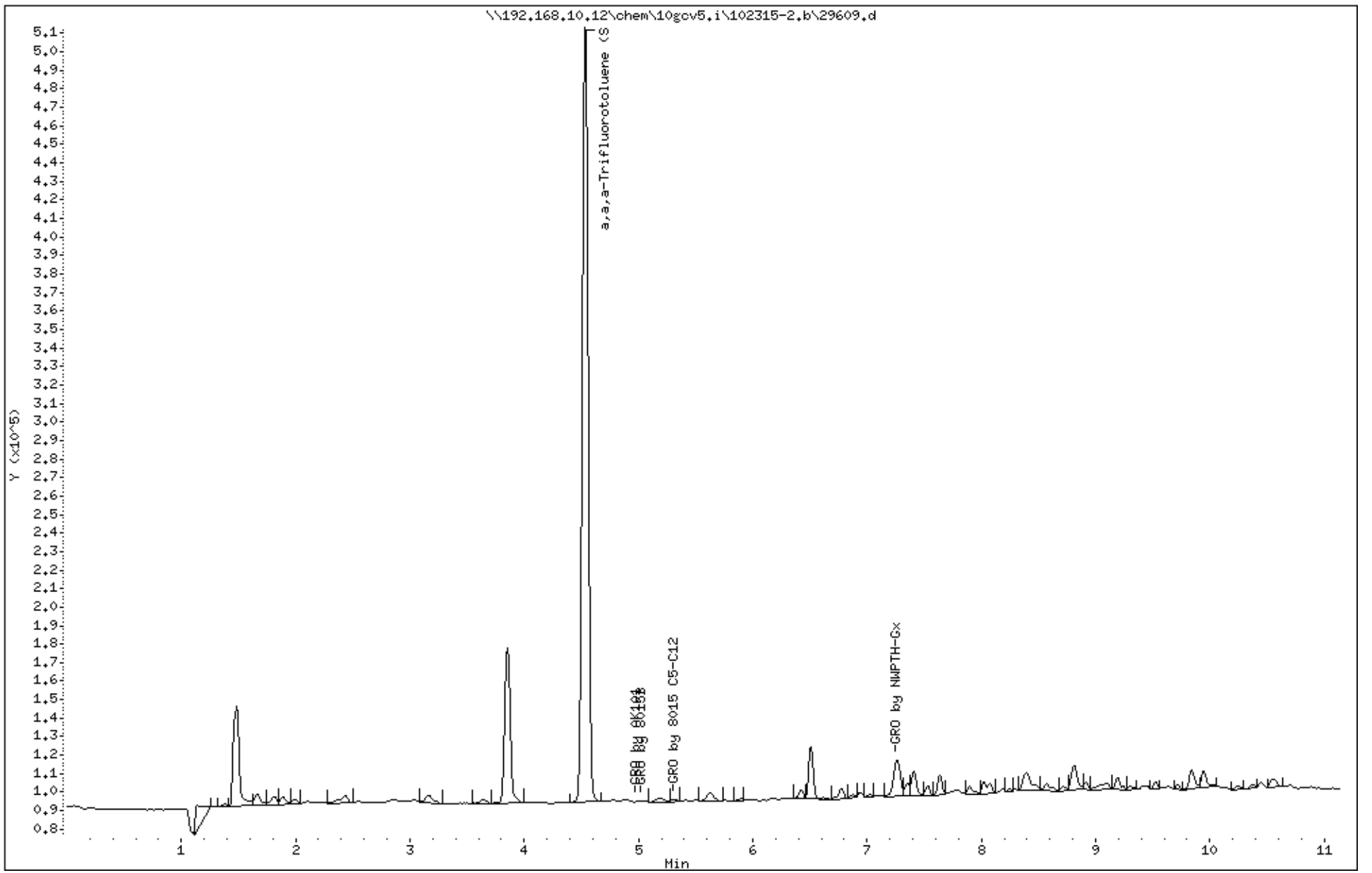
Sample Info: 10326303004,

Purge Volume: 5.0

Operator: KMZ

Column phase: DB-624

Column diameter: 0.53



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Injection Date: 23-OCT-2015 17:06
Instrument: 10gcv5.i
Lab Sample ID: 10326303004

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
GRO by 8015 C5-C12	741493	741493
GRO by 8015B	566021	566021
GRO by AK101	463550	463550
GRO by NWPTH-Gx	454492	454492
a,a,a-Trifluorotoluene (S)	1222266	1222266

Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b\29907.d

Date : 26-OCT-2015 13:52

Client ID:

Instrument: 10gcv6.i

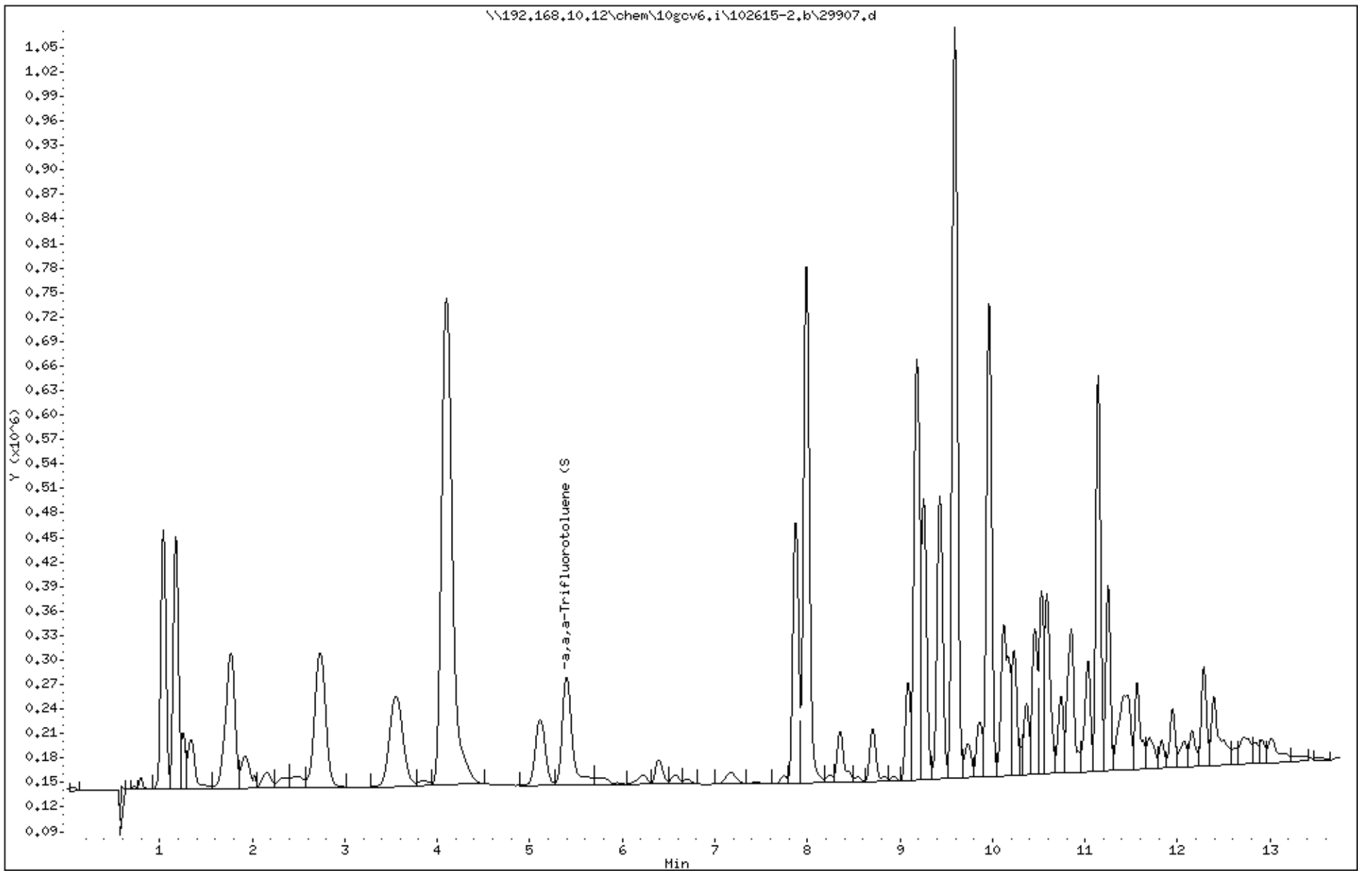
Sample Info: 10326303005

Purge Volume: 5.0

Operator: KMZ

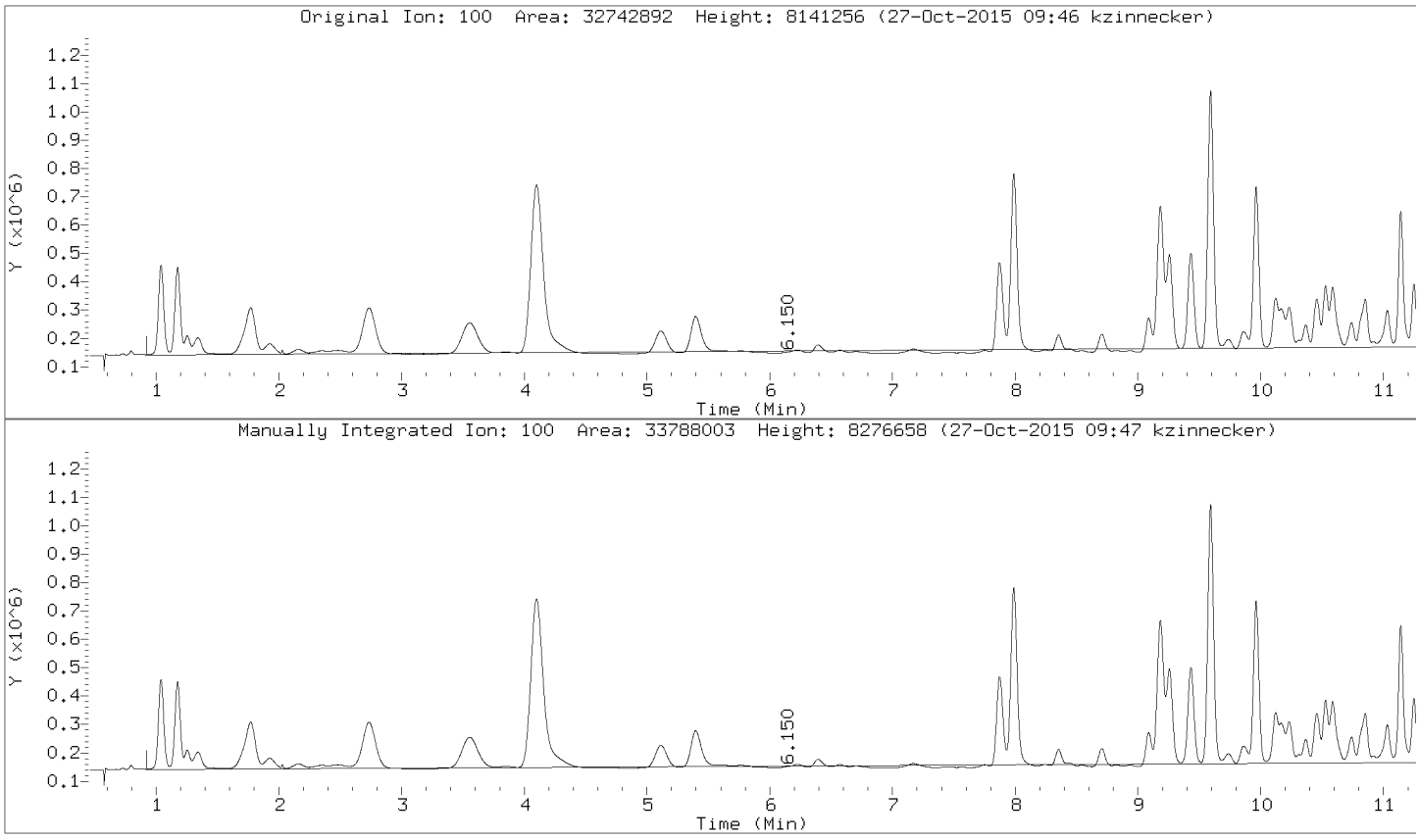
Column phase: ZB-624

Column diameter: 0.53



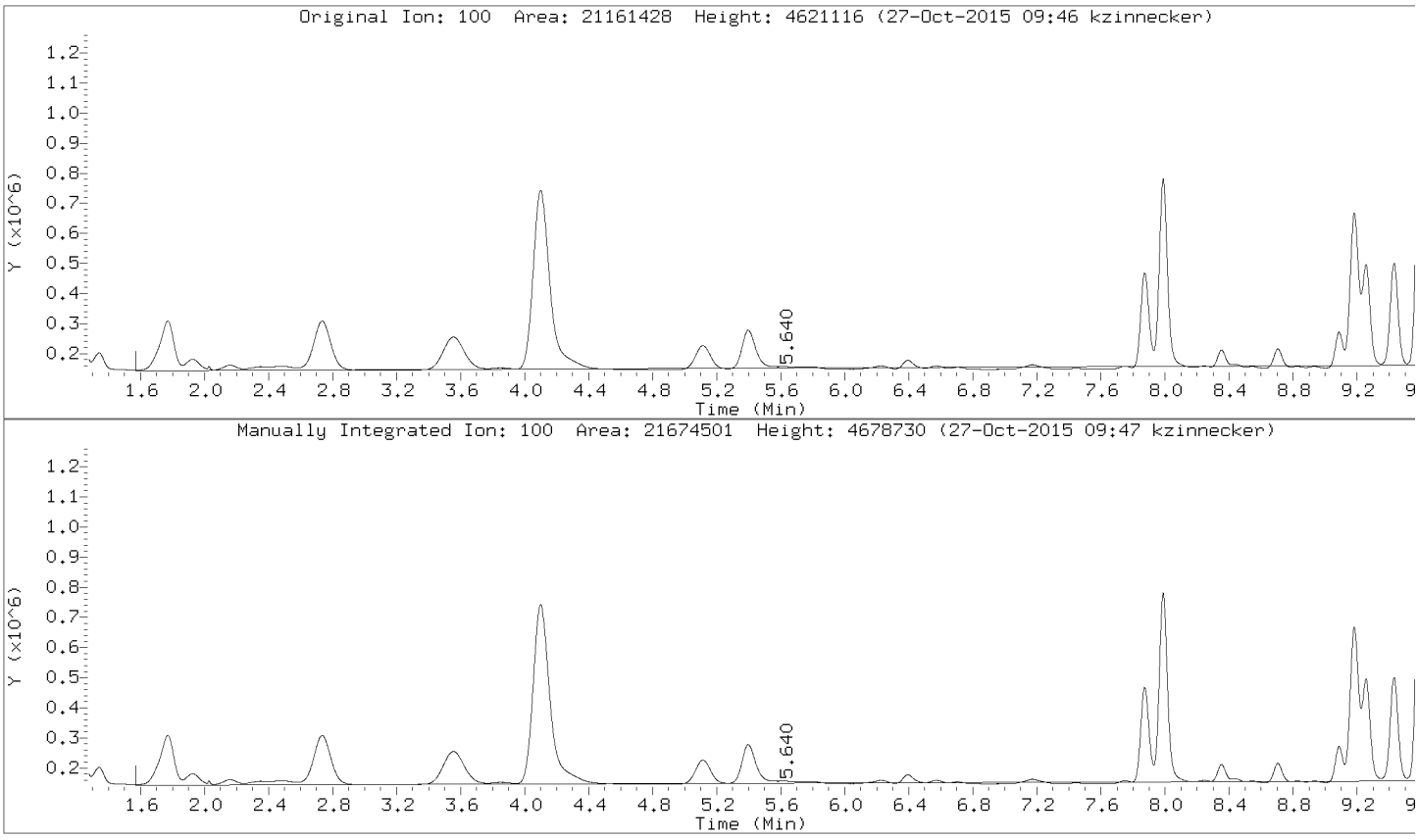
Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29907.d
Injection Date: 26-OCT-2015 13:52
Instrument: 10gcv6.i
Lab Sample ID: 10326303005

Compound: CA TPH-GRO (C5-C12) Review Code:
CAS Number: na



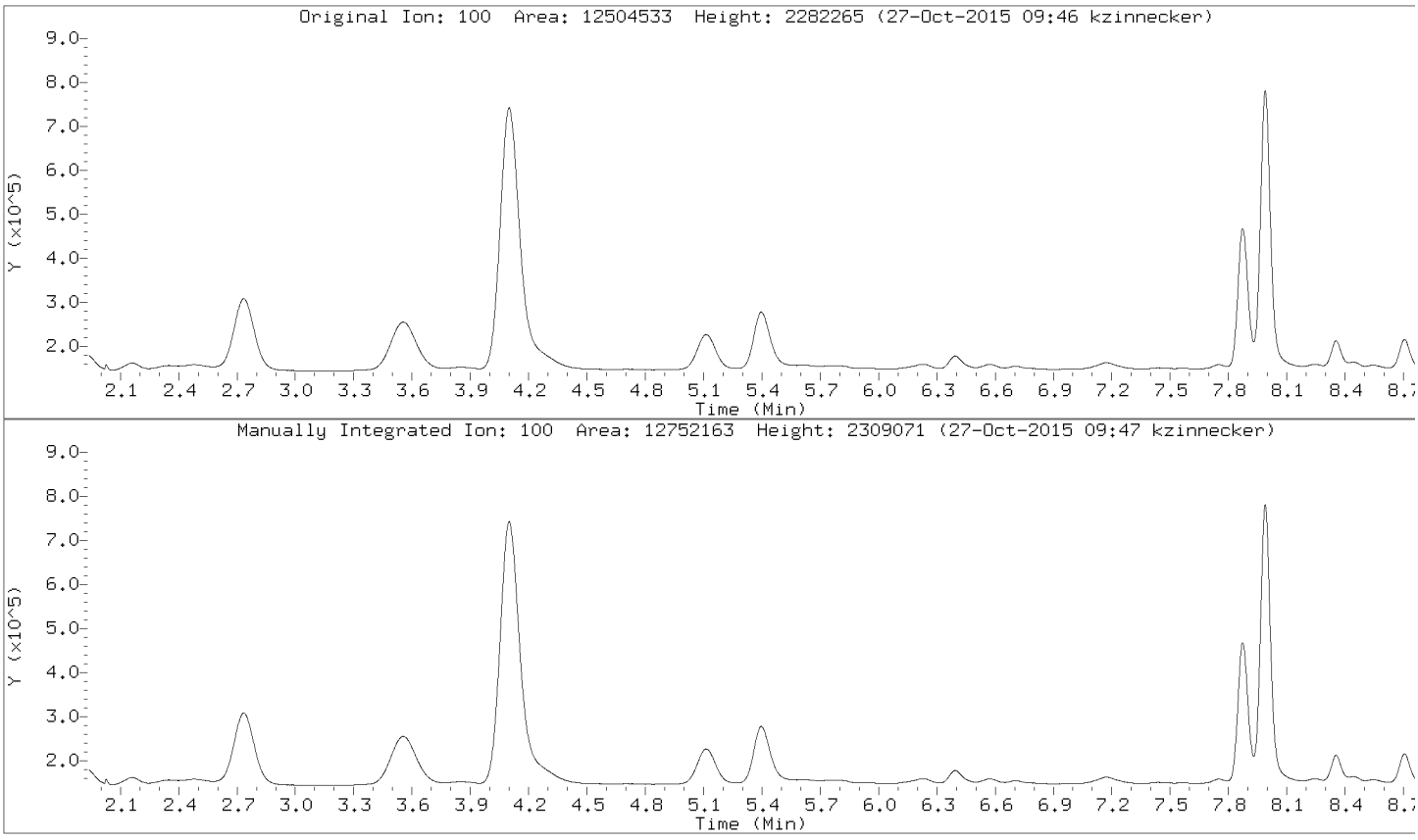
Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29907.d
Injection Date: 26-OCT-2015 13:52
Instrument: 10gcv6.i
Lab Sample ID: 10326303005

Compound: Gasoline Range Organics Review Code:
CAS Number: na



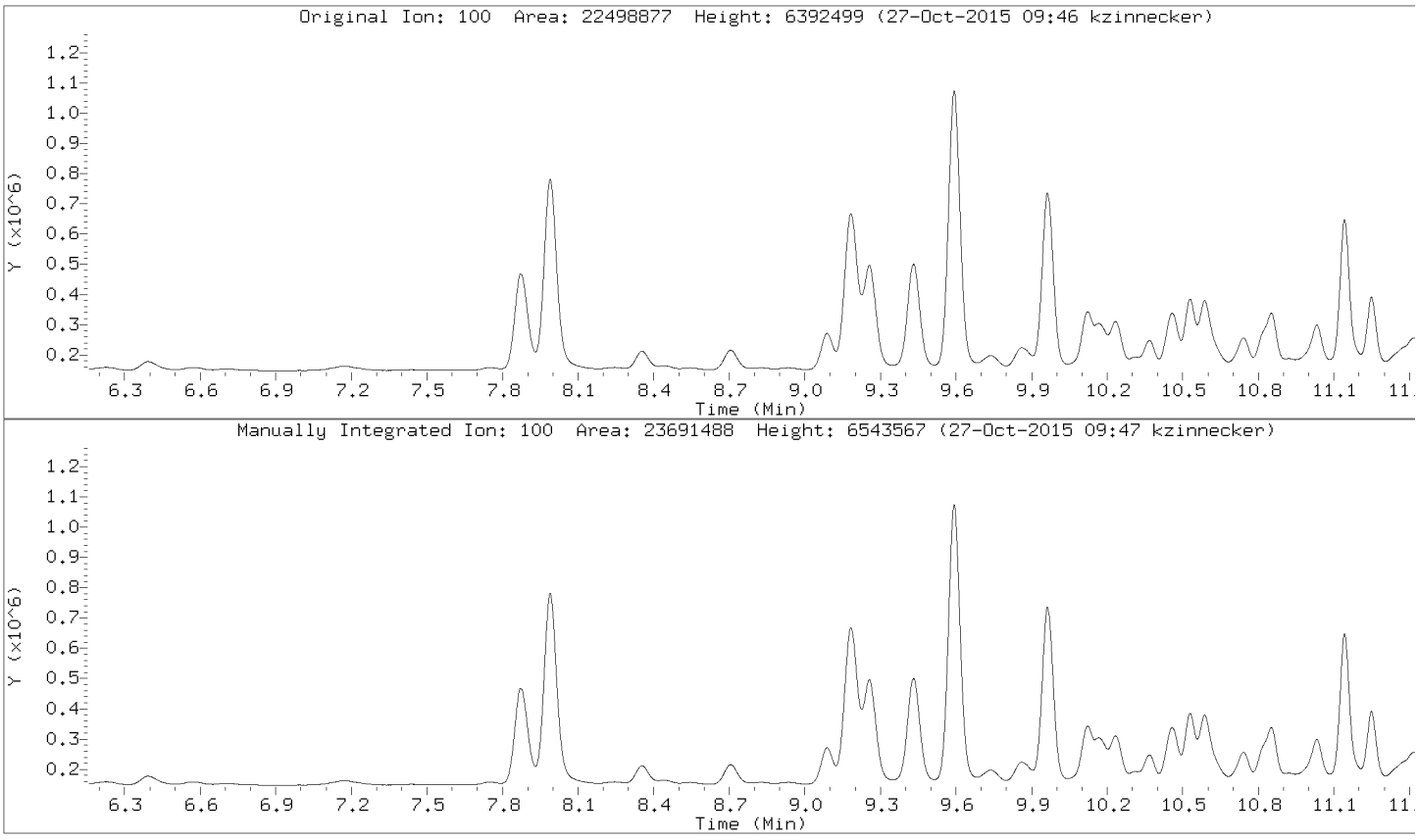
Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29907.d
Injection Date: 26-OCT-2015 13:52
Instrument: 10gcv6.i
Lab Sample ID: 10326303005

Compound: AK101 Gasoline Range Organics Review Code:
CAS Number:



Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29907.d
Injection Date: 26-OCT-2015 13:52
Instrument: 10gcv6.i
Lab Sample ID: 10326303005

Compound: TPH as Gas Review Code:
CAS Number:



Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b\29906.d

Date : 26-OCT-2015 13:32

Client ID:

Instrument: 10gcv6.i

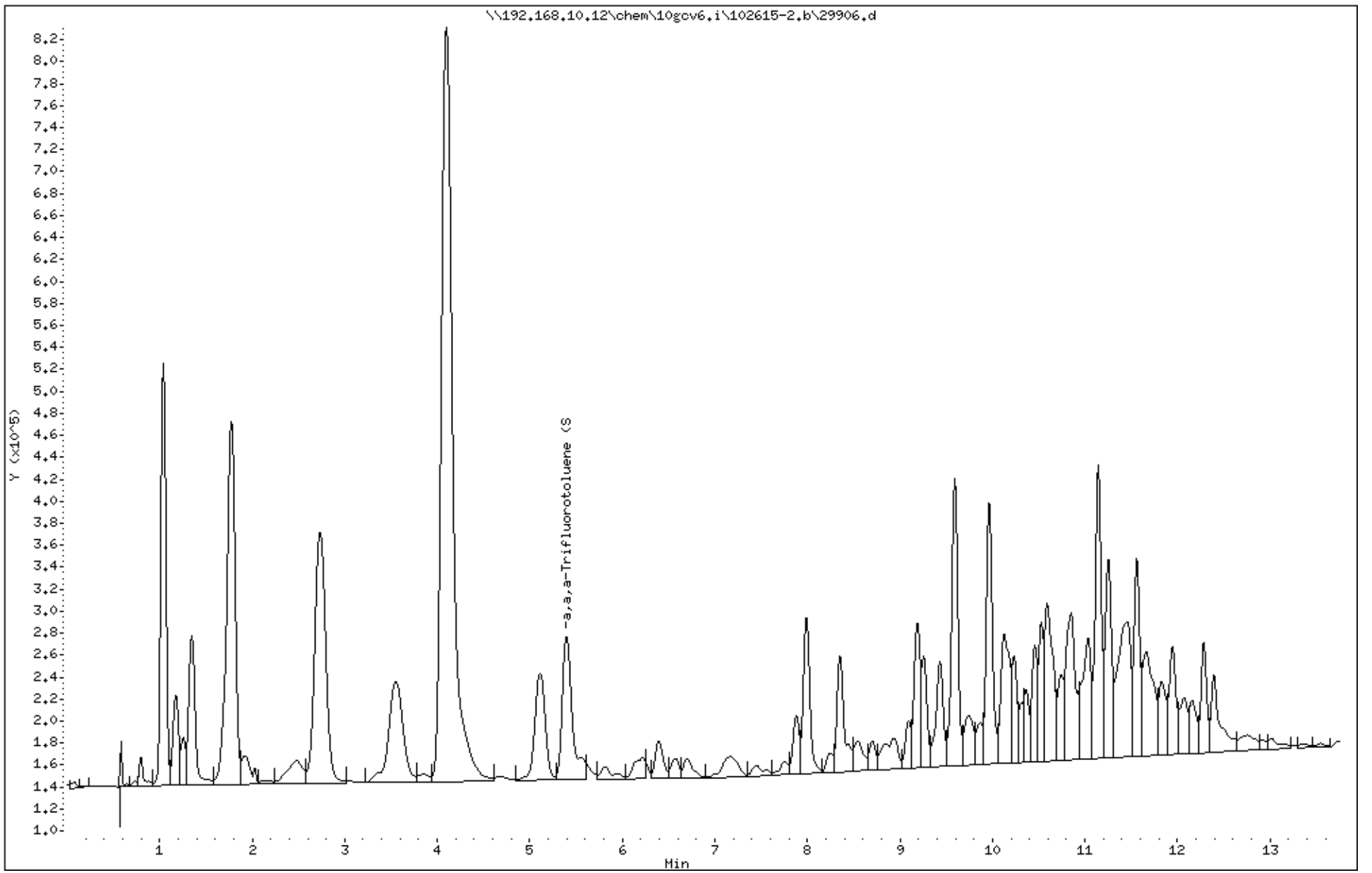
Sample Info: 10326303006

Purge Volume: 5.0

Operator: KMZ

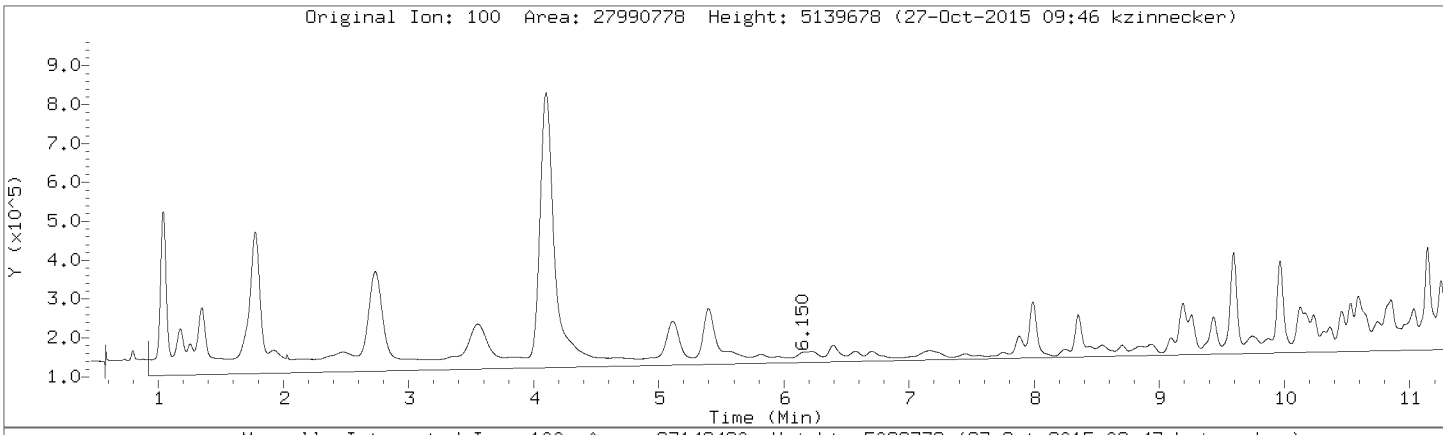
Column phase: ZB-624

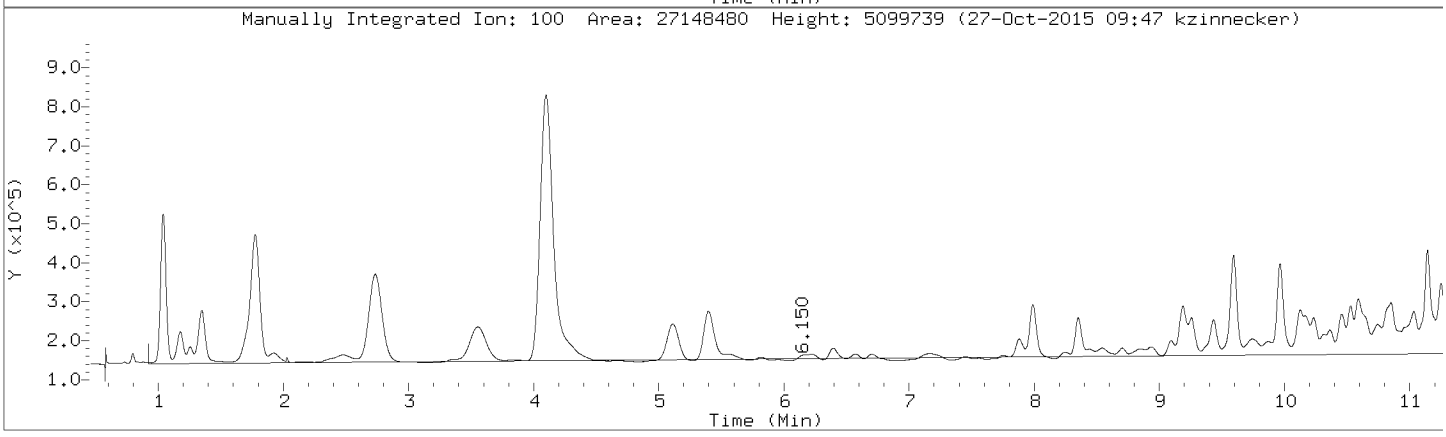
Column diameter: 0.53



Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29906.d
Injection Date: 26-OCT-2015 13:32
Instrument: 10gcv6.i
Lab Sample ID: 10326303006

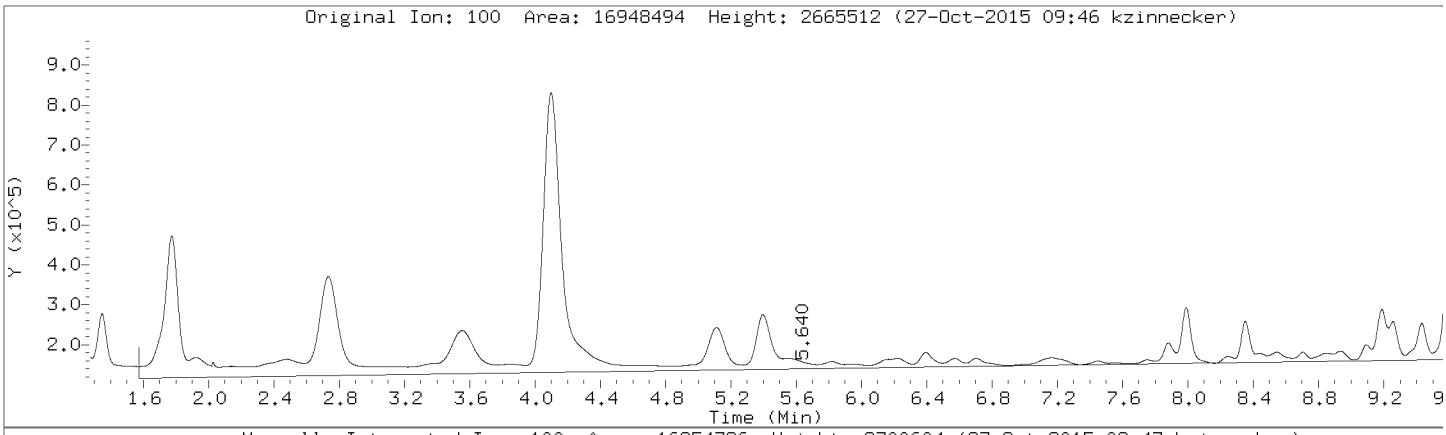
Compound: CA TPH-GRO (C5-C12) Review Code:
CAS Number: na

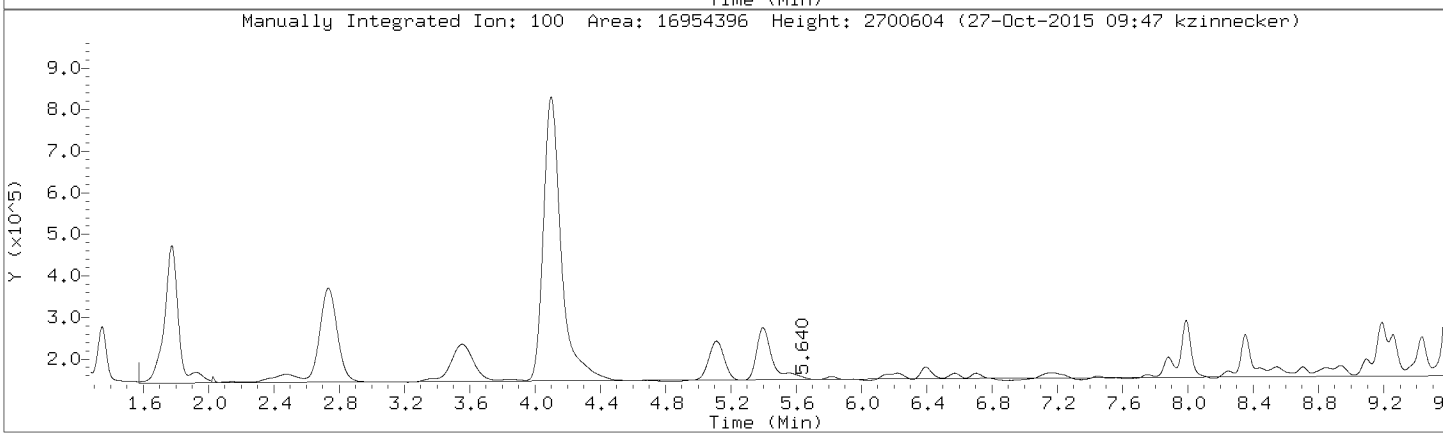




Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29906.d
Injection Date: 26-OCT-2015 13:32
Instrument: 10gcv6.i
Lab Sample ID: 10326303006

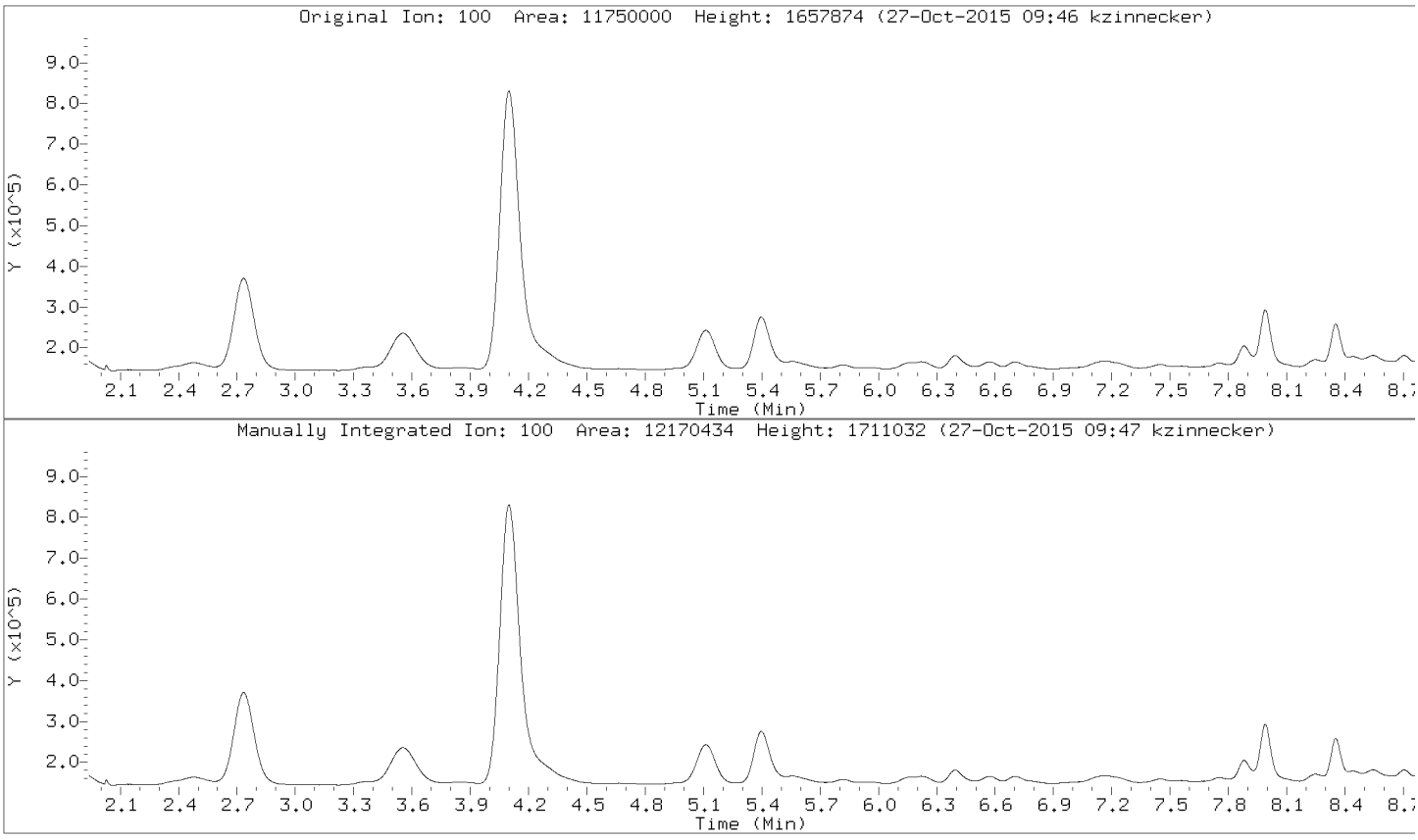
Compound: Gasoline Range Organics Review Code:
CAS Number: na





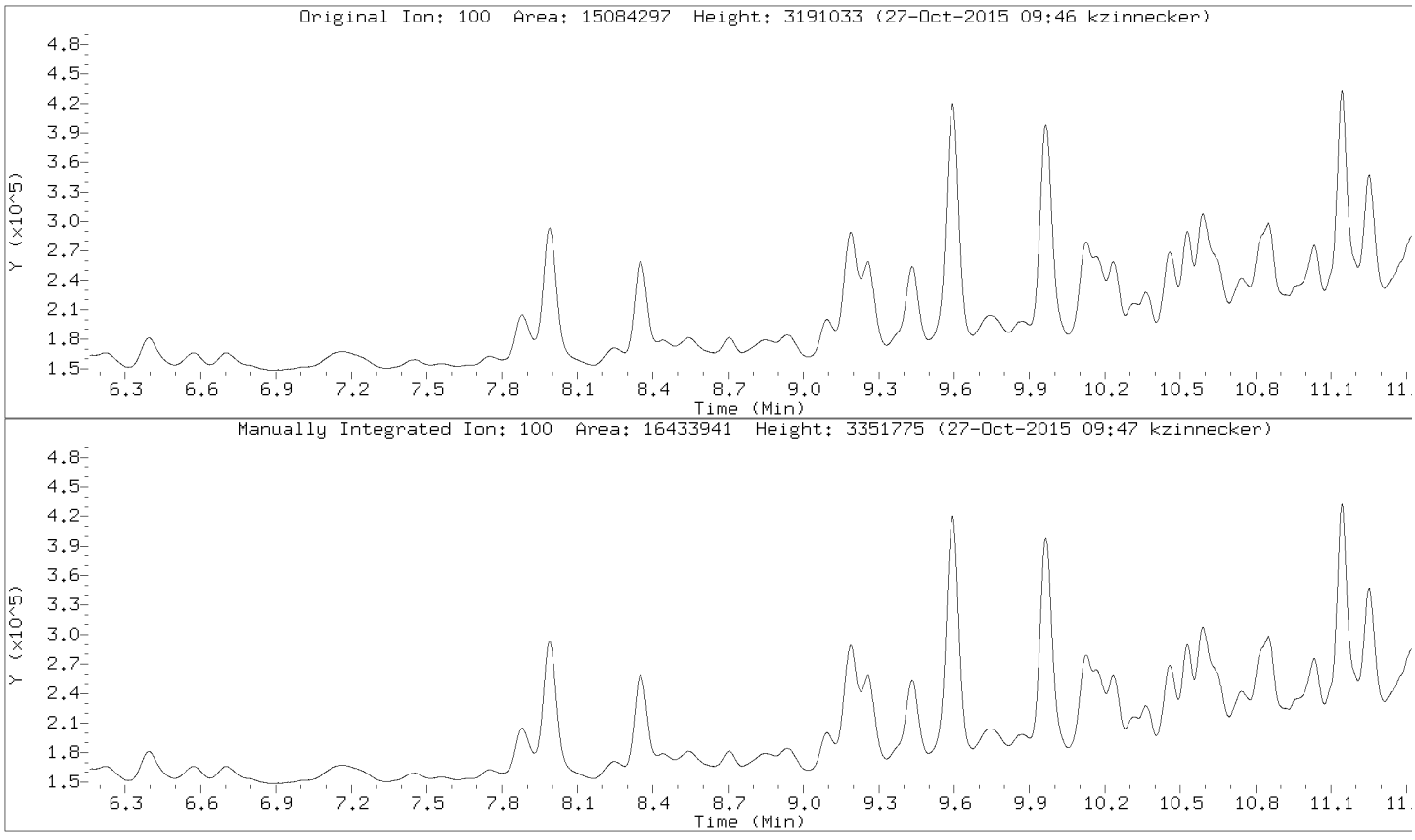
Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29906.d
Injection Date: 26-OCT-2015 13:32
Instrument: 10gcv6.i
Lab Sample ID: 10326303006

Compound: AK101 Gasoline Range Organics Review Code:
CAS Number:



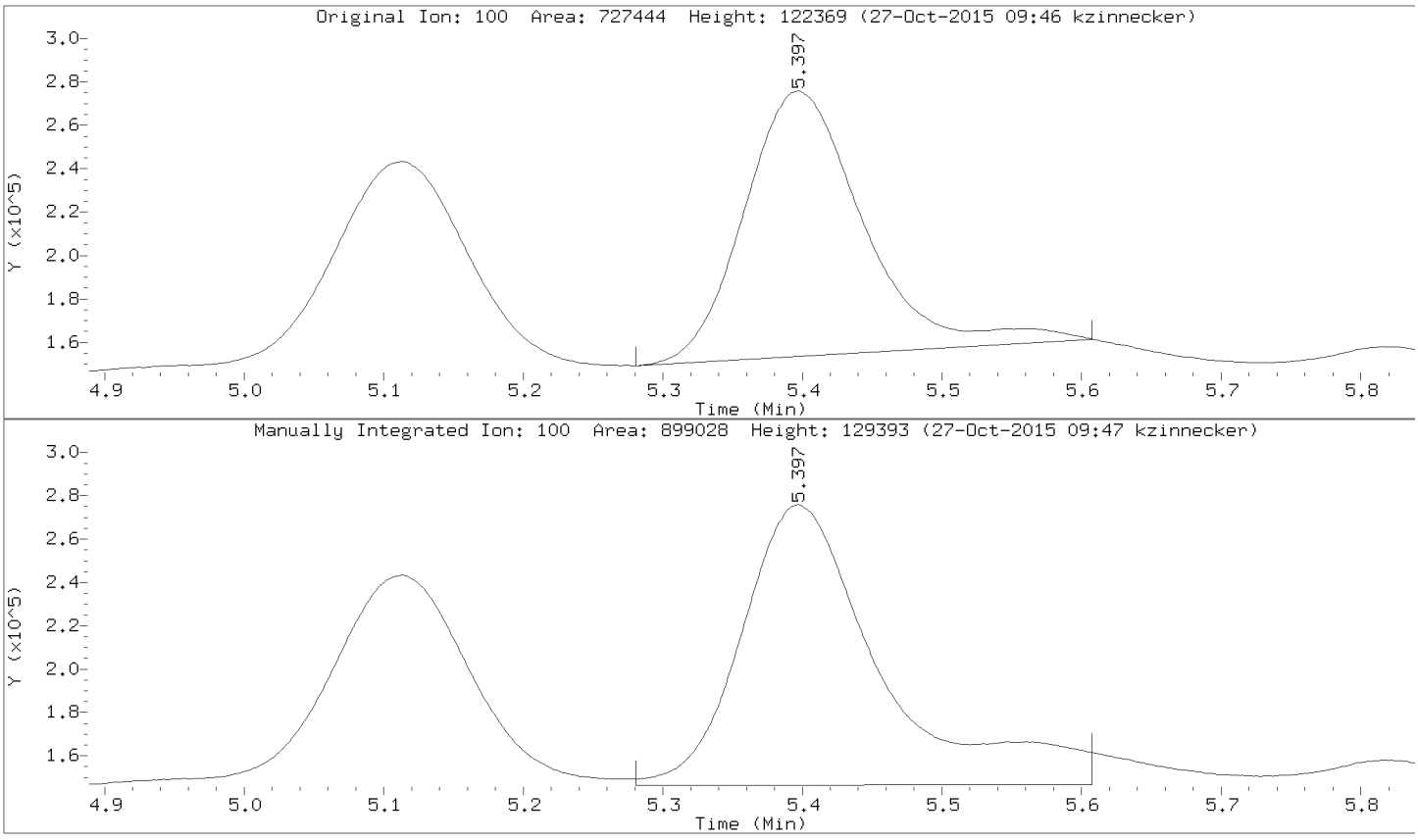
Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29906.d
Injection Date: 26-OCT-2015 13:32
Instrument: 10gcv6.i
Lab Sample ID: 10326303006

Compound: TPH as Gas Review Code:
CAS Number:



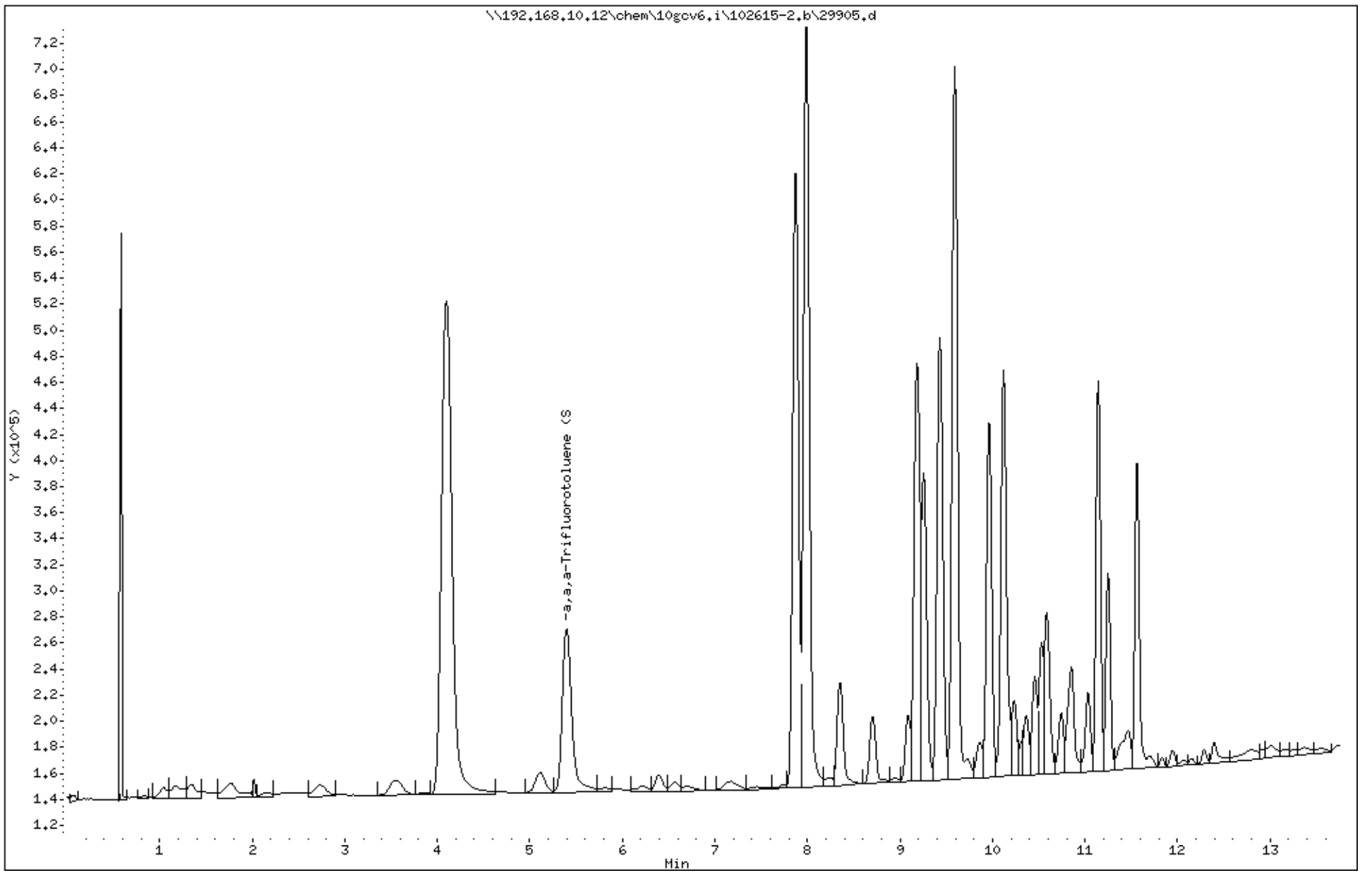
Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29906.d
Injection Date: 26-OCT-2015 13:32
Instrument: 10gcv6.i
Lab Sample ID: 10326303006

Compound: a,a,a-Trifluorotoluene (S) Review Code: BA
CAS Number:



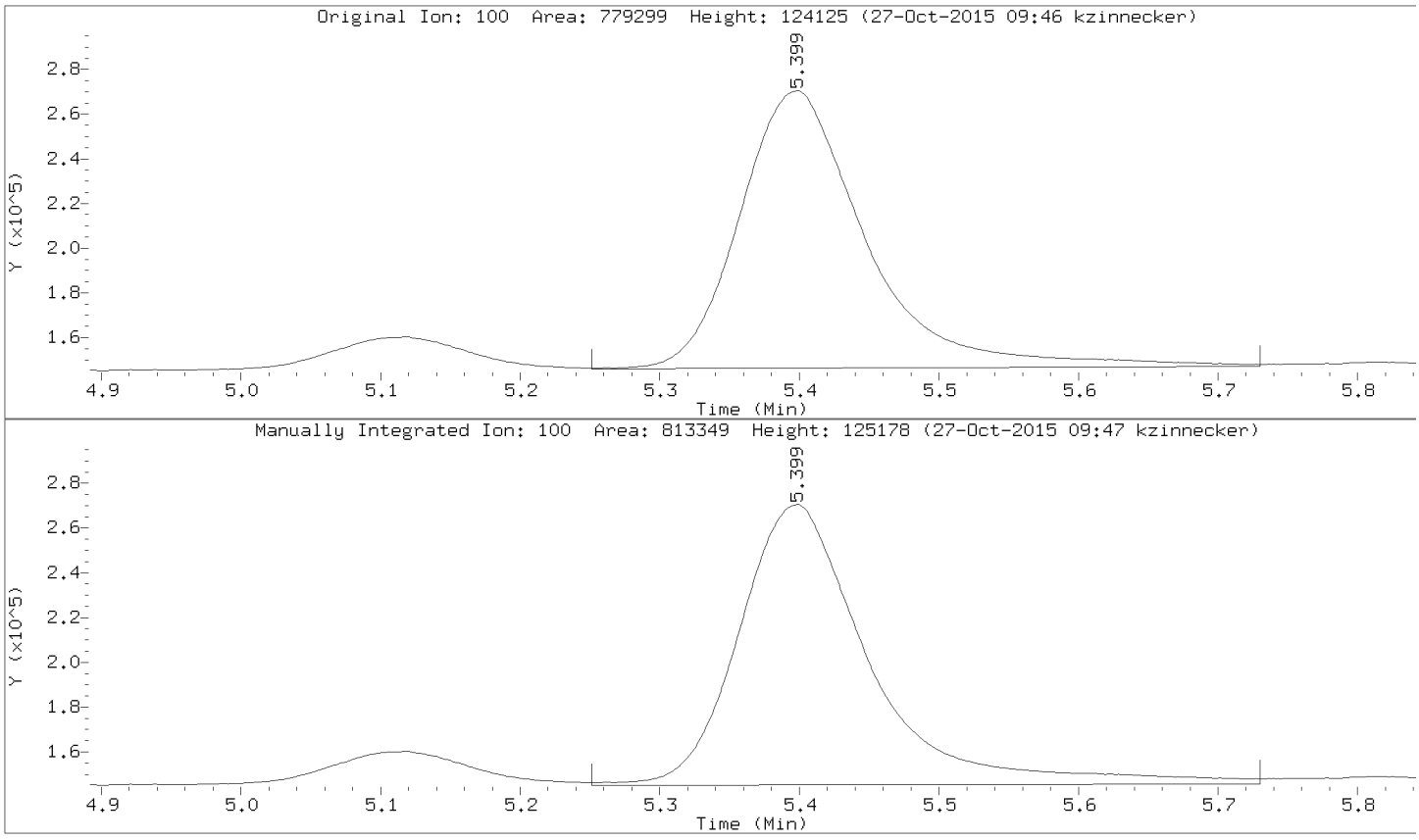
Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b\29905.d
Date : 26-OCT-2015 13:12
Client ID:
Sample Info: 10326303008
Purge Volume: 5.0
Column phase: ZB-624

Instrument: 10gcv6.i
Operator: KMZ
Column diameter: 0.53



Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29905.d
Injection Date: 26-OCT-2015 13:12
Instrument: 10gcv6.i
Lab Sample ID: 10326303008

Compound: a,a,a-Trifluorotoluene (S) Review Code: BA
CAS Number:



Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b\29909.d

Date : 26-OCT-2015 14:32

Client ID:

Instrument: 10gcv6.i

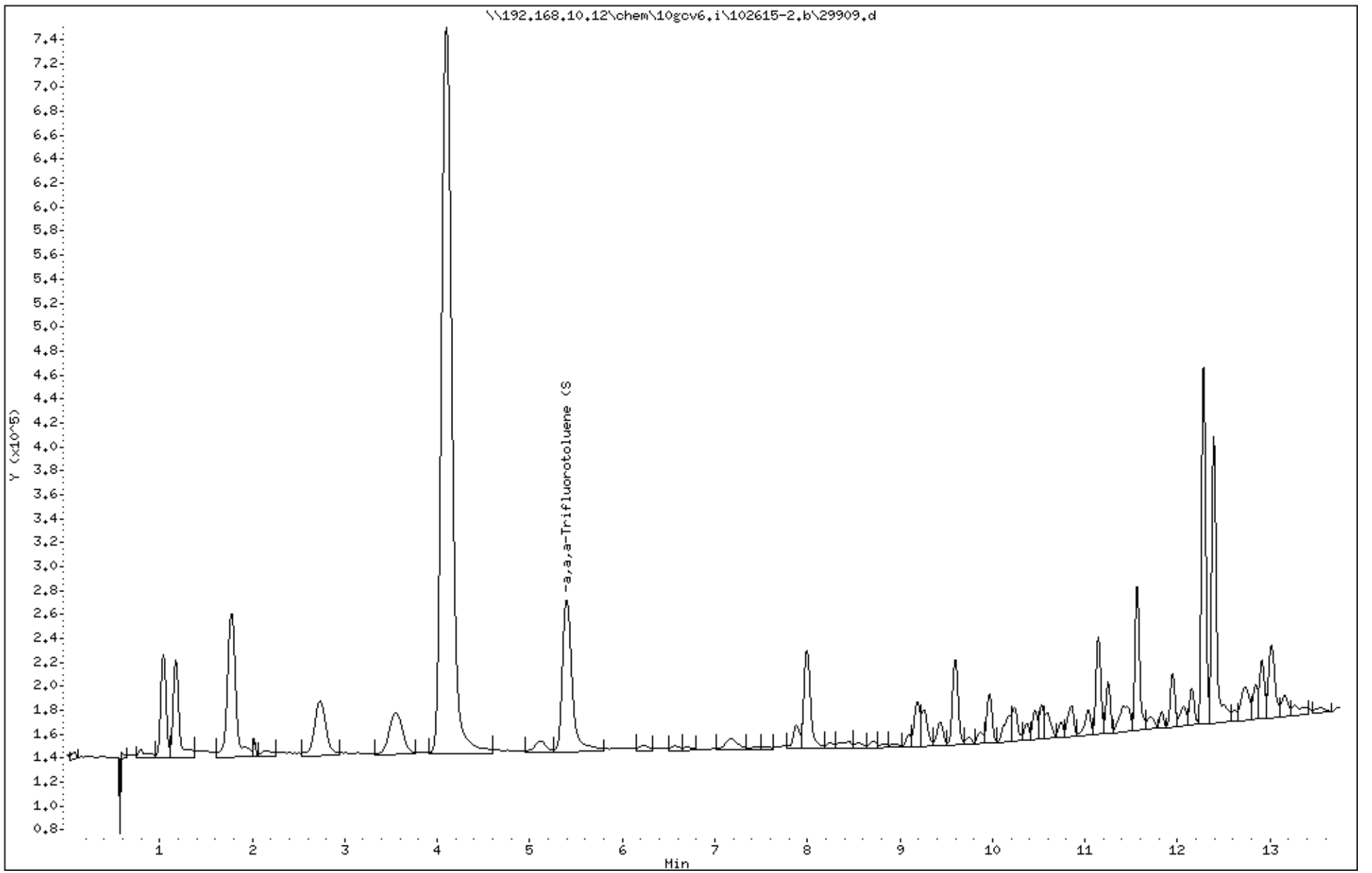
Sample Info: 10326303009

Purge Volume: 5.0

Operator: KMZ

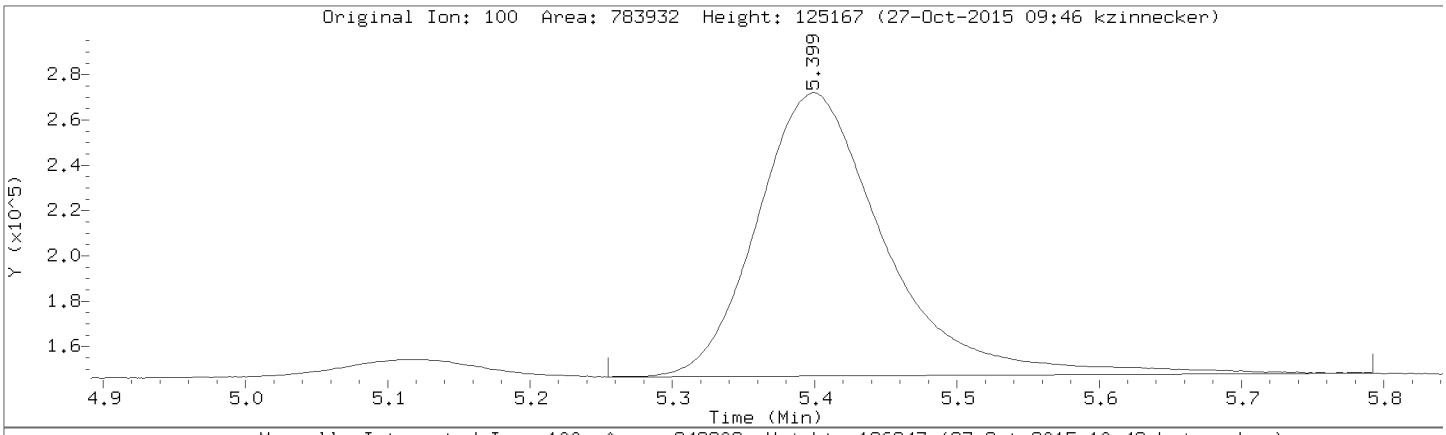
Column phase: ZB-624

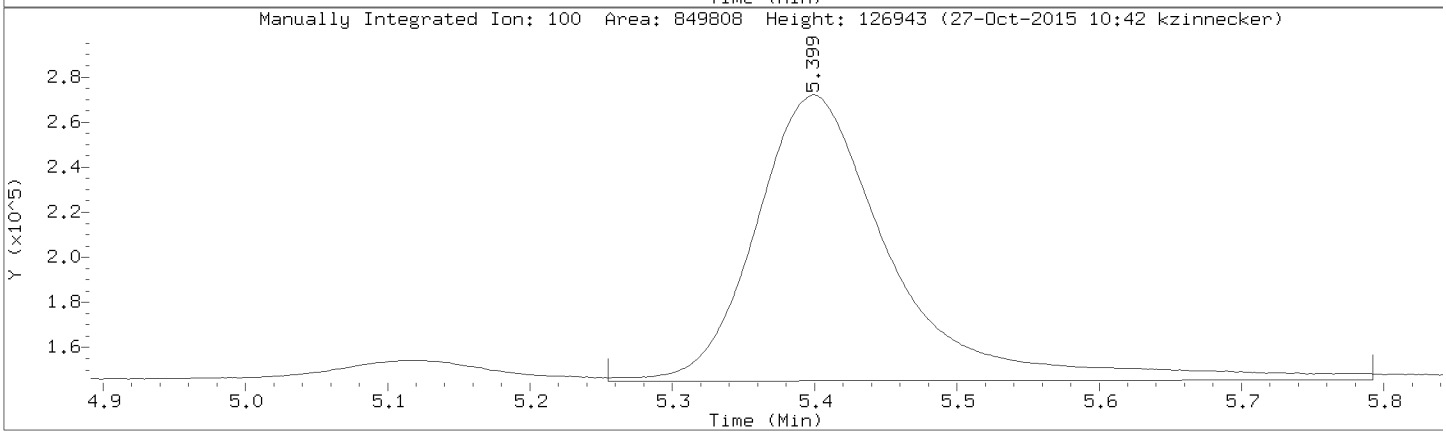
Column diameter: 0.53



Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29909.d
Injection Date: 26-OCT-2015 14:32
Instrument: 10gcv6.i
Lab Sample ID: 10326303009

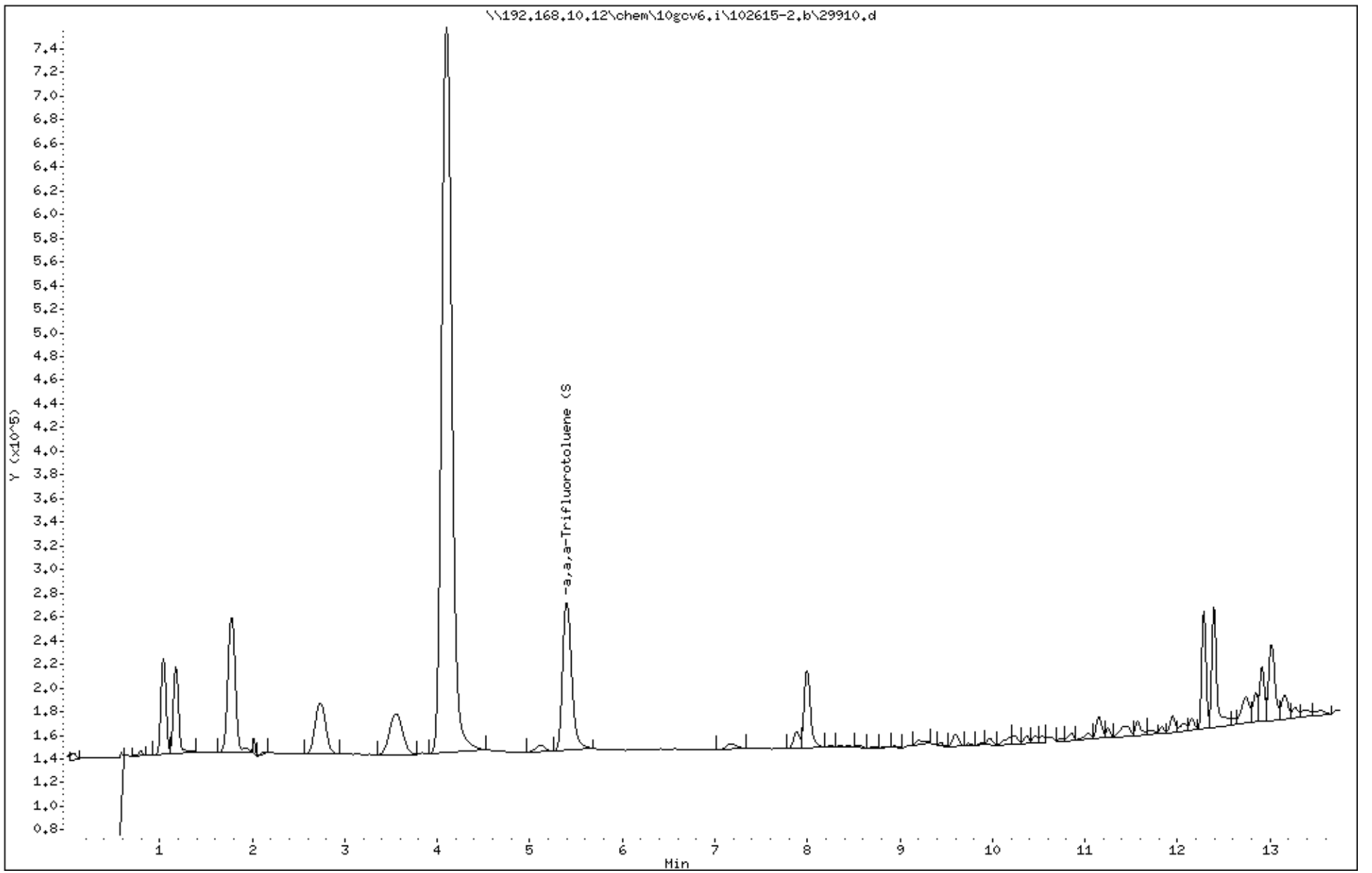
Compound: a,a,a-Trifluorotoluene (S) Review Code: BA
CAS Number:





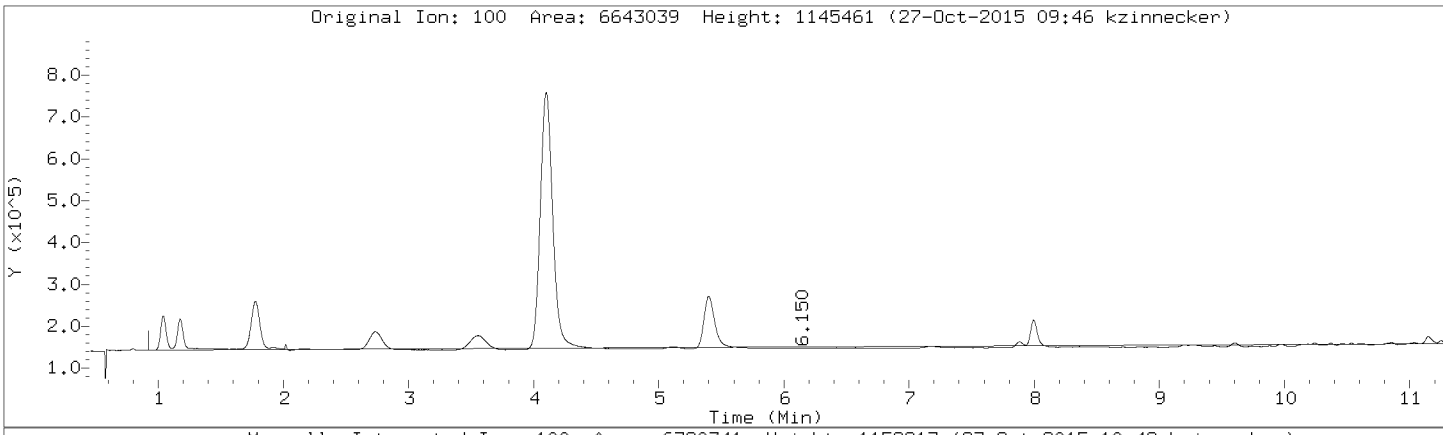
Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b\29910.d
Date : 26-OCT-2015 14:52
Client ID:
Sample Info: 10326303010
Purge Volume: 5.0
Column phase: ZB-624

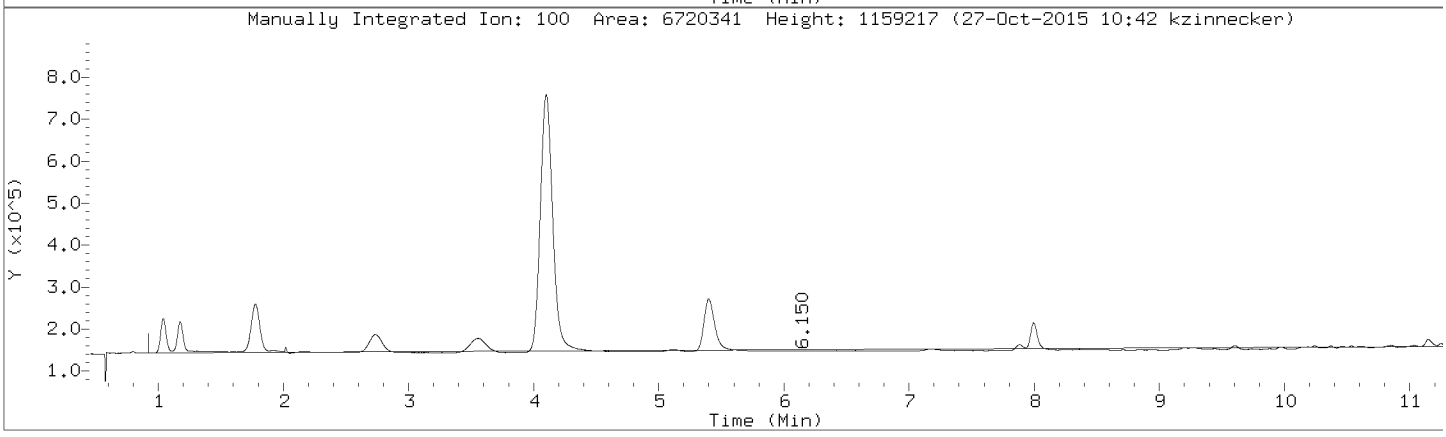
Instrument: 10gcv6.i
Operator: KMZ
Column diameter: 0.53



Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29910.d
Injection Date: 26-OCT-2015 14:52
Instrument: 10gcv6.i
Lab Sample ID: 10326303010

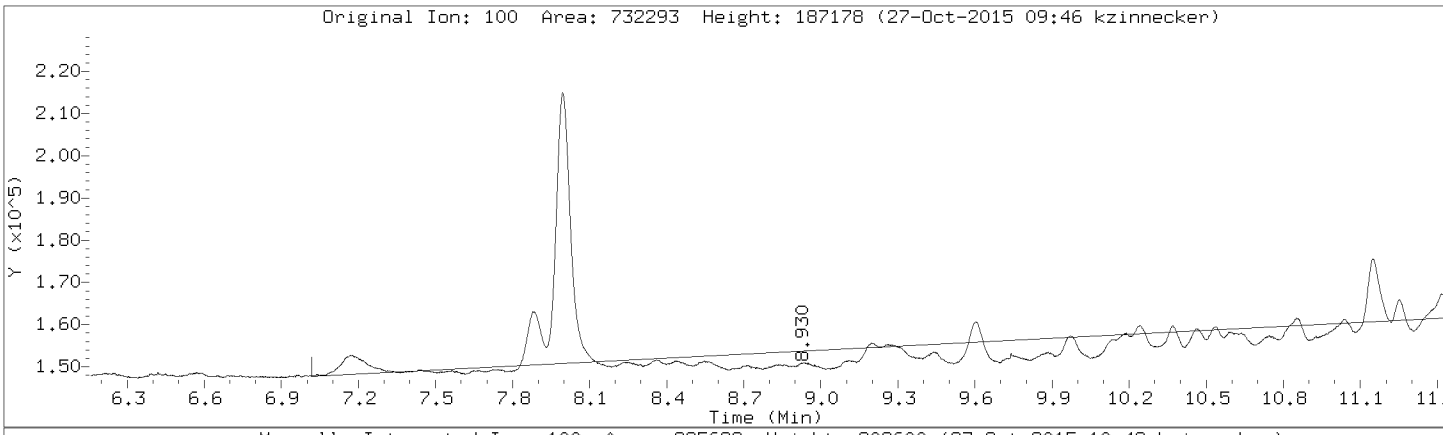
Compound: CA TPH-GRO (C5-C12) Review Code:
CAS Number: na

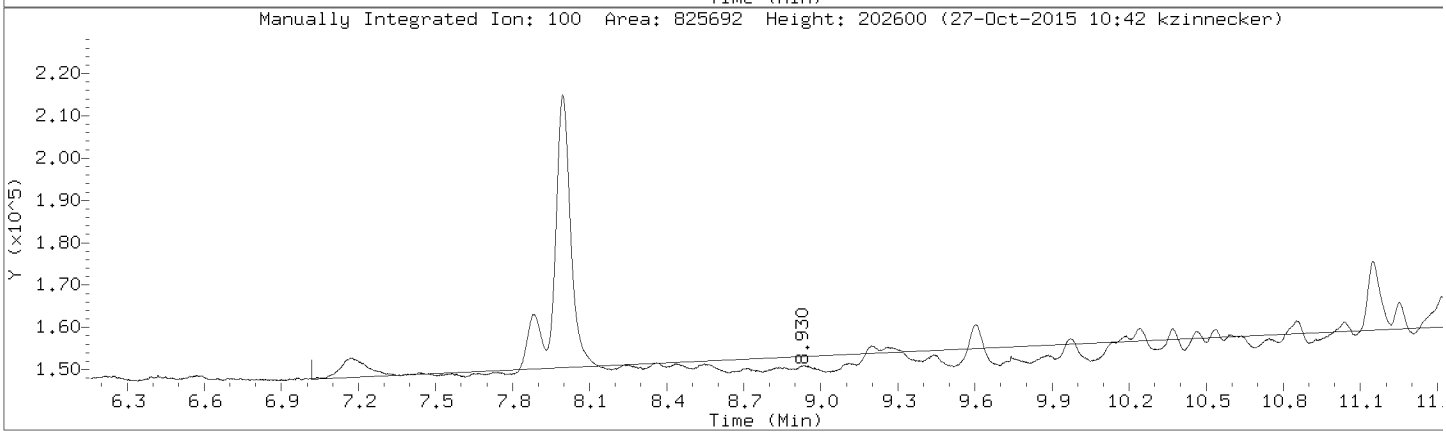




Data File: \\192.168.10.12\chem\10gcv6.i\102615-2.b/29910.d
Injection Date: 26-OCT-2015 14:52
Instrument: 10gcv6.i
Lab Sample ID: 10326303010

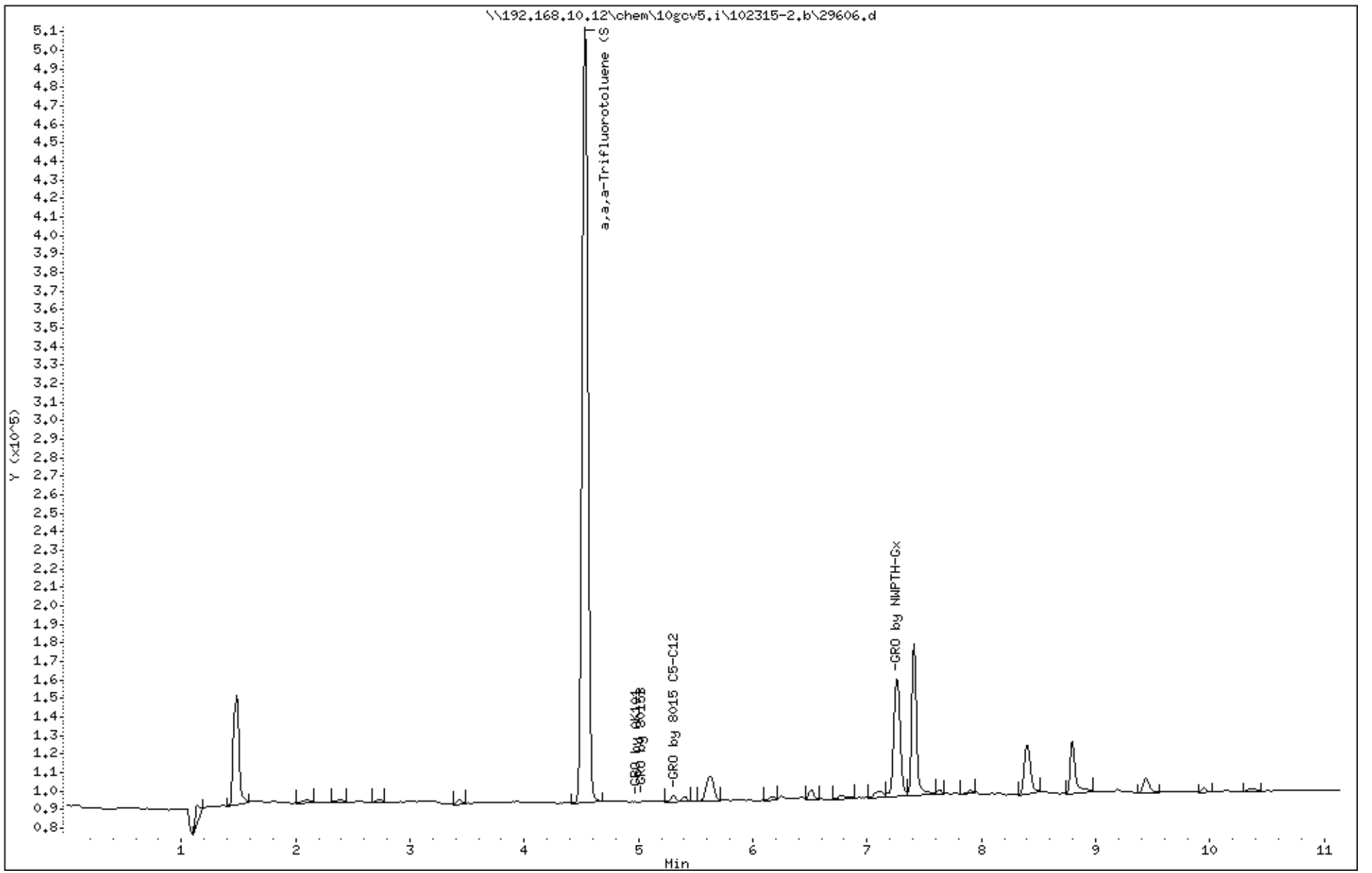
Compound: TPH as Gas Review Code:
CAS Number:





Data File: \\192.168.10.12\chem\10gcv5.i\102315-2.b\29606.d
Date : 23-OCT-2015 16:01
Client ID: TRIP BLANK-1-101315
Sample Info: 10326303011,
Purge Volume: 5.0
Column phase: DB-624

Instrument: 10gcv5.i
Operator: KMZ
Column diameter: 0.53



Data File: \\192.168.10.12\chem\10gcv5.i\102315-2.b/29606.d (ManInt: ALLGRO.sub Orig: ALLGRO.sub)
Injection Date: 23-OCT-2015 16:01
Instrument: 10gcv5.i
Lab Sample ID: 10326303011

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
GRO by 8015 C5-C12	710509	710509
GRO by 8015B	543911	543911
GRO by AK101	336055	336055
GRO by NWPTH-Gx	686055	686055
a,a,a-Trifluorotoluene (S)	1228369	1228369

Data File: \\192.168.10.12\chem\10gcsC.i\102615.b\10260029.D

Date : 26-OCT-2015 19:28

Client ID: MW8-101315

Instrument: 10gcsC.i

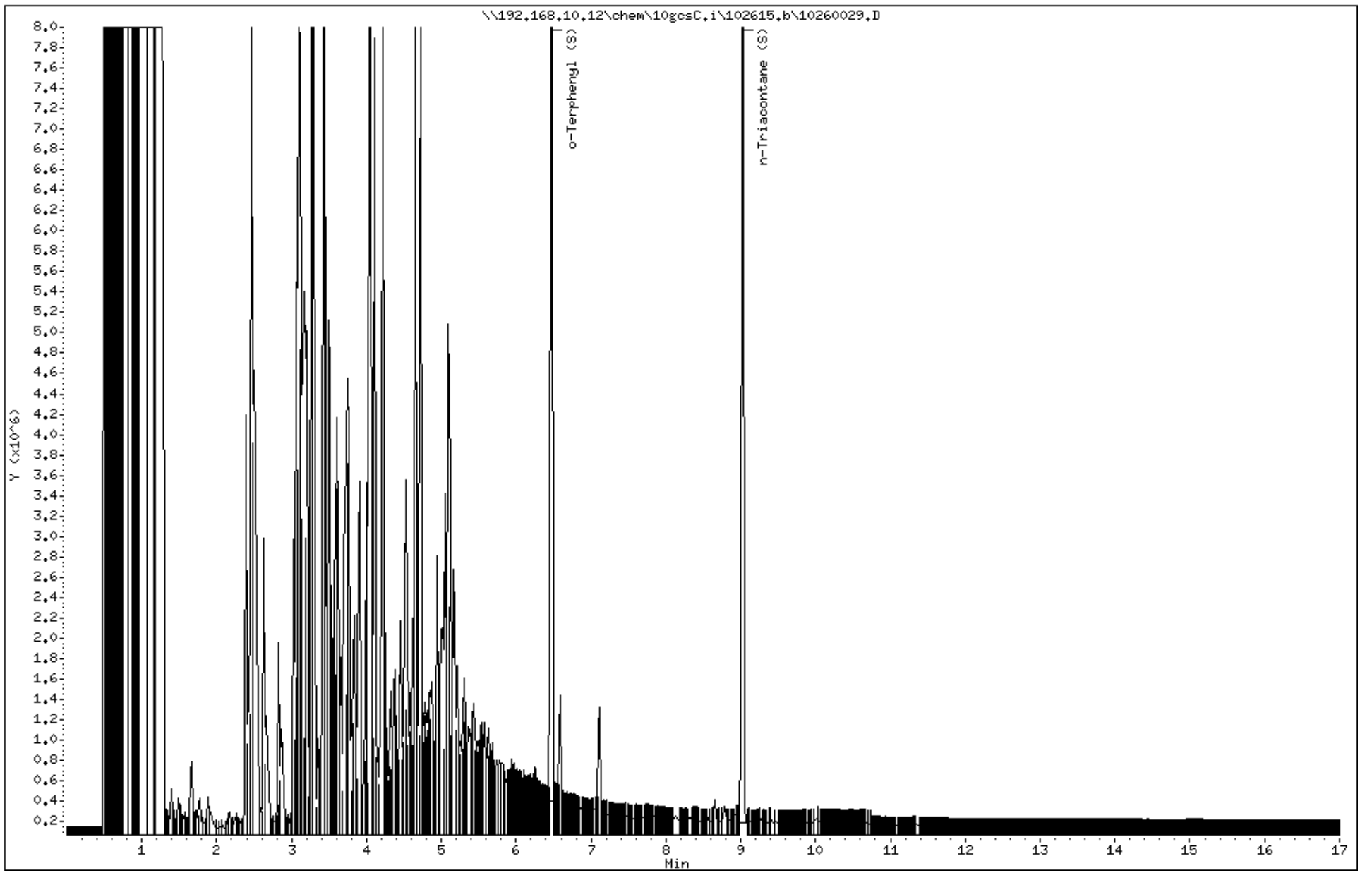
Sample Info: 10326303002

Volume Injected (uL): 1.0

Operator: MT

Column phase: DB-5MS

Column diameter: 0.25

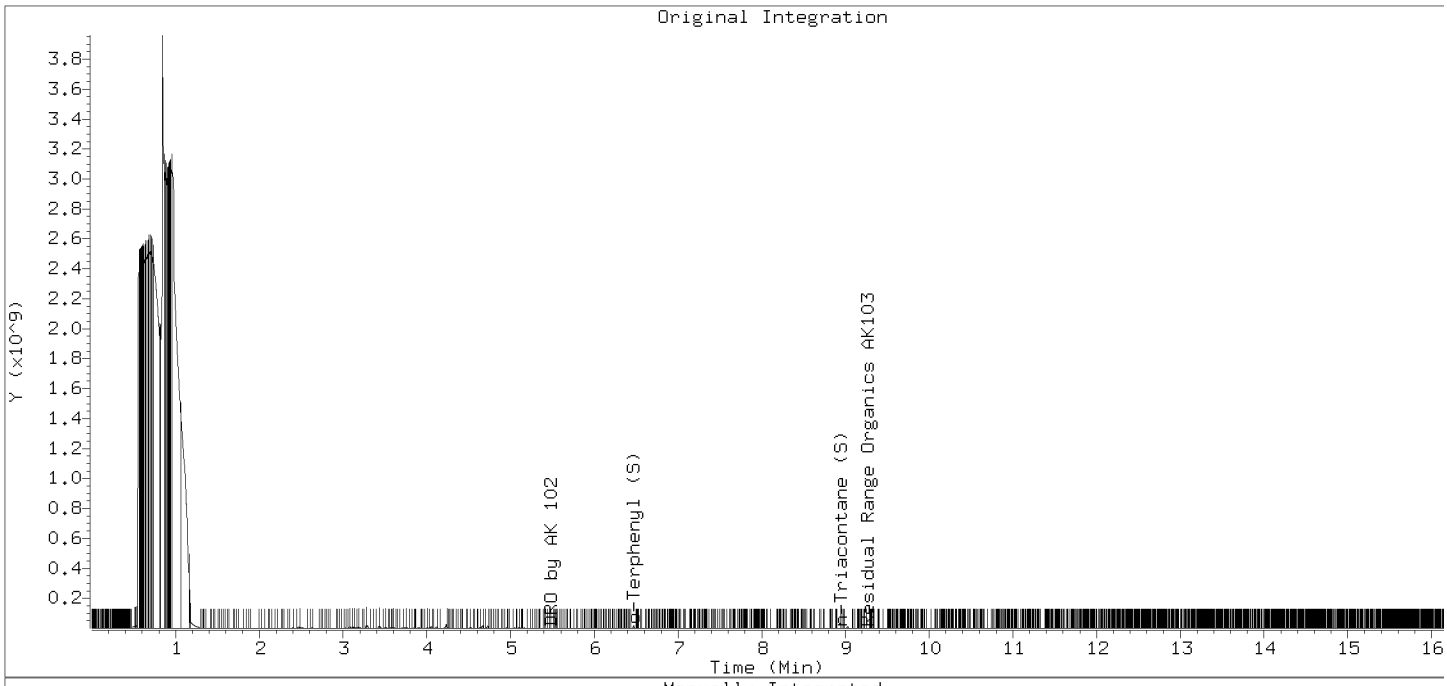


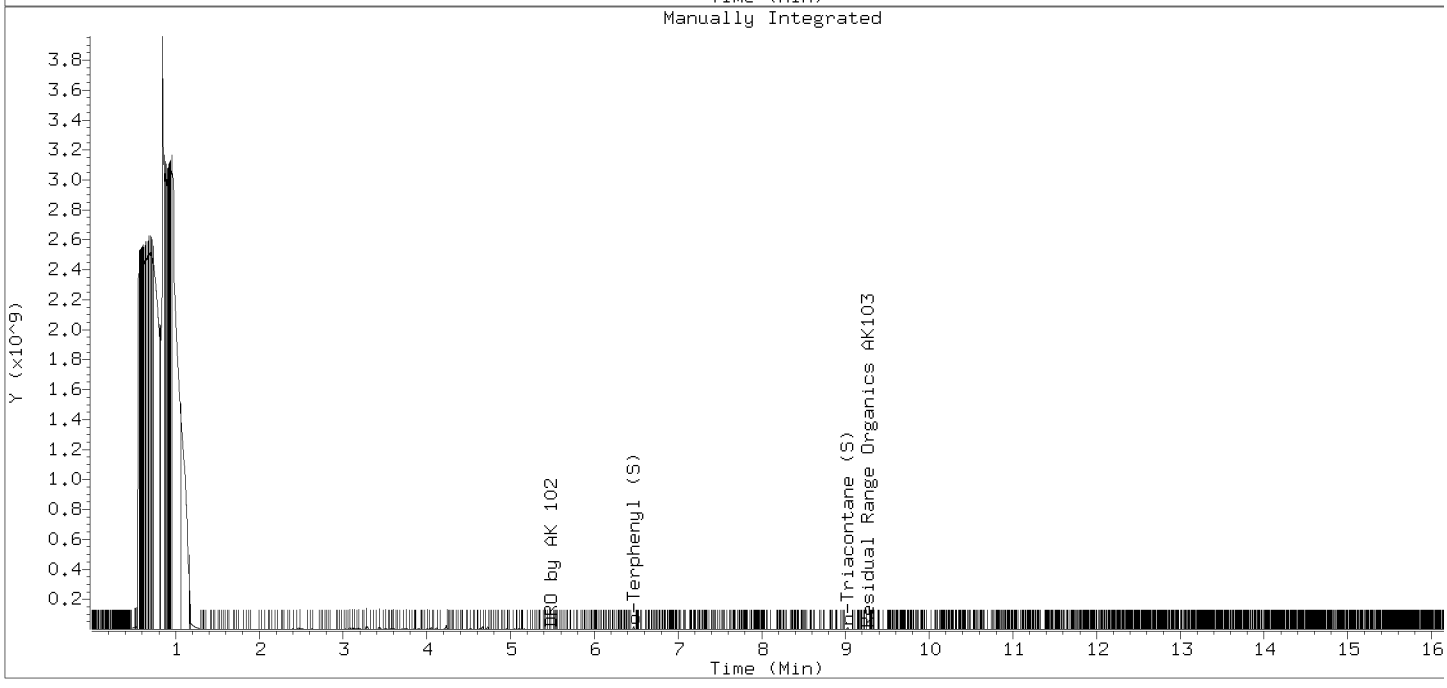
Data File: \\192.168.10.12\chem\10gcsC.i\102615.b/10260029.D (ManInt: AK102103sample.sub Orig: AK102103sample.sub)

Injection Date: 26-OCT-2015 19:28

Instrument: 10gcsC.i

Lab Sample ID: 10326303002



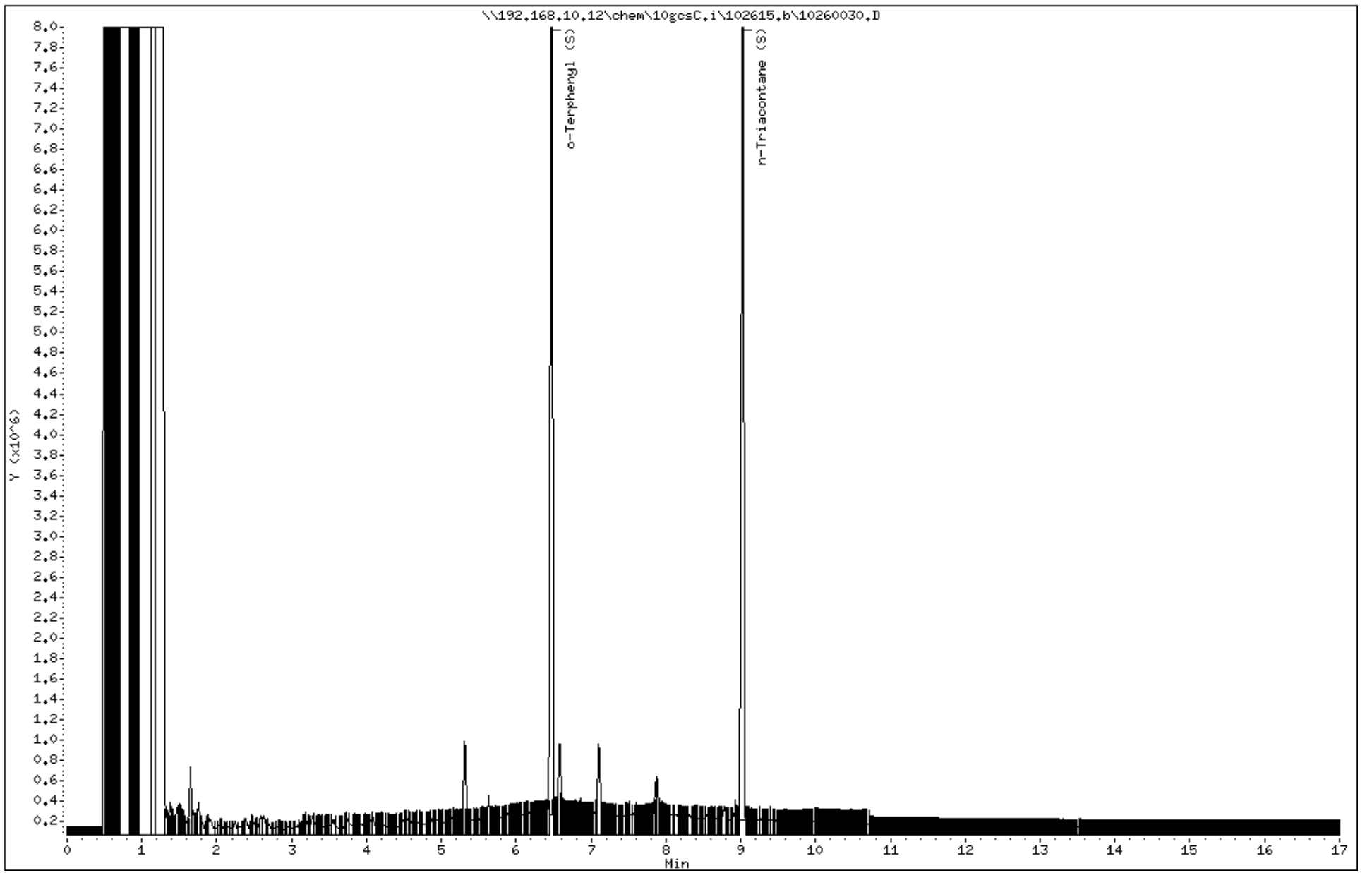


Manually Integrated Compounds

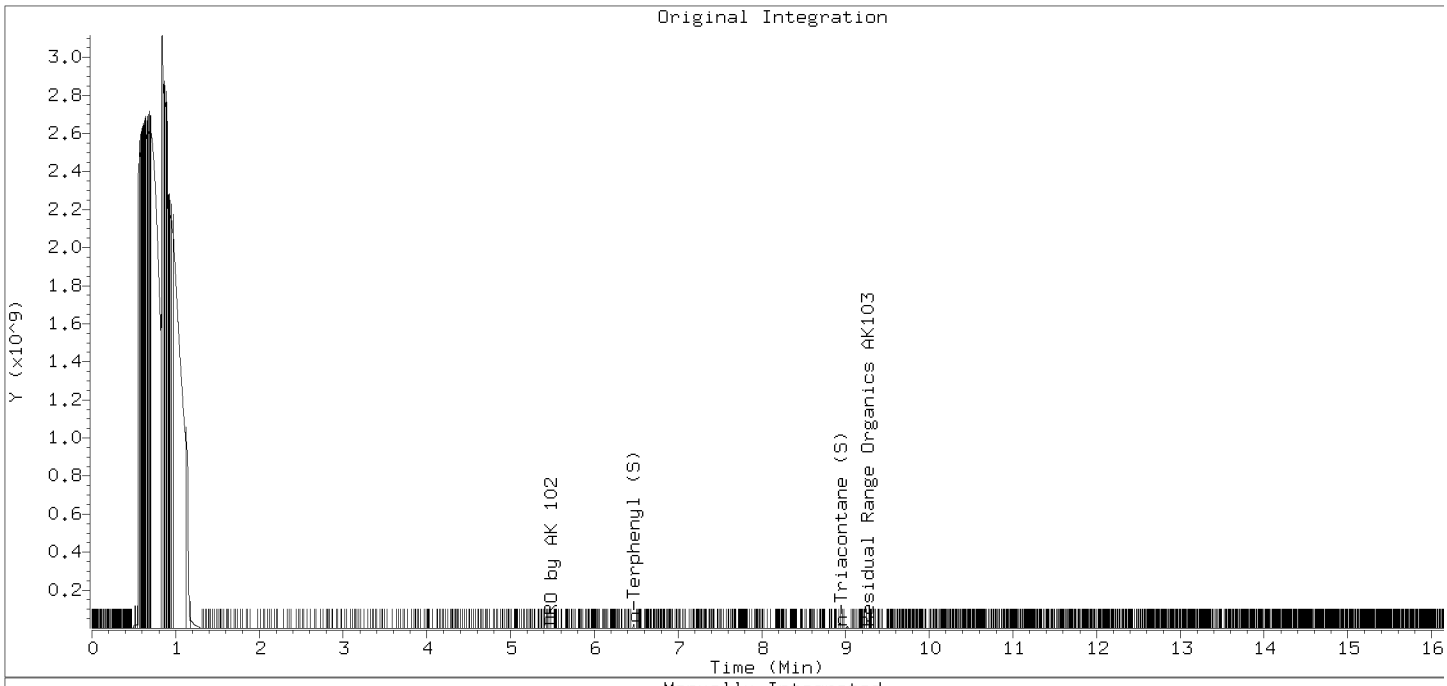
Compound	Area (before)	Area (after)
Residual Range Organics AK103	33050014	20584689
DRO by AK 102	329794253	329794253
n-Triacontane (S)	101976	11908822
o-Terphenyl (S)	16784609	15574553

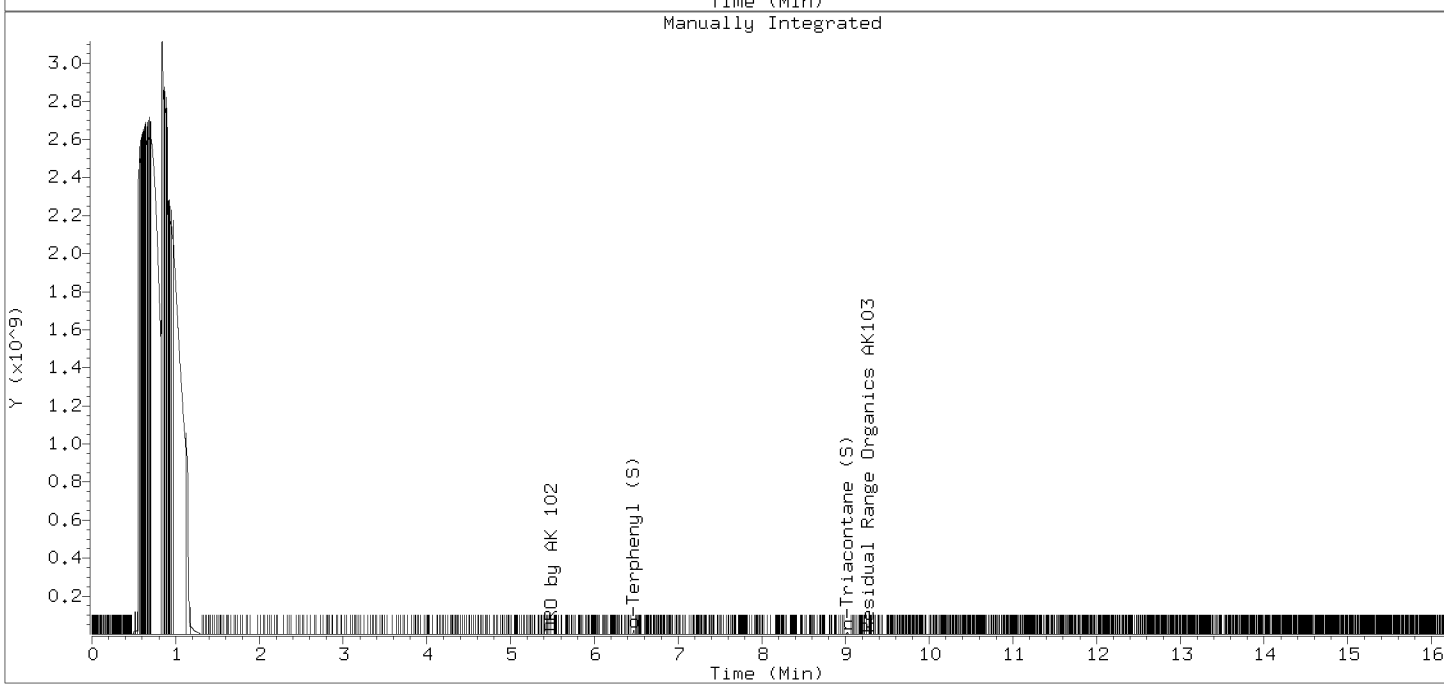
Data File: \\192.168.10.12\chem\10gcsC.i\102615.b\10260030.D
Date : 26-OCT-2015 19:50
Client ID: MW-13-101315
Sample Info: 10326303003
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: 10gcsC.i
Operator: MT
Column diameter: 0.25



Data File: \\192.168.10.12\chem\10gcsC.i\102615.b/10260030.D (ManInt: AK102103sample.sub Orig: AK102103sample.sub)
Injection Date: 26-OCT-2015 19:50
Instrument: 10gcsC.i
Lab Sample ID: 10326303003





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	34467645	22694092
DRO by AK 102	38801201	38801201
n-Triacontane (S)	180341	11279643
o-Terphenyl (S)	15673804	14825015

Data File: \\192.168.10.12\chem\10gcsC.i\102615.b\10260031.D

Date : 26-OCT-2015 20:12

Client ID: MW-12-101315

Instrument: 10gcsC.i

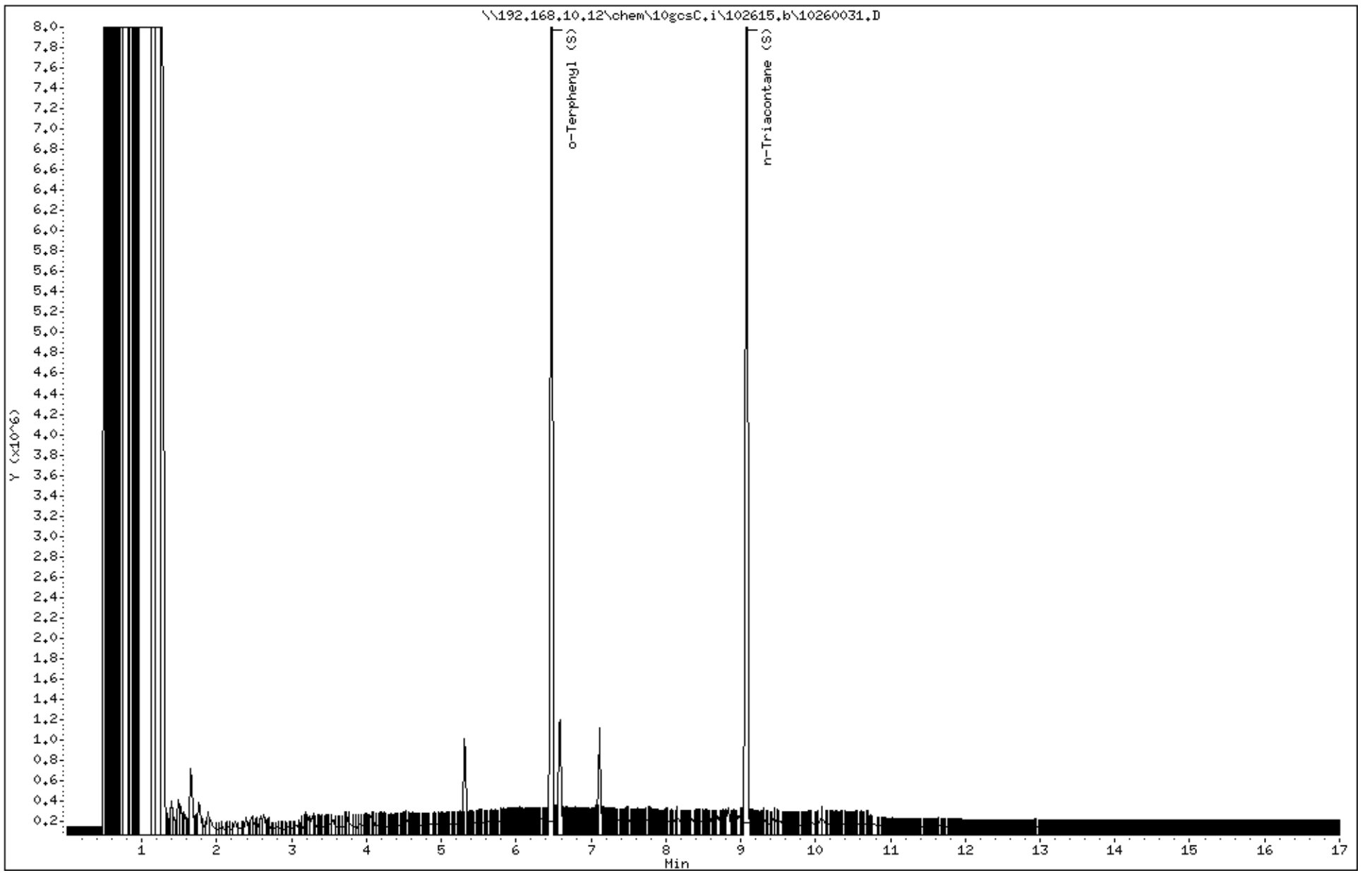
Sample Info: 10326303004

Volume Injected (uL): 1.0

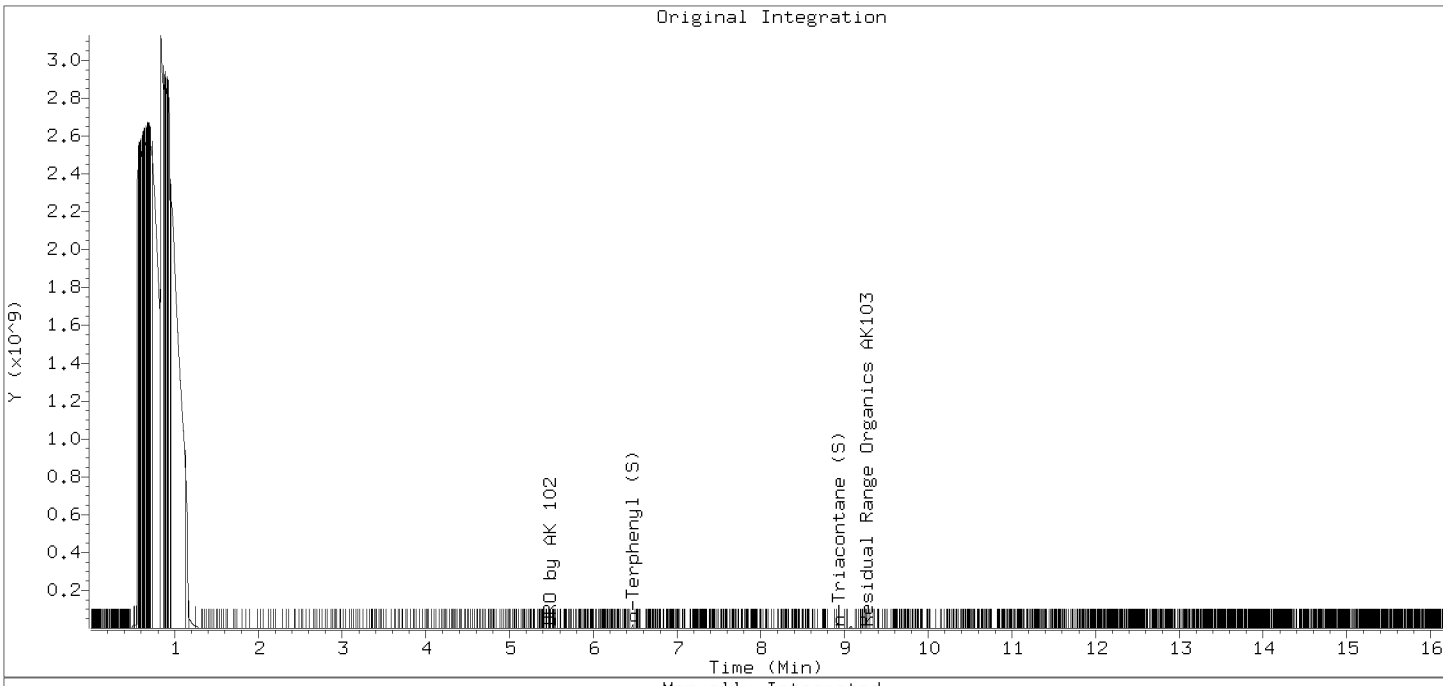
Operator: MT

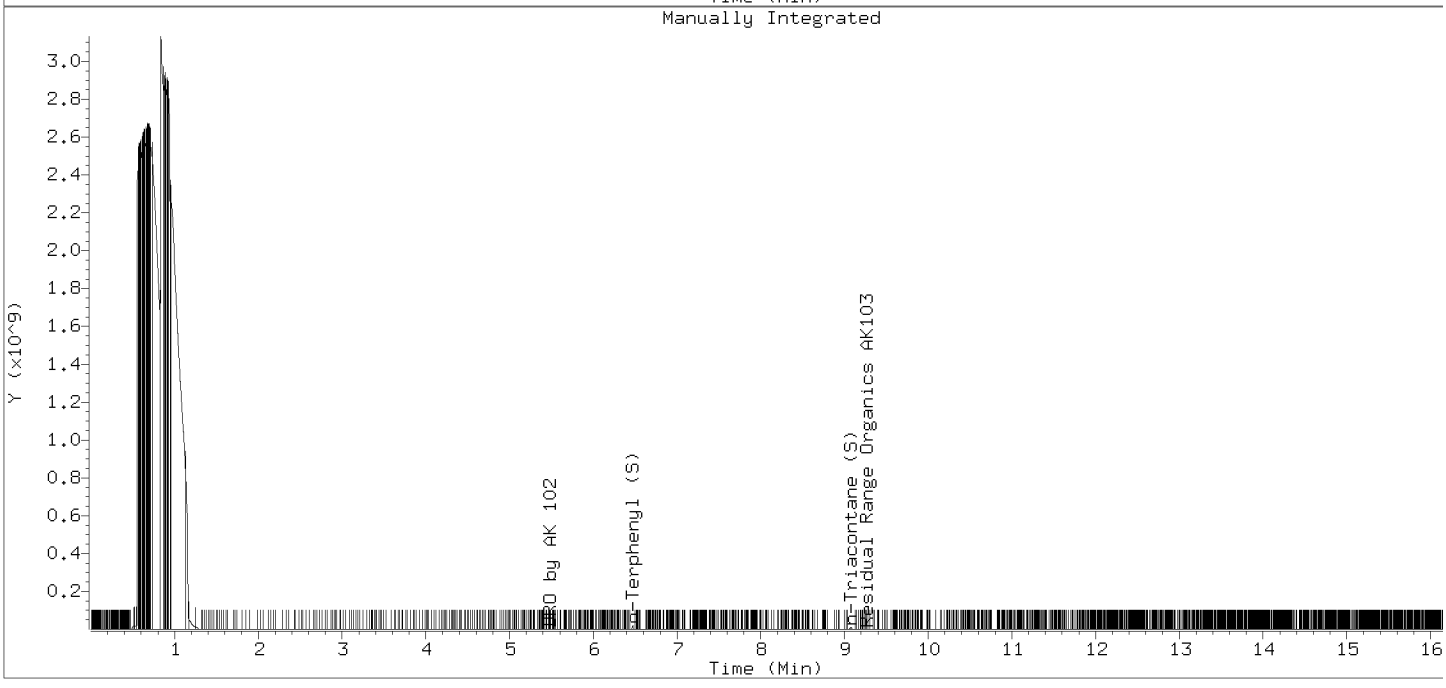
Column phase: DB-5MS

Column diameter: 0.25



Data File: \\192.168.10.12\chem\10gcsC.i\102615.b/10260031.D (ManInt: AK102103sample.sub Orig: AK102103sample.sub)
Injection Date: 26-OCT-2015 20:12
Instrument: 10gcsC.i
Lab Sample ID: 10326303004



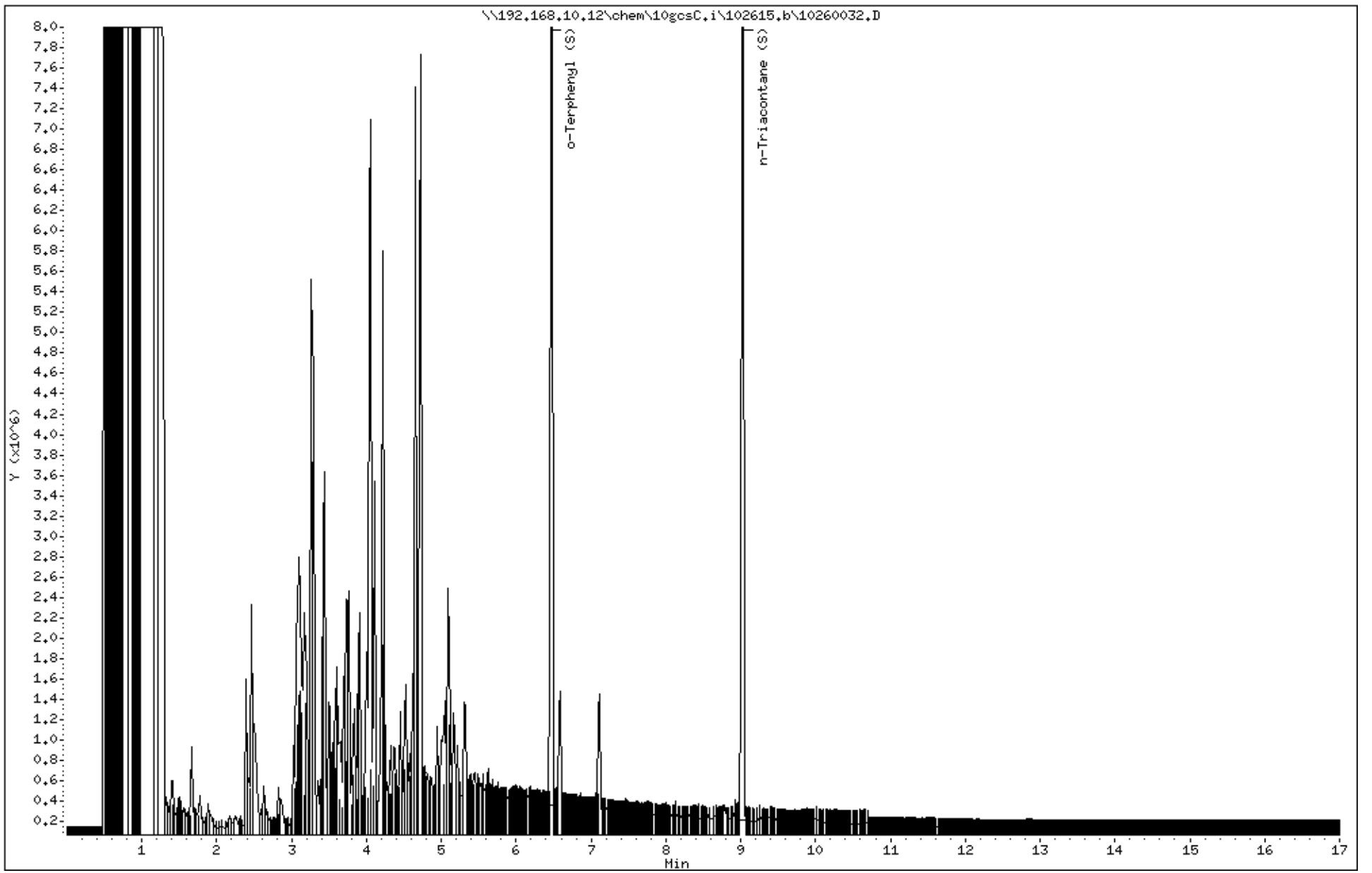


Manually Integrated Compounds

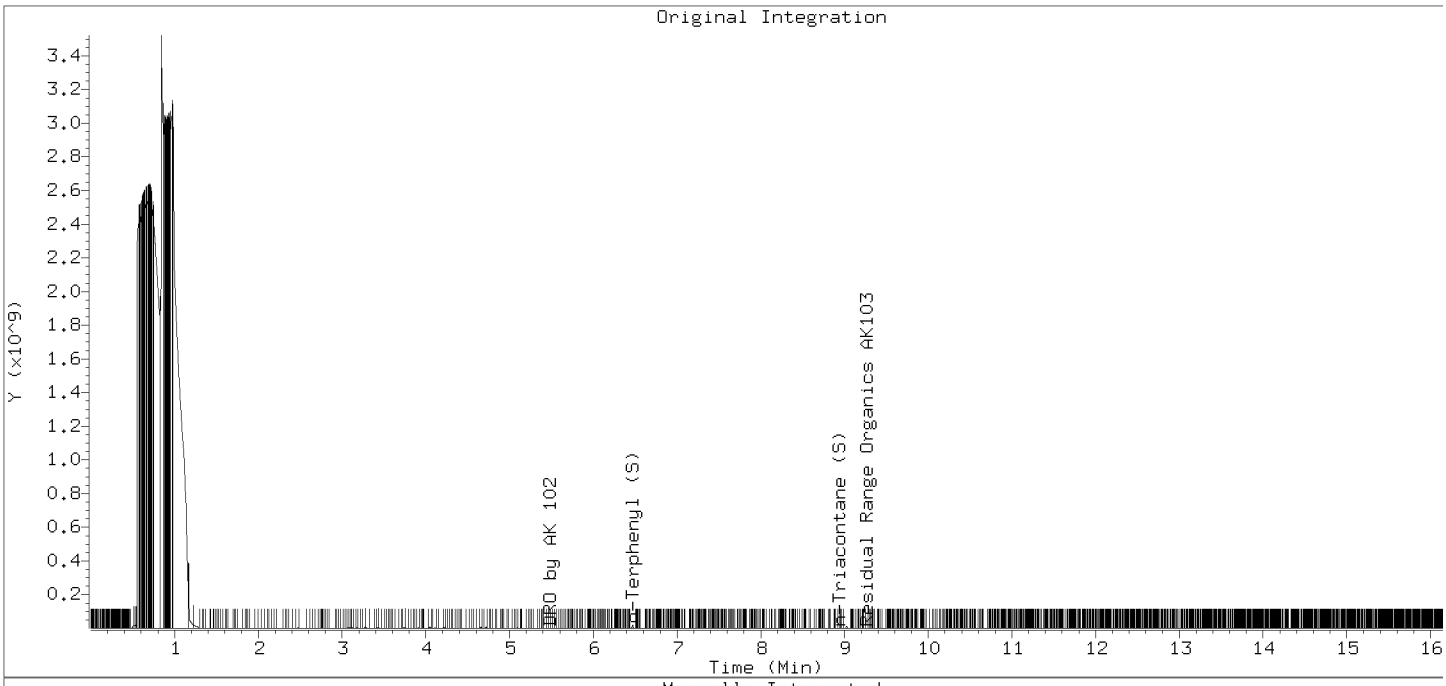
Compound	Area (before)	Area (after)
Residual Range Organics AK103	29869208	17802632
DRO by AK 102	30974177	30974177
n-Triacontane (S)	36230	11489280
o-Terphenyl (S)	15372976	14874303

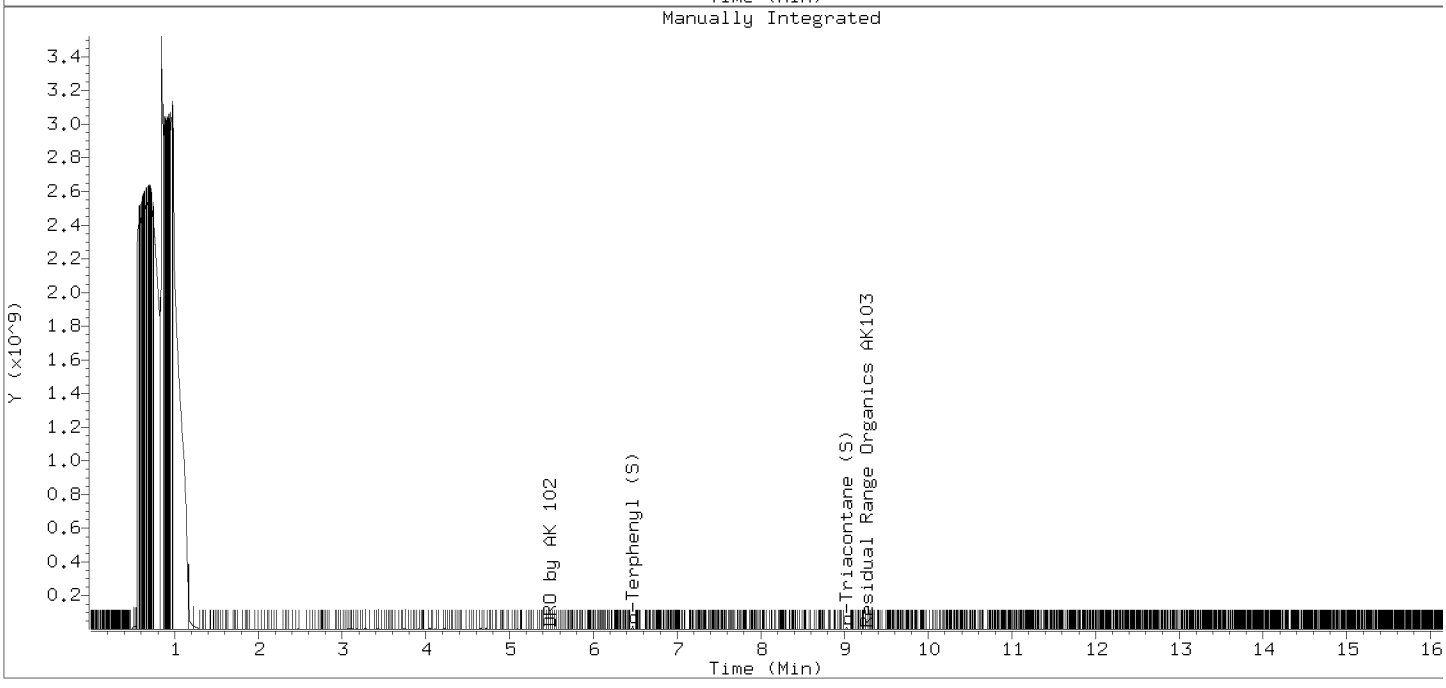
Data File: \\192.168.10.12\chem\10gcsC.i\102615.b\10260032.D
Date : 26-OCT-2015 20:34
Client ID: MW-5R-101315
Sample Info: 10326303005
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: 10gcsC.i
Operator: MT
Column diameter: 0.25



Data File: \\192.168.10.12\chem\10gcsC.i\102615.b/10260032.D (ManInt: AK102103sample.sub Orig: AK102103sample.sub)
Injection Date: 26-OCT-2015 20:34
Instrument: 10gcsC.i
Lab Sample ID: 10326303005



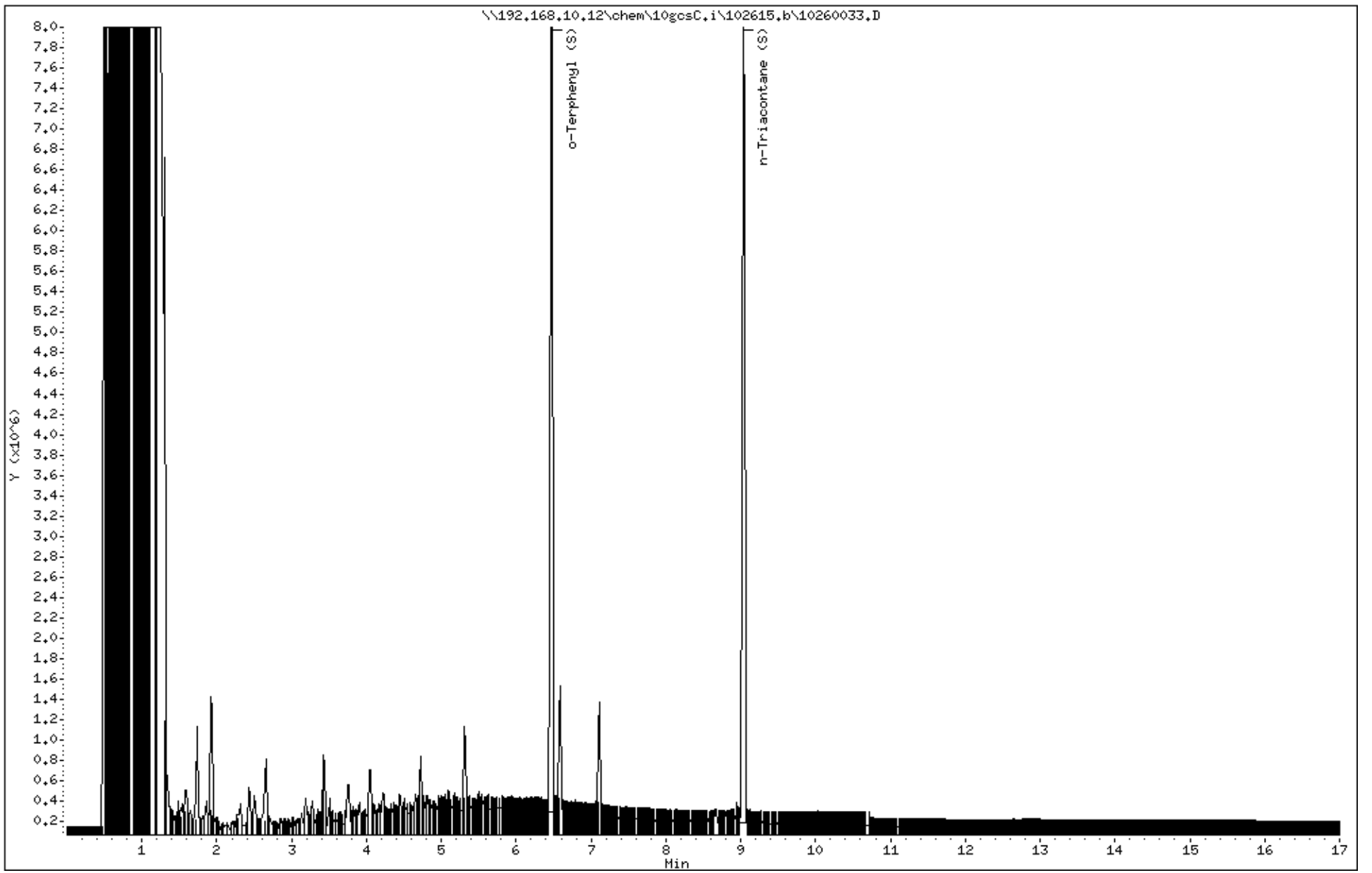


Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	34668326	22152692
DRO by AK 102	156850639	156850639
n-Triacontane (S)	52012	11867579
o-Terphenyl (S)	17109521	16004249

Data File: \\192.168.10.12\chem\10gcsC.i\102615.b\10260033.D
Date : 26-OCT-2015 20:56
Client ID: MW-7-101315
Sample Info: 10326303006
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: 10gcsC.i
Operator: MT
Column diameter: 0.25



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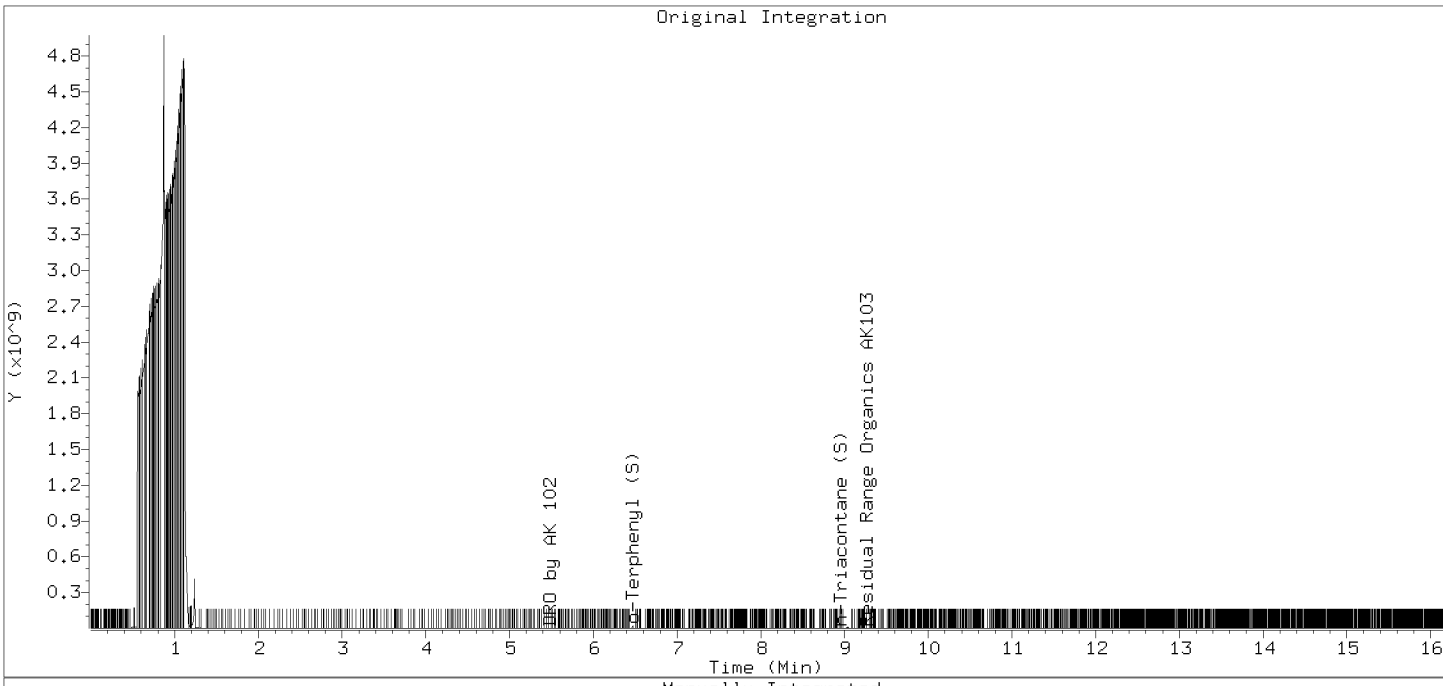
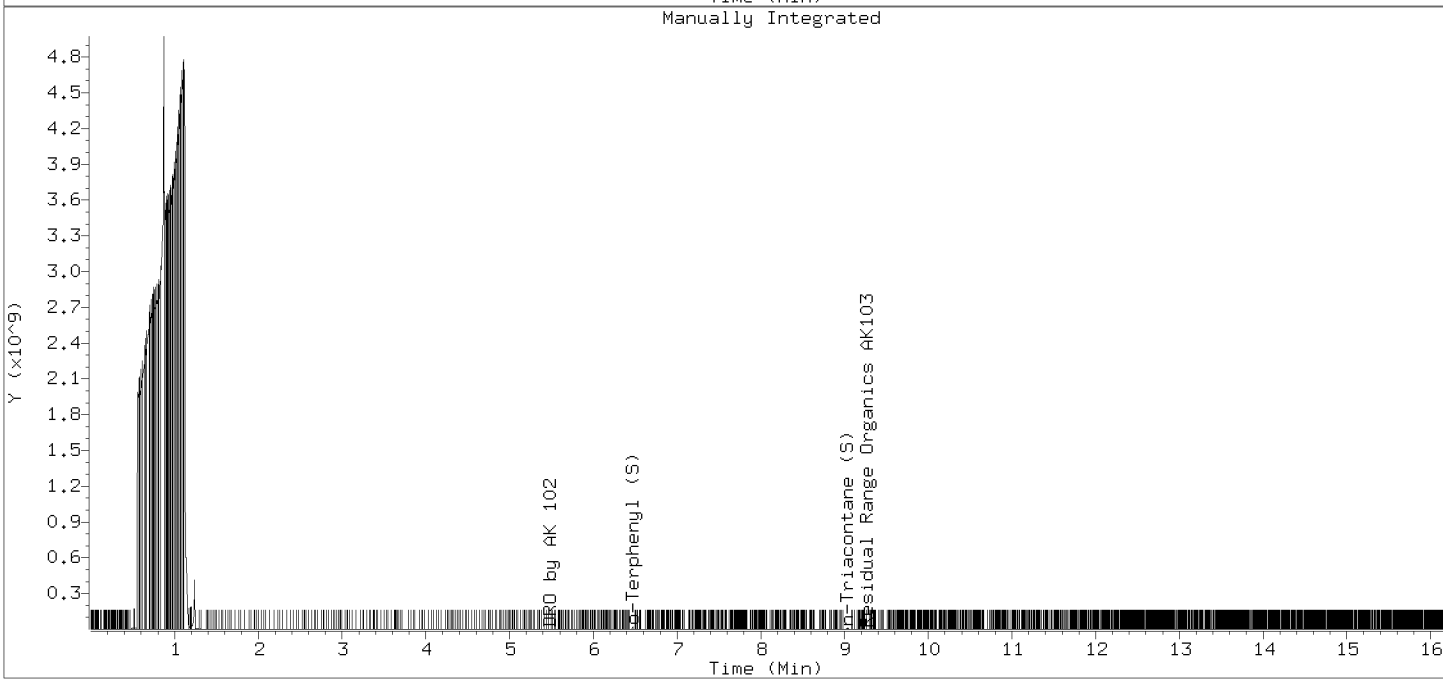
Instrument: 10gcsC.i
Lab Sample ID: 10326303006





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	28101903	16629281
DRO by AK 102	56748509	56748509
n-Triacontane (S)	106350	10932599
o-Terphenyl (S)	15677441	14698630

Data File: \\192.168.10.12\chem\10gcsC.i\102615.b\10260028.D

Date : 26-OCT-2015 19:07

Client ID: MW-10-101315

Instrument: 10gcsC.i

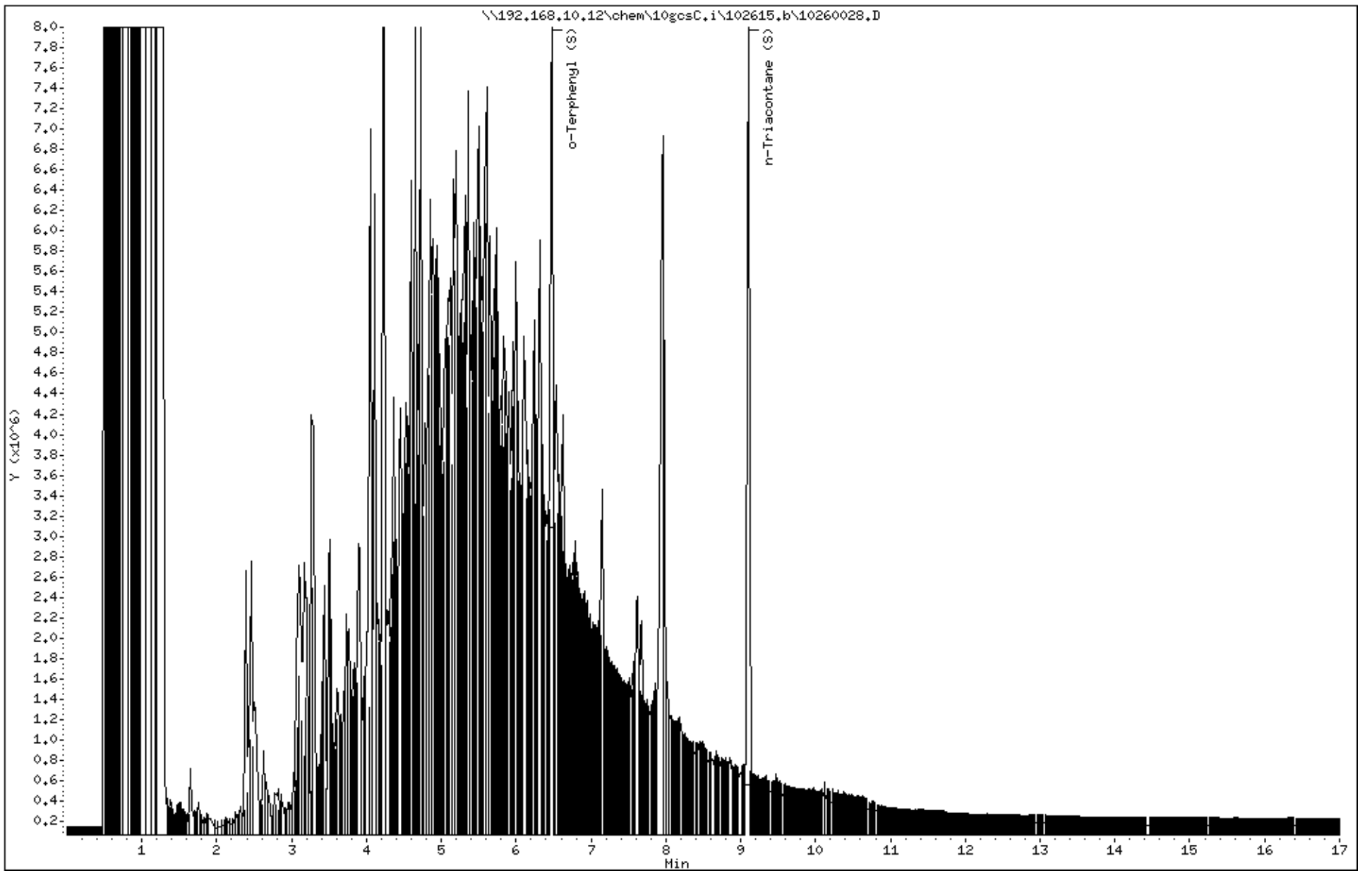
Sample Info: 10326303008

Volume Injected (uL): 1.0

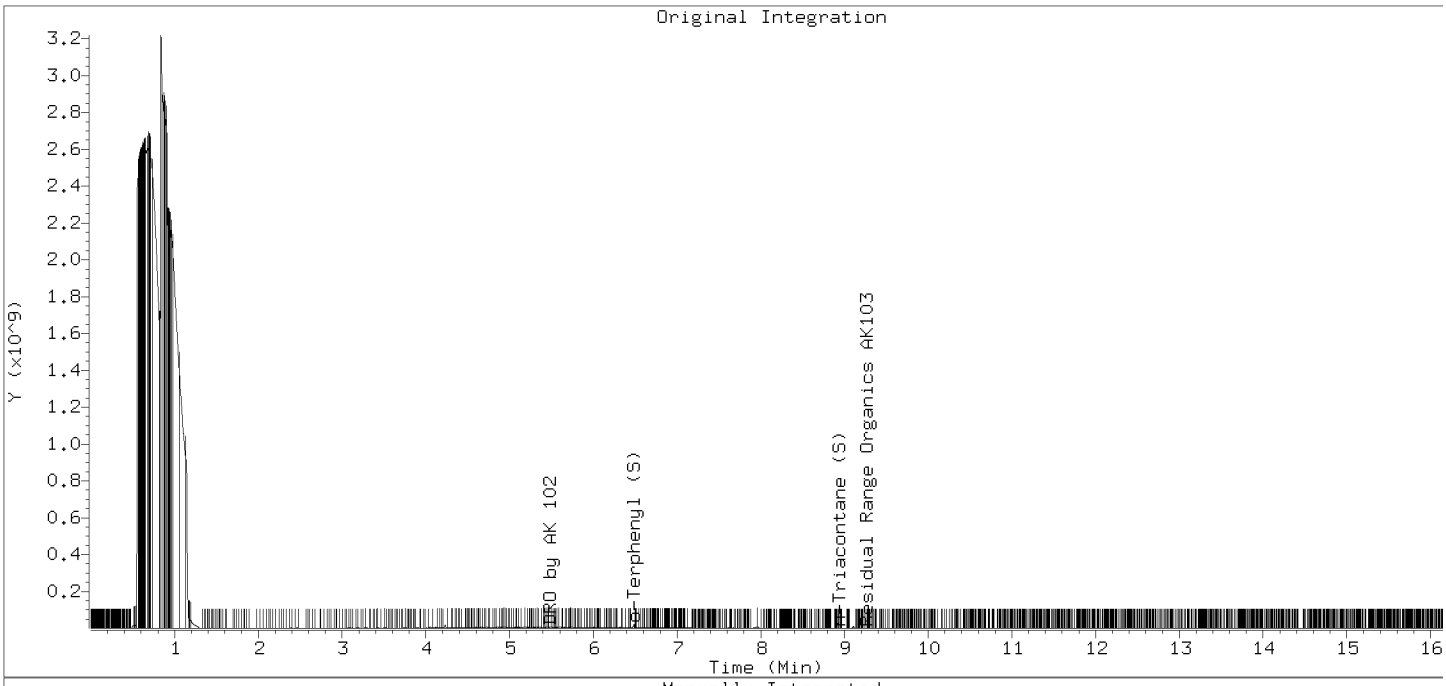
Operator: MT

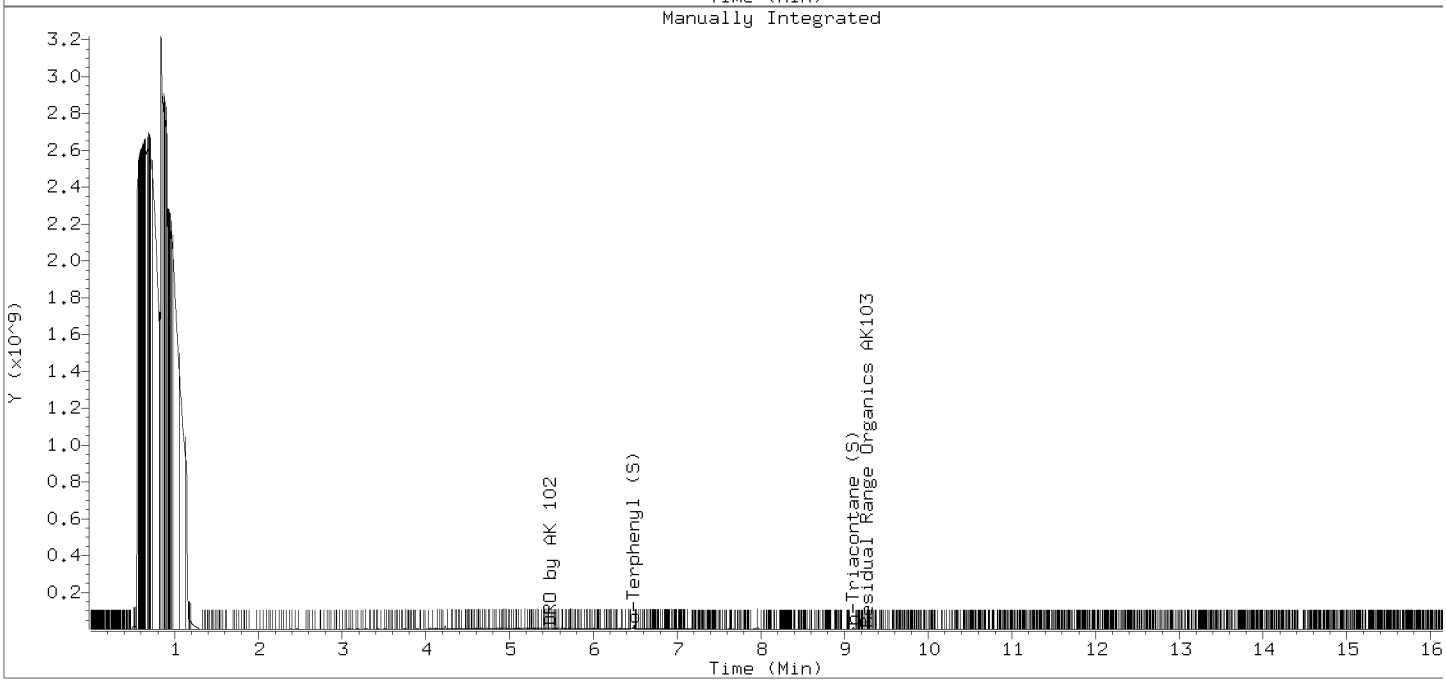
Column phase: DB-5MS

Column diameter: 0.25



Data File: \\192.168.10.12\chem\10gcsC.i\102615.b/10260028.D (ManInt: AK102103sample.sub Orig: AK102103sample.sub)
Injection Date: 26-OCT-2015 19:07
Instrument: 10gcsC.i
Lab Sample ID: 10326303008





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	118978921	105801573
DRO by AK 102	837840302	837840302
n-Triacontane (S)	451147	11545483
o-Terphenyl (S)	25053272	14971117

Data File: \\192.168.10.12\chem\10gcsC.i\102615.b\10260027.D

Date : 26-OCT-2015 18:45

Client ID: MW-11-101315

Instrument: 10gcsC.i

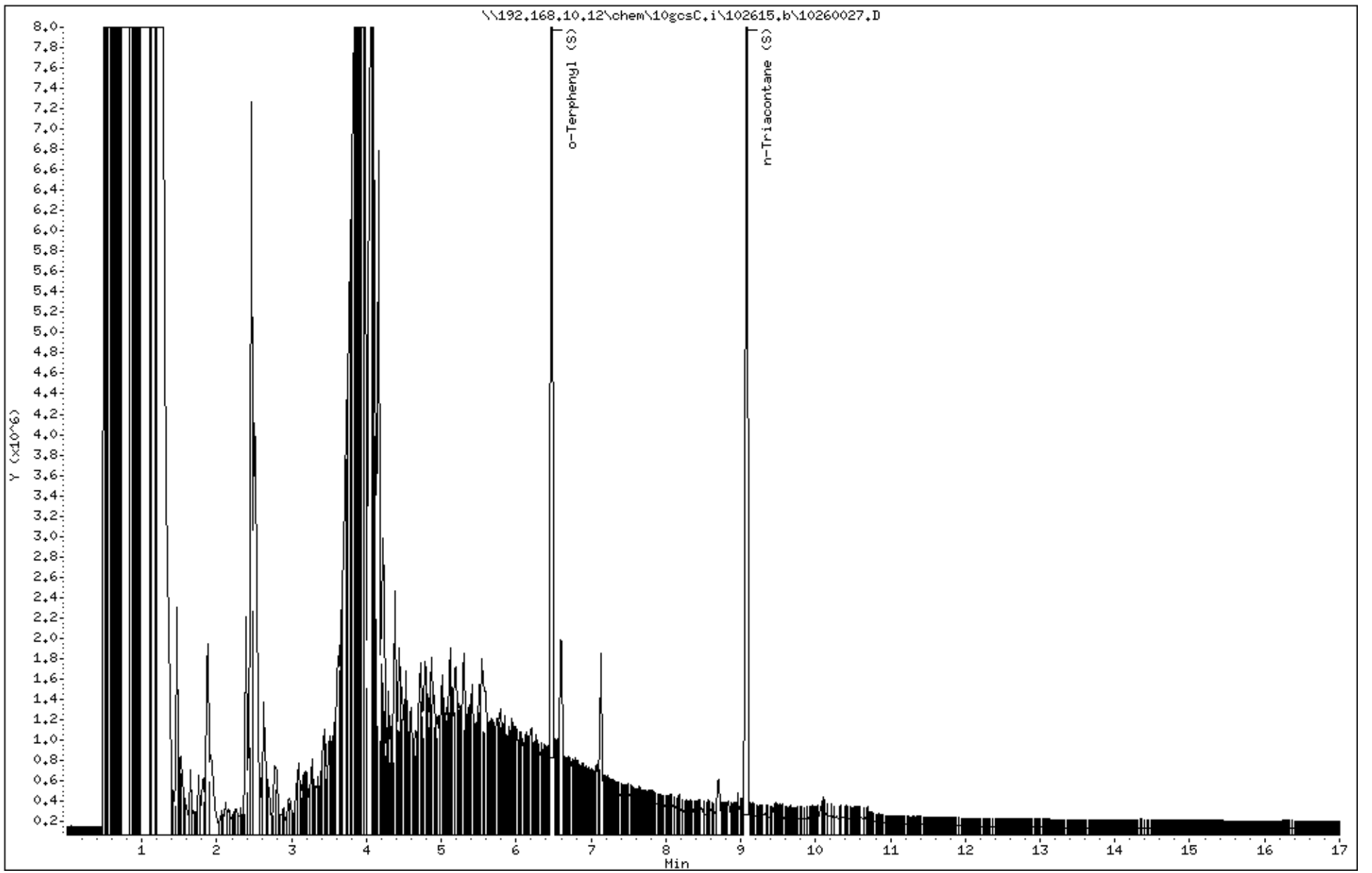
Sample Info: 10326303009

Volume Injected (uL): 1.0

Operator: MT

Column phase: DB-5MS

Column diameter: 0.25

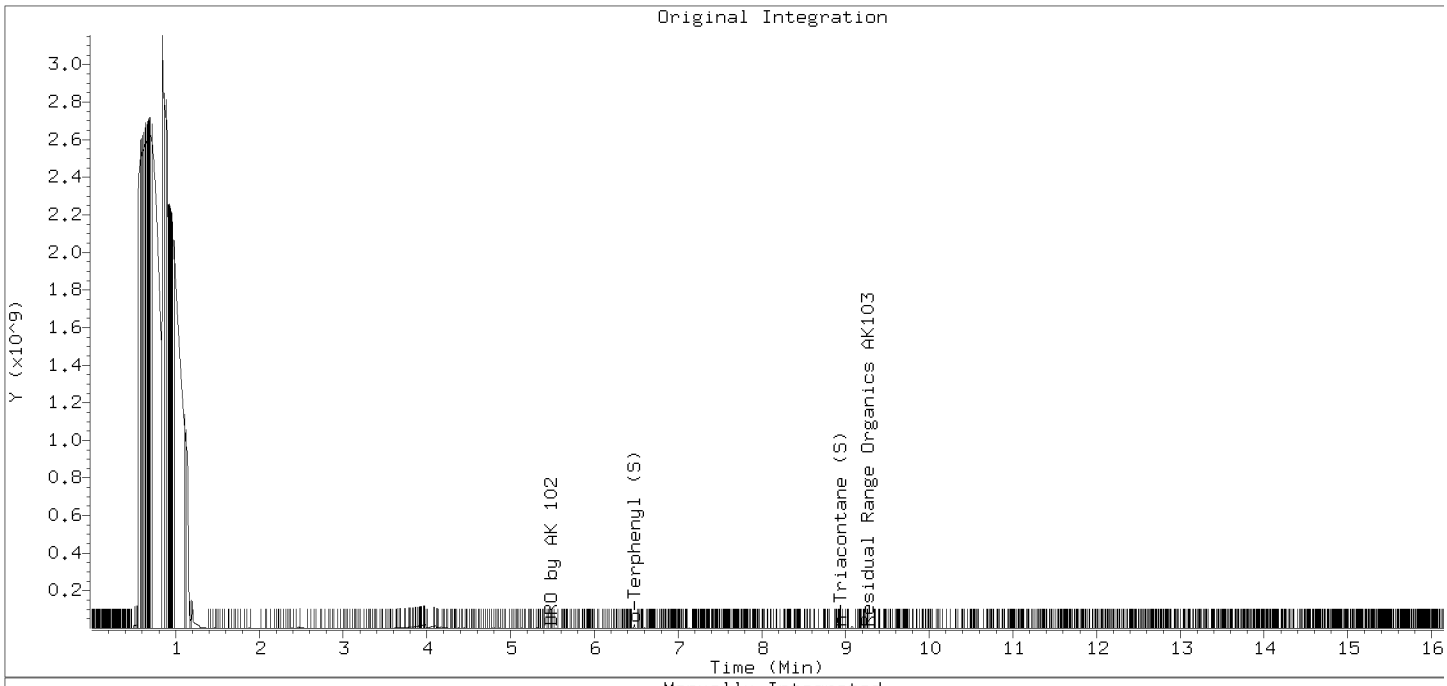


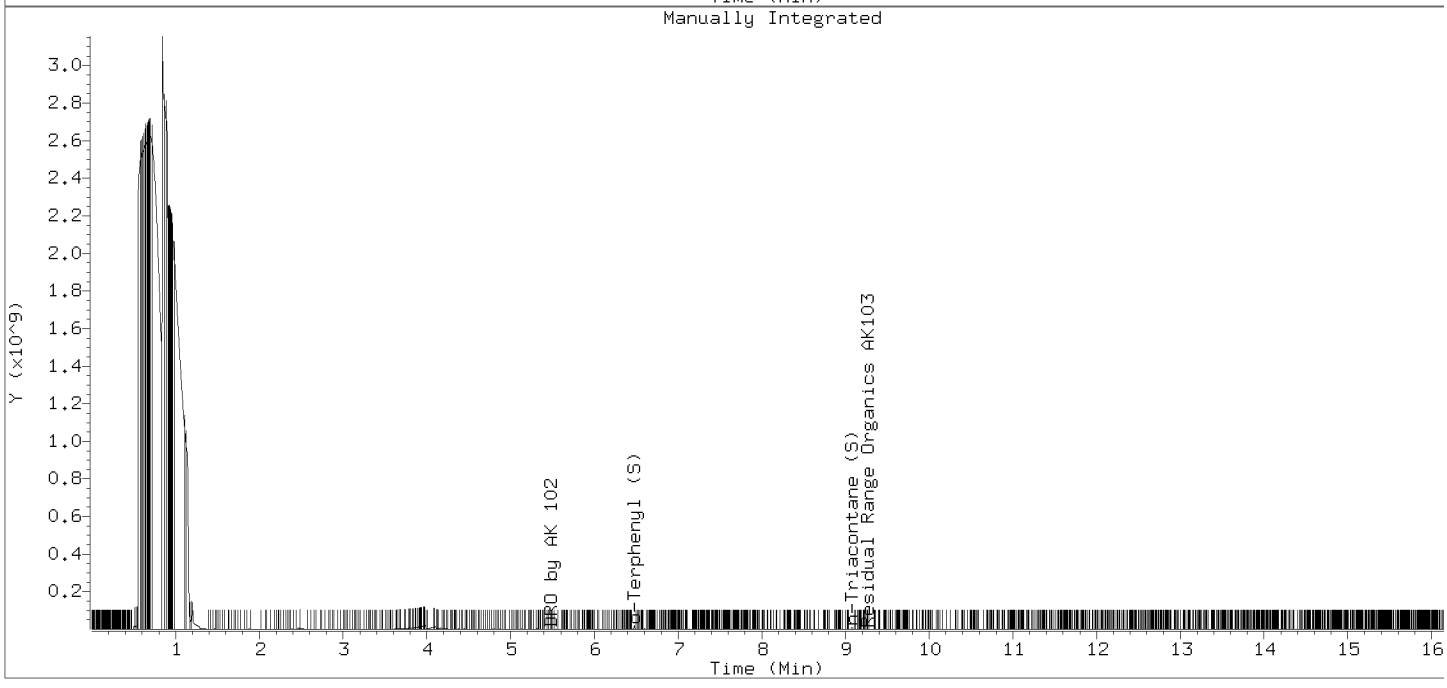
Data File: \\192.168.10.12\chem\10gcsC.i\102615.b/10260027.D (ManInt: AK102103sample.sub Orig: AK102103sample.sub)

Injection Date: 26-OCT-2015 18:45

Instrument: 10gcsC.i

Lab Sample ID: 10326303009



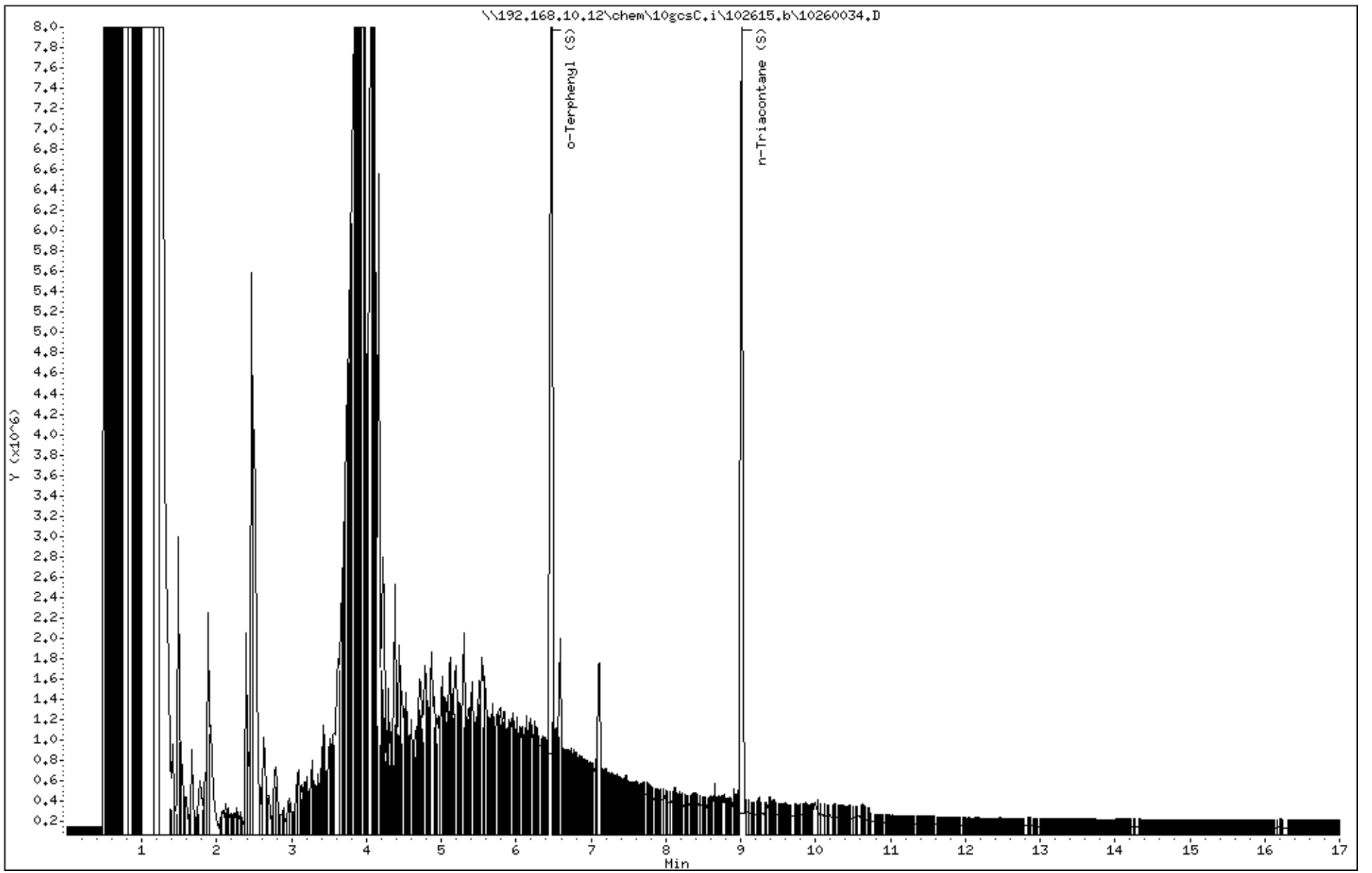


Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	43615103	31047832
DRO by AK 102	444470377	444470377
n-Triacontane (S)	62007	11689187
o-Terphenyl (S)	18452784	15334044

Data File: \\192.168.10.12\chem\10gcsC.i\102615.b\10260034.D
Date : 26-OCT-2015 21:18
Client ID: DUP-1-101315
Sample Info: 10326303010
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: 10gcsC.i
Operator: MT
Column diameter: 0.25

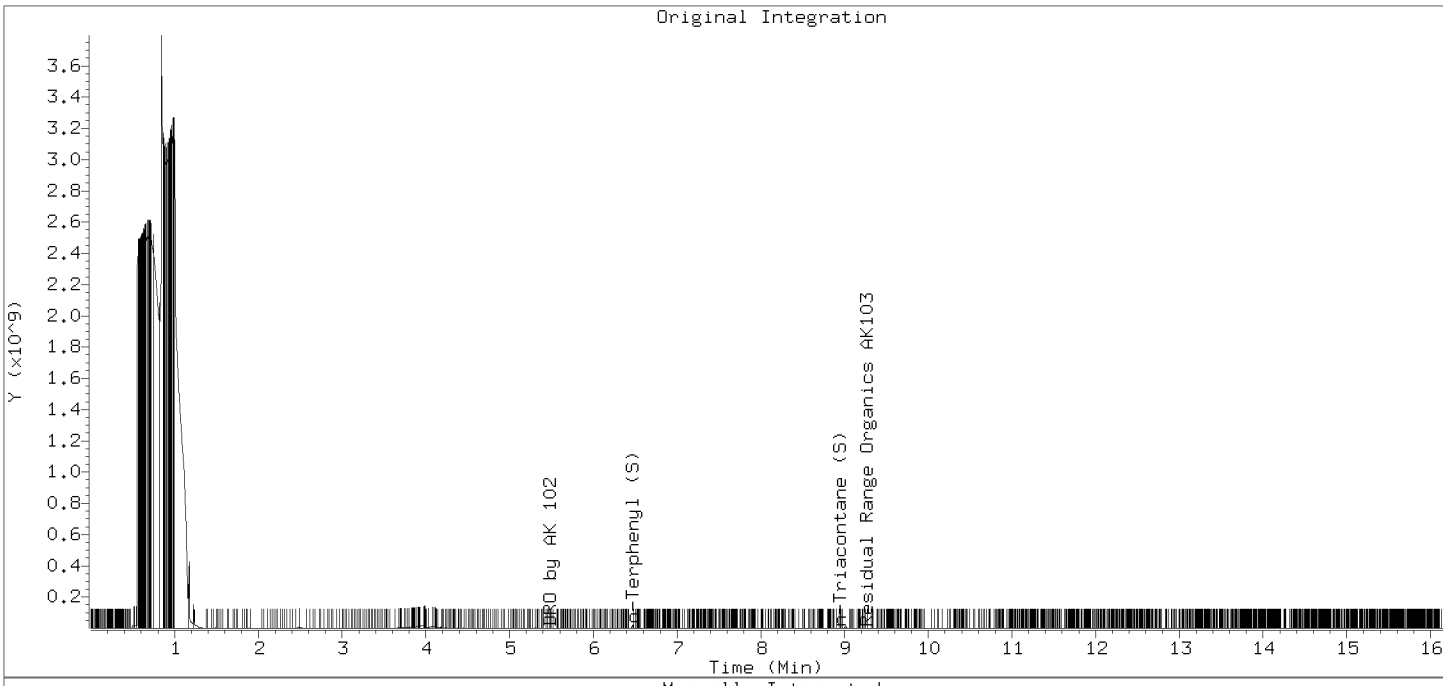


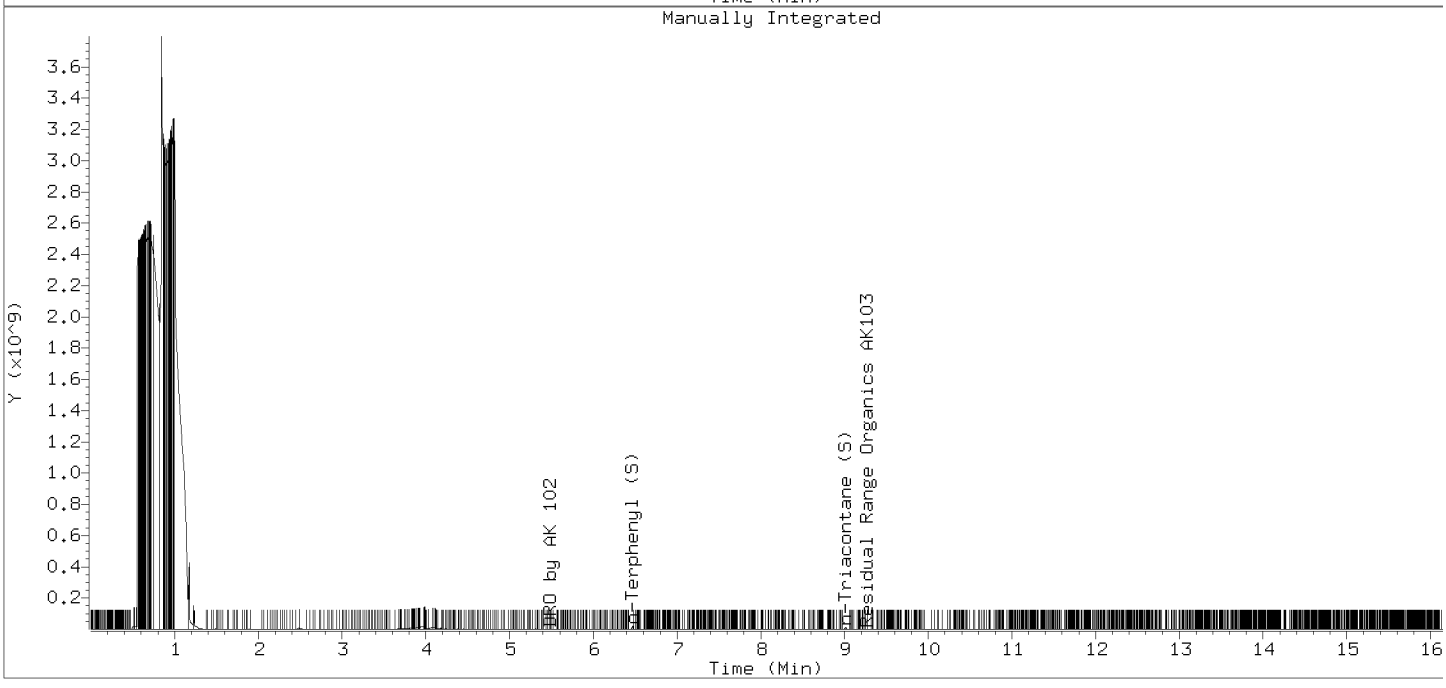
Data File: \\192.168.10.12\chem\10gcsC.i\102615.b/10260034.D (ManInt: AK102103sample.sub Orig: AK102103sample.sub)

Injection Date: 26-OCT-2015 21:18

Instrument: 10gcsC.i

Lab Sample ID: 10326303010





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Residual Range Organics AK103	49630860	36382178
DRO by AK 102	457673070	457673070
n-Triacontane (S)	272667	12447132
o-Terphenyl (S)	19254859	16460632

Attachment C
ADEC Laboratory Data Review Checklist and Summary

Laboratory Data Review Checklist

Completed by: J Cloud

Title: Project Chemist Date: February 18, 2016

CS Report Name: Report Date: 10/27/15

Consultant Firm: GHD

Laboratory Name: Lancaster Laboratories Laboratory Report Number: 10326303

ADEC File Number: ADEC RecKey Number:

1. Laboratory
   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?
      X Yes ☐ No ☐NA (Please explain.) Comments:

      b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?
      ☐Yes ☐ No X NA (Please explain.) Comments:

      Samples not transferred

2. Chain of Custody (COC)
   a. COC information completed, signed, and dated (including released/received by)?
      X Yes ☐ No ☐NA (Please explain.) Comments:

      b. Correct analyses requested?
      X Yes ☐ No ☐NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation
   a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?
      ☐Yes X No ☐NA (Please explain.) Comments:

      Several samples received frozen

      b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?
      X Yes ☐ No ☐NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?
X Yes ☐ No ☐NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?
X Yes ☐ No ☐NA (Please explain.) Comments:

e. Data quality or usability affected? (Please explain.)
Comments:

None

4. Case Narrative
a. Present and understandable?
X Yes ☐ No ☐NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?
X Yes ☐ No ☐NA (Please explain.) Comments:

c. Were all corrective actions documented?
☐Yes ☐ No X NA (Please explain.) Comments:

No corrective actions

d. What is the effect on data quality/usability according to the case narrative?
Comments:

None

5. Samples Results
a. Correct analyses performed/reported as requested on COC?
X Yes ☐ No ☐NA (Please explain.) Comments:

b. All applicable holding times met?
X Yes ☐ No ☐NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?
☐Yes ☐ No X NA (Please explain.) Comments:

No soils

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?
X Yes ☐ No ☐NA (Please explain.) Comments:

e. Data quality or usability affected?
Comments:

None

6. <u>QC Samples</u>
   a. Method Blank
      i. One method blank reported per matrix, analysis and 20 samples?
      X Yes ☐ No ☐NA (Please explain.) Comments:

      ii. All method blank results less than PQL?
      ☐Yes X No ☐NA (Please explain.) Comments:

DRO was present at a low concentration

      iii. If above PQL, what samples are affected?
      Comments:

No affected samples

      iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?
      ☐Yes ☐ No X NA (Please explain.) Comments:

No affected samples

      v. Data quality or usability affected? (Please explain.)
      Comments:

The associated sample results were significantly greater than the blank and would not have been impacted. No qualification of the data was deemed necessary.

   b. Laboratory Control Sample/Duplicate (LCS/LCSD)

      i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)
      X Yes ☐ No ☐NA (Please explain.) Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐Yes ☐ No X NA (Please explain.) Comments:

No metals/inorganics

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

X Yes ☐ No ☐NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

X Yes ☐ No ☐NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

No affected samples

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐Yes ☐ No X NA (Please explain.) Comments:

No affected samples

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

None

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

X Yes ☐ No ☐NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

X Yes ☐ No ☐NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐Yes ☐ No X NA (Please explain.) Comments:

No affected samples

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

None

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

X Yes ☐ No ☐NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

X Yes ☐ No ☐NA (Please explain.) Comments:

iii. All results less than PQL?

☐Yes X No ☐NA (Please explain.) Comments:

Toluene was present at a low concentration

iv. If above PQL, what samples are affected?

Comments:

MW-13

v. Data quality or usability affected? (Please explain.)

Comments:

The toluene result for sample MW-13 was qualified as non-detect due to contamination as evidenced by the blank

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

X Yes ☐ No ☐NA (Please explain.) Comments:

ii. Submitted blind to lab?

X Yes ☐ No ☐NA (Please explain.) Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

X Yes ☐ No ☐NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

None

f. Decontamination or Equipment Blank (If not used explain why).

☐Yes ☐ No X NA (Please explain.) Comments:

Not collected

i. All results less than PQL?

☐Yes ☐ No X NA (Please explain.) Comments:

Not collected

ii. If above PQL, what samples are affected?

Comments:

None

iii. Data quality or usability affected? (Please explain.)

Comments:

None

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

X Yes ☐ No ☐NA (Please explain.) Comments:

Memorandum

To:	ADEC	Ref. No.:	073011
From:	Jeffrey Cloud	Date:	February 18, 2016
CC:	J Riggi		

Re: **QA/QC Review**
Delta Western
Job # 10326303
October 2015

1. Introduction

This document details a reduced validation of analytical results for groundwater samples collected in Dillingham, Alaska during October 2015. Samples were submitted to Pace Analytical Services, located in Minneapolis, Minnesota.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spikes (MS) and field QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods and applicable guidance from the document entitled "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008 subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in the methods. The sample chain of custody document and analytical report were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (<6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation with the exception of diesel range organics (DRO) present at a low concentration. The associated sample results were significantly greater than the blank and would not have been impacted. No qualification of the data was deemed necessary.

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC), semivolatile organic compound (SVOC), gasoline range organics (GRO) and diesel range organics (DRO) analysis were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Surrogate recoveries were assessed against the control limits. All surrogate recoveries met the associated criteria.

5. Laboratory Control Sample Analyses

LCS and/or laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

5.1 Organic Analyses

The LCS/LCSD contained all analytes of interest. All LCS recoveries and RPDs were within associated control limits, demonstrating acceptable analytical accuracy and precision (where applicable).

6. Matrix Spike Analyses

To evaluate the effects of sample matrices on the preparation, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples.

The MS results were evaluated per the "Guidelines". In accordance with the "Guidelines", MS recoveries for samples with analyte concentrations significantly greater than the spike concentrations could not be assessed.

All MS analyses performed were acceptable, demonstrating acceptable analytical accuracy.

7. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. The duplicate results were evaluated per the "Guidelines". All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

8. Field QA/QC Samples

The field QA/QC consisted of one trip blank sample one field duplicate sample set.

8.1 Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for analysis. All results were non-detect for the analytes of interest with the exception of toluene present at a low concentration. The toluene result for sample MW-13 was qualified as non-detect due to contamination as evidenced by the blank.

8.2 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample was collected and submitted "blind" to the laboratory. The RPDs associated with these duplicate samples must be less than 50 percent. If the reported concentration in both the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

9. Analyte Reporting

Non-detect data were reported down to the laboratory’s method detections limit (MDL) for each analyte. Positive analyte detections less than the reporting limit (RL) but greater than the MDL were qualified as estimated (J).

10. Conclusion

Based on the assessment detailed in the foregoing, the summarized data are acceptable with the specific qualification noted herein.